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# Public vs. Private

*Isn't all real estate the same?*



OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

# The *resilience* of real estate

In the past year, investors have withstood significant market turmoil. And real estate has continued to be a resilient buffer of that turbulence in portfolios. At Nuveen, we recognize that year-over-year growth in the broad real estate market has slowed dramatically. However, we see light ahead as the cycle turns and buying opportunities become more attractive.

The volatility management quality of real assets in a portfolio is based on the inherent and tangible value of the buildings we own. Our rigorous oversight and continual analysis help ensure that the real estate we own will retain and grow in value over time. We are able to leverage our research and professional talent to harness the opportunities the market presents.

In this issue, we explore buying opportunities in the market today: currency dispersions, the resurgence of necessity retail centers, changes in housing trends, regional and city diversification and the emerging sector of scientific lab space. These are some of the technical and creative ways that we create more diversified, more resilient real estate portfolios to help buffer today's market challenges.

Sincerely,

Carly Tripp  
*Global CIO, Nuveen Real Estate*



## Highest quality doesn't mean highest return

The Class B apartment subsector has outperformed Class A for the last decade.

*See "When is a B better than an A?"*

02

## Tax implications for real estate income

Some real estate income is passed through to the shareholders as a non-taxable return of capital.

*See "Tax benefits and implications for REIT investors"*

06

## Global effort to manage risk

Global economic divergence creates opportunities for investors.

*See "Going global may benefit U.S. dollar investors"*

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## Access has implications

Explore frequently asked questions about the role of public versus private real estate.

*See "Isn't it all just real estate?"*

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## Retail on the rebound

Retail currently offers higher yields and likely less competition for investor acquisitions.

*See "Surprise! Retail real estate is going strong"*

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## Spotlight on life sciences

Strong demand tailwinds should propel the lab sector forward over the long term.

*See "Labs: Specialized spaces offer growth in innovation"*

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## A green growth city

Copenhagen was among the first cities in Europe to take town planning to a new level.

*See "CityWatch: Copenhagen"*

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***Brookston Flats***

Charlotte, North Carolina

# When is a B better than an A?

*When it comes to investments in housing, the highest quality asset doesn't necessarily correlate to the highest return on investment. Class B apartments are a step below Class A in terms of amenities, location, building quality and renter incomes. But the Class B apartment subsector has outperformed Class A for the last decade. With its undersupply and resilient renter demand, we believe this subsector is poised for continued outperformance.*



## Class B rent remains in line with tenant income

The incomes of Class B apartment renters grew a cumulative 24% between March 2020 and December 2022, mainly due to the healthy job market. The increase was relatively in line with the 25% cumulative increase in Class B apartment rents over the same time period, keeping this cohort's rent-to-income ratio unchanged despite record rent growth.

Meanwhile, due to above-average home price appreciation and rising interest rates, the mortgage payment for a mid-level home purchase increased 98% over the same time period, diverging from rent and income growth in the fall of 2021.

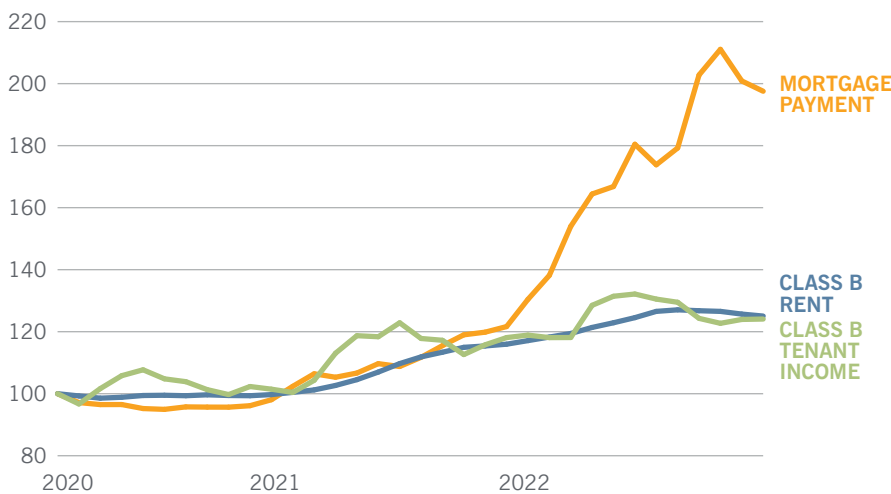
Potential buyers are now facing the most significantly skewed rent-vs-buy calculation in years, in favor of renting. This dynamic should further support demand for rental housing over the next few years, particularly for Class B apartments, which are more likely to be rented by necessity rather than choice.

