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RESEARCH

# Spring 2024 Real Estate Report

## A Deep Dive Into Industrial Real Estate

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## Real Estate: The Basics

In 2023, the real estate industry experienced a rocky journey with mortgage rates reaching all-time highs. This year, the industry is expected to see a more optimistic return following the recent trends in the economy. Projections indicate the US real estate market is poised to reach \$119.80tn by 2024, with a Compound Annual Growth Rate (CAGR) of 4.51%, anticipating a market volume of \$142.90tn by 2028. Real Estate Investment Trusts (REITs) represent a distinctive facet, functioning like mutual funds. Unlike real estate investments, REITs are traded like stocks. The REIT business model revolves around leasing space and disbursing dividends to stockholders from collected rent. A pivotal concern in 2024 is the recovery of the housing market, contingent on increased housing inventory to alleviate high pressure on home prices. The real estate market has also been experiencing the effects of higher mortgage rates, with rates of over 7%. A key metric used in real estate is capitalization rate, which looks at a property's net operating income and current market value to find its rate of return. Though the current economy is cooling down with the Fed keeping rates steady, cap rates are expected to rise in 2024, signifying heightened risk and return dynamics. As the real estate landscape evolves, these factors collectively shape the trajectory of the industry in the coming years.

## Major Subsectors of Real Estate

### Residential:

Residential real estate encompasses properties designated for living purposes, including but not limited to single-family homes, condominiums, duplexes, and townhouses.

### Office:

Office or commercial real estate pertains to properties exclusively utilized for business purposes, such as office buildings or apartment complexes designed to accommodate professional enterprises.

### Industrial:

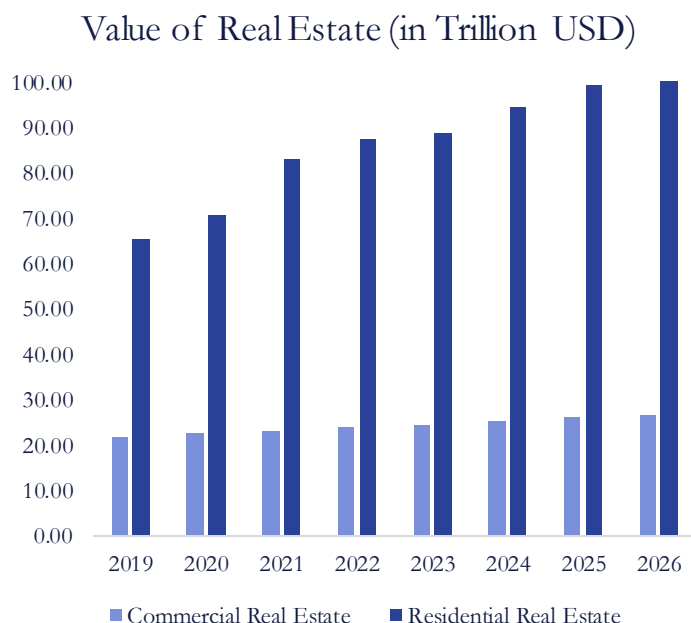
Industrial real estate denotes properties designated for manufacturing, production, distribution, storage, as well as research and development activities. These spaces are tailored to support industrial and commercial operations.

### Retail:

Retail real estate, within the realm of commercial real estate, is zoned and utilized for the purpose of selling consumer goods and services. This category encompasses establishments such as shopping centers, malls, and standalone retail outlets.

## Investment Strategies

Several terms exist to describe the expected risks and rewards of an investment. Core investments are passive investments with a stable 7%-10% annualized return, financed with 40%-45% debt. Core Plus investments are used for properties needing light upgrades, with more fluctuating returns of 8%-10% and higher amounts of leverage (45%-60%). Value-Add investments focus heavily on opportunities for growth, with moderate to high levels of risk. These properties often begin with minimal cash flows and have high cash flow potentials once the value is added. Investors can see higher returns of 11%-15% but must apply significant leverage of 60%-75%. Opportunistic investments are the riskiest, with no expected cash flows for 3+ years. This strategy requires at least 70% debt financing but sees the highest annual returns, sometimes greater than 20%.





# Real Estate Market Overview

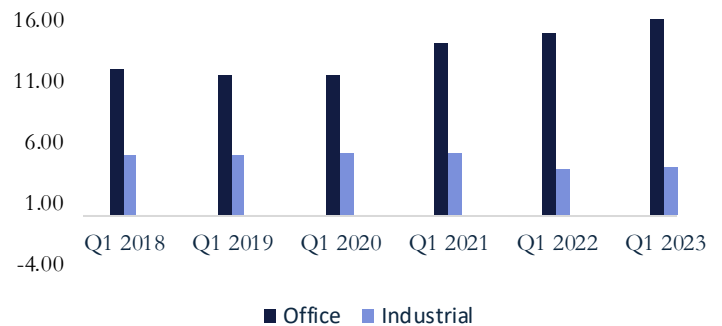
## An Evolving Market

The real estate market continues to navigate the aftermath of the Covid-19 pandemic, triggering significant shifts in the demand for commercial real estate and reshaping investment strategies and urban development trends. Moreover, the pandemic exacerbated existing vulnerabilities in the global supply chain. These challenges, coupled with the Federal Reserve's decisions to raise and hold interest rates, have led to a consistent rise in US construction costs, with construction costs growing 4% in 2023 alone. The residential sector saw a more optimistic trend, with average construction price growth slowing by more than 13 percentage points from 2022 to 2023. The combination of rising home prices and surges in borrowing costs means that most residential transactions lean toward rentals. Homeownership faces hurdles caused by persistently high 30-year mortgage rates, making buying less attractive than renting, especially when rental rates remain relatively stable. The pandemic also reshaped the future of the office and industrial sectors with a staggering 19.6% office vacancy rate in Q4 2023, stemming from a shift towards work-from-home. Lockdowns also forced a rise in e-commerce, generating an increase in demand of over 800 million square feet of real estate since 2019. This created a demand for industrial real estate that far outpaced supply. The industrial real estate sector has seen ultra-low vacancy rates and soaring rents as businesses adopt just-in-time inventory systems and move to industrial facilities close to urban hubs where spaces are scarce. Industrial rent growth PPI increased nearly 6 percentage points from December 2023 to January 2024, showcasing how expensive it is becoming for businesses to rent industrial space. The real estate market is evolving rapidly, creating a need for continued innovation and adaptation.

### Construction Materials PPI



### Office & Industrial Vacancy Rates (%)



## Tomorrow's Terrain

The 2022 CHIPS Act aims to support semiconductor manufacturing and research, stimulating demand for industrial spaces and driving up values and rental rates. Conversely, office sector expansion may be hindered if the Fed chooses more hawkish monetary policy in the coming months, causing companies to use more caution in expansion plans. Additionally, the March 2024 National Association of Realtors settlement could cut broker commissions by 50%, likely benefiting homeowners while hurting first-time buyers. Escalating insurance costs brought about by energy audits and an increased focus on ESG regulations are also encouraging real estate firms to prioritize environmental considerations and shaping future industry practices. Adapting to these industry changes will be pivotal for navigating the evolving real estate landscape.

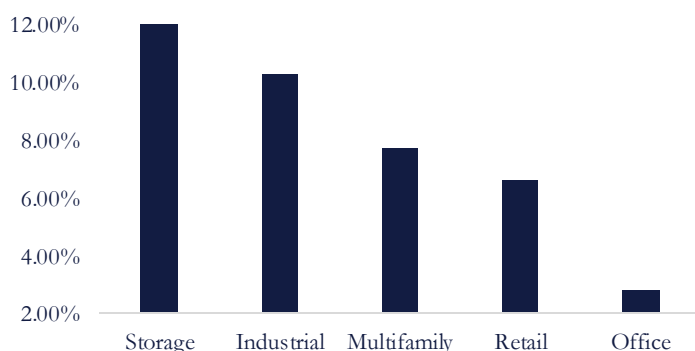
## Performance in Focus

The real estate sector has generally seen slower-than-usual growth in rental income, evidenced by the average annual rent growth underwriting for Class A multifamily properties decreasing from 4.5% to 2.4% from 2022 to 2023. Given that this decrease in rent growth occurred in the sector with the largest share of the industry, it raises concerns about future income. Consequently, unlevered target IRRs saw a nearly two percentage point increase within the same period, suggesting that investors see past the lower rent growth, valuing real estate as an attractive investment. These sector-specific challenges underscore the broader resilience of real estate as an investment class, reflecting the interplay between rent growth dynamics and investor sentiments across all market sectors.

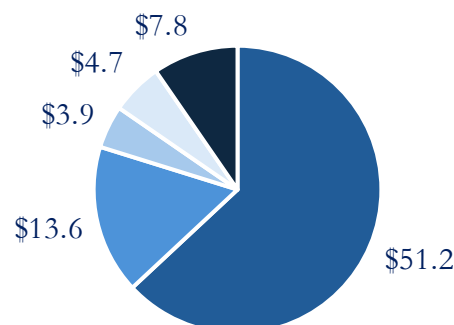
## Capital Markets

The health and activity of the commercial real estate industry is often determined by the capital market's environment. This is where various forms of debt and equity are raised through banks, private lenders, and insurers to fund investments, acquisitions, and developments. Interest rates' influence on interest payments and real estate values makes them the strongest determinant of the state of capital markets. This cause-and-effect relationship was displayed in 2022 and 2023 as interest rates jumped 5% in just over a year. Consequently, debt obligations increased, and property values decreased, creating an environment where borrowers had to borrow less debt at a higher cost. This imbalance resulted in a phenomenon known as negative leverage, where debt obligations exceed cash-on-cash returns, dramatically lowering transaction volume across all sectors of real estate. Amongst this economic climate, most commercial real estate sectors have struggled, leaving lenders resorting to the Industrial sector as a safe haven. Banks such as Wells Fargo and Bank of America increased their exposure to the sector by 25.4% and 12.8%, respectively, from Q3 '22 to Q3 '23. Additionally, as of Q2 '23, there was \$1.1 trillion in commercial mortgages maturing prior to 2025, likely resulting in a significant number of investors requiring new financing. With the start of interest rate cuts remaining uncertain, many investors will lean towards private lending due to greater flexibility in debt obligations. This has been a major trend since 2022 that would cause the Industrial sector to continue to draw favor from lenders since it has historically rewarded the private markets with above-average returns.

