






Real Estate sector report

FALL 2022





Sector conditions and outlook

		Current condition	Outlook
APARTMENT 	<p>The apartment sector remains among the most favored property types. Strong tenant demand and a shortage of housing across the residential spectrum has kept space market fundamentals healthy. Challenges will emerge in the coming months as slower growth, higher rates of inflation, and uncertainty will weigh on performance.</p>	●	↗
HOTEL 	<p>The hotel sector is emerging from its pandemic-related correction. Occupancy rates are healthy and demand across all chain scales has improved with the gap between mid- and large-scale markets narrowing. Investors, however, have started to show some reticence toward the sector as macroeconomic storm clouds have started to emerge.</p>	●	↘
INDUSTRIAL 	<p>The industrial sector has continued to perform well through the mid-year point. Occupancy has never been higher and net absorption remains well above trend as the demand for newer product remains healthy. Record levels of new development and an uncertain economic outlook may present challenges to the sector's outlook.</p>	●	↗
OFFICE 	<p>The office market continues to face headwinds following the pandemic. Low utilization and weak demand have pushed vacancy rates higher and investors remain wary of the sector due to soft fundamentals. The sector has operated in an ideal economic environment over the past 12 months, but has continued to show uneven progress. A recession could prove costly to this sector.</p>	●	↓
RETAIL 	<p>The retail recovery continued through mid-year 2022. Strong retail sales during the first half allowed traditional brick and mortar operators to open more stores than they closed for the second year in a row. The sector remains bifurcated, with value oriented shopping centers performing well and older regional malls out of favor. The sector will be vulnerable to a shift in spending should a recession occur in the next 12 to 18 months.</p>	●	↘

KEY:

- Improving ● Neutral ● Deteriorating
- ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

Sector conditions and outlook continued

		<u>Current condition</u>	<u>Outlook</u>
<p>SINGLE-FAMILY RENTAL</p> 	<p>The single-family sector continues to benefit from the shortage of housing in the U.S. Space market fundamentals remain healthy, but with full pricing and a slower growth scenario unfolding, the sector may be susceptible to weaker performance. The sector should continue to perform well on a relative basis due to low levels of housing affordability, particularly in the single-family for sale market.</p>	●	↗
<p>DATA CENTERS</p> 	<p>Data center demand remains healthy, but performance has been more mixed in 2022 relative to other property types. From an operational standpoint higher energy costs are on the verge of impacting operating performance and construction plans. The sector continues to trade at a premium to NAV.</p>	●	↗
<p>STUDENT HOUSING</p> 	<p>The student housing sector is benefiting from a relaxing of pandemic-related restrictions in place last year. Demand for units remains elevated and the vacancy rate on privately operated units remains in the low-single digits according to data from Axiometrics. Robust tenant demand for the 2022-23 school year has outperformed expectations year-to-date and sets the stage for solid performance this year.</p>	●	↗
<p>LIFE SCIENCES</p> 	<p>There is a shift emerging in the life sciences sector as venture capital sources are being far more selective as it relates to smaller firms entering the space. Supply and demand remains tight, with larger players continuing to lease space. Smaller and emerging markets are facing headwinds more recently. The sector is underperforming with many smaller companies facing capital constraints. Life science REITs are trading at a discount to NAV.</p>	●	↗

Key:

- Improving ● Neutral ● Deteriorating
- ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

Source: Principal Real Estate Investors, September 2022

APARTMENT

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
↑	→	↑	↑	↑	↑	→

Key: ↑ Positive → Moderately positive → Neutral ↓ Moderately negative ↓ Negative

*REIT pricing relative to NAV: Red/downward yellow signifies prices are trading at a discount, upward if trading at a premium.

Sector overview

The apartment market remains a top performer among all property types through mid-year 2022. Demand continues to drive down vacancy rates in most regions, with a nascent recovery emerging within larger coastal gateway cities.

