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**The DOJ's Proposed Remedies Reasonably Address Competition Concerns
Regarding the T-Mobile Sprint Merger**
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Introduction

The proposed T-Mobile – Sprint transaction is a horizontal merger that has the potential to transform the cellular mobile landscape in the United States and possibly the overall broadband market. As with any merger, the question facing antitrust authorities is whether the expected efficiencies gained by combining the firms outweigh the possibility that the combined firm could harm competition either on its own or by coordinating with its competitors.

In March 2019, I evaluated the relevant markets and explained why it is reasonable to believe the combined T-Mobile – Sprint (henceforth, “New T-Mobile”) would be a stronger competitor to the current largest mobile firms, AT&T and Verizon, than either T-Mobile or Sprint is today, particularly with respect to what is expected to be a capital-intensive 5G rollout. I noted that although merger opponents express concerns about a 4-to-3 merger, empirical research on such mergers of wireless providers does not suggest that such combinations necessarily harm consumers, and in some cases even lead to lower prices.¹

In my testimony, I also identified areas in which the merger might pose some concerns. In particular, T-Mobile and Sprint together provide a significant share of the wholesale network access that MVNOs depend on to operate. Such control could potentially affect low-income people, who disproportionately purchase mobile service from MVNOs, and companies like Google, Comcast, Charter, and others who are launching mobile services that rely on wholesale access.²

After an extensive review period, the U.S. Department of Justice (DOJ), in a Proposed Final Judgment, has outlined actions it believes T-Mobile and Sprint should take to address potential competition concerns.³ Probably the most consequential conditions proposed by DOJ direct the firms to:

- Divest
 - All 800 MHz spectrum licenses to DISH
 - “Almost all” of Sprint’s prepaid wireless businesses, including Boost Mobile and Virgin Mobile to DISH for \$1.4 billion
 - About 20,000 cell sites and 400 retail stores.
- Enter into a 7-year MVNO agreement with DISH to ensure it is able to sell a competitive mobile product.
- Extend all current MVNO agreements until the end of the Final Judgment period.

Taken together, the DOJ conditions address the concerns by aiming to lock in existing MVNO agreements while lowering the barriers to entry by a facilities-based carrier (DISH). The conditions outlined by the DOJ appear designed to reduce the chances of consumer harm in the

¹ Scott Wallsten, “An Economic Analysis of the T-Mobile Sprint Merger,” Written Testimony of Scott Wallsten, PhD President and Senior Fellow, Technology Policy Institute, Before the Subcommittee on Antitrust, Commercial, and Administrative Law Committee on the Judiciary United States House of Representatives, March 12, 2019.

² Wallsten.

³ Antitrust Division, Department of Justice, “United States et al. v. Deutsche Telekom AG et al.; Proposed Final Judgment and Competitive Impact Statement,” Federal Register, August 12, 2019.

areas otherwise most likely to be affected while allowing the New T-Mobile to retain sufficient assets to compete with AT&T and Verizon.

The remainder of this note addresses these conditions in more detail.

A Mobile Inflection Point?

Like all merger investigations, this one involves predicting the future under different states of the world, meaning that it is not possible to know the answers with certainty. While the Horizontal Merger Guidelines note that “certainty about anticompetitive effect is seldom possible and not required for a merger to be illegal,”⁴ this merger arguably involves more uncertainty than most.

The imminent arrival of 5G means the industry is on the cusp of radical changes in its underlying technology. Antitrust analysis requires some understanding of the equilibrium state of the industry or at least what we believe to be an efficient industrial organization. Nobody knows what 5G demand or supply will look like, making it especially difficult to estimate the medium- to long-term costs and benefits of the merger.

Evidence on 4-to-3 Mergers⁵

Opponents of the merger argue that this combination should be blocked due to evidence of harms from previous 4-to-3 mobile mergers. It is worth reviewing the empirical studies on such mergers, because they do not support the opponents’ claim that such mergers will necessarily harm consumers.

While every merger is unique and requires fact- and situation-specific analysis, analysis of previous mergers helps guide and shape our analysis. The T-Mobile Sprint combination represents a 4-to-3 merger. If the history of 4-to-3 mergers revealed consistent harm to consumers, then we should be wary of allowing such mergers to proceed, all else equal. Similarly, if the history of 4-to-3 mergers revealed consistent benefits to consumers, then we should generally be inclined to allow such mergers to proceed.