Private Market 19-Year Annualized Return



2023 Q4 Investment Volume By Lender  
(\$ in Billions)



■ Private ■ Institutional ■ Public ■ Foreign ■ Other

## 10 Year Low for Transaction Volume

Transaction volume in real estate is the total value of all property transactions, including sales, leases, and rentals, within a fixed period. It is correlated with the liquidity of the market and used by analysts to determine the market's health. In 2023, large bid-ask spreads and negative leverage made it significantly easier to close single-asset and smaller portfolio deals compared to larger transactions. When analyzing assets over \$25M, transaction volume for 2023 has been down 68% since 2022 and has been the lowest since 2012. This can also be attributed to a sharp decrease in overall property value. Green Street's Commercial Property Price Index is down roughly 19% YOY, and breaking this down by property type helps to tell the story of this decrease. Office spaces and apartment buildings are down 25% and 12%, respectively, over the LTM and are two of the largest sectors of commercial real estate. Malls and industrial spaces performed the best by remaining relatively stagnant, up 1% and down 1%, respectively. In the broader real estate market, New York and Los Angeles remain the largest metro areas with transaction volumes of \$14B and \$10B over the last 12 months. Industrial real estate thrives in the surrounding areas of the largest markets due to its close location and cheaper rent. This is why Southern California and New Jersey have been the two best industrial real estate markets over the LTM, both maintaining their transaction volumes while other coastal regions are down 57% and non-coastal regions are down 43%.

## Volume and Value

In comparison to previous years, there was a decline in mergers and acquisitions activity for public U.S. REITs. A total of 8 mergers and acquisitions occurred in 2023, reaching a total transaction value of \$39.81 Billion. This was a remarkably steep decline from the previous year's value of \$81.86 Billion, as it was more than halved in 2023. This stark decrease in volume and value can be attributed to less cash and debt available for REITs due to higher interest rates and tighter lending conditions. Transaction volume didn't increase as of 4Q 2023, but many forecast it to grow in the near future. With interest rate cuts looming, expanding REIT mergers and acquisitions activity should correspond with further improvement of the financing environment, in which we could see a return to previous highs at some point in 2024 and onward. Given Industrial's strong investor interest since 2020, it will be interesting to observe how consolidation trends emerge within sectors like retail and office due to significant shifts in consumer behavior.

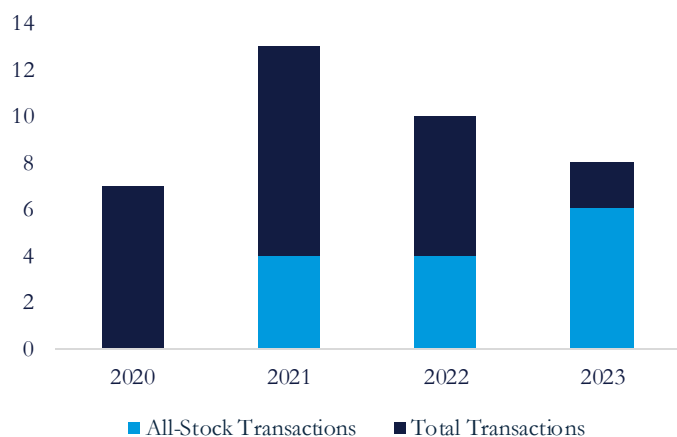
## Financing

Out of the 8 mergers and acquisitions completed in 2023, only 2 of them were done as all-cash transactions, while six of them were done as all-stock transactions. This can again be attributed to the decreased leverage being issued and higher debt obligations resulting from high interest rates, creating an environment in which stock was the cheapest means to complete transactions. In comparison to previous years, the 6 all-stock transactions in 2023 are the highest since 2017. Additionally, they are a massive increase from the 0 that were completed in 2020. As lending conditions are forecasted to significantly improve over the coming years, we should expect to see REIT mergers and acquisitions financing to begin its reversion to historical norms. However, while lending conditions will improve, no one predicts them to return to the previous state, in which debt was practically free. This creates an interesting dilemma regarding how frequent both all-stock and all-cash transactions will be going forward within the REIT mergers and acquisitions space.

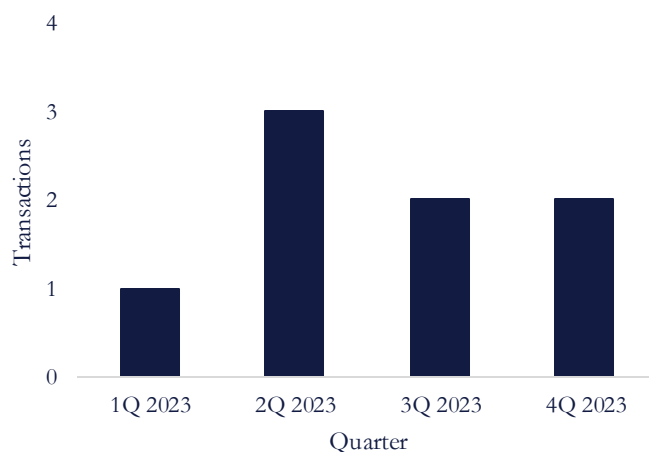
## Notable Privatizations

Looking away from the all-stock transactions from 2023, there were 2 all-cash transactions, with KSL Advisors LLC acquiring Hersha Hospitality Trust, and Centerbridge Partners LP and GIC Real Estate acquiring INDUS Realty Trust Inc. KSL Advisors LLC's acquisition was an all-cash transaction, where KSL acquired all outstanding Hersha Hospitality shares for \$10/share, a 60% premium from their final share price. KSL's deterrence from the current all-stock financing trend stems from their belief in the hospitality sector, where they've deployed \$21 Billion in capital since 2005. The INDUS Realty Trust Inc. acquisition was an all-cash transaction worth \$868 Million. INDUS' Industrial portfolio is what lured the investor group into the acquisition, displaying more evidence of the widespread optimism towards the sector going forward.

All-Stock Transactions



REIT M&A Quarterly Volume



## The State of Data Centers

With each passing day, the importance of data grows, thereby bolstering the importance of data centers. Data centers typically have requirements entailing to land and power demands. This makes expanding in areas with high electricity costs challenging. The US, Frankfurt, London, and Sydney are all expected to see the highest number of AI deployments. A much-anticipated AI lease is a 200-300 megawatts (MW) single-building lease in Atlanta, Phoenix, and Northern Virginia. However, AI development is not just limited to large-scale projects; it can also occur in smaller-scale projects (particularly in cities like Portland and Dallas).

## A New Scale of Data Centers

Historically, data centers used to be measured in tens of MW. Large-scale leasing of several hundred MW is unique and suggests a sharp rise in the needs for data processing and storage. A major sign of expansion in the data center market is the fact that nowadays, a single tenant lease can span several hundred MW. However, with this, data center development has been battling rising costs as both demand and supply remain high amongst low vacancy rates. The buzz surrounding high-density Artificial Intelligence installations has played a major role in this recent, historic transformation.

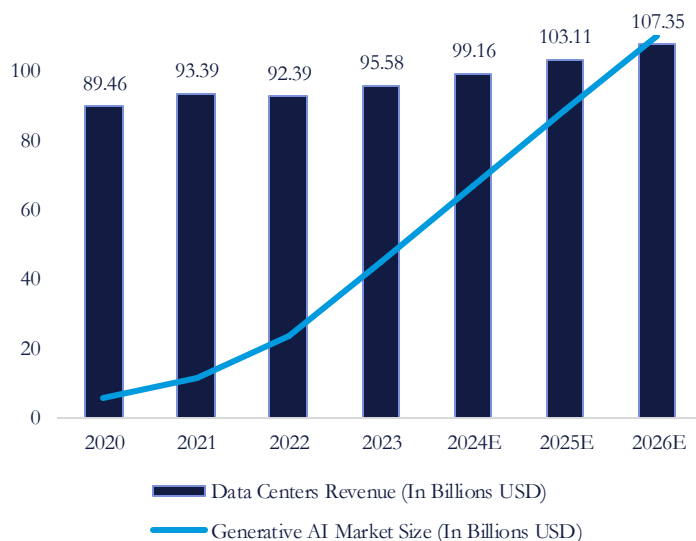
## Impact on REITS

Real estate investment trusts (REITs) such as Brookfield, Blackstone, Digital Realty, Equinix, Prologis, and Vantage are strategically allocating \$85 million over the next five years to capitalize on the AI movement. The leading U.S. markets for data centers, where Monthly Recurring Revenue Per Available Footprint (M-RevPAF) estimates are a blend of 50% hyperscale and 50% colocation facilities, are forecasted to experience a steady annual growth rate of approximately 10% until 2028. Among these projections, 2024 stands out as the year with the most substantial anticipated expansion. Hyperscale data centers typically represent vast complexes constructed and operated by major technology firms for their internal needs, while colocation facilities accommodate multiple tenants who rent space and share resources.

## Generative AI Isn't Just ChatGPT

McKinsey believes that generative artificial intelligence will proliferate the growth of the real estate market and generate \$180B or more in value. Historical data proves that real estate companies can increase net operating income by 10% through more efficient operating models, better customer experience, increased tenant retention, and the creation of new revenue streams. Generative AI has the power to support all of these through three C's: customer engagement, concision, and creation. Generative AI can support customer maintenance requests and lease negotiations, reducing human labor hours and cutting costs for real estate companies. In addition, its use in virtual real estate tours is unmatched; new technology allows potential tenants to visualize the industrial space once fully customized and built out to see exactly how it can be utilized. Generative AI is currently being integrated by construction companies to create building designs and construction blueprints while also helping with predictive maintenance and analyzing the safety of sites. This will help lower the cost of construction sites, making real estate properties more affordable and boosting the market. Real estate companies can also use Generative AI to inform their investment decisions and help with both speed and precision.

Data Centers Revenue and Generative AI Market Size

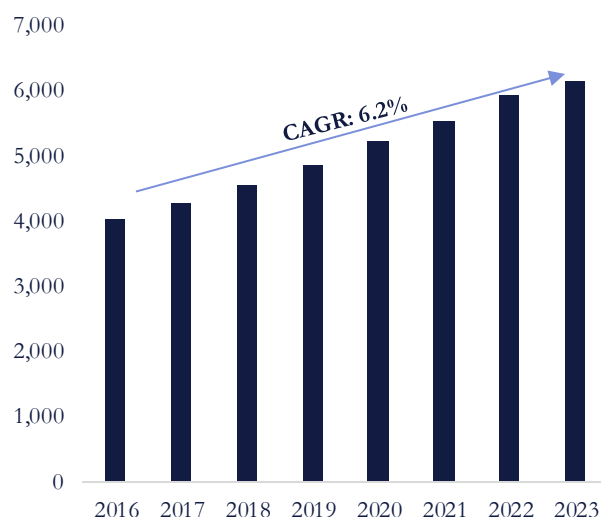


# Industrial Sector Overview

## Current State of Industrial Real Estate

Fueled by the exponential growth of e-commerce and a shift in consumer behavior, the industrial real estate landscape has undergone a significant shift over the past five years. As consumer demand shifted from consumer services to consumer goods due to Covid-19, the number of Americans utilizing online shopping exploded, propelling demand for additional warehouse space. Boasting positive rent growth and historically low vacancy rates since 2011, industrial real estate has become an attractive choice for investors looking for stable, long-term returns. Having offered solid returns for the past 10+ years, future projections indicate a continuation of an upward trajectory in demand, with expectations of needing over 1 billion square feet of industrial real estate by 2025. Increasing demand coupled with the unique requirements of e-commerce fulfillment operations, create a continuously evolving and unique investment landscape.

