ABS Research

Looking Up and Ahead for Wireless Tower Securitizations

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Morningstar Perspective

The significant growth in mobile data usage forecast in the next several years is expected to fuel growth in wireless tower development. These underlying trends have driven the increase in securitizations of wireless tower leases. U.S. asset-backed securities outstanding backed by cell phone tower leases have more than doubled since 2009, from $5.9 billion to $13.0 billion in 2018.[1] Morningstar Credit Ratings, LLC expects this growth to accelerate. With this in mind, we are sharing our approach to analyzing such deals.

Several wireless tower companies tapped the securitization market in 2018. Among active market participants were some of the largest owners of wireless tower cell sites in the nation, with Crown Castle, SBA Communications, Vertical Bridge, and Insite Wireless coming to market as repeat issuers.[2] Earlier last year, SBA Tower Trust issued approximately $640 million of notes backed by tower leases. The capital it raised helped to repay two of its existing notes. The deal was the company's 13th wireless tower securitization. Mid-2018, Crown Castle Towers LLC issued about $1 billion of notes through its master trust. The notes hold a first priority security interest in the equity of eight Crown Castle subsidiaries that own, lease, sublease, or manage more than 10,000 wireless towers. As 2018 wound down, the market got busier. Insite Wireless came to the securitization market with $298.5 million of notes secured by leases from towers. The proceeds helped to repay existing notes its master trust issued. Another active market participant as the year closed was Vertical Bridge. Morningstar rated Vertical Bridge's most recent transaction, the $72.2 million

1 https://www.sifma.org/resources/research/us-abs-issuance-and-outstanding/
2 Various articles, https://asreport.americanbanker.com/

issuance of Vertical Bridge Secured Tower Revenue Notes 2018-2. This was the second issuance from Vertical Bridge CC, LLC, the first being Secured Tower Revenue Notes 2016-2, originally a $196 million issuance, which Morningstar also rated. Approximately 407 wireless tower sites and current and future leases on these collateralize the two series of notes. VBTOW 2018-2 was Vertical Bridge's fourth securitization and its second in 2018. Vertical Bridge issued $236 million of secured tower revenue notes and closed on a $250 million senior credit facility in February 2018.[3]

Top 10 Wireless Tower Companies by Tower Count (as of Dec. 3, 2018)

Rank	Company	Tower Count
1	Crown Castle	40,039
2	American Tower	39,989
3	SBA Communications	14,873
4	United States Cellular Co.	4,207
5	Vertical Bridge	3,198
6	Insite Towers	1,100
7	BNSF Railroad	941
8	Time Warner	653
9	Diamond Communications	637
10	Phoenix Tower International	620

Source: www.wirelessestimator.com

Industry Trends and Tailwinds

Issuers in the wireless tower space have raised proceeds in the asset-backed securities market primarily to refinance existing debt, finance expansion, or fund acquisitions of other wireless tower portfolios. Wireless tower companies require continuous spending for maintenance and development of wireless tower sites to support and address rapidly growing data needs. Construction, maintenance, and upgrade costs primarily fuel spending, while strong demand for speed and capacity from consumers of mobile data and streaming services act as significant catalysts to expanding current portfolios through new development or acquisitions.

Among the trends bolstering demand for wireless infrastructure is the enormous growth in mobile data usage expected over the next several years. According to Cisco's Visual Networking Index Mobile Forecasts Report (2017-22), in North America alone, mobile devices and connections per capita will double to 3.1 by 2022 from 1.5 in 2017, with average cellular speeds increasing to 42.0 megabits per second from 16.3 megabits per second for the same period. Cisco also expects mobile data traffic to grow at a

[3] https://www.aglmediagroup.com/vertical-bridge-securitizes-broadcast-tower-portfolio/

compound annual rate of 36%, five times its level in 2017.[4] Because of mobile data demand growth and the expected rollout of 5G technology, the four largest wireless carriers and DISH Network Corp. spent more to lease tower space in fourth-quarter 2018.[5]

Morningstar's Focus and Approach

These strong trends have helped boost the value of wireless tower companies, along with the infrastructure that they provide. According to research from Tower Capital Advisors, in 2018, depending on the number of carriers paying to use them, towers have traded in the market at around 16 times to 19 times net tower cash flow, or the total cash flow from lease income excluding site expenses. AGL Magazine cites similar market multiple ranges are cited in a 2018 article, with towers fetching tower cash flow multiples ranging from the high teens into the 30s.[6]

Morningstar looks at these historically observed tower cash flow multiple ranges as a key part of its quantitative approach in determining ratings for wireless tower securitizations. Morningstar uses a cash flow tool to estimate the break-even annualized tower cash flow multiple required to pay off each class of notes in full, as per the priority of payments, at different times during the life of a transaction. We calculate these break-even multiples under various stress scenarios with assumptions on different timing and magnitude for variables in the cash flow tool, such as lease revenue disruption from tenant defaults, recovery percentage, lease escalation rate, lease-up rate, and expenses. We then compare these break-even tower cash flow multiples to the historical tower cash flow market multiples implied at different rating categories to establish the quantitative basis for our ratings. Through this quantitative approach, we provide more transparency to market participants in how we derive our ratings for wireless tower transactions, an approach that is also dynamic because we incorporate both cash flow and valuation metrics.