## Class B performance outshines Class A

New supply has largely been concentrated in the Class A market segment, an issue that is somewhat structural due to limited land availability and elevated construction costs. In this environment, constructing units that fetch higher rents can sometimes be the only way a developer can turn a profit. In past cycles, apartments have generally been a good inflation hedge, as the short-term nature of apartment leases provides the opportunity to pass along increased expenses in the form of rent increases. However, this is only the case where market conditions are favorable to rent growth. Across many of the largest U.S. apartment markets in 2022, the Class B segment largely maintained higher occupancies than the Class A segment.

### NOW MIGHT BE THE RIGHT TIME TO RENT

*Indexed growth of Class B tenant incomes versus housing costs*



Data source: RealPage; Zillow; Federal Reserve Bank of St. Louis, February 2023, 01 Mar 2020 – 31 Dec 2022. Mar 2020=100. Performance data shown represents past performance and does not predict or guarantee future results.



The Class B segment has outperformed Class A on a total return basis throughout the last decade, according to our analysis of NCREIF data.

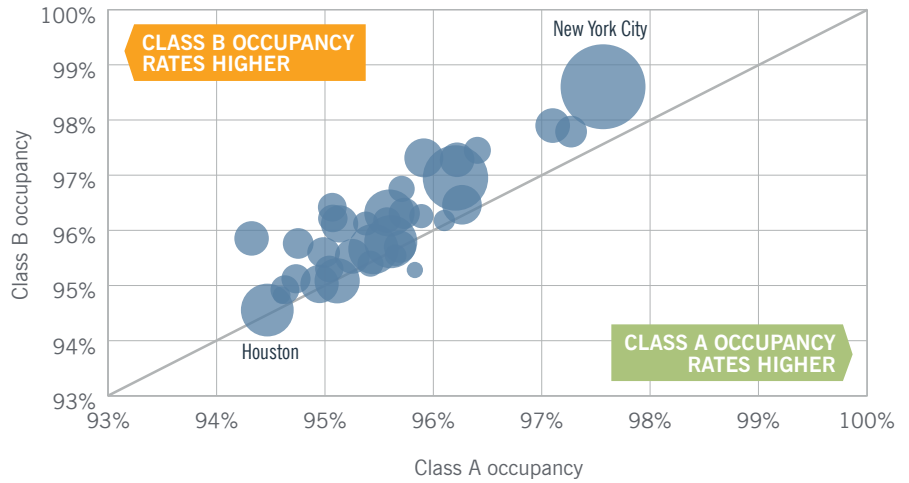
Although the data cannot be queried by Class A versus Class B, using +/- 10 years of age provides a reasonable proxy for quality. Notably, we also found similar outperformance of garden-style apartments (often Class B) over high rise apartments (often class A).

## Class B investment opportunities are compelling

While markets show some moderation of demand and rent growth, both are elevated relative to history and are simply down from record peaks. Elevated construction within the sector is likely to weigh a bit on fundamentals in the short term, although our base case remains for above-average rent growth over the next few years. We believe that rent growth and occupancy rates within the Class B subsector will be particularly resilient. Given the subsector's healthy fundamentals and resilient demand, we believe there are compelling investment opportunities in Class B apartments.