Big-Box Warehouses in the United States



### Manufacturing

Manufacturing facilities are generally divided into heavy manufacturing, which often needs significant renovations due to specialized fixtures, and light assembly, which caters to the assembly of smaller parts while being more flexible.

### Storage and Distribution

Storage and distribution properties focus on product storage and efficient deliver. Encompassing, warehouses, general storage and truck terminals, they are general optimally located for swift shipping and benefit greatly from advanced management systems.

### Flex Space

Flex properties generally fall under one of the following categories: R&D, data center, or showrooms. Recently, due to global trends, data centers have emerged as the preferred investment in the flex property sector, attracting significant investor interest.

## Current State of Industrial Real Estate

The industrial operating fundamentals experienced a significant slowdown in 2023. There were record high levels of new supply, and tenant demand stabilized, leading to lower pricing power for landlords. Big-box industrial users experienced the weakest demand as they have been cautious about significant capital investments like opening new logistics spaces. 2024 shows room for landlord pricing power to bounce back depending on economic conditions. Coastal markets, on the other hand, are in a position for immense rent growth due to the higher supply barriers. Currently, market rent growth is projected to surpass inflation over the next five years. A 30% decrease in transaction volumes was observed in the industrial sector over the course of the year, mostly as a result of ongoing bid-ask spreads and negative leverage that made properties with in-place rents well below market rents illiquid. Larger acquisitions became rarer, whereas transactions involving single assets and smaller portfolios became more common. Further, commercial buildings in the public and private markets are currently priced higher for industrial properties than for other commercial real estate sectors.



## Macroeconomic Pressures

With sizable supply pipelines, industrial real estate faces vulnerability to macroeconomic shifts. Currently, due to elevated interest rates and stress among US banks, credit conditions are tightening, raising concerns within a sector reliant on debt financing. In contrast to the residential market, which is primarily supported by 30-year fixed-rate mortgages, the industrial sector's increasing reliance on floating-rate debt poses challenges in securing affordable financing and managing interest rate risks for borrowers. With commercial mortgage loans equaling about \$929B expected to mature in 2024, many borrowers are left to refinance existing loans at higher rates. To meet stricter loan-to-value debt service coverage ratio standards, investors may be required to bolster their capital reserves in these circumstances. Additionally, being closely tied to consumer spending and GDP growth, the industrial sector could see a moderate slowdown alongside declining projected GDP growth, with Q1 2024 expecting a 26% decline from Q4 2023 in its GDP growth rate. Retailers will likely turn to third-party logistics providers (3PLs) to satisfy short-term growth needs rather than taking on long-term leases, maintaining a careful approach towards investments. Already, the 3PL sector has expanded its market presence from 28.1% in 2021 to 32.9% in 2023. Additionally, demand for industrial space has been closely tied to changes in imports. A combination of import volumes falling nearly 15% in 2023, compounded by instability in the Suez Canal and significant droughts near the Panama Canal, have put pressure on the southern and eastern coasts. If such conditions persist, these regions could face significant declines in demand for industrial space.

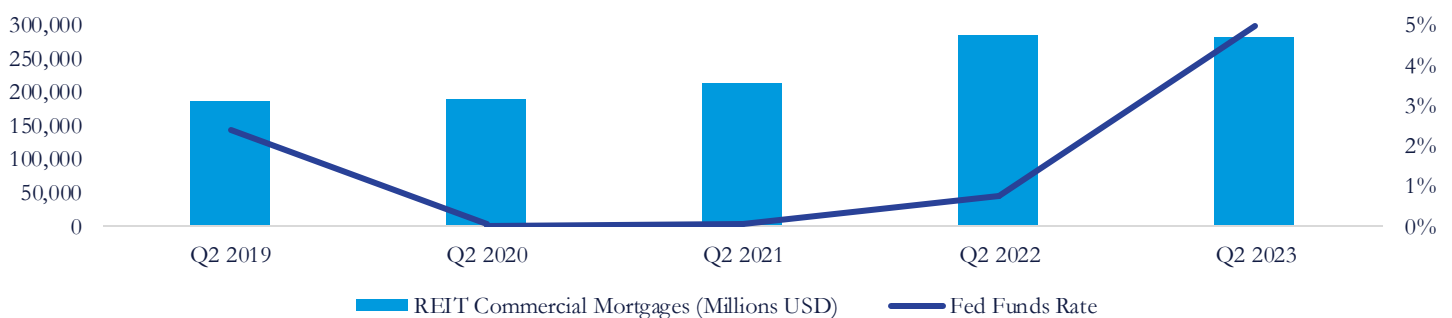
## Automation

Physical obsolescence occurs when a property loses value due to some level of physical neglect, generating a highly expensive repair bill. This remains a risk for the industrial sector as demand shifts towards modern distribution centers that prioritize efficient uses of space and technological integration. With the increasing popularity of last-mile inventory, REITs must focus on investing in facility upgrades and maintaining competitiveness in an industry evolving to become more driven by automation. The warehouse automation market, valued at over \$23 billion, is expected to see a CAGR of 15%, creating a perpetual need for technological integration. These ongoing investments and maintenance efforts to keep pace with evolving technologies adds a layer of complexity and cost for REITs, straining financial resources and requiring frequent reevaluation of property portfolios to meet evolving demands.

## Overbuilding

In unconstrained markets such as Phoenix, Orlando, Las Vegas, and Philadelphia, available industrial properties over 500,000 SF constitute 15% to 25% of total properties. Driven by rapid construction times and strong sector performance, the industrial sector has seen a surge of aggressive development. Developers have favored larger properties due to similar time requirements for projects of varying sizes, leading to a threat of oversupply. This coincides with a shift in consumer preferences towards urban hubs and efficient use of space, potentially diminishing both demand for large industrial spaces and landlord pricing power in the absence of more selective investment decisions.

Loan Demand and Interest Rates



## Long Term Ecommerce Growth

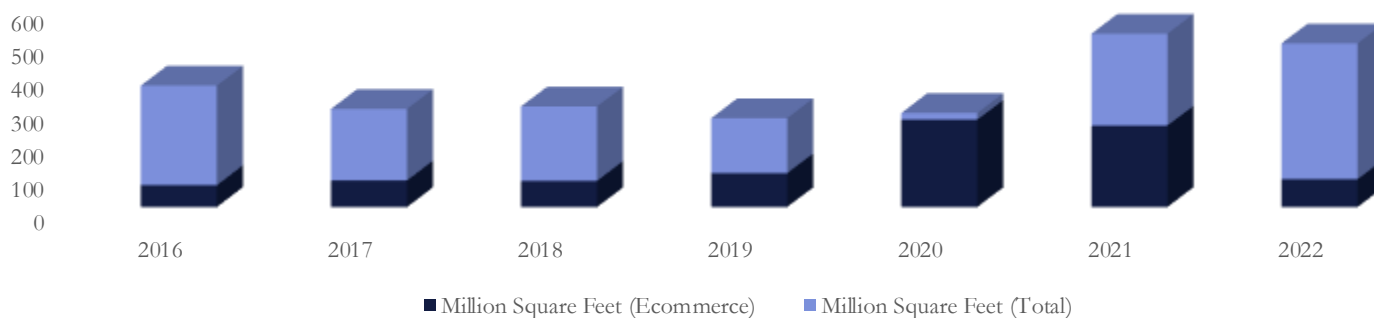
Throughout 2021 and 2022, Industrial real estate experienced monumental growth as a sector, with its performance largely being tied to the ecommerce boom that arose during and after Covid quarantines.

Ecommerce activity is directly linked to Industrial real estate values due to Industrial's core function of storing, sorting, and distributing goods. Additionally, ecommerce requires almost 3x the square footage that traditional brick and mortar stores require, causing it to have a significantly greater impact on the demand and activity within the Industrial market. While ecommerce's growth somewhat tempered in 2023, it still grew at approximately 8% within the U.S. during the year. This slowdown in growth was caused by the end of complete dependance on online shopping that resulted from Covid and decreased overall consumer spending. Over the next four years ecommerce has a projected CAGR of 6.6%, slightly more than 3x the projected CAGR for traditional brick and mortar stores, sitting at 2%. This growth can be attributed to the expansion of various forms of online shopping creating increased comfort and dependency from consumers. Some of the most prevalent forms of ecommerce are online grocery shopping, social commerce, and traditional online clothing shopping. The return to earth for ecommerce growth shows that the days of it solely being a trend from Covid are over, and instead lend to a more sustainable future growth rate. The long term expected growth suggests it is a secular transformation that will support Industrial real estate demand and values for years to come, making it the sector's most important tailwind going forward.

## Increased Domestic Supply Chains

Offshoring's historical popularity amongst U.S. manufacturing has recently fallen due to global conflicts and government promotion of onshoring. Global shutdowns during Covid and a seemingly endless stream of global conflicts have periodically caused supply chain delays that have even impacted consumers. These unexpected disruptions have caused companies to diversify their supply chains to mitigate risk and exposure to international strife. Accordingly, suitors for U.S. Industrial properties looking to house manufacturing and distribution sites skyrocketed, raising values nationwide. Specifically, properties within the sunbelt region have seen growing demand, as they border Mexico which recently became the largest trading partner of the U.S. This massive increase in desire from companies and investors distributing goods to Mexico has dramatically raised values within the sunbelt region. Government promotion has also encouraged onshoring. The CHIPS Act granted \$39 billion in U.S. manufacturing incentives, and the Inflation Reduction Act granted a \$7,500 tax credit for EVs with batteries manufactured in the U.S. These have both had material impacts on the trend, specifically in Arizona and Texas where 6 recent EV and semiconductor onshoring projects occurred, totaling \$125.5 Billion in investment. Additionally, construction spending on manufacturing facilities grew in 2023, while manufacturing employees remained stagnant, suggesting the trend is still in its early stages. The strategic benefits and political incentives associated with onshoring have created a secular trend that will serve as a demand driver for Industrial real estate going forward.

