Cell Towers: A Newer Real Estate Tower

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In the past, when real estate professionals talked about towers, they typically referred to high-rise office or apartment buildings. With the growing digital economy, a newer tower came on the scene, the telecommunications (cell) tower.

As the use of wireless networks has continued to expand, network operators have provided connectivity through a series of installations on cell towers and other structures. Although these towers have obvious characteristics of real estate, they have not always been readily accepted by investors as such.

This article explores cell towers, as well as their business model and investment options. It also addresses the question of whether these towers are real estate. Specifically, it finds the following:

- Cell towers are an important part of the growing digital economy.
- Cell towers are intrinsically real estate.
- Most cell towers are owned and operated by REITs.
- Dedicated REIT investment managers have embraced tower REITs in their portfolios.

An Important Part of the Growing Digital Economy

The digital economy is a significant contributor to domestic economic output. The Department of Commerce's Bureau of Economic Analysis (BEA) defines the digital economy as including digital-enabling infrastructure (hardware and software), e-commerce, and digital services. The BEA indicated that it accounted for 10.0% of US gross domestic product, or $2.6 trillion, in 2022 (the last available data). From 2017 to 2022, it had an average annual growth rate of 7.1%. It also provided 8.9 million jobs and generated $1.3 trillion in total compensation in 2022.

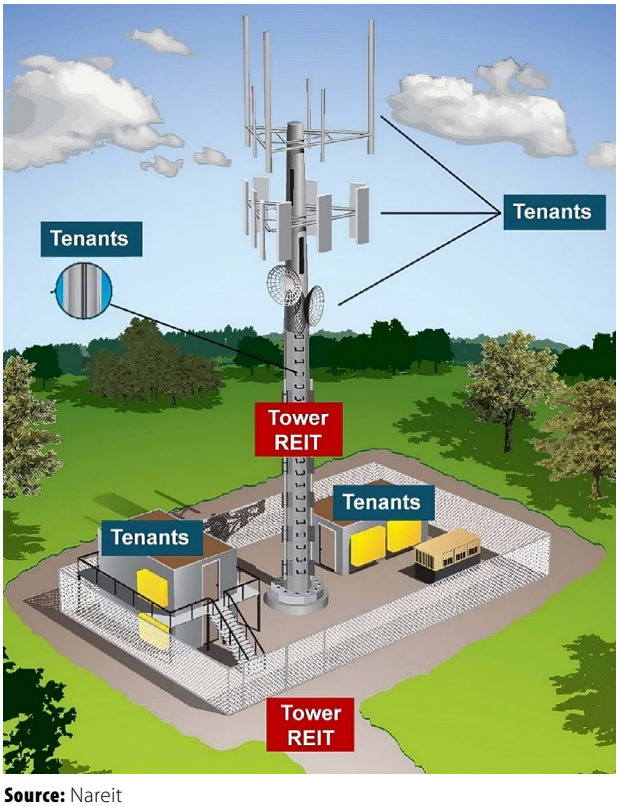
A persistent trend in the digital economy has been the growth of mobile computing and communications. The range of what can be done wirelessly has continued to develop—from 1980s-era 1G technology (early voice calls), through 3G (widespread adoption of mobile web browsing) in the later 1990s and 2000s and 4G (mobile video) in the 2010s, to current and future 5G technology (Internet of Things devices, immersive connectivity, and other next-generation applications).

With each successive generation of technology, wireless carriers have increased their networks' data capacity by adding spectrum, using existing spectrum more efficiently, and leasing more towers.

Cell Tower Basics

Cell towers house key elements of the wireless communications network. The basic unit of a wireless network is the cell, or the geographic area covered by

Exhibit 1: Typical Cell Tower



Source: Nareit

Exhibit 2: Number of Towers Owned by the Top 100 Tower Companies in the US

Company	Tower Count	% of Total Towers
American Tower	42,093	30%
Crown Castle	40,033	29%
SBA Communications	17,479	13%
Vertical Bridge	11,428	8%
Other (Remaining 96 Firms)	27,260	20%
Total	**138,293**	**100%**

Source: Wireless Estimator, "Top 100 Tower Companies in the US"; as of April 4, 2025

a tower. Carriers refer to these units as "rings." Towers are located to optimize the cells' coverages, minimizing both gaps and unnecessary overlaps.