Private equity

The apartment sector remains among the most sought-after property types within commercial real estate. Despite the recent decoupling of the dual tailwinds of robust capital market activity and improving market fundamentals, the sector remains poised to outperform other property types on a relative basis during the second half of the year. Though higher interest rates and cyclical uncertainty have slowed deal-flow, apartments' favored status remains intact due to high demand for units, particularly those catering to the middle-income segment of the population.

While suburban properties have meaningfully outperformed, renter demand for properties in dense, coastal market locations has increased meaningfully throughout the year, with all segments generating historically strong leasing volume and rental rate growth. Lease trade outs remain very strong in most markets and demonstrate the sector's ability to hedge investment portfolios against the effects of inflation.

Renters across the country are discovering the difficulty in finding an apartment for lease with

the national vacancy rate remaining just below 5% through the first half of 2022. Net absorption during the second quarter was below the number of new units delivered and this potential supply-demand imbalance bears watching, particularly in the luxury segment where most new supply is contained. New deliveries were the highest on record in 2021; under construction trends suggest that we will see further growth in 2022.

While the sector led transaction activity through the first half of the year, sales volume has slowed dramatically in the third quarter due to the increased cost of debt capital (both base rates and spreads). Despite the slowdown in capital entering the sector, space market conditions remain very favorable, driven by the structural underpinnings of continued household formation; a chronic shortage of housing units; and the markedly increased cost of homeownership.

Private debt

Given apartments' low vacancy rates, reasonable new supply levels, and persistent demand bolstered by declining single-family home affordability, lenders continue to view the sector—along with industrial—as a preferred property type. As a result of lender favoritism; competitive pricing; and enhanced liquidity from government sponsored enterprises (GSEs), multifamily lending rates are the lowest of any sector. Banks and insurance companies are routinely offering rates in the high 4% range for 55% to 65% loan to value (LTV) on 5- to 10-year fixed-rate

APARTMENT (continued)

senior apartment loans secured by average to above-average quality properties. Fannie Mae and Freddie Mac are offering 75% LTV financing near 5% for some multifamily properties, with more aggressive pricing occasionally available for properties with a strong affordability component for lower-income households.

REITs

Apartment REITs have modestly lagged other property types year-to-date on investor nervousness regarding a potential recession and the impact it could have on employment trends. Recent headlines flagging hiring slowdowns and layoffs have contributed to these concerns. That said, both coastal and Sunbelt REITs have continued to report strong pricing and occupancy trends with divergence between the two, narrowing compared to 2021.

Although there are signs sequential trends may be slowing, the environment remains favorable for apartment landlords given double digit positive mark-to-market opportunities in most portfolios that should support another year of above-average growth in 2023. Coastal markets may regain the growth edge in coming quarters as Sunbelt owners contend with more difficult comparisons and greater supply

pressure. Aided by underperformance year-to-date, multifamily REITs are now trading at around a 10% discount to consensus NAV estimates, a larger than average discount versus the broader REIT group.

CMBS

Multifamily loan origination volumes have moderated across the various sectors of the public debt quadrant through the first half of the year. GSEs continue to be a dominant lender in the multifamily space, but combined issuance was down 25% for the first half of 2022 compared to the same period 2021 according to J.P. Morgan Securities LLC. The apartment sector's share of conduit CMBS issuance remained consistent from 2021 at 15% of fixed rate issuance, while floating rate single-asset single-borrower (SASB) issuance dropped to 8.4% compared to the full year issuance of 17% in 2021. The sector's public debt loan performance has remained relatively solid throughout the pandemic; however, current valuations and underwriting metrics require close attention given the downward trend in cap rates and debt yields.

HOTEL

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
→	→	↑	↑	↗	↓	→

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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Sector overview

The hotel sector recovery has accelerated through 2022 as pent-up demand for travel and leisure has driven improvements in occupancy and room average daily rates (ADRs). Capital market performance has been mixed and increased uncertainty, including the possibility of recession within the next 12 to 18 months, will weigh on the sector's outlook.

Private equity

The hotel sector's operating fundamentals continued to improve in 2022, following a low point in early 2021. As the pandemic and its related restrictions have receded, demand for leisure travel has improved and driven strong occupancy across the board. There remains some bifurcation between smaller markets and larger gateway cities, but the gaps have narrowed aided by the resumption of corporate travel.