Ecommerce Driven Industrial Net Absorption



## Investment In Automation

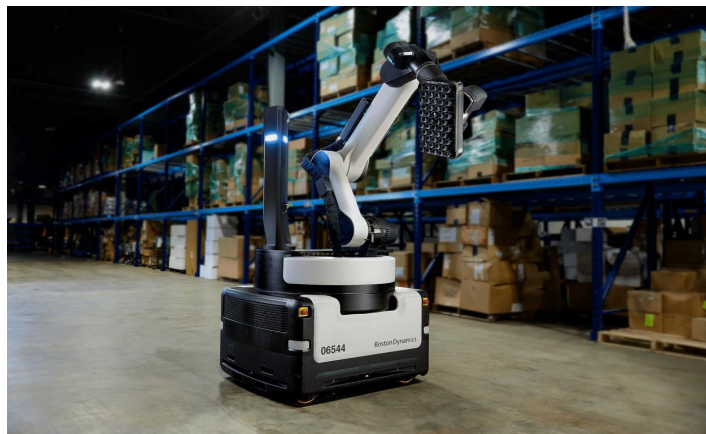
Automated storage and retrieval systems, or AS/RS, are essential for keeping up with modern demand. They offer accuracy and efficiency far greater than any human shelf picker could do. AS/RS also handles far greater volumes than humans and operates around the clock. Coupled with rare occurrences of errors, automated storage and retrieval systems soar to new heights with the release of new technology that enables more capable, and efficient warehousing and distribution centers. Investment in automation is only growing as time passes. Since robot integration has immersed in industrial facilities, prices of robots and the parts to support them has fallen significantly, while inversely, the costs of human labor has risen. This transition towards automated systems does not just hinge on costs, but also the unparalleled capabilities that such systems offer. Internet of Things (IoT) device integration into industrial properties enables the optimization of produce schedules, maintenance, and energy consumption. These improvements in factories across the world has proved to have significant impacts on the efficiency of the global supply chain. While the very first robots followed a simple path and could not deviate from it, robots of today are utilizing sensors, new technology, and machine learning to work not just mechanically, but intelligently.

## Automation Types & Adoption Rates

Within the lifecycle of goods in a warehouse or distribution center, there are numerous points where robotics can be integrated to automate the process. Generally, the technologies with the broadest application boast the highest adoption rates within the warehousing and distribution sector. Technologies like general warehouse management systems, automated product picking, and automated replenishment are widely adopted. Conversely, some properties utilize highly specialized tech such as robotic de-palletizers and unloading systems, which have lower adoption rates across the industry because of their specialized use case, and of course, extremely high cost. As a result, these technologies are often overlooked for businesses that are in favor of more versatile and cost-effective solutions.

## Spotlight On Success

Amazon is currently the largest industrial tenant, leasing 97% of its North American square footage. They have a \$1B venture investment program, the Industrial Innovation Fund, aimed to assist emerging technology companies in supply chain innovation and warehouse automation. It has helped proliferate the growth of Rightbot, a company that is developing a system to automate container unloading, and Instock with the creation of a robotic storage and retrieval system. The fund will begin investing in transportation in 2024, including last-mile technology and autonomous vehicles. Amazon is highly interested in computer vision systems and is working with Vimaan, another company in the fund's portfolio, to use AI for visualizing warehouse inventory. The growth of technology is a massive tailwind for industrial real estate as its adoption will increase efficiency and lower costs. Complementing these advancements in warehouse automation, Boston Dynamics has emerged as a key player in robotics. Spot and Stretch, two innovative robots designed by Boston Dynamics, are assisting industrial warehouse operations by increasing efficiency and streamlining tasks. Spot is a nimble robot designed to perform safety inspections and surveillance tasks in unique and challenging environments. Stretch, on the other hand, is engineered for warehouse automation with its robotic arm and smart-gripper. Stretch excels in box and package handling tasks with the ability to rapidly move goods, manage loading and unloading, and ease the burden of the sorting process. Together, these robots will enhance industrial workflows in any warehouse they are utilized in, embodying the usefulness of robots in this space.



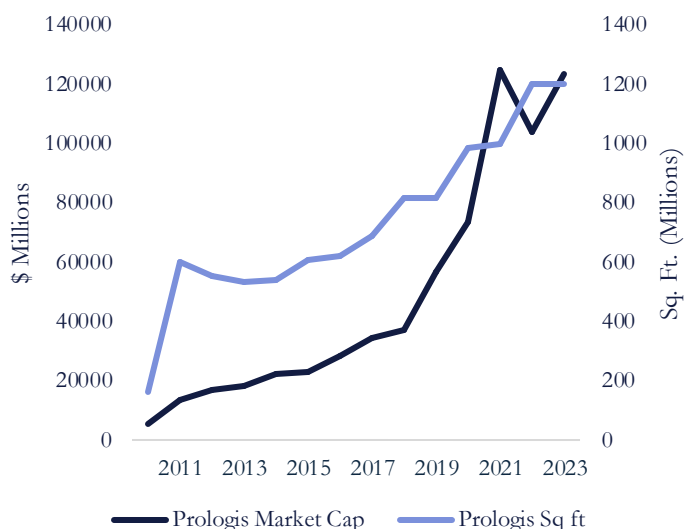
Date	Target	Acquirer	Deal Size	Transaction Type
Q1 1999	Weeks Corporation	Duke Realty Corporation	\$1.7 Billion	Acquisition
Q3 2007	Republic Property Trusts	Liberty Property Trusts	\$850 Million	Merger
Q2 2011	Prologis, LP.	AMB Property Corporation	\$8.7 Billion	Merger
Q2 2015	KTR Capital Partners	Prologis, Inc.	\$5.9 Billion	Acquisition
Q3 2018	DCT Industrial Trust	Prologis, Inc.	\$8.5 Billion	Acquisition
Q1 2020	Liberty Property Trusts	Prologis, Inc.	\$13 Billion	Acquisition
Q4 2022	Duke Realty Corporation	Prologis, Inc.	\$26 Billion	Acquisition

## Prologis, Inc.

The current state of Industrial mergers and acquisitions was created slightly over a decade ago, when AMB Properties merged with Prologis, LP in 2011. Their merger formed Prologis, Inc., the current largest global REIT. Prologis' domination in the mergers and acquisitions space has caused massive consolidation, limiting transaction volume and value from other REITs. Evidently, there have only been four significant REIT mergers and acquisitions outside of Prologis since the early 1990s, and all of them occurred over a decade ago. Prologis has often used mergers and acquisitions to expand their current presence in markets and land available for development. In 2022, they completed their most aggressive acquisition to date.

On October 3rd, 2022, Prologis, Inc. acquired Duke Realty Corporation in a \$26 Billion all-stock transaction. This was one of their biggest acquisitions in both value and size as they received 142 million sq. ft in logistics buildings, 7 million sq. ft in developing buildings, 17 million sq. ft in developable land, and 500 new clients all ranging across 19 major markets. This differed from its previous transactions by entering Savannah, Georgia, the fourth largest U.S. market in container imports, diversifying their market presence, operations and client base.

## Prologis Inc. Expansion



## Outlook

With the ease in borrowing obligations that are expected in 2024 and on, we should expect to see increased activity in the Industrial mergers and acquisitions space. Due to the current favor the sector holds from almost all lenders and investors there should be no shortage of capital distributed to allow an increase in any form of consolidation. This could lead to massive expansion for some REITs.



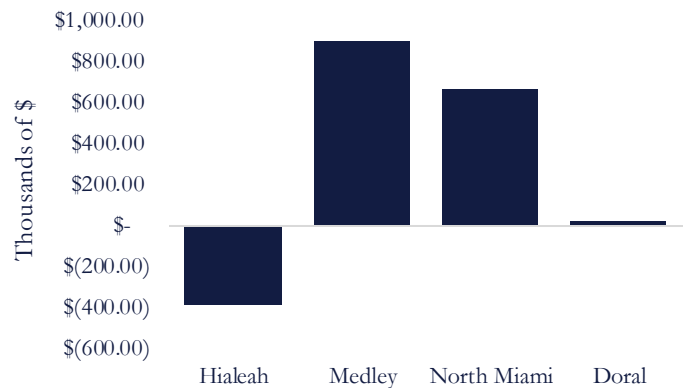
# Market Coverage: Miami, FL

## The Emergence of Miami

Miami's industrial real estate market is one of the tightest in the U.S. with an average vacancy rate of 3.4% and a \$20.23 asking rent per S.F. Most notably, the Miami industrial sector saw incredible alpha performance. From Q4 2022 to Q3 2023, the alpha increased from 0.5% to 2.5%, the largest increase of any U.S. city within the same period. This can be attributed to a combination of factors including post-pandemic population and economic growth rates that were both almost twice the U.S. average. In Q4 2023, the state of Florida saw a 3% YoY increase specifically in manufacturing employment. Moreover, this market saw benefits stemming from reconfigurations in the supply chain during the West Coast port backlogs in 2021. It became faster and more efficient for goods to come through the Panama Canal. Larger East and Gulf Coast ports became congested, and Miami reaped the benefits of higher traffic. Understanding its unique position in the facilitation of trade, PortMiami has devised a 2035 Master Plan to prepare the Miami port for future cargo traffic through deepening channels, creating an access tunnel for direct access to the interstate system, and investing \$50M into connecting the port's freight rail system to the national rail system. Miami's efforts to bring more industrial investments have shown significant success. Miami's industrial real estate assets saw a YTD return of 6.7% in Q3 2023, far above the -5.1% national average. Additionally, growth rates for rent on industrial warehouses jumped from 1% in the pre-pandemic to 5% in 2021, with 8% growth seen in recent quarters. As a result, Miami currently has the second highest projected 1-year growth in NOI for industrials (5.8%) out of all port cities in the U.S. Doral, Medley, Hialeah, and North Miami are some of the most successful submarkets, located only 10 miles from the city's center with easy access to crucial ports.



Submarket Net Absorptions



## Submarket Spotlight: Medley & Doral

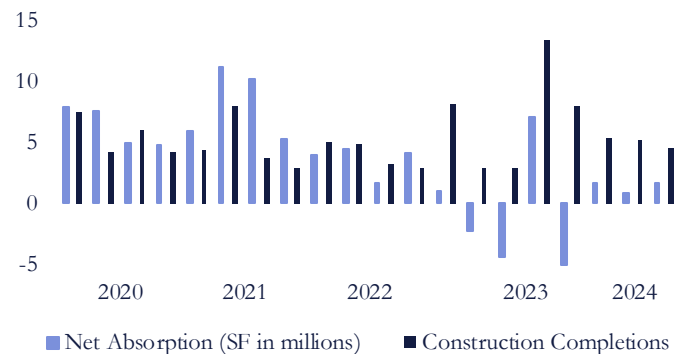
Known for its modern industrial parks and attracting a variety of industrial businesses, Medley is among the last regions with developable industrial land in South Florida. Medley's rental rates have experienced 11.6% growth, resulting in a high price of \$18.70 per SF. It also currently has a sales volume of \$390M and a net absorption YTD of 464,353. More than 70% of newly leased spaced (200,000 SF+) in Florida came from the Miami-Dade and Medley submarket over the past two years. The largest sale in Medley last year was a 185,000+ SF Pan American North Business Park. Medley also secured the most expensive industrial deal of 2022, with TA Realty paying \$241M for 12 warehouses in Countyline Corporate Park. Doral is another highlight of South Florida's submarkets. Due to its advantageous location near the Port of Miami and Miami International Airport, Doral is a major center for an eclectic collection of companies ranging from logistics to healthcare. This diverse industrial presence makes it highly appealing to investors. Doral's vacancy rate is 3.4% compared to Medley's rate of 1.9%. Moreover, its annual net absorption is 27,000 SF. The scarcity of available space has resulted in a notable rise of 11.3% in yearly rent rates in Doral, which now sits at the sixth highest rent level among all Miami submarkets. This year, CBRE facilitated a notable \$17.5 million sale within Doral involving a renovated manufacturing unit. The property's appeal extended across various investor types, ranging from logistics to pharmacy, underscoring the diverse and interconnected nature of the Doral market.