Cell towers come in a variety of forms. Designs include lattice (like the Eiffel Tower), guyed (supported by steel cables anchored to the ground), monopole (a single pole), and camouflaged (designed to reduce visual impact) structures. Traditional stand-alone cell towers typically range from 50 to 400 feet in height, with the tallest towers offering a service range of up to 40 miles. Because of their height and consequent need to resist wind load, towers must be securely attached to foundations that are large and deep. Once in place, towers are difficult and expensive to remove. Indeed, the cost of relocating a tower with operating tenants generally exceeds the initial construction cost.

Exhibit 1 depicts a typical tower installation that includes the tower, outbuildings, and telecommunications equipment. The equipment may include technologies for radio, broadcast television, telephony, and mobile voice and data. The tower company usually owns the tower structure. It also either owns or leases the land under the tower.

Tower company tenants are largely, but not exclusively, wireless communications companies. The tenant typically owns and operates the telecommunications equipment and equipment shelters. Rental charges may depend on location, as well as the size, quantity, and weight of equipment placed on the tower. Leases tend to be long term and typically noncancelable.

The Business Origin Story

In the 1980s and 1990s, wireless carriers built cell towers to meet the growing demand for cell service. Despite having the capacity for multiple tenants and carriers, towers were used primarily by the carriers that developed them. This resulted in inefficient duplication of cell tower capacity and left significant untapped tower capacity.

Recognizing these inefficiencies, US mobile operators in the late 1990s began selling their tower assets to real estate companies that had the requisite expertise to address zoning, construction, day-to-day tower operations, and related issues. They believed that leasing rather than owning their tower assets was a better proposition. This allowed them to focus on their core business of providing communications services to their customers. By 2015, none of the major US mobile carriers retained significant tower portfolios.

This vertical restructuring of the mobile carrier business has resulted in increased allocative efficiency and the formation of more than 275 independent tower companies. The top 100 tower companies account for approximately 97% of cell towers in the US. Exhibit 2 displays the number of total cell towers owned by the top 100 tower companies in the US. It highlights the four tower companies that own more than 10,000 cell towers each; it also provides an aggregate tally for the remaining 96 firms.

The three largest tower companies—American Tower, Crown Castle, and SBA Communications—are REITs. They collectively own or control just under 100,000 towers in the US. With more than 11,000 towers in its portfolio, Vertical Bridge, the nation's largest private owner and operator of communications infrastructure, ranked fourth. These four firms represent more than 80% of the roughly 140,000 cell towers owned by the top 100 tower companies in the US.

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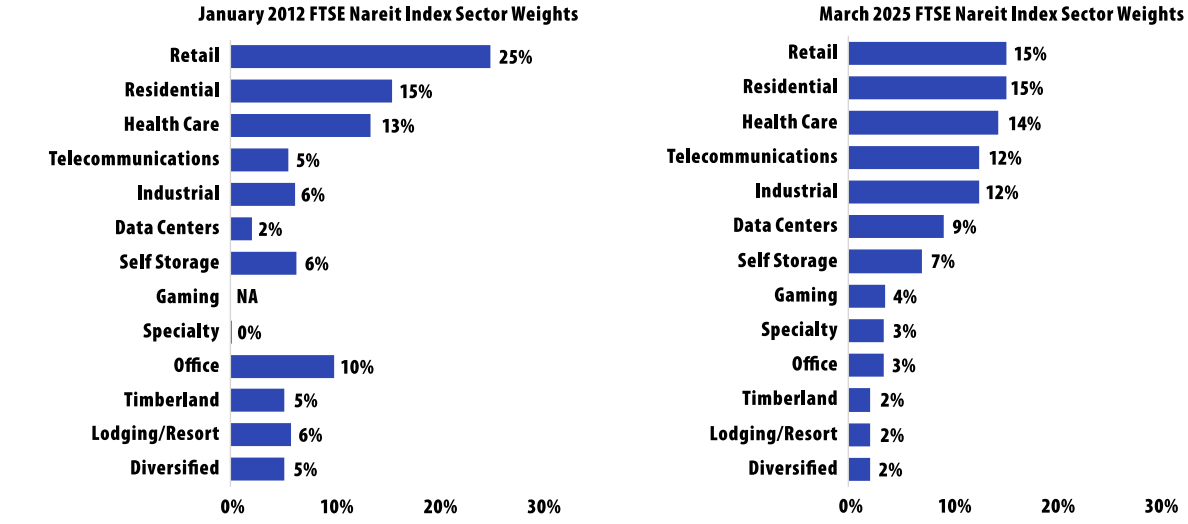
Exhibit 3: FTSE Nareit All Equity REITs Index Sector Weights