Though the sector has taken some important steps forward, labor shortages continue to vex travel-related sectors of the economy. Moreover, higher inflation and cost of capital will eventually take a toll, as will slower economic growth over the next 12 months. The lodging sector tends to have a greater exposure to swings in economic activity due to its short lease length and reliance on discretionary spending.

Capital is once again flowing into the sector, as transactions during the first half of 2022 totaled \$48.2 billion (based on deals \$5 billion and above), more than double last year's tally. Despite lofty sales figures over the past 12 months, there are signs that increased volatility and capital markets

are beginning to weigh on investor sentiment. Deal volume on a month-to-month basis is trending downward through June.

Private debt

Fears of economic deterioration slowed the hotel lending market significantly over the past six months. Portfolio lenders are generally increasing spreads by 25 to 75 bps at a time when rate indices are also widening. All major classes of lenders remain active in the hotel market, but lenders have become increasingly selective and generally reduced loan-to-value levels.

Debt funds remain the primary source of capital for hotel financings, with senior loan LTVs up to 65 to 70% and spreads of 400 to 600 bps over SOFR for stabilized properties. Life companies continue to pursue high-quality hotel loans with an LTV range 60 to 65% at 500 to 800 bps over SOFR. Regional banks are offering the lowest cost of capital for the sector, but deals are smaller and generally for borrowers with an existing relationship; some deals are getting done in the 200 bps over SOFR range.

REITs

Lodging REITs have outperformed other property sectors throughout 2022, due to continued strength in leisure travel and a pickup in business and urban hotel demand. Throughout the summer, price-inelasticity remained in place at luxury hotels, which generated better than expected results from charging meaningfully higher nightly rates compared to

HOTEL (continued)

pre-pandemic levels. The recovery in corporate travel accelerated with mid-week occupancy now only a few points behind weekend trends. While corporate travel is gaining momentum and urban hotels are narrowing their underperformance relative to suburban properties, the next few months will be the true test to whether business travel can return to prior run-rate levels.

Throughout earnings season, lodging REITs delivered better than expected results on a combination of strong pricing power and lower property operating expenses—despite labor shortages—resulting in improved profitability. Leisure demand is currently trending above pre-pandemic levels while corporate travel is lagging by 5% to 15%. Expectations for a recovery have been pulled forward; however, the lodging REITs are trading at a discount of 20% below consensus NAV estimates, a larger magnitude than what is seen across other REIT sectors. Despite outperformance year-to-date, lodging REIT valuations reflect the uncertain impact that a potential recession may have on both consumer and business travel demand.

CMBS

Although the hotel sector was hit hardest within CMBS during the pandemic, initially resulting in a spike in delinquency rates, loan performance continued to improve through the first half of 2022. The 30 day+ delinquency rate for conduit hotel loans is falling at a linear rate and currently stands at 8%, a material improvement from the 25% peak hit in July of 2020 and 13% to begin 2022. Servicers worked

with borrowers throughout the pandemic to bridge the gap in property cash flows by offering a variety of short-term forbearance arrangements. The availability of fresh equity seeking core plus returns is further improving the prospects of loans secured by better quality properties.

Leisure travel has spurred a strong recovery in vacation destination markets with business travel returning as well. Smith Travel Research reports that revenue per available room for the 28 days ending July 22, 2022, is up 10% for Midscale and Economy hotels compared to the same pre-COVID period in 2019. Even Upper Upscale and Luxury, where demand has dramatically lagged the hotel recovery, has seen improvement with revenue per available room up 3% and 7% respectively as business and convention travel has started to recover.

Post-COVID CMBS issuances have included very little hotel exposure as borrowers are reticent to lock in long-term financing based on depressed cash flows. That said, we have seen hotel loans return to new issue pools with fixed rate issuance at 5% compared to 3% in 2019 and floating rate issuance at 24% compared to 17% in 2021. The biggest concern for investors is the potential for hotels to be underwritten at peak revenue per available heading into a recessionary environment.