## Post-Covid Boom

The Inland Empire is a large metropolitan area that gets its name from bordering Los Angeles County to the east. It leads SoCal markets in post-pandemic job growth at a 6.2% gain and is significantly outperforming the national average. The Inland Empire has a plethora of affordable land near the SoCal twin ports (LA and Long Beach) which has led to an influx of warehouses, distribution centers, and third-party logistic providers to the area. Due to its location, it has been one of the highest growing real estate markets since Covid; the Inland Empire, New Jersey, and South Florida, have had the largest property value increases as compared to pre-Covid. Over the last 12 months, the Inland Empire is second only to LA in industrial sales volume, with \$4.26B through 479 transactions. The market's supply has followed this increase in demand, as the Inland Empire has had the fourth largest annual supply growth by market, and the largest of all coastal markets, at roughly 4%. The post-Covid boom caused the Inland Empire's net absorption to hit record highs in 2021 and sustain its demand throughout 2022. As investors saw this increase in desirability, the need for construction followed this trend shortly after, hitting a record 33M of initiated square footage in 2022, and 12M SF in the first half of 2023. As compared to the 30 largest US markets, only Phoenix and Dallas-Fort Worth have more industrial space under construction. One of the best ways to measure the health of a market is through vacancy rates, which were as low as 1.3% halfway through 2022 for the Inland Empire, a third of the national vacancy rate of 3.9% at the time. The Inland Empire thrived when most other markets failed.



Net Absorption vs. Construction Completions



## Rocky Future Projections

Real estate obsolescence, higher material and labor costs, and new construction completion outpacing demand have painted an uncertain future for the Inland Empire's market. Despite a record low vacancy rate of 1.3% in 2022, new challenges have been presented in 2024 as vacancy rates have soared to 6.8%, catapulting from well below the national average, to significantly above it. Overbuilding continues to be a challenge for this market, with construction completions outpacing occupancy growth for the sixth consecutive quarter. As developers were pushed to preemptively build more during the pandemic, many construction projects were set in motion due to strong future estimates of the area's growth; this demand is no longer in line with the initial optimistic projections because of changes in tenant behavior. These projects, many of which are set to complete in 2024, will continue to increase the Inland Empire's vacancy rate throughout the upcoming year. The adjustment in rental prices also reflects this shift in demand seen throughout the market. Tenants trying to sublease space now represent 21% of the total space availability and are undercutting owners at a 20% discount to try to lease their space. This coupled with rent growth at -0.9% for Q1 '24 shows this market is a far cry from the 14% YOY growth seen in 2021-2022 and has entered a period of significant recalibration. While the outlook for the next year trends towards negative, estimates say that in 2025, vacancy rates will begin to come down as construction projects near completion, and net absorption levels will stabilize.

# What Buyers are Searching For

## Desirable Property Characteristics

As consumer demands continue to evolve, so does the technology supporting industrial properties. With more demand than ever across all industrial property types, property characteristics needed to evolve to meet consumer needs. This gives way to the question: what are investors looking for to maximize the value of their investment? What building specs do they need? Typically, investors consider three main characteristics when evaluating industrial properties: clear height, large bay sizes, and dock doors. Clear height, among the most important, represents the space from the floor to the lowest part of the ceiling, or the maximum height at which products can be safely stored. A greater clear height, typically desired in the 36 - 40+ foot range, not only provides more space to store products but also allows for the construction of mezzanine floors. Secondly, as warehousing and distribution centers increasingly automate various processes, the need for larger bay sizes grows. Bay size is defined as the space within a warehouse or distribution center between structural support elements like posts or vertical beams, and this space significantly impacts operation efficiency. As more technologically advanced properties start to be constructed, larger bay sizes are becoming the new standard in order to make room for larger machinery and automated storage and retrieval systems. Lastly, dock doors, areas where trucks can load and unload, are essential in ensuring a steady flow of goods, and the desired number will usually be related to the size of the tenant.

## Physical Obsolescence Within Industrial

Supporting increasing demand poses significant challenges in older properties that lack the capacity to accommodate updated infrastructure. With the evolution of standards pertaining to clear heights, bay size, and dock doors, older properties are now less desired. For instance, warehousing and distribution centers built in the 1980s might have featured only 20 feet of clear height, and smaller bay sizes as automation was not central pillar of their operating process. This rapid obsolescence of older properties has become a significant risk that investors in the industrial sector are increasingly concerned about.

## The Importance of Location

### Under Construction

Market	Buildings	SF (000)	Percent	Rank
Phoenix	199	42,820	9.5%	1
Dallas	215	32,115	2.8%	2
Inland Empire	130	23,823	3.1%	3
Houston	211	19,296	2.4%	4
New York	95	18,975	2.2%	5

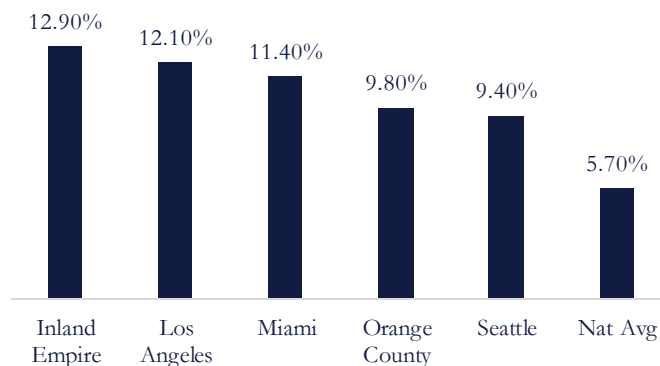
Sources: CoStar

These markets are growing the fastest because of their proximity to large metro areas. This allows these warehouses to have easy access to major transportation corridors, such as highways, freight trains, and ports, lowering the cost and time associated with shipping. Many companies following Amazon's lead and shifting towards last-mile delivery centers has proliferated the growth of industrial warehouses near large cities.

## Industrial Rent Slowing Down

US industrial rent growth has fallen to 5.7% YOY, a number that pales in comparison to the record highs set during the pandemic. However, even this growth is overstated by the first half of 2023, and CoStar analysts predict it to fall to just 3% by later this year. We found that the metro areas that navigated this decline the best are coastal and near major cities, which is consistent with the rest of this report.

### Highest Rent Growth Industrial Markets



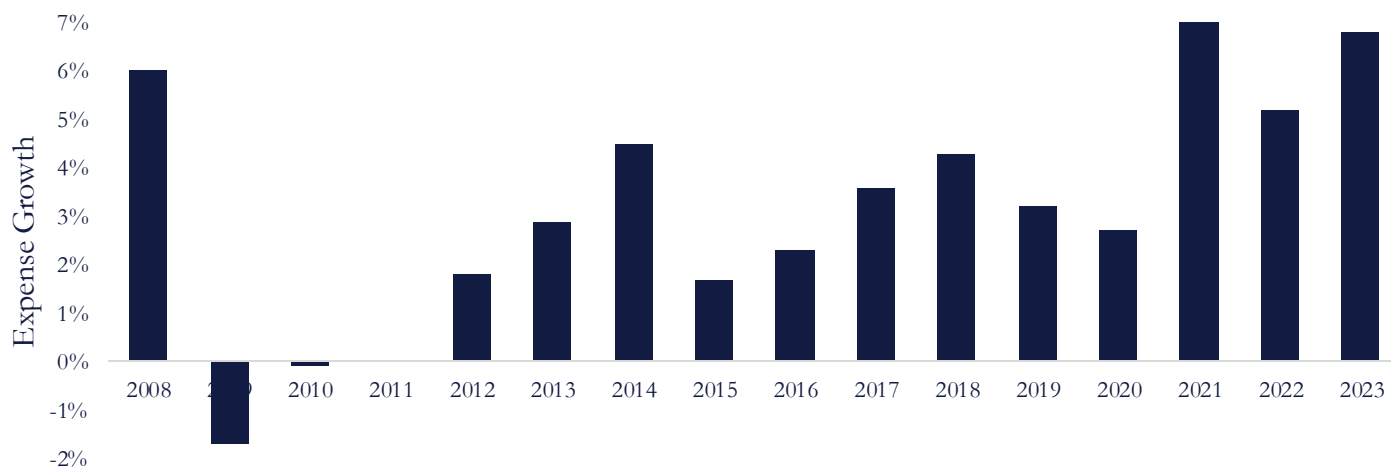
# Industrial REIT Overview

\$ in millions of USD (As of 04/05/24 Close)

Company	Market Cap	Enterprise Value	Share Price	LTM		TEV/		EPS	P/E
				Revenue	EBITDA	Revenue	EBITDA		
Prologis	\$115,370	\$149,143	\$125	\$8,024	\$5,565	19.57x	28.19x	3.30x	47.50x
W.P. Carey	\$12,094	\$19,750	\$55	\$1,741	\$1,093	12.53x	16.59x	3.29x	24.60x
EastGroup Properties	\$8,356	\$10,009	\$174	\$571	\$399	18.24x	26.07x	4.43x	43.60x
First Industrial Realty Trust	\$6,968	\$9,242	\$52	\$614	\$279	15.05x	24.87x	2.08x	38.40x
STAG Industrial	\$6,962	\$9,670	\$38	\$708	\$461	13.90x	19.10x	1.07x	48.80x
<b>Lower</b>	\$6,965	\$9,456	\$45	\$592	\$339	13.22x	17.85x	1.58x	31.50x
<b>Median</b>	\$8,356	\$10,009	\$55	\$708	\$461	15.05x	24.87x	3.29x	43.60x
<b>Mean</b>	\$29,950	\$39,563	\$89	\$2,331	\$1,560	15.86x	22.96x	2.83x	40.58x
<b>Upper</b>	\$63,732	\$84,447	\$149	\$4,882	\$3,329	18.90x	27.13x	3.87x	48.15x

Industrial REITs are lucrative investment vehicles that offer portfolio diversification and consistent returns due to longer leases and higher rental income, giving investors a steady source of passive earnings. Through industrial REITs, investors can easily deploy capital into properties such as warehouses, distribution centers, and scientific facilities. The REITs own, manage, and rent these facilities, allowing investors to contribute funds to a pool that is used to purchase the large properties. The properties are then used for the construction of industrial buildings that can often be aggregated into industrial parks. Investors receive a return on their capital investment through dividends and appreciation of the property. The current industrial REIT market cap is \$168 billion, accounting for 2.91% of the REIT equity landscape. The past decade has shown immense growth in e-commerce, which is a key driver of demand for industrial REITs, resulting in companies developing warehouses and other flex centers near urban areas to reach more consumers. Industrial REITs are highly adaptable to economic conditions as the units are built according to each tenant's preferences and can be customized for different users. The five publicly traded REITs chosen for comparison, comprising PLD, WPC, EGP, FR, and STAG, have portfolios with heavy focuses on industrial properties as well as the highest market caps within the industrial real estate sector.

