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Howard Chang, David S. Evans, &
Richard Schmalensee

Global Economics Group

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AT&T's proposed \$39 billion acquisition of T-Mobile faces two major court challenges: the Justice Department's suit to block the deal and Sprint's private suit. The Federal Communications Commission ("FCC"), which has overlapping jurisdiction in reviewing the transaction, has also expressed concerns. Addressing the Justice Department's concerns, either via a settlement or in court, will likely be the biggest hurdle for AT&T. In its suit, filed at the end of August, the Justice Department argues the deal would harm consumers by eliminating T-Mobile as a competitor in the mobile wireless business, particularly given high concentration levels and T-Mobile's importance as an aggressive competitor. AT&T's core counter argument is that output will go up (to the benefit of consumers) as a result of substantial and demonstrable efficiencies from the transaction. Therefore, this will be a deal in which the assessment of efficiencies is likely to be front and center, and the outcome will provide a test of the power of efficiency arguments in merger cases.

Below, we give an overview of the main arguments from the opponents and supporters of the transaction. While the positions of the parties have not been fully fleshed out, and much of the detailed evidence remains confidential, the main themes are evident. We have relied on the Justice Department's complaint and the FCC filings and commentary by AT&T's economists, as well those of opposing parties such as Sprint.²

Looking first at the product market, the Justice Department defines the relevant product market to consist of mobile wireless telecommunications services. Besides services to retail consumers, it also includes mobile wireless telecommunications services provided to business customers (corporations and government entities) as an additional product market because such business customers do not find the retail channel to be a viable substitute.

Geographically, the Justice Department defines local markets to be comparable to the Cellular Market Areas ("CMAs") that the FCC uses to license mobile wireless providers. In addition, the Justice Department notes that the "Big Four" carriers (Verizon, AT&T, Sprint, and T-Mobile) operate primarily at a national level in terms of pricing, marketing, innovation, and other factors, so that analyzing competition at a national level is also important. Moreover, the Justice Department argues that the relevant geographic market for business customers, which often have multiple locations across the country and whose employees may travel frequently, is national.

AT&T's economists do not seem to be in significant disagreement with these product and geographic market definitions. In proceedings before the FCC, the AT&T economists argued for

¹ Howard Chang is Principal, Global Economics Group; David S. Evans is Chairman (Global Economics Group), Lecturer (University of Chicago), and Editor-in-Chief, Competition Policy International; Richard Schmalensee is Director, Global Economics Group and Howard W. Johnson Professor of Economics and Management at the MIT Sloan School of Business.

² Sprint's claims before the FCC and in its private suit also allege harm to competition from vertical effects, such as from foreclosure of access by rivals to cutting-edge handsets and from raising rivals' costs, which do not appear to be a significant focus of the Justice Department's case and which we do not discuss in this article.

using local geographic markets, while agreeing that there are important aspects of competition that take place at the national level.

Given these market definitions, the Justice Department is arguing that the merger is likely to have both unilateral effects and coordinated effects that are anticompetitive. In terms of unilateral effects, the Justice Department believes that proposed acquisition would result in a significant loss of competition from T-Mobile. It has calculated that the post-merger Herfindahl–Hirschman Index (“HHI”) would exceed 2,500 in 96 of the top 100 CMAs and that the increase in HHI from the acquisition of T-Mobile by AT&T would exceed 200 in 90 of those 96 CMAs and would exceed 100 in the other 6 CMAs. On a national basis, the transaction would increase the HHI almost 700 points, to over 3,100. For business customers, the merger would increase the HHI by at least 300 points, to over 3,400.

To strengthen its case, the Justice Department notes that, in some CMAs, the Big Four are the only competitors. In other CMAs, there are one or two local or regional competitors. The Justice Department argues that these regional smaller competitors are limited in their ability to effectively constrain the Big Four as they face higher costs (in part because they rely substantially on roaming agreements with the Big Four) and have difficulty obtaining the most popular handsets. Moreover, because the Big Four compete on a national basis with respect to pricing, plans, and devices, the local and regional competitors present a very limited competitive constraint with respect to these aspects of competition.

The Justice Department also maintains that there is a significant increase in the risk of coordinated effects resulting from the transaction, which reduces the number of nationwide competitors from four to three. It believes that the mobile wireless telecommunications services markets are particularly conducive to coordination, given transparent pricing, little buyer-side market power, and high barriers to entry and expansion. The Justice Department regards T-Mobile as an important, maverick competitor, noting that T-Mobile has adopted a “challenger” strategy, with “aggressive and innovative pricing plans, low-priced smartphones, and superior customer service” that “would have been likely to disrupt current industry models and require competitive responses from the other national players.” Therefore, there will be a significant loss of innovation and product variety, given T-Mobile’s history as an innovator (first to offer an Android phone, Blackberry e-mail, and the Sidekick), as well as T-Mobile’s lower-priced plans.