INDUSTRIAL

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
↑	↘	↑	↑	↑	→	→

Key: ↑ Positive ↘ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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Sector overview

The industrial sector has continued to perform well through the mid-year point. Occupancy has never been higher and net absorption remains well above trend as the demand for newer product remains healthy. Record levels of new development and an uncertain economic outlook may present some challenges to the sector's outlook.

Private equity

Industrial also remains a favored asset class, though capital market and space market fundamentals are beginning to bifurcate under the pressure of higher cost of capital and increased uncertainty. Even as inflation and interest rates have risen through the first half of 2022, U.S. industrial leasing has shown no sign of slowing and remained at record highs, and significantly above pre-pandemic levels.

Space market fundamentals remained strong, with rent growth accelerating through second quarter and the slowing economy has yet to tilt the space markets in tenants' favor. The amount of available logistics

space and its characteristics will remain a key storyline for the balance of 2022 and 2023. Today, 70% of available logistics space is more than 20 years old and over half has clear heights below 28', limiting options for tenants seeking modern fulfillment space and should continue to provide landlords with pricing power.

On the tenant side—a diverse tenant set of third-party logistics firms, retailers, and manufacturers have helped to power leasing even as Amazon has slowed its expansion looking to right size its footprint. While space markets are quite strong today, a weakening macroeconomic environment and reliance on consumer spending to fuel distribution demand bears watching as the business cycle ages.

From a capital markets perspective, transaction volume has slowed with reports of previously marketed and under contract deals re-pricing throughout the third quarter. The process of price discovery is beginning to unfold and recent closed transactions indicate modest upward pressure on valuation metrics.

INDUSTRIAL (continued)

Private debt

The industrial sector—along with apartment—remains among the most preferred among lenders. Under-exposure by lenders to the sector on a relative basis combined with concerns regarding other property types, such as hotel, office, and retail, and still-healthy market fundamentals have fueled lender appetite for debt secured by functional, core industrial properties. Lenders today are offering industrial loan interest rates in the high 4% range, with LTVs near 60% for 10-year, fixed rate financing.

REITs

Industrial REITs have underperformed the broader index year-to-date, as concerns around oversupply and weakening e-commerce demand, particularly from Amazon, have negatively impacted the stocks. Despite this negative sentiment, recent industrial REIT earnings results highlight continued strength in rent growth, robust leasing activity, and accelerating cash leasing spreads.

While supply growth is anticipated to be elevated next year, a strong demand backdrop supported by consumer spending, economic activity, and persistent supply chain challenges should support elevated net absorption, particularly in coastal markets. Industrial REITs continue to maintain active development

pipelines with attractive returns while appetite for acquisitions have moderated for some due to higher interest rates and uncertainty around cap rates/valuations. Given the underperformance year-to-date, industrial REITs are now trading roughly in line with consensus NAV estimates, down from a premium of over 20% during 2021.

CMBS

Industrial loans currently carry the lowest delinquency rate within the CMBS universe and maintains its “in favor” label after property values jumped over 40% in 2021. The CMBS SASB market continues to be an efficient source of financing for very large portfolio financings, but issuance has slowed with industrial making up 20% of the volume during the first half of 2022 compared to 25% in 2021. In addition, the amount of industrial exposure in “post-COVID” conduit issuances have moderated as well with 8% exposure, which is down from 12% in 2021. While industrial allocations within CMBS issuances are generally considered a positive, exposure to tertiary locations, less functional layouts, non-investment grade tenancy, and a concentration of e-commerce related credit must be properly considered and monitored.

OFFICE

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
↓	→	↘	↓	↘	↓	↓

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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Sector overview

The office sector's recovery appears to have stalled through mid-year 2022. Vacancy rates have increased, and early occupancy improvements have dissipated amid low utilization rates, labor shortages, and continued uncertainty surrounding the future of office work.