The history of 4-to-3 mobile mergers, however, yields no consistent results, highlighting the importance of case-specific analysis. The Body of European Regulators for Electronic Communications (BEREC) reviewed 14 separate existing empirical studies of 4-to-3 mergers.⁶ Some empirical studies find higher prices after a merger, with some price increases being persistent and other price increases disappearing quickly. Some empirical studies find decreasing prices. Some empirical studies find no change in prices after a merger. One study found that 4-

⁴ U.S. Department of Justice and the Federal Trade Commission, “Horizontal Merger Guidelines,” August 19, 2010, 1, <http://www.justice.gov/atr/public/guidelines/hmg-2010.html>.

⁵ Much of this section is copied from the relevant section in my testimony: Wallsten, “An Economic Analysis of the T-Mobile Sprint Merger.”

⁶ Body of European Regulators for Electronic Communications, “BEREC Report on Post-Merger Market Developments - Price Effects of Mobile Mergers in Austria, Ireland and Germany,” n.d., https://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/8168-berec-report-on-post-merger-market-devel_0.pdf.

to-3 mergers resulted in price increases but also increased investment.⁷ And each of the 14 empirical studies has flaws. Most importantly, none properly addressed reasons why the merger happened in the first place (i.e., endogeneity).

Table 1: 4-to-3 Merger Studies Reviewed in BEREC (2018)

Table 1: Overview of Related Literature

No.	Study by	Prepared For	Scope	Specific Merger Examined?	Effects of 4-to-3 Mergers on			Effects of 5-to-4 Mergers on	
					Price	Investment	Quality	Price	Investment
1	Affeldt/Nitsche (2014)	Telefónica	EU, 2003-2012	no	~/- ¹⁾				
2	Houngbonon/Jeanjean (2014)	Orange	World, 2000-2014	no		+			
3	CERRE (2015)		≥28 countries, 2002-2014	no	+	+/~ ²⁾		~	+/~ ²⁾
4	Csorba, Pápai (2015)		27 countries, 2003-2010	no	+			~	
5	Frontier Economics (2015)	GSMA	EU, 2010-2014	no	~	~			
6	Houngbonon (2015)	Orange	40 countries, q1/13-q3/14	AT, 2013	-				
7	HSBC (2015)		see 2) and 6)	AT, 2013 (price)	-	+			
8	WIK (2015)	Ofcom	12 countries	no	~	~	~	~	~
9	Aguzzoni et al / ACM, EC, RTR (2015)		AT, NL and 12 controls, 2004-2010	AT, 2006, NL, 2007	+			~	
10	RTR (2016)		AT and 10 controls, 2011-2014	AT, 2013	+				
11	BWB (2016)		AT, 2011-2014	AT, 2013	+				
12	Ofcom (2016)		25 countries, 2010-2015	no	+				
13	GSMA (2017)		AT and 17 controls, 2011-2016	AT, 2013			+		
14	Lear/DIW Berlin/Analysys Mason (2017)	EC	UK and 9 controls, 2007-2014	UK, 2010				-	+/~ ³⁾

+: increasing effect, -: decreasing effect, ~: no significant effect

¹⁾ No evidence for positive relationship between concentration and prices; some indications that the relationship may be negative

²⁾ positive effects at the operator-level, no effects at the market level

³⁾ increase in total investment, no effect on investment per subscriber

Source: BEREC (2018), Table 1

In its report, BEREC also examined three 4-to-3 European mergers—in Austria, Germany, and Ireland. They found weak evidence of short-term retail price increases, but the findings were not robust. A separate OECD study also supports these generally inconsistent results with data from 2018. Today, the OECD considers retail prices in Austria to be “inexpensive,” Germany to be “relatively inexpensive,” and Ireland to be “expensive.”⁸

The history of 4-to-3 mergers provides little guidance on future results, especially in forecasted prices for 5G service in the T-Mobile and Sprint merger. Opponents of the merger can point to examples of price increases as evidence that the proposed merger will harm consumers, while proponents of the merger can point to examples of prices decreases or unchanged prices.