Historical Industrial REIT Operating Growth





## Investing Risks

### Supply Chain Disruptions

Over the last ten years, the LA-Long Beach market saw an 8% decline in import market shares, allowing Gulf Coast markets like Houston to capitalize on West Coast pandemic disruptions, seeing a 5% increase in market share over the same period. More recently, with the bottlenecks in the Suez and Panama canals and the ratification of a contract giving West Coast dockworkers significant pay increases over the next six years, the Eastern and Gulf Coasts could expect a recovery. However, investors must monitor volatile geopolitical tensions and subsequent supply chain disruptions closely.

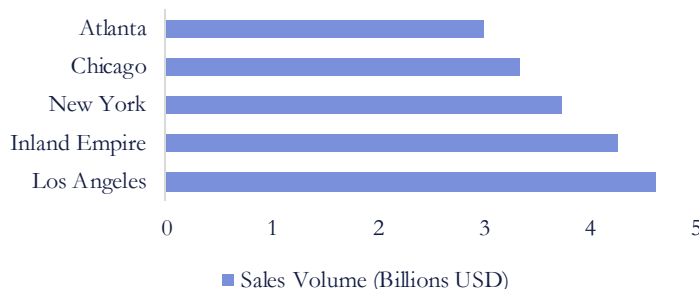
### Rising Insurance Costs

Investors should also consider rising insurance costs, primarily in regions most prone to environmental disasters. Phoenix and Miami, two top markets, see risks of negative climate events exceeding 60%.

### Industrial Real Estate Dynamics

Industrial REIT lease terms typically span 5 years but can range from 2-15 years. Industrial properties age more quickly than other types of real estate, and swift development adds to this challenge. Consequently, industrial NOI growth tends to underperform relative to other property types throughout economic cycles. Nevertheless, for several years, industrial NOI growth is expected to outpace Market-RevPAF growth due to embedded growth resulting from the pandemic-induced rent spikes. This discrepancy between current rental rates and potential market rates can create uncertainty surrounding income, increasing vacancy rates, and growing operational costs.

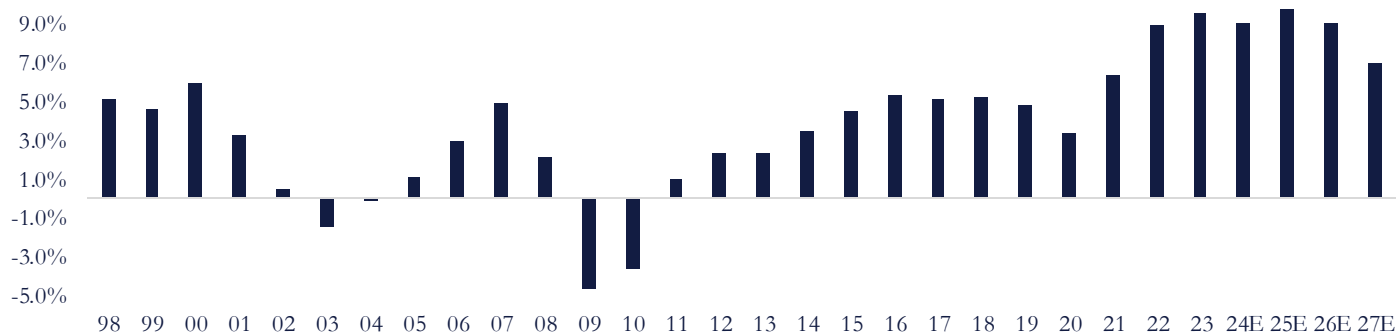
### Top Investment Locations



## Investing Metrics

By strategically investing in properties in ideal locations and with high growth potentials, investors can take advantage of capital appreciation over time. Investors often look at metrics such as Funds from Operations (FFO) to understand an investment's ability to generate cash in its operating activities. Investors also look to debt and interest coverage metrics to evaluate a REIT's capability to cover interest once a lease expires or is terminated, especially when considering prevailing interest rates. Location is one of the most significant drivers of a REIT's returns with the highest sales volumes coming from urban hubs such as Los Angeles, New York, Chicago, and Atlanta. Prologis and First Industrial Realty Trust, two leaders in the industrial sector, have 24% and 31% of their assets, respectively, concentrated in Southern California, and the weighted average asset concentration in coastal regions among top industrial REITs is over 50%. These numbers support the notion that proximity to major transportation networks and highly populated areas is central to the success of many top-performing industrial REITs.

### Industrial REIT Average SSNOI Growth



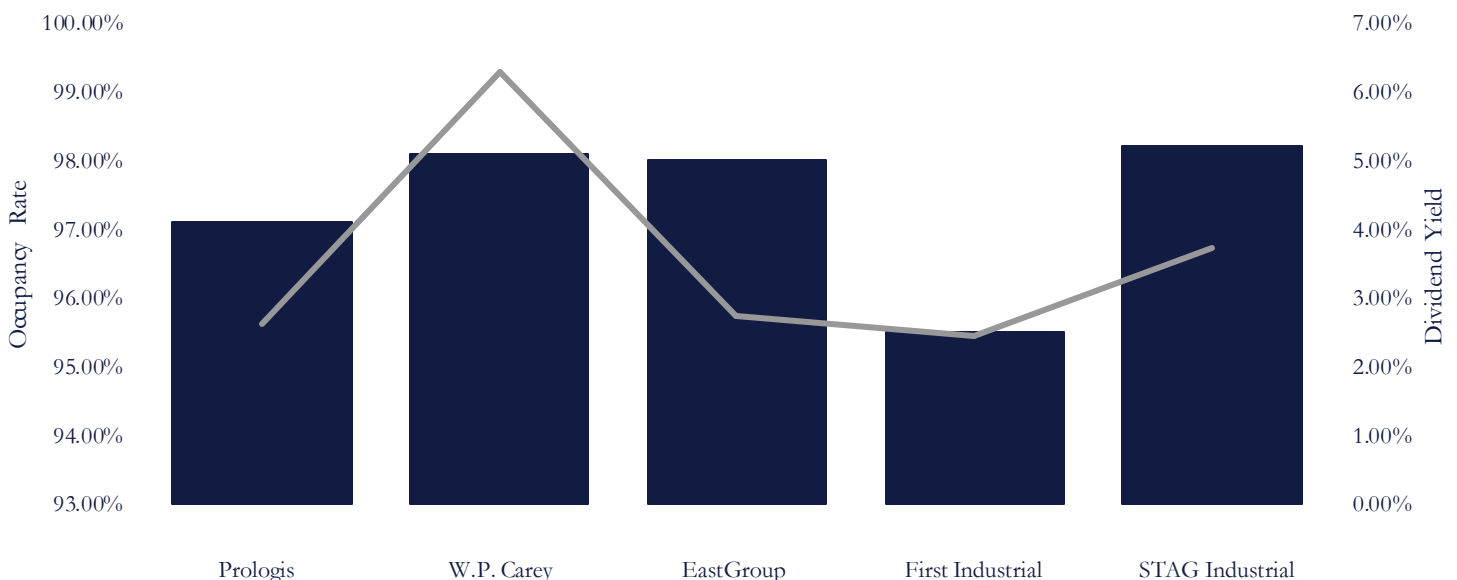
# Comparable: Basic

\$ in millions of USD (As of 12/31/23 Close), Square Footage in millions of SF

Company	Average Occupancy (Q4)	Number of Properties Owned	Square Footage	Gross Asset Value	Dividend Yield
Prologis	97.10%	5,613	1,200.0	\$93,021	2.61%
W.P. Carey	98.10%	1,424	172.7	\$17,976	6.28%
EastGroup Properties	98.00%	510	59.0	\$4,519	2.75%
First Industrial Realty Trust	95.50%	422	64.9	\$5,176	2.43%
STAG Industrial	98.20%	569	112.3	\$6,276	3.74%
<b>Lower</b>	96.30%	466	62.0	\$4,848	2.52%
<b>Median</b>	98.00%	569	112.3	\$6,276	2.75%
<b>Mean</b>	97.38%	1,706	321.7	\$25,394	3.56%
<b>Upper</b>	98.15%	3519	686.4	\$55,499	5.01%

As the commercial real estate industry has struggled due to a harsh financing climate and dynamic demand drivers, the Industrial sector has shown resilience. Looking at five of the largest Industrial REITs, we're able to get a picture of how they've fared against each other. While metrics such as properties owned, square footage, and gross asset value give us context into the size and market presence of each REIT, their true performance markers within this set of comparables are occupancy rate and dividend yield. Occupancy rate shows the percent of total occupiable space that is occupied, while dividend yield shows the amount of dividends issued relative to a REIT's share price. Occupancy rate bears a large influence on dividend yields due to both of their involvement with rental income. As occupancy rate increases, generally, so does rental income, and since REITs must allocate 90% of their income to dividends, an increase in occupancy rate usually lends to increased dividends which increases dividend yield. Relative to the entire Industrial sector, these REITs outperformed the average occupancy rate of 95.74% by 2.26%. This exhibits strength from larger Industrial REITs amongst the deceleration of growth that the Industrial sector faced this past year. Additionally, they just slightly outpaced the average Industrial REIT dividend yield of 2.95% by 0.61%. This relationship is shown even further as the two highest performing REITs in occupancy rate, STAG and W.P. Carey, were also the two strongest performers in dividend yield. Furthermore, First Industrial Realty Trust had the lowest occupancy rate and had the lowest dividend yield. As new construction and development begins to dwindle across the U.S. Industrial sector due to overbuilding, we should expect to see higher occupancy rates and higher dividend yields, incentivizing investors to increase their exposure to Industrial REITs.