Private equity

Uncertainty remains the key theme in the office sector, as firms continue to debate employee schedules and assess space requirements. As a result, demand has been slow to recover and occupancy has taken a step back in aggregate during the second quarter. The national office vacancy rate is 16.9%, its highest level in nearly 30 years. Leasing activity remains tepid across most major markets, and physical office occupancy across the top 10 U.S. cities is just 43% through the end of August, according to Kastle Systems, a smart key vendor.

Perhaps more troubling, the office market has the benefit of a strong labor market, which generally translates directly into demand. However, labor shortages and uncertainty about long-term occupancy plans have waylaid more robust net absorption. Going forward high inflation, interest rates, and risk of recession are also weighing on the sector's outlook under less than ideal economic conditions.

A flight-to-quality trend remains apparent as top-tier office assets, particularly in markets with strong high-tech and life science concentrations, have outperformed—a trend which we believe could continue as occupiers prioritize office space quality to help attract and retain talent. From a capital

markets perspective, investors have remained cautious. Although volumes through mid-year remain up relative to the same period in 2021, capital is becoming much more selective and there is a clear tendency to avoid all but the highest quality office assets.

Private debt

With market vacancy rates in the high teens and physical utilization of office space still low nationally, most lenders continue to avoid new office lending altogether. However, very high-quality office buildings with strong tenancy, long remaining weighted average lease terms (WALT), healthy current physical utilization of space, strong rent collection experience, and conformance with emerging design preferences may find some lender interest.

Interest rates for senior office loans – when an interested lender can be found – are typically 30+ bps higher than interest rates for apartment and industrial properties with comparable leverage. In addition to lower LTVs, lenders may require larger escrows for potential downtime and rollover expenses and more rapid amortization schedules for office than they require for preferred property sectors.

REITs

Office REITs, especially gateway peers, started the year with strong performance, driven by deeply discounted valuations and the expectation of a smoother trend of return to office. However, rising recession fears and headlines of hiring freezes and layoffs have dampened optimism and caused office REITs to significantly underperform relative to other sectors.

OFFICE (continued)

Return to office has disappointed, with office utilization subdued across the board but comparatively higher in select Sunbelt markets. Leasing volume remains well below 2019 levels and several REITs reported negative absorption and declines in leased occupancy in recent earnings results. Flight to quality remains an important trend as tenants continue to relocate to new supply or consolidate into buildings with high level of amenities and better efficiency. Transaction markets have largely paused given higher interest rates. Office REITs underperformance has widened NAV discounts to roughly 35% on average, making it the most discounted sector in the public markets.

CMBS

Office has represented the largest property type exposure in conduit CMBS over the past five years. This trend was amplified in 2020 as retail and hotel lending declined due to COVID-19 and have returned to those levels in 2022 as industrial exposure is down over 30%. This increase in office exposure over 2021

comes as office as space available for sublease is at record levels in some markets and increasing news of office-using tenants contracting space as leases expire or approach expiration come out. The uncertainty around office-using trends has caused investors to cool on the sector, which should lead to less office exposure in future CMBS deals.

Some pull back in office exposure has already occurred in the floating rate SASB market as issuance of office deals has dropped to 1% in 2022 compared to 18% in 2021. While there has been a broader “flight to quality” theme seen across the office landscape as more recently constructed buildings are seeing an outsized portion of leasing activity. The fact that less than 40% of workers, on average, have returned to the office potentially puts pressure on the office sector. While current office delinquency rates remain low, an expected slowdown in office transactions and lending are expected to put stress in the office loan market over the next 12-24 months.

RETAIL

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
→	↑	→	→	↗	↘	↓

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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Sector overview

The retail sector may have found its footing following the pandemic. Spending remains healthy and store sales growth continue to outstrip online sales. Though malls continue to struggle, smaller formats with value-oriented tenants continue to drive a recovery in the sector.

Private equity

The retail sector has found growing favor and investor interest in 2022, with transaction volume through July more than doubling from the level recorded in 2021. Investor demand is largely concentrated in daily needs and non-discretionary spending, thus demand favored well-located, grocery anchored centers. Further, valuation metrics within the sector are markedly more attractive than those within apartment and industrial sectors, thus cushioning the blow of higher debt costs and upward pressure on cap rates.

