TELECOM'S 5G FOOD FIGHT

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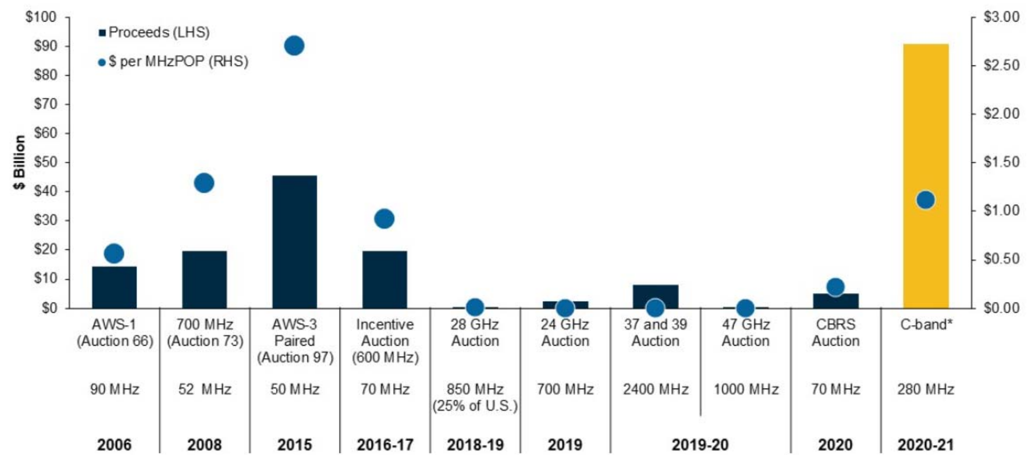
Intense competition in the wireless industry is nothing new, but promotional activity took a leg up with the launch of Apple's latest 5G capable iPhone line-up in late 2020. Given the extension in handset replacement cycles to approximately three years, major wireless carriers have been engaged in a "food fight" for 5G market share. The carriers launched 5G services using existing spectrum resources, and they continue to actively acquire spectrum given the capacity needed for increasing levels of data consumption and forthcoming 5G uses, including connected vehicles, immersive entertainment, and robotics.

Yet, intense demand for additional spectrum will lead to staggering costs for some of the world's most indebted non-financial companies.[1] While the recent auction of a key mid-band spectrum may have implications for the credit rating outlooks for some of the winners, the cost of the obtained spectrums also raises the broader question of whether these issuers—including Verizon, AT&T, T-Mobile, as well as Comcast and Charter Communications,[2] Cox Communications, and DISH Network—will see a return on their spectrum investments or whether they are just the latest, very-expensive cost of doing business in a highly-competitive industry.

Going into the recent C-Band auction, most analysts expected gross spending of $20-40 billion, with one or two outliers closer to a then-record of $50 billion. When the initial clock phase of the auction ended on January 15th—after 97 rounds of bidding—it became the most expensive spectrum auction in history with gross proceeds totalling $80.9 billion, more than double the average estimate (Figure 1). And it's not over: the second assignment phase of the auction will begin on February 8th, which is when the winners of the clock phase have the option of bidding for specific frequencies within the band. Estimates suggest that the assignment phase could add up to 3% to the auction total (approximately $2.4 billion), although we note that in certain prior auctions the assignment phase yielded little in terms of incremental proceeds. Furthermore, these auction totals exclude an additional $13-15 billion in costs related to relocation and incentive payments, which will be paid between 2021 and 2023.

FIGURE 1: THE ONGOING C-BAND AUCTION EASILY SET A NEW RECORD FOR PROCEEDS*

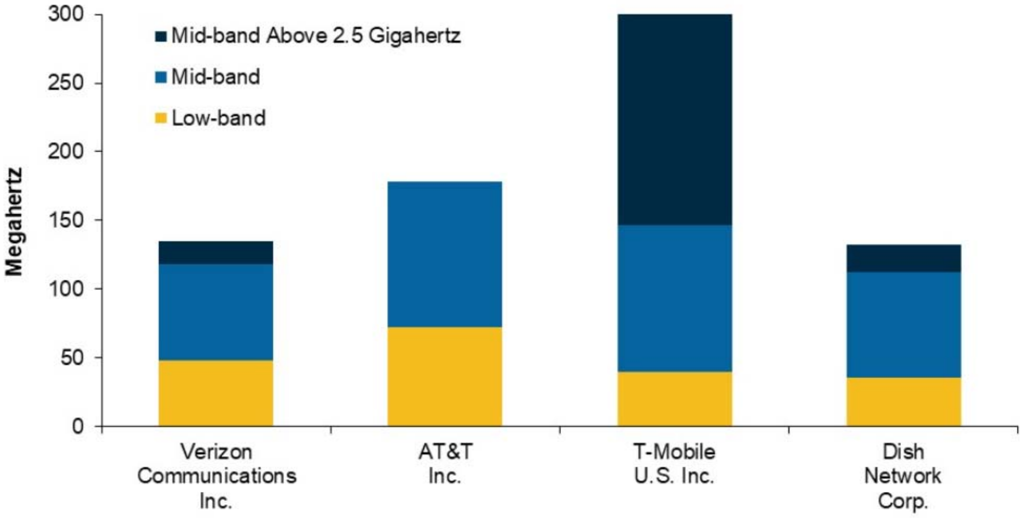


Source: UBS, the FCC, and PGIM Fixed Income. *The total indicated in the C-band auction is an estimate based on clock phase proceeds of $80.9B and $13B in incentive/relocation payments, but excludes potential incremental proceeds from the assignment phase.