Sources: FactSet, FTSE Nareit All Equity REITs Index; as of January 2012 and March 2025

Exhibit 4: Telecommunications REITs in FTSE Nareit All Equity REITs Index

Company	Stock Exchange	Ticker	Market Cap (in Millions)
American Tower	NYSE	AMT	$101,614
Crown Castle	NYSE	CCI	$45,290
SBA Communications	Nasdaq	SBAC	$23,766
Uniti Group	Nasdaq	UNIT	$1,231

Sources: FactSet, FTSE Nareit All Equity REITs Index; as of March 2025

The neutral host model of independent tower ownership provides numerous economic advantages over the original model of carrier ownership. It reduces duplication in cell tower development, lessens environmental impact, creates opportunities for entry by mobile carriers, and optimizes land use. Cell tower companies also generate other efficiencies given their core expertise in locating, entitling, constructing, and operating cell towers for the benefit of their customer tenants and ultimately consumers.

REIT Sector Innovation

As the US economy has changed, so too has the real estate that houses it. The FTSE Nareit US Real Estate Index Series chronicles the evolution and innovation of the US commercial real estate (CRE) and REIT markets through its introductions of new property sectors and subsectors. When Nareit partnered with FTSE Russell in the calculation of the FTSE Nareit US Real Estate Index Series in March 2006, the index series included eight property sectors. Today, there are 13 sectors; 11 focus on a singular type of investment.

The telecommunications sector was launched in January 2012. Telecommunications REITs own and manage infrastructure real estate that includes cell towers, fiber cables, wireless infrastructure, and energy pipelines. Exhibit 3 presents sector weights using the REIT classifications for the FTSE Nareit All Equity REITs Index as of January 2012 and March 2025.

The telecommunications sector's market capitalization weight has grown from 5% at its inception to 12% through March 2025, equating to a dollar value increase of nearly 600%. With an equity market capitalization of $171.9 billion, it was slightly larger than the industrial sector and ranked fourth among the 13 REIT sectors at the end of the first quarter of 2025. Note that towers go beyond the US; they are a global opportunity. The FTSE EPRA

Nareit Developed Extended Index now includes tower companies from the Americas, Europe, and Asia-Pacific.

Exhibit 4 lists the four constituents of the telecommunications sector in the FTSE Nareit All Equity REITs Index, as well as their stock exchanges, ticker symbols, and equity market capitalizations, as of March 2025. Note that American Tower, Crown Castle, and SBA Communications possess sizable cell tower portfolios; Uniti Group focuses on fiber networks.

Cell Towers Are Real Estate

Real estate is necessary to house commercial activities in the modern economy. Offices are required to house white-collar employees, factories are needed to manufacture products, and warehouses are essential to store products en route to customers. Similarly, cell towers are necessary to locate and/or house equipment used to efficiently transmit information. Although cell towers have obvious characteristics of real estate, this fact has not always been readily accepted by investors.

The defining characteristic of real estate is its fixed location. Tangibility and durability of built structures, along with the existence of dual rental and asset markets, are further defining characteristics of income-producing commercial real estate. In addition, a certain amount of nonspecificity in structural design is usually observed with commercial property when ownership is separated from day-to-day occupancy and use. These factors are evaluated in more detail below.