Occupancy Rates and Dividend Yields



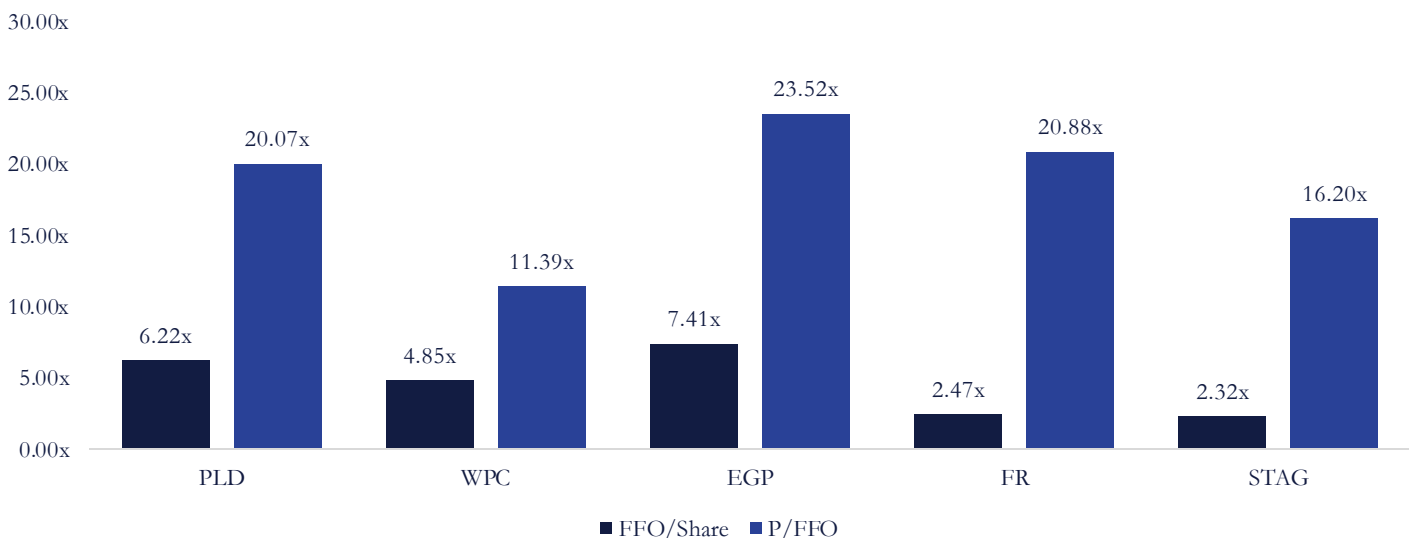
# Comparable: Valuation

\$ in millions of USD (As of 4/5/24 Close)

Company	EV/FFO	EV/AFFO	FFO/Share	P/FFO	P/NAV	NAV	Implied Cap Rate
Prologis	26.58x	28.63x	6.22x	20.07x	2.00x	\$62.48	5.95%
W.P. Carey	18.75x	19.96x	4.85x	11.39x	1.39x	39.81	7.39%
EastGroup Properties	29.24x	34.22x	7.41x	23.52x	3.19x	54.81	9.73%
First Industrial Realty Trust	28.06x	37.19x	2.47x	20.88x	2.59x	19.92	9.32%
STAG Industrial	23.29x	27.18x	2.32x	16.20x	1.98x	18.96	9.51%
<b>Lower</b>	21.02x	23.57x	2.39x	13.79x	1.68x	\$19.44	6.67%
<b>Median</b>	26.58x	28.63x	4.85x	20.07x	2.00x	39.81	9.32%
<b>Mean</b>	25.18x	29.44x	4.65x	18.41x	2.23x	39.17	8.38%
<b>Upper</b>	28.65x	35.71x	6.81x	22.20x	2.89x	58.59	9.62%

There are a multitude of valuation figures that provide insight into the dynamics between a company's value, the value of its property assets, and its strategic deployment of capital resources. Although these companies have varying enterprise values, these ratios help paint a clearer picture of whether the company is operating efficiently and, most importantly, if it is worth it when compared to its competitors. By comparing a company's enterprise value to its funds from operations, EV/FFO helps investors determine if a REIT is using its capital effectively. A similar ratio, EV/AFFO, is an adjustment made to FFO, subtracting recurring capital expenditures and lease adjustments. Examining both EV/FFO and EV/AFFO, the operational efficiency of these companies can be understood more clearly. The company that stands out is First Industrial Realty Trust, as its EV/AFFO ratio is above the upper quartile. This high placement could be attributed to inefficiencies in how it is managing recurring expenses. Contrary to First Industrial, STAG and W.P. Carey stand out as funds that have low EV/FFO and EV/AFFO ratios, signaling these companies manage their capital expenditures efficiently, and are good at generating cash. This is a good sign, as it implies soundness in core operations, and stable property investment needs. Another key ratio, P/FFO, is analogous to the Price/Earnings (P/E) ratio, but it is specifically used for REITs to indicate how the company is priced based on its earnings. Out of these companies, W.P. Carey shows a much lower P/FFO ratio compared to its peers, potentially indicating it's undervalued. Although valuation figures, do not explain the whole story, when taken together, they allow investors to gain a perspective on the operational effectiveness and market positioning of these companies.

## FFO/Share and P/FFO

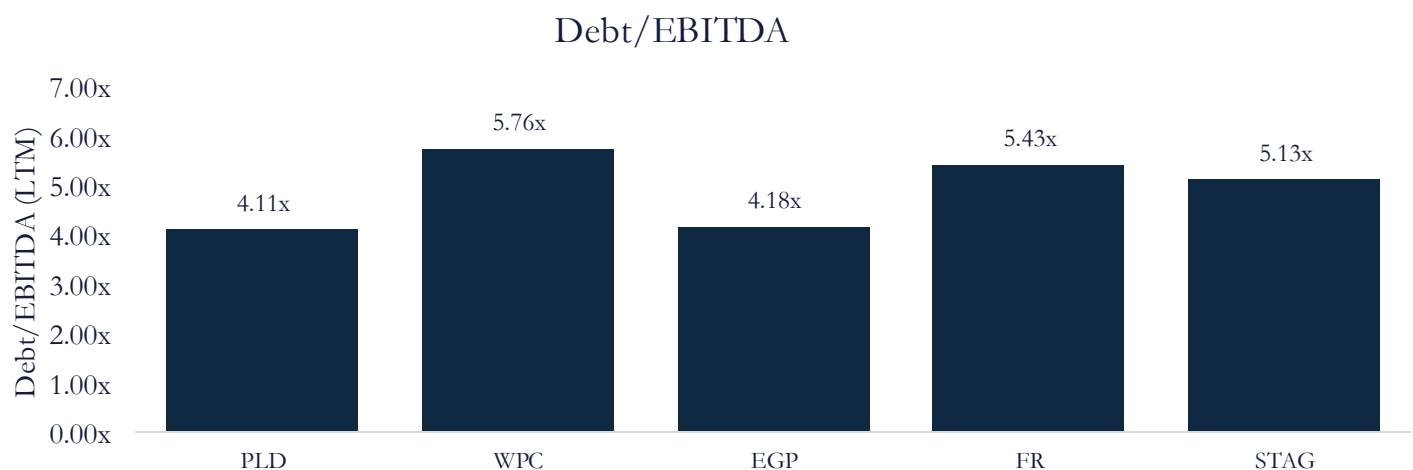


# Comparable: Liquidity

\$ in millions of USD (As of 04/05/24 Close)

Company	Total Debt	Debt/EBITDA (TTM)	Debt Ratio (TD/TA)
Prologis	\$29,000.50	4.11x	31.18%
W.P. Carey	\$8,282.92	5.76x	46.08%
EastGroup Properties	\$1,676.35	4.18x	37.09%
First Industrial Realty Trust	\$2,232.55	5.43x	43.13%
STAG Industrial	\$2,624.05	5.13x	41.76%
<b>Lower</b>	\$1,954.45	4.15x	34.14%
<b>Median</b>	\$2,624.05	5.13x	41.76%
<b>Mean</b>	\$8,763.27	4.92x	39.85%
<b>Upper</b>	\$18,641.71	5.60x	44.61%

Liquidity refers to the availability of cash or other assets that could readily be converted into cash. It is a crucial component to the daily operations of an industrial REIT, directly affecting its ability to see growth. Currently, CRE lending has shrunk to its lowest levels in history. This comes as banks and other lenders reduced loan volume after the Federal Reserve began increasing rates in the first part of 2022, raising doubts on whether certain properties were overvalued. Warehouses, formerly favored by investors, have fallen victim to refinancing maturing loans at significantly higher rates. While liquidity remains available to industrial REITs, it has become more expensive and often comes with lower leverage. It is crucial for industrial REITs to maintain high levels of liquidity, despite current struggles, to protect against market volatility and tend to tenant and maintenance needs. In terms of Debt Ratio, which shows the proportion of a REIT's assets that are funded by debt, ratios under 50% are preferable, suggesting a more conservative level of debt and a lower risk of default. Each of the five companies sees healthy debt ratios, with PLD seeming to be best equipped to manage debt obligations and maintain resiliency when faced with adverse economic events. Debt/EBITDA is a similar metric that looks at a company's ability to cover debt payments with operating income, where lower ratios indicate lower risk. Given that the industry average is 4.7x, W.P. Carey exhibits the most concerning ratio of 5.76x, and Prologis the best with 4.11x. Despite WPC's higher-than-average ratio, the fact that it has remained stable over time indicates that these debt levels are manageable and align with growth objectives. For example, this past fall, WPC announced a decision to move out of the office sector and invest around \$1.5B in new industrial and retail properties in 2024 with high growth potentials, priding itself in its "exceptionally strong liquidity" that includes a \$2B revolver and puts the company in a good place to navigate economic uncertainties. On the other hand, PLD's efficient capital utilization and debt management reflects its leading position in the industrial real estate sector.