T-Mobile Plays Interloper

There are various theories as to why spending far exceeded even the most aggressive estimates. We believe it was due to a combination of aggressive bidding by Verizon and to a lesser extent AT&T (both of which were expected), combined with higher-than-anticipated bidding by T-Mobile, which entered the auction from a position of strength after completing its acquisition of Sprint—and its significant "mid-band" spectrum holdings—in April 2020 (Figure 2).

FIGURE 2: T-MOBILE'S LEAD IN KEY MID-BAND SPECTRUM PRIOR TO THE C-BAND AUCTION (EX. MMWAVE*)



Source: S&P Global Ratings. *MMWave refers to millimeter wave spectrum.

T-Mobile did not need to heavily participate in the auction. Yet, it likely did so in order to pad its lead in the critical mid-band spectrum and to force Verizon and AT&T to pay more for their spectrum purchases.

The specific auction results will not be released until after the conclusion of the assignment phase, which may last a few weeks, but we expect Verizon to emerge as the largest bidder—likely spending $30-$40 billion (before the incremental relocation/incentive costs), which could result in an estimated $13-$23 billion in additional debt while possibly bringing its net leverage up to 3.1 times EBITDA from 2.3x at the end of 2020.[3]

We expect AT&T and T-Mobile spent on the order of $20-25 billion and $9-12 billion respectively, which could result in an estimated increase in respective debt of $15-$20 billion and $7-$10 billion. In that scenario, AT&T's net leverage could potentially increase to 3.2 times EBITDA (from 2.7x at the end of last year), while T-Mobile's could increase to 3.2 times from 2.9x.[4]

A Close Call for AT&T's Ratings

As for ratings implications, we do not expect any impact to T-Mobile's Ba2/BB corporate family ratings as the company has ample capacity for the expected spending and should be positioned for ratings upgrades over the next couple of years as the integration of Sprint progresses and free cash flow improves.

Verizon currently has Positive outlooks on its high-BBB ratings at Moody's and S&P as it was close to the agencies' upgrade thresholds prior to the onset of COVID-19 and the C-Band auction. While we believe Verizon is likely to maintain its Baa1/BBB+ ratings, the Positive outlooks are likely to be revised to Stable if auction spending is in line with our forecast.

The ratings outcome for AT&T is harder to predict. The company closed the $85 billion acquisition of Time Warner (almost $110 billion enterprise value) in June 2018 and made notable progress reducing debt through the end of 2019. However, the COVID-19 pandemic and associated recession hit AT&T much harder than its peers due to its exposure to cyclical advertising revenue and a film business that faced multiple postponements and cancelations. In addition, the company is in early stages of launching its streaming service HBOMax, resulting in higher platform and content spending. In addition, EBITDA continues to decline at its DirecTV satellite business. These pressures on EBITDA, coupled with material auction spending, may risk the Stable outlooks on AT&T's current Baa2/BBB ratings. Yet, given a debt load of approximately $157 billion, we think AT&T will be keen to avoid this outcome and may look to pull some levers, including additional asset sales.

Since the auction began, Telecom spreads have underperformed the broader market, appearing to price in at least some of the ratings outlook/issuance risks. Spreads on the benchmark corporate index have tightened by 5 bps since early December, and Verizon spreads have widened by about 12 bps amid expectations that it was the largest auction bidder.[5] The underperformance by AT&T and T-Mobile has been more modest at +1 bp and +5 bps, respectively.

While wireless is a very profitable business with EBITDA margins for the industry leaders in the 35-45% range, when assessing "all-in-cost", it's essential to consider capital intensity in terms of ongoing capital expenditures to maintain and improve network quality as well as the costs of periodic spectrum purchases. Unlike typical acquisitions that are immediately accretive to revenue, there is no immediate or direct return from spectrum purchases. And the critical nature of the C-Band spectrum to the carriers' 5G plans presents a clear risk that the carriers, particularly Verizon and AT&T, will overpay for this spectrum relative to expected returns. In the best-case scenario, this spectrum will indirectly fuel future incremental revenue from higher wireless bills and new monetization opportunities in 5G areas, such as factory automation and the internet of things (IoT). However, it's possible that the carriers will have spent billions just to maintain the status quo.

With Auction 107 set to be the most expensive wireless auction in history, the risk around return on invested capital has clearly risen.

[1] The Federal Communications Commission started Auction 107 on December 8, 2020. The auction will reallocate 280 Megahertz (MHz) of C-Band spectrum currently used by satellite operators, including Intelsat and SES, for use in terrestrial mobile services.

[2] Comcast and Charter Communications are bidding together via a joint venture.

[3] As of December 31, 2020.

[4] The estimates for AT&T and T-Mobile are as of December 31, 2020 and September 30, 2020, respectively.

[5] The index referenced is the Bloomberg Barclays U.S. Corporate Index.

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