The AT&T and T-Mobile Merger The Regulator's Dilemma! July, 2011

If the FCC and the Justice Department rule against the ATT acquisition of T-Mobile USA then how does T-Mobile sustain itself financially? It is losing subscribers and will have difficulty finding the capital to build successive next generation networks. If they rule in favor of the merger, what happens to pricing in the market and to consumer choice? How can regulators foster innovation and lower prices in a substantially duopolistic market? We can talk about other issues but for the most part these are the primary questions at hand.

How did we get here? It is a long story but the short of it is that consolidation in the telecommunications business whether it is paging, wireline, wireless or satellite radio appears inexorable. The capital cost of building networks is huge. The scale economies that accrue to larger companies are enormous. The marketing presence and first mover advantages are very large. The ability to differentiate the service is small. The need for large coverage areas to spread marketing, operations and capital investment costs is vital. There are really no exceptions to the march to scale. Since the break-up of the Bell System in 1984, the Telecommunications Act of 1996, through FCC rulemakings and merger reviews consolidation has been the trend.

The results have not necessarily been bad for consumers. Innovation has been substantial and prices have come down. In the early 1990's I paid \$600 per month for voice wireless service that was spotty at best. Today I pay about 1/3 of that for data, SMS, MMS and voice with much better coverage and higher usage volumes – minutes and bytes.

But the past is not necessarily the best predictor of the future. 20 plus years ago (the first Cellular One system was launched in Washington, DC in 1984) when wireless was in its first phase there were only A and B (Bell) side cellular carriers - duopolies in each market. The 800 MHz spectrum that was allocated by the FCC was assumed to be able to attract, at best, a few million subscribers. Moore's Law, the internet and the rocket ship of current technology innovation were in there infancies. Few people understood that someday there would be as many wireless subscribers as households, let alone as citizens in the US. Today there are about 316 million wireless subscribers (some of these are machines, not humans) and about 312 million citizens. So let's say that there is 100% coverage today (recognizing that some citizens have multiple phones and some none).

The wireless industry generally sees future growth in two areas data/video and M2M (machine to machine). The coming data/video explosion is the key to understanding the ATT acquisition of T-Mobile. Human subscriber growth is asymptoting to zero and M2M growth while accelerating doesn't generally account for substantial bandwidth usage. But data, and especially video, hogs bandwidth. Without more of it ATT's growth and ability to serve its customers (it has about 98 million subscribers today) will be stymied, especially in dense urban markets like New York and San Francisco where iPhone penetration is amongst the highest and ATT already has received substantial bad press for poor connectivity due to under-capacity in some cell sites. Some of this may have been slow management response but much of it is due to insufficient spectrum and lack of roll-out of next generation LTE technology (which wasn't ready for commercial deployment until very recently). But LTE won't solve the video/data demand problem even in the longer term. So ATT wants T-mobile's spectrum.

On the corollary side T-Mobile is losing subscribers and given its 33 million subscribers, has underused spectrum today. Why is T-Mobile shrinking? Again part of the answer may be a result of management decisions. But most of the answer is because it has a largely undifferentiated product and the inexorable march to scale hasn't worked for them. Much of the reason for this is the head start that the ATT and VZW predecessor companies had over the T-Mobile predecessor companies. A year after the initial PCS spectrum auctions, by end of year 1995, when T-Mobile's predecessor companies were just beginning to capture customers ATT and VZW predecessor companies had between 20 and 25 million subscribers. They had a substantial head start. And in the scale game a head start usually matters.

So is any company growing other than the guys who have scale? Yes. Leap Wireless (Cricket) and MetroPCS are offering prepaid phones at relatively low prices and are growing at about 2x ATT Wireless and Verizon Wireless (VZW). They have a differentiated offering and they are putting some pressure on pricing. But they together have less than 15 million subscribers, compared with almost 286 million subscribers for the big four – ATT, VZW, Sprint and T-Mobile. If T-Mobile is swallowed by ATT and perhaps at a later time Sprint is swallowed by VZW will Leap and Metro and a few regional players have enough market presence and bandwidth to keep prices in check and to spur innovation by the big two?

So if you are a regulator, what do you do? First and foremost you allocate more bandwidth and you encourage the TV stations to sell or lease their unused bandwidth to the higher value users – the wireless carriers. The public good is best served by more bandwidth. But I am dodging the question aren't I? Do you approve the ATT acquisition? The core economics say the march to consolidation is "written" and the public good will be served by the larger companies having access to the needed and precious resource of spectrum. But the market power of a largely duopolistic market runs the risk that the public good is harmed by slower moving behemoths that don't have sufficient incentive to innovate or to keep prices low. And while limits can be placed on market power the complexity of the regulation coupled with the inevitable changes in technology and use of bandwidth makes long run regulation planning tricky at best.

What limitations might the FCC and Justice place on ATT if it were to approve the merger? First, special access – granting competitors and new entrants access to ATT's network. This may sound like an interesting competitive solution but with the inevitable march to scale it is likely to yield very little competition. Remember how many CLECs had access and how few of them prospered? Second, requiring the sale of some of T-Mobile's Western US spectrum. This option may seem clever on the surface but again the inexorable march to scale is likely to cause small benefit, at high cost, to the buyer. Sprint doesn't need a lot of extra spectrum and there really isn't any other national retail player. One other comment about Sprint – it doth protest too much. Dan Hesse and his team don't like the ATT/T-Mobile deal unless: a) they could have purchased T-mobile (they got outbid [market power & \$]) and b) they get bought out by Verizon Wireless (probably Sprint's only realistic endgame).

One last observation. Solomon can't see if one of the mothers will flinch at the thought of cutting the baby in half. Approval or rejection must be decided. The long term implications are important to the structure of the wireless industry in the US, to consumer welfare and to US economic vitality.

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