## CLASS B OCCUPANCIES HAVE BEEN STRONGER THAN CLASS A ACROSS MOST OF U.S.

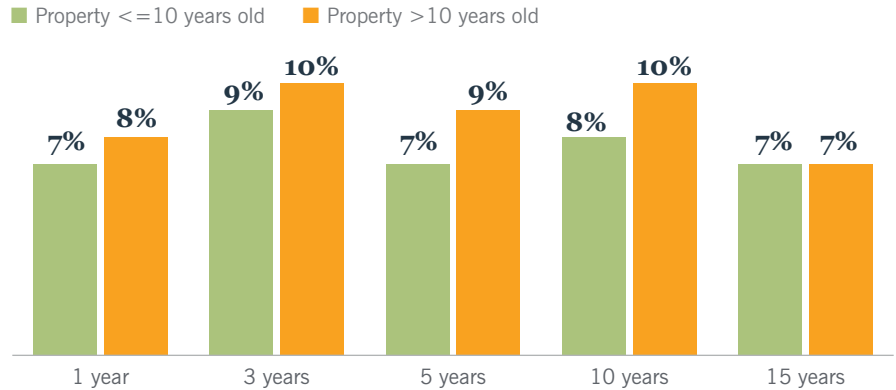
*Class A versus Class B occupancy, 2022 average*



Data source: RealPage, February 2023, Data through Q4 2022. Bubble size represents size of market (existing units). Cities above the trend line have Class B occupancy rates higher than Class A occupancy. This represents high relative demand for Class B apartments.

## THE CLASS B SEGMENT SHOWED STRONGER PERFORMANCE

*Annualized apartment total returns, by property age*



Data source: NCREIF, 31 Mar 2022. Performance data shown represents past performance and does not predict or guarantee future results.





# *Tax benefits and implications for REIT investors*





***Pacific Center Court  
Healthcare Research & Development***

San Diego, California

Real Estate Investment Trusts (REITs) have become an interesting option for income investors due to their income payouts and capital appreciation potential. Distributions from REITs can provide income flow, but the income is considered taxable in the eyes of the IRS. When the reduced tax rates are combined with an ROC tax shelter, the effective federal tax rate for REITs may be reduced considerably.



## ***What is a Real Estate Investment Trust?***

*A REIT is an investment company that purchases and owns real estate for the purpose of generating current income. REITs invest in a wide scope of real estate property, such as corporate offices, warehouses, shopping malls and apartment complexes.*

*Generally, REITs provide income to shareholders in the form of dividends. Legally, the entity must pay out at least 90% of its taxable income as dividends. Since those dividends are actually the taxable portion of the income generated by the REIT-owned properties, the company is able to pass its tax burden to shareholders rather than pay federal taxes itself.*



**Cube**

Berlin, Germany

## An overview of taxation at the individual level

REITs have many built-in tax efficiencies for investors. For example, they do not pay corporate income taxes, return of capital distributions are tax-deferred and REIT investors can deduct 20% of their dividends earned for the qualified business income deduction.

The income tax liability faced by REIT shareholders, however, can be complicated. Each distribution, or dividend payout, received by investors in taxable accounts is comprised of a combination of funds acquired by the REIT from a range of sources and categories, each with its own tax consequences.

Often, the bulk of REIT dividend payouts consists of the company's operating profit. As a proportional owner of the REIT company, the shareholder receives this payout as ordinary income and will be taxed at the investor's marginal income tax rate as nonqualified dividends.

However, sometimes REIT dividends will include a portion of operating profit that was previously sheltered from tax due to depreciation of real estate assets. This portion of the payout is considered a nontaxable return of capital, sometimes referred to as the ROC. While it reduces the tax liability of the dividend, it also reduces the investor's per-share cost basis. A reduction in cost basis will not impact the tax liability of current income generated by REIT dividends, but it will increase taxes due when the REIT shares are eventually sold. For individuals with a higher taxable income in the near term, this provision may present income planning opportunities, including the ability to smooth income over multiple years.

Another portion of REIT dividends may consist of capital gains. This occurs when the company sells one of its real estate assets and realizes a profit. Whether the capital gains are deemed short-term

or long-term depends on the length of time the REIT company owned that particular asset. If the asset was held for less than one year, the shareholder's short-term capital gains liability is the same as their marginal tax rate. If the REIT held the property for more than one year, long-term capital gains rates apply; investors in the 10% or 15% tax brackets pay no long-term capital gains taxes, while those in all but the highest income bracket will pay 15%. Shareholders who fall into the highest income tax bracket, currently 37%, will pay 20% for long-term capital gains.