Overall, the Justice Department has concluded that the acquisition will have anticompetitive effects in the business market, given the reduction in national competitors from four to three. It claims that T-Mobile has historically been particularly aggressive on price, and, following the transaction, the merged firm will have a reduced incentive to submit low bids and the other bidders—Verizon and Sprint—may also bid less aggressively.

We have little doubt that AT&T will vigorously contest all the evidence the Justice Department will offer on anticompetitive effects. For example, AT&T economists have argued that because AT&T and T-Mobile face significant capacity constraints, they face high marginal costs and low incremental profit margins, so that the merged entity would have lower incentives to raise prices than might otherwise be expected under the standard UPP-style analysis. And they dispute the extent to which T-Mobile has been a maverick and the ease of coordinated behavior in mobile phone markets.

Ultimately, however, it would appear that AT&T’s case will rest on its ability to convincingly demonstrate the existence of significant efficiencies from the acquisition. Dennis

Carlton, one of AT&T's lead economic experts, has argued that "if AT&T gets T-Mobile's spectrum, it's like one plus one equals three" and that "the reason this transaction should go through is because the efficiencies generated will lead to more output, period."³ That is, whatever incentives there are to increase prices before efficiencies are considered (and there is always some incentive in any horizontal merger), AT&T will argue that they are far outweighed by demonstrable efficiencies. Its main arguments on efficiencies therefore deserve unusually careful scrutiny.

AT&T claims that it is already facing significant capacity constraints in some geographic area and that, absent the acquisition of T-Mobile, the growth in demand for wireless service, especially for data service, will outstrip its ability to expand capacity and will significantly degrade the quality of its network. AT&T notes that the FCC has projected that data usage in 2014 will be about 35 times that in 2009 and contends that no large amounts of new spectrum are likely to be available in this period.

AT&T has identified four main technological reasons which will allow the merged entity to significantly expand capacity beyond that of the two separate companies and lower its costs of providing mobile wireless telecommunications services:

First, the transaction will allow AT&T to increase its deployment of LTE (the next generation technology for mobile wireless) from the 80 percent of the U.S. population that would be covered absent the acquisition, to 97 percent of the U.S. population. Absent the transaction, it would not have the wireless spectrum available to upgrade to LTE in certain regions. AT&T maintains that a standalone T-Mobile is unlikely to upgrade to LTE, so that current T-Mobile customers would also benefit from the acquisition. As LTE is significantly more efficient than older generation technologies, the expanded LTE rollout would significantly increase overall network capacity.

Second, because AT&T and T-Mobile both offer GSM service (which is an older generation technology but is still maintained by both carriers for customers who use GSM handsets), there are efficiencies resulting from the elimination of duplicative overhead wireless spectrum. Each GSM carrier needs to dedicate a certain amount of wireless spectrum to a "control channel" that broadcasts a signal from a cell site to hand sets in the area. The combined carrier would only need one control channel, and the spectrum currently used for the other control channel would be available to expand network capacity.

Third, the combined entity will be able to expand capacity by providing a denser network of cell sites produced by combining the sites used by the two carriers. It would be expensive and time consuming for a stand-alone AT&T to increase its cell site density by expanding its own network of sites as there are limited options for viable sites, and it would take years to negotiate with building owners and obtain clearance from local authorities. AT&T claims, for example, that cell density following the acquisition would increase by 35-45 percent in Chicago and 25-35 percent in both San Francisco and New York relative to what the two carriers would be projected to have separately.

Fourth, there will be efficiencies from "pooling" the spectrum of both carriers. Currently, if, for example, AT&T is capacity-constrained at a particular time in a given location while T-

³ FCC Workshop on the Economics of the Proposed AT&T-T-Mobile Merger, July 13, 2011, available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021711835>, pp. 59, 125.

Mobile is not, the T-Mobile excess capacity does nothing to help AT&T subscribers. With the acquisition, that excess capacity can be used to serve current AT&T subscribers. Thus the effective capacity of the merged carrier will exceed the sum of the capacities of AT&T and T-Mobile.

Overall, AT&T's economists have argued that these cost reductions are so substantial as to outweigh any incentives the merged entity would otherwise have to raise prices, but it remains to be seen how convincingly AT&T can document them. In particular, AT&T will likely need to quantify the benefits from these efficiencies, rather than simply pointing to them as an additional factor that would support approval of a transaction about which it may be able to convince the Justice Department that any unilateral or coordinated effects are minor or unlikely. A key issue will be showing that these efficiencies are all merger-specific (rather than just merger-related), in the sense that, in the absence of the deal, AT&T would not have other means of expanding capacity, or that if it could (at least partially) expand capacity, its costs of doing so would be significantly higher.

If AT&T can convincingly support its contention that the merger will produce real, substantial merger-specific cost reductions, the courts may end up in the unusual position of weighing significant cost reductions against significant concentration increases and actually deciding which way the scales tilt. The resulting decision will be interesting—as well as economically important.