Space markets within the grocery-anchored space are relatively strong, and availability in class A neighborhood and community centers is tightening due to strong tenant demand and limited availability of quality retail space. While demand for space is back on the rise, retail development activity remains minimal.

Retail foot traffic continues to improve and is driving in store sales growth, which continues to outstrip e-commerce. Improvement in brick-and-mortar activity is also evidenced in net store openings, which is once again positive though the first half of 2022. This marks a reversal of trend between 2015 and

2020 when net store closures were the norm.

Although consumer spending continues to grow, it is at a slower pace than 2021. The lack of fiscal stimulus; higher costs due to inflation; and lower levels of consumer sentiment are beginning to weigh on discretionary purchases. The uncertain economic outlook will likely take some of the wind out of the retail sector's recovery and dampen capital market trends over the next 12 to 18 months.

Private debt

While some lenders continue to avoid all retail property investments, others have shown renewed interest in neighborhood and community shopping centers with strong tenancy. Major grocers, creditworthy discounters, and creditworthy home improvement stores with significant remaining lease terms may find receptive lenders. That said, interest rates for even the highest quality retail properties remain perhaps 10 bps to 25 bps higher than debt for similarly leveraged apartment and industrial properties.

Debt for high street properties, power centers, and lifestyle centers remains difficult to procure even at low leverage levels, and significant loan structure (e.g., escrows and amortization) is often required. Debt for regional malls remains unavailable for all but the very best assets with top operators. Lenders continue to focus heavily on tenant creditworthiness, tenant sales history, remaining WALTs and sponsor quality, with widely disparate loan terms offered.

RETAIL (continued)

REITs

Open-air shopping centers outperformed the broader REIT group year-to-date, whereas malls underperformed. The differing performance is driven by a stronger investor appetite for open air grocery anchored centers, where an active transaction market has indicated relatively stable cap rates. Meanwhile, malls have suffered from fears of a discretionary spending pullback, weak pricing power, and a continued lack of private market activity.

Occupancy gains have been a positive surprise and many retail REITs raised their income growth outlook on high retention rates and new leasing demand. Fundamentals have also been aided by continued low store closures and bankruptcy announcements. Leasing activity is expected to remain robust for the remainder of the year. However, elevated odds of recession mean a rising probability of future store closures and, potentially, bankruptcy announcements, which could quickly deteriorate the positive backdrop. Shopping centers are trading at 10% discounts to estimated NAV while malls are at a 20% discount, both larger than average.

CMBS

The recovery in brick-and-mortar retail has been stronger than expected in the CMBS market, driven by strong consumer balance sheets and a continued expansion of brick-and-mortar sales relative to e-commerce. That said, the prospect of a potential recession in 2023 and the impact on consumer spending has started to get investors' attention especially since retail represents 59% and 41% of loan maturities in 2022 and 2023 respectively. The conduit CMBS retail delinquency rate is improving but remains elevated at 6% as seasoned loans facing cash flow and capital markets challenges are taking time to resolve. CMBS servicers continue working with mall operators as loans approach maturity by providing 3- to 5-year loan extensions on performing properties to avoid defaults and potential foreclosures, often in exchange for fresh equity contributions. While the overall trend of lower retail contributions to conduit CMBS issuances from 2018 and earlier remains intact in fixed-rate conduit issuance, the amount of retail has recovered from 14% in 2020 to 19% in 2021 and 18% in 2022 year-to-date. Floating rate SASB retail issuance has seen a much stronger recovery at 12% in 2022 compared to 3% in 2021. Notably, the retail subtypes contributed have followed broad fundamentals trends with a high percentage of loans secured by anchored retail centers and diversified pools of single-tenant properties.

SINGLE-FAMILY RENTALS

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
↗	→	↑	↑	↑	↘	→

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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Sector overview

Single-family rentals remain a small but growing sector with the broader residential property type. An acute shortage of both rental units and single-family homes for sale, along with higher costs of homeownership continues to bolster demand for rentals.