A more useful approach in this merger is to identify specific areas in which the evidence suggests reasons to be concerned, and devise remedies for those problems rather than blocking the merger outright. That is the approach the DOJ has taken.

⁷ “Using data from 28 European countries from 2002-2014, the Centre on Regulation in Europe (CERRE, 2015) investigates the effect of market structure on prices and investment. The paper finds that 4-to-3 mergers on average result in price increases and more investment per operator. The combined effects of higher investment per operator and the reduction from four to three operators result in no significant effect on total investment by all operators in the market.” Body of European Regulators for Electronic Communications, 7.

⁸ http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=50378, p.33

Preserving Wholesale/Resale Competition and Reducing Barriers to Future Facilities-Based Competition

The DOJ proposes that Sprint sell 14 MHz of spectrum in the 800 MHz band to DISH for \$3.6 billion⁹ as well as its choice of about 20,000 cell sites and 400 retail stores. These structural remedies, along with the requirement of a 7-year MVNO agreement between the New T-Mobile and DISH, lower the barriers to DISH's entry into mobile cellular. Lowering the cost of entry also increases the chances DISH will enter the market, thereby increasing competitive pressure on the New T-Mobile (and other incumbents) from the threat of new entry.

DISH still faces real barriers. Launching a new nationwide network will require billions more dollars in investment capital. And even if DISH can build a network more or less from scratch, there is no guarantee it will become large enough to compete effectively. After all, T-Mobile and Sprint argue that a key reason to approve the merger is that neither firm on its own is large enough to compete with the bigger companies. If that argument is correct, then DISH, as a smaller entrant, faces an uphill battle for market share as well.

Consider two possibilities. One is that the T-Mobile-Sprint claim that the minimum scale necessary to compete is larger than either of the two firms on its own. The other is that they are incorrect, and such scale is not necessary.

If the claim of needing very large scale is correct, then DISH is unlikely to succeed and poses a minimal competitive threat. However, in this case, allowing the merger is the correct policy because neither T-Mobile nor Sprint would be able to compete effectively in the 5G world, leaving two major competitors if the merger were blocked. If the parties' claim is incorrect, and scale in 5G provision matters less than the parties believe, then T-Mobile by itself could be competitive and Sprint might survive. Under this minimum scale scenario, however, DISH could pose a competitive threat. Because we cannot know for sure how industry economics will evolve, DOJ's proposals create a kind of insurance policy: allowing the merger in case such scale is necessary, but reducing entry barriers for DISH in case minimum efficient scale turns out to be less than the parties predict.

In other words, the DOJ proposal avoids the possibility of leaving only two competitors while increasing the possibility of four, depending on how the economics evolve.

Conclusion

In a previous, detailed, analysis of the proposed merger between T-Mobile and Sprint, I concluded that there was little evidence supporting a decision to challenge the merger overall. In particular, empirical analyses of 4-to-3 mergers show no consistent outcome, meaning it is not possible to conclude that reducing the number of facilities-based firms to three would necessarily harm consumers. In my testimony, I explained that the structure of certain mobile segments affected by this merger raised concerns that the firms may potentially be amenable to

⁹ Douglas Mitchelson, "Thoughts Across Our Coverage From TMUS/S/DISH DOJ Deal" (Credit Suisse, July 29, 2019).

anticompetitive behavior. Specifically, Sprint and T-Mobile have outsized shares of wholesale access to networks and resale of mobile services to MVNOs, making it possible that a merger could harm consumers in prepaid markets, in particular.

The conditions proposed by the DOJ appear to target this concern on wholesale access. The DOJ believes it can ensure competitive discipline in this area in the short- and medium-term by requiring Sprint to sell its prepaid business to DISH and be subject to specific rules regarding resale services for seven years. Similarly, through the time period covered by the Proposed Final Judgment, the New T-Mobile must maintain its existing MVNO relationships. For the longer run, the DOJ also proposes to reduce barriers to entry into facilities-based provision for DISH.

There is no guarantee these conditions will be effective, just as there is no guarantee for shareholders that the New T-Mobile will be more successful than the current T-Mobile. But given that the balance of the arguments suggests allowing the merger to proceed, the conditions proposed by the DOJ are a reasonable approach to managing potential concerns.