- **Structure Permanently Attached to Land:** Commercial real estate typically comprises both land and structures, although there can be land without structures. When there is a structure, for it to be considered real estate (as opposed to personal property or chattel), the structure must be permanently affixed to the land. To facilitate permanent attachment and support the structure, a foundation often sits on the land. Cell towers satisfy both technical and commonsense definitions of real estate.
- **Development and Construction Processes:** Development and construction mirror that for other types of CRE. Both tower and other real estate projects begin with a process to identify sites with operationally and economically attractive features. Tower companies may look at characteristics such as location, elevation, structural capacity, power, and access to telecommunications services. This process is similar to the siting process of other real estate projects.
- **Tangibility, Durability, and Dual Rental and Asset Markets:** Cell towers are clearly tangible. Their structural functional lives can easily exceed 50 years, so they are also durable. Most towers house multiple tenants that compete with one another. Leases tend to be long term, five to 15 years, often with annual rent escalations and extension options. Rental rates vary depending on local market supply and demand. Asset values depend on capitalized revenues and expenses. Revenues primarily comprise rental income. Operating and capital expense categories are similar to those of other property types. Developed, income-producing cell towers have an active transactions market.
- **Sale Leasebacks With Telecommunications Firms:** Many firms sell their non-core real estate and lease it back. The provision of real estate being sufficiently generic is usually observed in property markets so that ownership and day-to-day use can be separated. Cell towers meet this defining characteristic. Although designs differ, the towers themselves are quite generic. The most prominent and important characteristic of a tower is its height, along with the ability to attach physical transmission technologies to it. These height and attachment qualities are highly generic, making the cell tower owner less reliant on any particular tenant, industry, or technology; this enhances property value in the asset market.

Cell Towers Are Real Estate Affirmations

While it should be clear that cell towers are real estate by definition, governmental, regulatory, and industry groups provide further affirmations. Examples of these affirmations include these:

- **Treasury Regulations:** When the Internal Revenue Service (IRS) recognizes a firm as a REIT, it simultaneously recognizes the group's main rent-generating assets as real estate. The IRS has recognized telecommunications towers as real estate for purposes of REIT status since the early 1960s. This position was finally codified in 2016, when the IRS issued revised final regulations confirming that cell towers, and select other towers, are inherently permanent structures and, hence, real estate assets for REIT purposes.
- **Zoning Statutes:** A characteristic feature of real estate is that it is subject to land use and zoning regulations.

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Given that cell towers are susceptible to these rules, it helps identify them as real estate. It is worth noting that zoning boards are, in the public interest, generally required by law to approve cell tower projects if the petitioner can show that no reasonable alternative location exists that allows the company to provide the same level of service to the cell.