Private equity

Market fundamentals remain healthy across the residential spectrum and single-family rentals are no exception. Tenant demand for scattered-site single family rentals and build for rent remains strong, with fundamentals supported by strong household formation in key markets, limited supply, and declining home ownership affordability—particularly in a rising interest rate environment.

Capital markets have to date been supported by growing institutional interest in the space. That said, rising cost of capital through higher interest rates is starting to put upward pressure on cap rates in single-family rental sector as well.

The growing supply of single-family home inventory available for sale at the same time home buyers are pulling back on activity has resulted in pricing softness in the sector. We expect home price appreciation gains to slow and, in some markets, register modest depreciation in value. This may ultimately help scale the institutional market and provide for new rental supply at a more attractive basis.

Private debt

The private debt market for single-family rental properties remains bifurcated, with certain lenders expressing a growing interest in financing properties purposely developed for rent and located on contiguous parcels of land, while a dearth of private debt capital met other single-family rentals.

The government-sponsored enterprises, Fannie Mae and Freddie Mac, each began offering 70% to 75% LTV financing for the build-for-rent segment of the market, with interest rates today in the high 4% to low 5% range. Several insurance companies also finance built-for-rent properties on more conservative terms. Private lenders generally avoid non-build-for-rent single-family rentals.

REITs

The single-family rental sector has performed in line with the broader REIT benchmark year-to-date. Strong rental growth and low turnover continue to fuel top line growth and mid-teens mark-to-market opportunities in portfolios offer visibility for a robust outlook. Fundamentals remain supported by low supply and favorable demographic tailwinds. The significant increase in mortgage costs this year has also improved the rent vs. own equation. These positives have been offset somewhat by REITs taking a more cautious approach to acquisition activities given uncertainty regarding the impact of higher mortgage rates on home prices and as investors continue to monitor regulatory risk for the segment. Single-family rental owners trade at around 10% discounts to NAV estimates on average, a discount to other REITs.

DATA CENTERS

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
↑	→	↑	↑	↑	↗	↘

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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Private equity

Tenant demand for existing data center space has increased throughout 2022 considering the dual challenge of supply chain delays impacting both construction timelines and availability of critical facility equipment, as well as the increasingly limited ability of utilities to provide necessary power.

Tenant demand continued to be strong both from the large hyperscale tenants (such as cloud service providers and social media) as well as more traditional enterprise users in the financial services and entertainment/gaming sectors. Especially for the hyperscale tenants, the growing scale of their deployments has led to limited options in existing inventory, forcing them to pursue build-to-suit transactions as well as self-perform development.

The most important development we're seeing is the reversal of rent declines experienced over the past several years. Record low vacancies and significant tenant demand are providing landlord pricing power and resulting in higher rental rates and contract escalations.

Private debt

Insurance company and bank lenders occasionally seek to invest in data centers today, offering interest rates like those offered for high quality retail properties. However, both loan terms and amortization schedules may be shorter for data centers than those offered for other core property types as lenders seek to limit their balloon exposure to data centers subsequent to anchor

tenant lease expirations. Although data center financing has traditionally come from issuance or CMBS (or ABS), these sources have been largely shut down due to volatility. Large money center banks have done a significant amount of the private lending through data center operator entity- or property-level lending. With both groups on the sidelines there is an opportunity for private lenders to increase exposure to the sector at higher returns than have been available in the past.

REITs

Data center REITs have lagged most other property types year-to-date. Fundamentally, the demand backdrop has been very strong with REIT management teams noting healthy sales funnels along with execution of record/near-record new bookings and positive respective pricing actions on both lease renewals and new or expansion leases. In addition, merger and acquisition (M&A) activity remained a prominent theme. Notably, in May, Switch signed a definitive agreement to be acquired by private entities at a headline EBITDA multiple of greater than 30x EBITDA.

On a negative note, data center operators have been dealing with rising power costs, continued supply chain disruptions, and labor shortages which could adversely impact operations and construction plans over the coming quarters. While data center stock performance lagged the broader REIT index, data center REITs still trade at premiums to NAV, above the average NAV valuation across all REIT sectors.