## Tax benefits of REITs

Current federal tax provisions allow for a 20% deduction on pass-through income through the end of 2025. Individual REIT shareholders can deduct 20% of the taxable REIT dividend income they receive (but not for dividends that qualify for the capital gains rates). There is no cap on the deduction, no wage restriction and itemized deductions are not required to receive this benefit. This provision (Section 199A qualified business income deduction) effectively lowers the federal tax rate on ordinary REIT dividends from 37% to 29.6% for a taxpayer in the highest bracket.

## Closing thoughts

It is important to understand the potential benefits, timing and requirements when exploring the world of REITs. The rules of REIT taxation are unique, and shareholders can face varying tax rates depending on the scenario. As always, you should consult with your own tax, legal and investment advisors, as every individual's situation will differ.

## HYPOTHETICAL REIT PORTFOLIO

Assumes \$100,000 investment; 5% annualized pre-tax yield (\$5,000 annualized distribution)

| Return of capital scenarios                   | 0%             | 60%            | 90%            |
|---|----------------|----------------|----------------|
| Distributions                                 | \$5,000        | \$5,000        | \$5,000        |
| Return of capital \$                          | —              | -\$3,000       | -\$4,500       |
| Taxable basis                                 | \$5,000        | \$2,000        | \$500          |
| Tax rate with 20% deduction (highest bracket) | 29.6%          | 29.6%          | 29.6%          |
| Tax payable                                   | -\$1,480       | -\$592         | -\$148         |
| After-tax distributions                       | <b>\$3,520</b> | <b>\$4,408</b> | <b>\$4,852</b> |
| After-tax yield                               | <b>3.5%</b>    | <b>4.4%</b>    | <b>4.9%</b>    |
| Effective federal tax rate                    | <b>29.6%</b>   | <b>11.8%</b>   | <b>3.0%</b>    |

Return of capital reduces the stockholder's tax basis in the year the dividend is received and generally defers taxes on that portion until the capital asset is sold. Certain non-cash deductions, such as depreciation and amortization, lower the taxable income for REIT distributions.

The 60% ROC scenario reflects the following: straight-line depreciation can account for approximately 50% of a REIT's distributions; assuming a 5% distribution and a 40-year depreciable life, depreciation would amount to 2.5% annually; including additional non-cash deductions, we estimate that 60% of distributions would be considered ROC. The illustrative example does not reflect the impact of increasing net operating income (NOI); an increasing NOI from higher rents would reduce the amount of ROC. While NOI for commercial real estate has historically increased, past performance does not guarantee future results. The illustrative example does not include state taxes. Investors could be subject to state income tax in their state of residence, which would lower the after-tax yield received by the investor. Distributions from Nuveen Global Cities REIT are not guaranteed and may be sourced from non-income items including, without limitation, the sale of assets, borrowings, return of capital or offering proceeds, and we have no limits on the amounts we may pay from such sources. After-tax distribution reflects the current tax year and does not consider other taxes that may be owed on an investment in Nuveen Global Cities REIT when the investor redeems their shares. Upon redemption, the investor may be subject to higher capital gains taxes as a result of a depreciating cost basis due to the return of capital portion of distributions.

# Going global may benefit U.S. dollar investors

One might think that the diversification benefits of global investing would be minimal, as trade and financial ties bring the world closer together. However, the global economy remains far from synchronized. This divergence may create buying opportunities for investors and enhances the ability to manage risk through diversification. U.S. investors have a unique advantage, as U.S.-based economic events play an outsized role in global financial markets.

## THE U.S. DOLLAR OFFERS ADVANTAGES

With the U.S. dollar serving as the global reserve currency, its strength has benefited U.S. investors in times of international market stress. In 2021 and 2022, the world's major currencies underwent a major re-alignment due to differences in GDP growth, inflation and central bank policies. The euro ended this period 20% higher than its long-term average against the U.S. dollar, the yen ended 27% higher and the pound sterling was up 37%. These excessive currency movements made non-U.S. dollar assets significantly cheaper for U.S. investors.

The scale of the current misalignment is exceptional. The U.S. dollar has not traded at values so high versus the euro since the euro's post-launch depreciation 20 years ago, its strength against the yen matches levels following the Louvre Accord in the 1980s and the dollar is trading at an all-time high versus the British pound.

