September 24, 2018

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Applications of T-Mobile US, Inc. and Sprint Corporation, WT Docket No. 18-197

Dear Ms. Dortch,

The Public Interest Statement ("PIS") submitted by T-Mobile and Sprint details a significant array of merger-specific benefits for consumers, businesses and even governmental entities, and I am in agreement. I want to focus here on the pro-competitive nature of the transaction. Specifically, I believe the proposed merger drives stronger, more sustainable competition in the legacy wireless market, while also creating a compelling competitor in the high-speed broadband market with a nationwide 5G network. Such a network would be capable of challenging cable dominance in that market. I'd like to make clear that I speak as a private citizen and a professional economist, and my views are not necessarily those of the Maine Public Utilities Commission nor of the State of Maine in this matter.

I concur with the economic analysis included in the PIS that the structure of the wireless market will deter price-increasing behavior by the merged company. A financially stronger New T-Mobile that is capable of quickly deploying a nationwide 5G network is exactly what the wireless market needs to drive more sustainable, robust competition. While that benefit by itself justifies approval, the fact that New T-Mobile will also be able to provide fiber-like broadband connectivity on that nationwide 5G network is an equally compelling pro-competitive benefit.

The economic study authored by Professor Salop and Dr. Sarafidis, included in the PIS, suggests that New T-Mobile will decrease the price per gigabyte of data by 55% across the wireless market.[1] Because underutilized 5G capacity is missed revenue, the New T-Mobile will be strongly incentivized to acquire new customers and to retain existing customers by offering more data, better package deals and lower prices than its competitors offer. New T-Mobile's business plan is intended to maximize network utilization through plans with "high data thresholds and consumer value at low prices."[2] The additional capacity will also decrease the cost to deliver data, allowing New T-Mobile to lower prices while increasing value. The massive increase in capacity and concomitant reduction in data delivery costs means that New T-Mobile will have

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[1] Description of Transaction, Public Interest Statement and Related Declarations, WT Docket No. 18-197, at ii (June 18, 2018) ("Public Interest Statement").

[2] Declaration of Peter Ewens, Executive Vice President, Corporate Strategy, T-Mobile US, Inc., App. D to Public Interest Statement, WT Docket No. 18-197, at 8 (June 18, 2018).

both the incentive to expand its customer base and the means to do so through aggressive price competition.

New T-Mobile won't just be a strong competitor to Verizon and AT&T but also to cable and other competitors in the broadband market. Nearly half of all Americans live in markets with only one in-home broadband provider that can deliver service exceed 25 megabits per second ("Mbps").[3] Only one in five Americans have any choice of providers for service in excess of 100 Mbps.[4] By 2021, New T-Mobile's 5G network is projected to deliver 100+ Mbps speeds to nearly two-thirds of Americans.[5] The broad coverage and fiber-fast speeds of the New T-Mobile wireless network mean that Americans will have an economic substitute for fixed wireless broadband. This fact will help to discipline fixed broadband prices and to bring much needed competition to the in-home broadband market. A financially stronger New T-Mobile and its nationwide 5G network will force other wireless and broadband market participants to respond in kind with more investment and better pricing of their own.[6] The result is that consumers, businesses and even state and local governments all win with stronger competition in these converging markets.

There is another matter I'd like to raise. In my later years of working for telecommunications provider SBC Communications, my work was detailed market valuations and business modeling for international wireless telecom acquisition work, usually in the setting of joint ventures with the participation of foreign operating companies and telecom switch and handset providers. I exchanged information with handset and network equipment manufacturers to refine buildout cost estimates to meet auction bid commitments on service quality, geographic, and population coverage. Following work at SBC, I worked for a global market research company as a consultant and continued a research association with the wireless handset manufacturers, one U.S., two European. A regular concern for the handset manufacturers and their relationship with the largest wireless companies in the U.S. – the same two that continue to dominate the wireless market in the U.S. today – was how much of a volume discount on their newest and most innovative products the handset manufacturers had to give to those wireless companies for large lot buys and for carrying more models in the brand. It was an exercise of pure market power by the two largest wireless companies. The handset manufacturers sacrificed margin to get their best products placed, and over time, several handset manufacturers succumbed to the pressure of short product cycles, high research-and-development costs, and limited ability to recover those costs with the two dominant U.S. wireless companies squeezing their margins on the most innovative products.