STUDENT HOUSING

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
→	↘	↑	↗	↗	NA	→

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

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The student housing sector is benefiting from a relaxing of pandemic related restrictions in place last year. Demand for units remains elevated and the vacancy rate on privately operated units remains in the low-single digits according to data from Axiometrics. Robust tenant demand for the 2022-23 school year has outperformed expectations year-to-date and sets the stage for solid performance this year.

Capital markets within student housing largely mirror those of apartments, with strong investor interest in 2022 and modest upward pressure in cap rates. Year-to-date sales volume has totaled \$6.4 billion, based on transactions through the end of June, an increase of 115% over the same period in 2021. We anticipate the same headwinds affecting the housing sector—higher rates of inflation and cost of borrowing—will present challenges to student housing through the second half of 2022 and early in 2023.

☐ LIFE SCIENCES

Sector rating	New supply	Demand	Rent growth	Capital values	REIT pricing relative to NAV*	Debt availability
↗	↘	↗	↑	↑	↘	→

Key: ↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

*REIT pricing relative to NAV: Red/downward yellow signifies prices are trading at a discount, upward if trading at a premium.

Private equity

Life sciences remains favored by investors; particularly over traditional office given demographic support for the sector. Though space market fundamentals have remained very strong to date, nascent signs of weaker tenant demand are emerging—likely in response to the swift decline in venture capital funding. Even among tenants however, there is some bifurcation as larger well-capitalized players remain in the market for space, while smaller public biotech companies and those more reliant on seed funding have taken a step back. This trend may result in a softening space market given the significant pipeline of new supply underway.

Further, availability of financing for speculative new construction has also pulled back modestly, with debt funds now stepping in to provide construction loans at a higher cost of capital than has been readily available from banks.

Markets with access to talent via top tier research universities will remain the most attractive. As a result, fundamentals are likely to be most resilient in core markets like Boston/East Cambridge and the Bay Area. Secondary markets like Raleigh, Washington D.C., Baltimore, and San Diego will also perform well, but we could see softer tenant demand and fundamentals in emerging markets.

Private debt

Lender appetite for life science property investments in compelling markets has increased over the past year. Many traditional core, senior lenders seek to finance life science properties – particularly those located in prime research submarkets – with interest rates below those available for similar quality office properties (albeit higher than the rates available for multifamily and industrial properties).

REITs

Life science focused REITs have underperformed the broader REIT benchmark year-to-date. Investors have become more concerned that leasing momentum may slow as biotech companies have seen more constraints in access to public markets with IPO and secondary offerings stepping down and smaller to mid-size biotech stocks selling off. Venture capital funding has also declined year-to-date relative to a very strong 2021. On the supply front, new supply under construction or in planning has increased on a year-over-year basis and is elevated in many key markets. Overall, these dynamics have overshadowed low vacancy rates and continued rent growth in key markets and sub-markets. Given the lagging stock performance, REITs with high life science exposure are now trading at 5% to 15% discounts to NAV, below the average NAV valuation across all REIT sectors.

Risk considerations

Investing involves risk including possible loss of principal. Past performance is no guarantee of future results. Potential investors should be aware of the many risks inherent to owning and investing in real estate, including: adverse general and local economic conditions that can depress the value of the real estate, capital market pricing volatility, declining rental and occupancy rates, value fluctuations, lack of liquidity or illiquidity, leverage, development and lease-up risk, tenant credit issues, circumstances that can interfere with cash flows from particular commercial properties such as extended vacancies, increases in property taxes and operating expenses and casualty or condemnation losses to the real estate, and changes in zoning laws and other governmental rules, physical and environmental conditions, local, state or national regulatory requirements, and increasing property expenses, all of which can lead to a decline in the value of the real estate, a decline in the income produced by the real estate, and declines in the value or total loss in value of securities derived from investments in real estate. Direct investments in real estate are highly illiquid and subject to industry or economic cycles resulting in downturns in demand. Accordingly, there can be no assurance that investments in real estate will be able to be sold in a timely manner and/or on favorable terms.

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