This currency advantage may lead to an outsized impact. For example, over the medium term, U.S. investors in UK markets may benefit from falling property values (a buying opportunity) with an additional currency premium of more than 10% as seen in the currency exchange chart.

### A CITY-FOCUSED APPROACH MAY ENHANCE DIVERSIFICATION

Historically, major global real estate markets have offered significant diversification benefits to U.S. investors, even versus broad entities like the European Union or Asia. Focusing on key developed markets with low real estate market correlations with the United States – such as the

United Kingdom, Germany, Australia and South Korea – may enhance this opportunity.

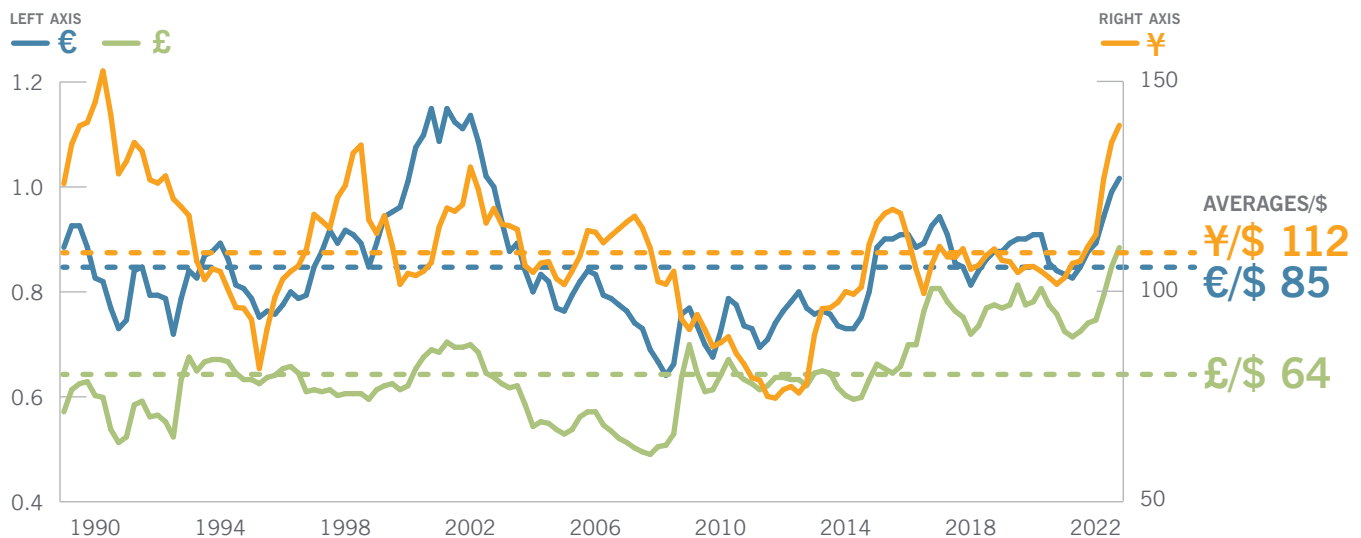
Nuveen’s approach goes one step further to focus on cities, targeting acquisitions in what we believe are the most vibrant markets. For example, some cities have a very high correlation (Atlanta and Sydney), while other pairings have a low correlation (Atlanta and Berlin, Seoul or Copenhagen).

Global investing requires local market knowledge, currency strategies and knowledge of the legal and financial systems. But it can provide important opportunities to manage volatility, hedge risk and enhance return potential.

*Diversification is a technique to help reduce risk. It is not guaranteed to protect against loss.*

### MAJOR EXCHANGE RATES ARE EXCEEDING THEIR LONG-TERM AVERAGES

U.S. dollar exchange rate (US currency)



Data source: Oxford Economics Forecasting, 2023 31 Mar 1989 – 31 Dec 2022. Performance data shown represents past performance and does not predict or guarantee future results.