Wireless tower securitizations that Morningstar has reviewed have had transaction structures similar to those in whole-business securitizations. Some similarities include longer-term issuances with legal maturities of up to 30 years, typically with minimal scheduled amortization of the notes in the first five years of the deal. Transactions enter a period of full amortization where all proceeds go to paying down the notes after an anticipated repayment date. ARDs are typically set at five years after the transaction closes. In addition, these transactions commonly have a step-up note interest feature after that date to incentivize the issuer to refinance the notes. Deals usually also can contain cash trap mechanisms tied to debt service coverage ratios, which, when tripped,

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[4] https://www.cisco.com/c/m/en_us/solutions/service-provider/forecast-highlights-mobile.html

[5] https://www.cnn.com/2019/02/26/investing/5g-tower-stocks/index.html

[6] J. Sharpe Smith, Current Business Climate Encourages Tower Sales - Broker, (AGI Magazine, 2018), 2

result in the paydown of the notes until a breach is cured. Other specific deal features include liquidity reserve accounts to cover interest payments over a specific period and manager replacement conditions.

Wireless towers offer technology, media, and telecommunication, or TMT, companies, single location, multiple tenant infrastructure platforms to install their technologies and reach their customers, deliver content, and establish connectivity. Leasing wireless tower space serves as a cost-effective approach and an alternative to building their own communications infrastructure. Leasing relieves TMT companies of the burden of construction costs, as well as the associated operating expenses. In addition, TMT companies save significant time and effort not having to survey and secure locations and obtain local permits themselves to build their own towers. The tower companies own or are long-term lessees of ground sites where these wireless towers are built. They enter into short- or long-term lease contracts with tenants who own and operate the critical communications and data delivery equipment installed on the tower infrastructure. TV, radio broadcast companies, and wireless carriers are common wireless tower site tenants.

We examine the cost structures in place for wireless tower transactions as part of our ratings process to establish a transaction's ongoing costs, which we then incorporate into our ratings analysis. The associated costs for managing wireless towers are mainly rent, taxes, utilities, insurance, and general maintenance. Wireless tower companies either own the ground beneath the towers or enter into long-term lease contracts with lease terms typically longer than 20 years. These long-term lease contracts include annual lease escalators of approximately 3%, which has been the norm for standard ground lease contracts. In addition, spending for site maintenance is critical in ensuring the physical integrity of the towers, as well as technological upgrades to the capacity of wireless tower structures to house and mount equipment for longer-term usage.

Morningstar also evaluates the stratification of wireless tower portfolios. Portfolios may be categorized into its various segments, such as tenant composition profile, tower type and size, usage, composition by Basic Trading Areas, to name some of the key variables we examine.

Morningstar pays particular attention to portfolio stratification by tower type, with the view that the more versatile the tower type is in terms of multipurpose use and adaptability to technologies and equipment, the better the potential for diversification by tenant and lower tenant attrition. Tower types can either be monopole, lattice or self-supported, guyed, or concealed/stealth structures.[7] Monopole towers range in height from 100 feet to 200 feet. These are the most commonly built towers with primary use for telephony. Lattice or self-supported towers reach anywhere from 200 feet to 400 feet. Typically built with steel, lattice towers are

[7] https://resources.anscorporate.com/types-cell-towers-cell-sites-need-know

relatively more durable structures relative to other types. Telephony is its primary use as well. Guyed towers, as their name suggests, are structurally anchored to the ground by guy wires. These towers could be as low as 200 feet or as high as 2,000 feet and are multiusage structures. Because of their height and stability, guyed towers lend themselves to TV and radio broadcasting, paging/messaging services, and telephony as common uses. The final type of tower is the concealed or stealth type, which vary in height, size, and use. They are typically made to conform with their immediate surroundings to comply with area regulations.

Tenant composition profile is another critical aspect of these securitizations that Morningstar focuses on. A portfolio of wireless towers may present different levels of lessee diversity by number, type, geography, and percentage of total lease revenues contributed by each lessee. The most common lessee types in wireless tower portfolios have been TV and radio broadcasting companies as well as the top wireless carriers. Morningstar examines the composition of lessees by type to determine if any industry trends exist or could emerge that could affect each lessees' operations. In addition, studying the geographic breakdown of lessees helps to ascertain if any macroeconomic or regulatory factors may directly or indirectly affect the operations of any lessee and if the sites are in high-usage, high-traffic areas. Specific lessees may be responsible for an outsize portion of total lease revenue generated, which presents revenue concentration risks. Morningstar looks to identify potential portfolio concentration along each of these factors when formulating stress scenarios for transactions. Lastly, though challenging to predict, technological obsolescence is a risk factor that Morningstar pays close attention to. Again, evaluating the portfolio's exposure across lessee type and usage helps in understanding the potential effect of technology shifts on lessees' business operations or lessee attrition risk.

Wireless Towers Stand Tall

As a potential source of long-term, stable, and recurring cash flow, wireless tower portfolios can serve as ideal securitization collateral. Tower assets have marketable values, while their underlying tenant leases are typically noncancellable contracts ranging from five to ten years in most cases. Renewal options at multiple points are baked in during the lease period, and lease escalation provisions are standard across contracts, typically at a 3% fixed rate, or higher if indexed against inflation, in the case of non-U.S. lease contracts. The flexibility of most tower structures to allow equipment upgrades or replacement, with a minor impact to existing arrangements, further mitigates tenant attrition. Low maintenance capital expenditures allow lessee companies to preserve higher operating margins. These wireless tower leases are also mission critical to the tenant company operations and their ability to provide communication services to the market. In the case of iHeartMedia, Inc., which filed for Chapter 11 bankruptcy on March 14, 2018, the bankruptcy court approved iHeart's subsequent motion to assume all of its leases with Vertical Bridge LLC, which in turn allowed for the continuation of lease payments due from these lease agreements to be paid to the securitization. This serves as an example of the resilience inherent in these structures and the nature of their collateral.

The rapidly growing demand for greater and faster data delivery, accompanied by the evolution of more advanced wireless devices, bode well for new wireless tower development and portfolio expansion of wireless tower companies. Morningstar expects the wireless tower securitization market to be a critical enabler for growth among wireless tower companies.

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