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[3] Hal Singer *et al.*, *Assessing the Impact of Removing Regulatory Barriers on Next Generation Wireless and Wireline Broadband Infrastructure Investment*, at 10-11 (June 2017), http://docplayer.net/53147975-Assessing-the-impact-of-removing-regulatory-barriers-on-next-generation-wireless-and-wireline-broadband-infrastructure-investment.html (based on FCC Form 477 data from June 2016).

[4] *Id*.

[5] Public Interest Statement at 59.

[6] Declaration of David S. Evans, Founder, Market Platform Dynamics, App. G to Public Interest Statement, WT Docket No. 18-197, at 138-47 (June 18, 2018).

We can speculate about how much one company knows about the pricing plans of its competitors and the potential for coordinated effects, but in my experience, it is much, much harder to discover the cost of goods sold for competitors than it is to compare the retail price of services offered. Those detailed equipment-pricing discounts given by the handset manufacturers to get Verizon or AT&T to carry a line of new handset models is closely guarded information, because with it one could calculate wireless carrier profitability at the point of sale with every six month refresh of handset product lines, and with it the financial analysts could monitor the market strength and estimate profitability of handset manufacturers as well. Simply focusing on competitive service pricing, net adds, and share of customers misses an essential perspective in judging market power. Economists might pay closer attention.

Here's my concern as it applies to 5G deployment in the near future. 5G deployment in the U.S. requires replacement of tens of millions of older handsets now in the hands of consumers and businesses with handsets designed for 5G. We know this will be costly to customers even with upgrades and retention/loyalty plans. We also know that at the retail point of sale, offering the newest handset combined with a data plan is an essential tool for customer acquisition and retention at the point of sale by the wireless companies – that has been a constant since the 1990s.

As a thought experiment, let's take this information and play out the scenario that a T-Mobile and Sprint merger is blocked. With the requirement for handset replacement of millions of legacy handsets with 5G capable handsets within a few years' time, the two largest wireless service providers with the largest lot buys of 5G handsets will enjoy a windfall from their retail bundling (new handset plus data plan) or handset upgrade offers. This will be so because the margins of the largest wireless companies on their customer handset sales will be larger than the margins of the smaller wireless companies with their smaller (and often limited model variety) handset buys from the handset manufacturers.

As this market would play out, the two largest wireless companies gain, and the gap of market dominance by the leaders would widen against T-Mobile, and especially Sprint, both of whom would face thinner retail margins, and would struggle to gain, or even retain, customers. In time – probably within the time it takes to get significant national 5G network deployment from the two large incumbents and the non-merged Sprint and T-Mobile – Sprint may well find its market share further diminished. At that point, the U.S. will find itself with just three effective wireless companies, and the moment for an optimized network investment and better served customer base by a merged T-Mobile/Sprint will have evaporated. That is an economically inefficient outcome, and not at all far-fetched. It would be far, far better for this country to have a strong wireless competitor like the New T-Mobile with sufficient market scale in third position, a company who would aggressively push their handset cost savings and data plan pricing through to customers, than to rely on the limited resources that might be mustered by smaller wireless companies tethered in third and fourth position.

As an economist in telecoms since the 1980s, I have observed the evolution of cable systems, wireless systems, and IP-based telecommunications, and watched the effect on market shares, investment strategy, customer service and service quality, retail prices, and supply-chain costs. I strongly prefer that such a critical national network investment for 5G deployment be delivered by a merged T-Mobile/Sprint than two standalone companies. I strongly prefer that consumers and businesses have the opportunity to obtain the best possible prices and plans on new handsets and data. This can only result from a financially capable, robust competitor to Verizon and AT&T. In short, I believe the merger between T-Mobile and Sprint is both pro-competitive and pro-consumer. I ask that you recognize the benefits that the T-Mobile/Sprint merger will have and to approve the transaction.

Please feel free to contact me with any questions.

Respectfully submitted,

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