### GRANULAR INVESTMENT STRATEGY MAY MAXIMIZE DIVERSIFICATION OPPORTUNITIES

Correlation of total return

|            | Austin | Denver | Houston | Amsterdam | Berlin | Copenhagen | Seoul | Tokyo | Sydney | CORRELATION                                     |
|------------|--------|--------|---------|-----------|--------|------------|-------|-------|--------|---|
| Austin     | 1.0    | 1.0    | 0.8     | 0.3       | 0.0    | 0.4        | 0.3   | 0.7   | 0.8    | HIGH<br><br><br><br><br><br><br><br><br><br>LOW |
| Denver     | 1.0    | 1.0    | 0.8     | 0.3       | -0.1   | 0.4        | 0.2   | 0.7   | 0.8    |   |
| Houston    | 0.8    | 0.8    | 1.0     | 0.0       | -0.2   | 0.3        | 0.4   | 0.6   | 0.6    |   |
| Amsterdam  | 0.3    | 0.3    | 0.0     | 1.0       | 0.6    | 0.5        | 0.3   | 0.7   | 0.7    |   |
| Berlin     | 0.0    | -0.1   | -0.2    | 0.6       | 1.0    | -0.3       | -0.1  | 0.1   | 0.2    |   |
| Copenhagen | 0.4    | 0.4    | 0.3     | 0.5       | -0.3   | 1.0        | 0.6   | 0.7   | 0.5    |   |
| Seoul      | 0.3    | 0.2    | 0.4     | 0.3       | -0.1   | 0.6        | 1.0   | 0.6   | 0.4    |   |
| Tokyo      | 0.7    | 0.7    | 0.6     | 0.7       | 0.1    | 0.7        | 0.6   | 1.0   | 0.8    |   |
| Sydney     | 0.8    | 0.8    | 0.6     | 0.7       | 0.2    | 0.5        | 0.4   | 0.8   | 1.0    |   |

Data source: MSCI, 31 Dec 1999 – 31 Mar 2022. Most recent data available. Performance data shown represents past performance and does not predict or guarantee future results.

# *Isn't it all just real estate?*

**Yes,** REITs  
own commercial  
real estate.

**Yes,** private real  
estate owns commercial  
real estate.

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But from there, their  
respective roles in a  
portfolio depart.



## ***Do public and private REITs offer different return profiles?***

Since their shared inception in 1978, the public REIT market index has outperformed core private real estate. However, over the last 35 calendar years, private real estate delivered a more consistent return, of between 5% and 20%, more than 80% of the time. While there were negative years, the dispersion of returns was narrow and skewed positive.<sup>1</sup>

Public REITs may outperform, but they are more apt to present a portfolio drag, particularly when equities are declining. Public REITs can be a useful leading indicator for private real estate, with a positive correlation to private real estate price movements on approximately a two-quarter lag. The *key difference* is that corresponding price changes in private real estate are typically a fraction of that of public REITs. For example, between 2007 and 2010, public REITs fell approximately 50% vs private real estate at 25%.<sup>2</sup>

## ***What drives the volatility of public REITs?***

Public REIT share prices may fluctuate significantly from the appraised net asset values (NAVs) of their properties. This is partially because prices of public REITs move based on investor perception of value. This trend is less prevalent with private real estate pricing because the market is less liquid.

The direction of movement is important for portfolio construction. Public REITs have a higher beta to the S&P 500 Index, meaning these REITs and equities move closely together. This is less helpful if one is looking to hedge equity risk. Public REITs have 3x the volatility of their private counterparts.<sup>3</sup>

Many portfolios require this level of volatility and return potential. In fact, public REITs can serve a meaningful role when portfolios are shifted into risk-on mode or when their share prices trade at significant discounts to NAV. But this volatility could be unwelcome for those looking to preserve and grow capital while generating income. The tradeoff for shielding portfolios from market volatility is liquidity.



*Private real estate price changes are typically a fraction of that of public REITs.*

## How can upside/downside capture aid portfolio construction?

Public REITs have had strong upside capture of the S&P 500 Index over the past 15 years. For example, if the S&P 500 Index rose 10%, public REITs increased 9.4%. On the flip side, when the S&P 500 Index fell 10%, public REITs fell 11%.<sup>4</sup>