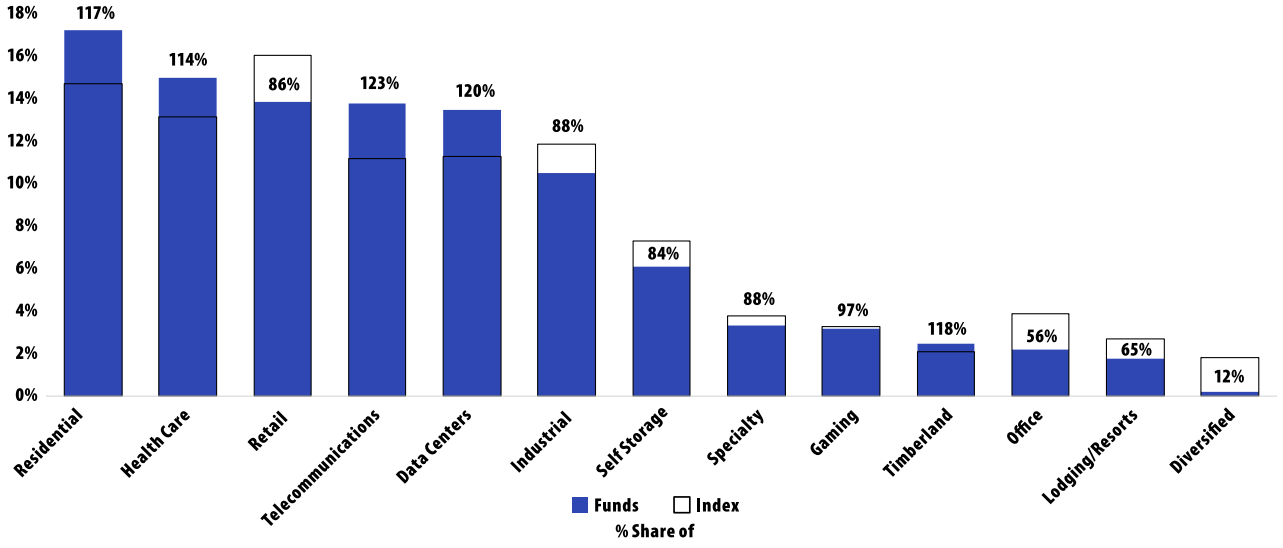
- **Appraisal Guidelines:** The Appraisal Institute—the primary professional organization and governing body for real estate appraisers in the US—considers cell towers to be real estate. Past conferences and webinars have provided guidance on the appraisal of cell towers using the three standard valuation approaches—cost, sales comparison, and income. The valuation steps related to a cell tower appraisal also closely conform to the steps applied in other types of real estate valuation assignments.
- **Accounting Definitions:** Over the years, the Accounting Standards Codification from the Financial Accounting Standards Board (FASB) has contained real estate–specific rules that included implicit tests of what constituted real estate. Cell towers meet FASB-implicit tests for what constitutes real estate for revenue-recognition purposes.
- **Financial Industry Classifications:** The two primary industry classification standards in the financial industry include tower REITs as part of the real estate sector. In 2016, S&P Dow Jones Indices and MSCI transferred stock exchange–listed real estate companies from the financials sector of their Global Industry Classification Standard (GICS) to a new real estate sector. Tower REITs are included in this real estate sector. The Industry Classification Benchmark (ICB), operated and managed by FTSE Russell, is another widely used classification scheme. Companies are assigned to the ICB category that best characterizes their business. In 2019, FTSE Russell created a separate real estate industry category, which included an infrastructure REIT subsector. Tower companies represent virtually the entire market capitalization of that subsector.

REIT Managers Embrace Telecommunications REITs

After the telecommunications sector was established, REIT investment fund managers had some prolonged debate as to whether cell towers, as well as certain other REIT sectors, should actually be considered real estate. This perspective was steeped in the traditionalist view that failed to recognize the changing economic and real estate landscape. Today, the investor community has very much come around to the view that cell towers are real estate.

Nareit's Actively Managed Real Estate Fund Tracker follows the quarterly investment holdings for the 26 largest actively managed real estate investment funds that focus exclusively on REITs. Tracking actively managed dedicated REIT funds and how they allocate their assets provides insights critical to understanding the evolution and current state of the CRE and REIT markets. Prospects for the property sectors can also

Exhibit 5: Share of Property Sector Actively Managed Funds Versus FTSE Nareit All Equity REITs Index



Sources: Nareit, Morningstar Direct; as of 4Q2024

be gauged by this expert investor sentiment. Exhibit 5 presents sector weights in actively managed funds compared with index sector weights for the first quarter of 2025. Six funds did not report data for the quarter.

Dedicated REIT funds remained strongly overweight in the digital sectors through 2024. In the fourth quarter of 2024, telecommunications overtook data centers as the property sector with the highest overweight relative to its index share. The active manager telecommunications and data centers sector weights were 123% and 120% of their index weights, respectively. The significant allocation to the telecommunications sector shows that dedicated REIT fund managers recognize tower companies as providing real estate exposure for their investors.

Investors Should Welcome Innovation

Cell tower companies play an important role in the increasingly digital economy by housing key elements of the wireless communications network. They increase allocative efficiency and benefit consumers by reducing duplication, lowering tower operating costs, and improving consumer access to wireless networks. While potentially outside a traditionalist's view, cell towers are real estate. This premise has been proved through definition, regulatory and industry group affirmations, and dedicated REIT investment manager acceptance.

US public equity REITs have always welcomed innovation and adapted to the changing CRE landscape. They are at the forefront of owning and operating real estate that houses the modern economy. With the three largest US cell tower companies organized as REITs, this property type is readily accessible to individual and institutional investors alike. Telecommunications REITs, like all other REITs, offer efficient and cost-effective ways to enhance diversification and complete private real estate portfolios, as well as implement strategic and tactical investments. ■

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