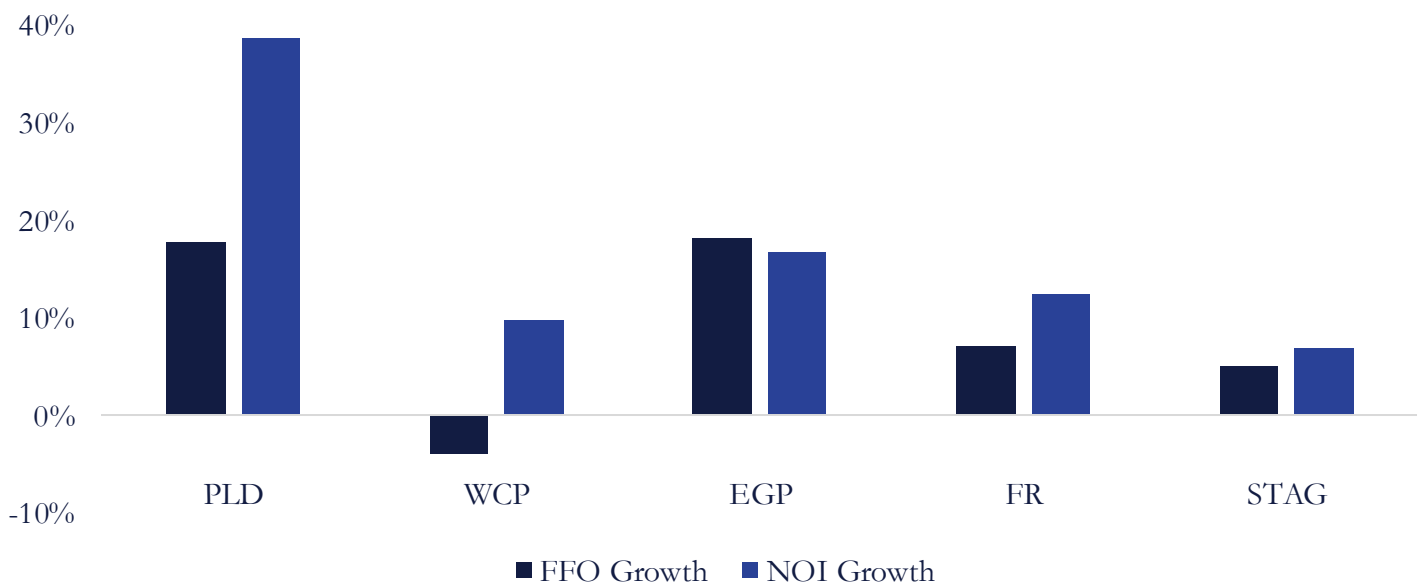
# Comparable: Profitability

*\$ in millions of USD (As of 12/31/23 Close), All in terms of LTM*

Company	FFO	FFO Growth	AFFO	AFFO Growth	NOI	NOI Growth	Profit Margin	Profit Margin Growth
Prologis	\$5,746.16	17.81%	\$5,334.25	27.38%	\$5,435.02	38.72%	38.05%	-32.32%
W.P. Carey	\$1,061.23	-4.01%	\$1,118.27	5.44%	\$1,466.08	9.73%	40.75%	-0.14%
EastGroup Properties	\$353.28	18.18%	\$353.28	18.18%	\$413.32	16.74%	35.14%	-8.08%
First Industrial Realty Trust	\$326.89	7.06%	\$250.77	9.70%	\$444.71	12.48%	44.76%	-36.67%
STAG Industrial	\$420.77	4.98%	\$422.38	4.72%	\$568.24	6.88%	27.24%	0.43%
<b>Lower</b>	\$340.09	0.49%	\$302.03	5.08%	\$429.02	8.31%	31.19%	-34.50%
<b>Median</b>	\$420.77	7.06%	\$422.38	9.70%	\$568.24	12.48%	38.05%	-8.08%
<b>Mean</b>	\$1,581.67	8.80%	\$1,495.79	13.08%	\$1,669.07	16.91%	37.19%	-15.36%
<b>Upper</b>	\$3,403.70	18.00%	\$3,226.26	22.78%	\$3,459.55	27.73%	42.75%	0.14%

Profitability is a measure of how efficiently a business utilizes its expenses to generate positive returns and is quantified by Profit Margin in most industries. The selected REITs all have Profit Margins between 25% and 45% which shows that they are efficient in their spending. However, the average Profit Margin Growth of these REITs is -15%. Macroeconomic factors have a significantly larger effect on real estate as compared to other industries, and we can attribute this overall decrease in Profit Margin to economic changes between 2022 and 2023. Instead, Funds From Operations (FFO) and Adjusted Funds From Operations (AFFO) are stronger measures than Net Income of the true cash flows for real estate properties. These metrics exclude real estate depreciation and property sales to provide a clearer picture of operational efficiency. Despite negative Profit Margin Growths, all our REITs have experienced positive FFO Growth, AFFO Growth, and NOI Growth apart from W.P. Carey's FFO Growth of -4%. W.P. Carey is unique for having a negative FFO Growth but a positive AFFO Growth. AFFO differs from FFO in that non-recurring expenses are added back, and capital expenditures are subtracted, so their negative FFO Growth is not a large concern. One REIT that stands out is Prologis who leads our comparables in AFFO Growth and NOI Growth, while barely falling short of EGP's FFO Growth. The acquisition of Duke Realty Corporation by Prologis in Q4 '22 has been the main driver of the company's success in 2023. We expect Prologis to regress back to the mean in 2024 as these new properties mature within their portfolio.

## FFO Growth and NOI Growth



# STAG Industrial (NYSE: STAG)

## What Does the Company Do?

STAG Industrial is a REIT focused on acquiring and operating single-tenant industrial properties in the United States. They primarily invest in small warehousing and distribution centers, but are not limited to this property type, and own manufacturing buildings and Value Add Portfolio spaces.

## How Does STAG Differentiate Itself?

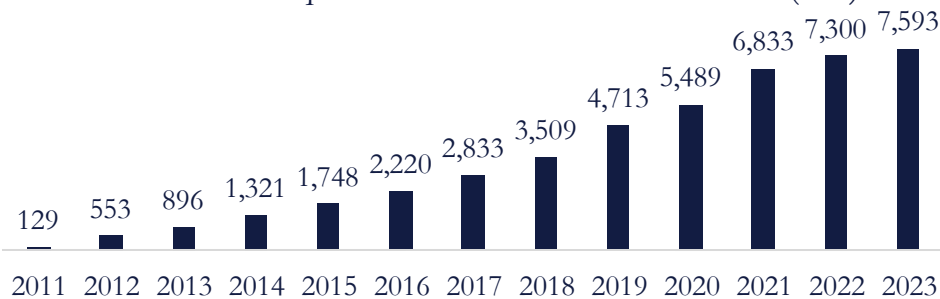
STAG's main difference from other Industrial REITs is that historically they have focused on secondary markets (CBRE Tier 2). Primary markets, which are large population centers that are booming with industry and commerce, are more sought after due to their proximity to both people and businesses. STAG has targeted secondary markets in the past because of the affordability and growth opportunities, as well as the advantage of not having to compete on price with industry giants like Prologis. Today, STAG has a unique blend of primary and secondary markets, giving it more geographical diversification (within the US) than other industrial REITs.

## Property and Leasing Information

STAG currently own 569 buildings across 41 states, spanning 112.3M SF. They own both CBRE Tier 1 and 2 properties, with 75% of their revenue coming from the former. STAG focuses on warehousing and distribution centers, which make up 87% of their portfolio. They favor smaller spaces, with their average being under 150K SF while roughly 60% of all US construction is greater than 300k SF.

STAG generally likes to lease to larger tenants. 83% of STAG tenants have an annual revenue of over \$100 million. Some of STAG's prominent clients include Amazon, FedEx, and XPO.

### Cumulative Acquisition Volume - Purchase Price (mm)



## Recent Acquisitions and Dispositions

In 2023 STAG spent \$294M to acquire 16 buildings, making up 2M SF. They acquired one property in Greenville, SC and one in Reno, NV in Q4, which combined for 400K SF and cost them \$49M. They additionally purchased one asset in development for \$19M which is not included in the above acquisitions.

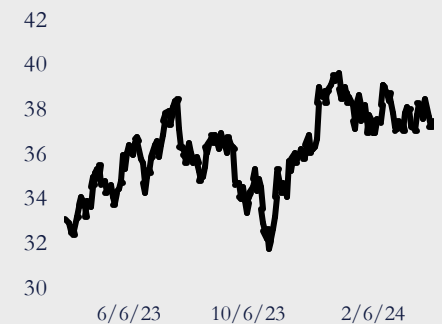
On the other hand, STAG got \$108M for disposing of 10 properties, making up 2M SF throughout the year. Only 147K of this square footage came in Q4 through their one disposition in DeKalb, IL, where they realized \$8.7M in gross proceeds.

## How Has STAG Evolved Over Time?

STAG has completed more Value-Add projects since 2020 than in its first 9 years of operations. While they are still more focused on secondary markets than other industrial REITs, STAG's acquisitions have displayed a shift towards stronger markets; 81.8% of their acquisitions since 2016 were in CBRE Tier 1 markets, as compared to 59.2% prior to 2016.

Stock Rating	HOLD
Price Targets	\$46.00 (JEF)
	\$39.00 (JPM)
	\$42.00 (EVR)
Price (4/5/24)	\$37.50
Ticker	STAG
Exchange	NYSE

52 Week Range \$31.69 - \$39.61



### Research Team

Jude Anton  
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Maria Jerghiuta  
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James Sweeney

Market Capitalization (mm)	\$6,929
Shares Outstanding (mm)	181.4
Dividend Payout Ratio (%)	137.53%
Dividend Yield (%)	3.98%

	STAG	Peers
P/FFO	16.20x	18.41x
P/NAV	1.98x	2.23x
EV/FFO	23.29x	25.18x

# NAV Model Summary

## Forecasting Assumptions

In our valuation of Stag Industrial, we constructed a NAV Model originating from a three-statement operating model that forecasted into 2028. In the operating model, our forecasting assumptions were based on management guidance, historical growth, and an expected increase in acquisition and borrowing activity. These created growing debt obligations and decreased short-term profitability. Stag's forecasted growing liabilities relative to their assets, drove down the NAV/S compared to their current stock price.

## NAV & Market Consensus

We forecasted a NAV of \$4,076.37 in 2024, and a NAV/S of \$21.72. This result fell directly in line with JP Morgan, BMO, and Barclays as we shared their assumptions of increased debt and liabilities due to an immediate jump in acquisitions. Even with the curiously low NAV for STAG, many still give the REIT a hold or a buy rating due to their operating competitive advantages and long-term stability. Our overall view of STAG fell within a similar perspective to the market consensus.

Acquisitions	Net Income	NAV/S
<u>Market</u> \$466.7M	<u>Market</u> \$154.90M	<u>Market</u> \$21.68
<u>BBR</u> \$500M	<u>BBR</u> \$141.90M	<u>BBR</u> \$21.72

## Our Rating: Hold

Although the NAV/S is remarkably low, which would usually warrant a sell rating, we find that STAG's operational efficiencies and competitive advantages hold significant future optimism. The company's domestic diversification creates a high presence in secondary markets relative to other REITs. This mitigates STAG's exposure and competition to large REITs and investors, such as Prologis and Rexford, when making acquisitions. Subsequently, STAG is granted a unique lack of obstacles towards any investment due to its domestic approach and ability to raise capital faster than most secondary market competitors. While taking advantage of less competitive markets, STAG has not lost out on strong and reliable tenants. The tenant with the heaviest weight in the STAG portfolio is Amazon, granting it very limited downside to what would normally be a more volatile secondary market presence. Through management guidance and recent activity, STAG's portfolio is expected to expand in the near future due to its pricing power and acquisition activity. In Q3 2023, STAG raised rents on expiring leases by 54%. This along with their 98.2% occupancy rate, suggests incredibly high demand, pricing leverage and rent growth for their portfolio going forward. Additionally, they completed Q4 2023 with two lofty acquisitions totaling \$48.7 Million. Combining this with the \$41.8 Million raised to be deployed prior to December 2025, \$22.1 Million to be deployed before 1Q 2025, and the management guided increase in acquisition activity, STAG's high-performing portfolio should expand even more. Lastly, their stock price has performed extremely well historically, growing 16.51% over the last year, and 32.87% over the last 5 years. Keep in mind, this is with a robust dividend and routinely high dividend payout ratios. While a jump in acquisitions and debt has driven down their forward NAV/S, STAG's positioning for growth results in a hold rating.



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