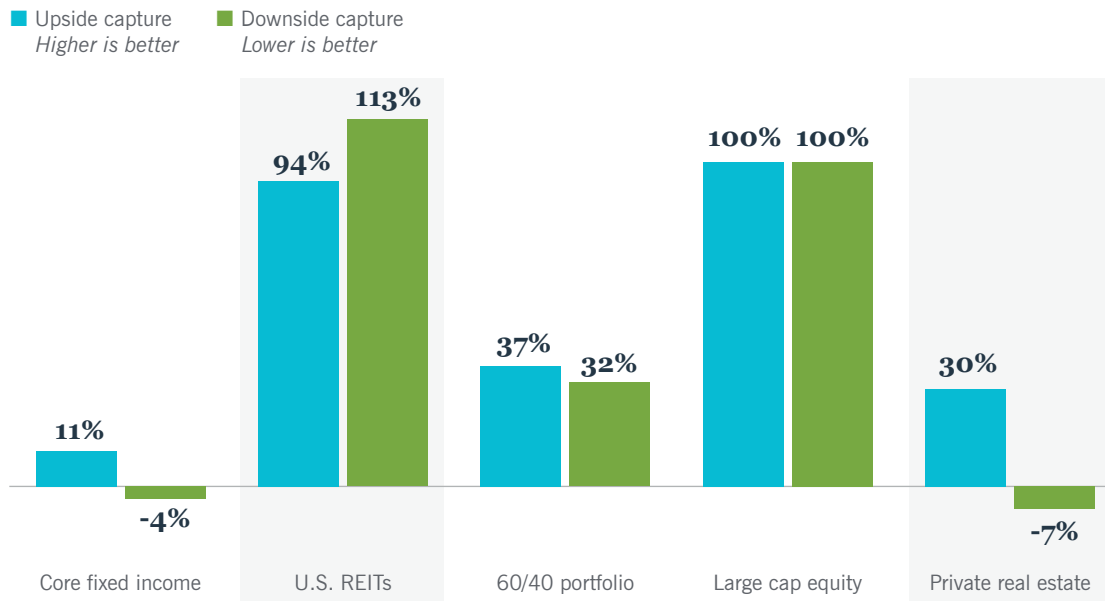
Private real estate upside capture of 30% is muted in comparison, but it has a negative downside capture. That means that when the S&P 500 Index has posted negative returns, private real estate has been the bulwark, posting positive returns on average. An asymmetric upside/downside capture is desirable because it has more upside and even less downside.

## Are valuations causing the difference?

The two biggest differences between public REITs and private real estate are the valuation and therefore the pricing mechanism. Private real estate values are informed solely by actual real estate transactions, rather than the noise of exchange activity. Public REITs are also valued through observed transactions, but they are traded on stock exchanges where prices fluctuate significantly and often. Public REITs offer meaningful transparency through required reporting. When selecting a private manager, it is important to note how regimented and regular its valuation process is (ideally 100% of its portfolio over a quarter).

### UPSIDE/DOWNSIDE CAPTURE IS AN IMPORTANT FACTOR

Return capture versus the S&P 500 Index (15 years)



*An asymmetric upside/downside capture is desirable because it has more upside and even less downside.*

Data source: Bloomberg, L.P., 30 Sep 2022. Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: core fixed income: Bloomberg U.S. Aggregate Total Return Value Unhedged USD; U.S. REITs: FTSE NAREIT All Equity REITs Total Return Index; 60/40 portfolio: 60% S&P 500 TR Index, 40% Bloomberg U.S. Aggregate Bond Index; large cap equity: S&P 500 TR Index; private real estate: NCREIF Fund Index Open End Diversified Core (ODCE) Total Returns.



## What about taxes and income?

Both public REITs and private real estate pay out a large portion of their income in the form of dividends. Dividend distributions are allocated as ordinary income, capital gains and return of capital, each of which may be taxed at a different rate. The tax rate may be lower when there is a capital gains distribution or a return of capital distribution. When a lower ordinary income tax rate is combined with the lower tax on a return of capital distribution, the effective federal tax rate may be reduced considerably. These are important elements to assess since the tax benefits of public REITs and private real estate can deviate depending on the source of the dividend distribution.

## What about the investment strategies underlying the vehicles?

Other differences can be attributed to strategic positioning. For example, private real estate strategies typically include leverage (commonly measured through loan-to-value). Given the tighter interest rate environment, the extent to which borrowings are fixed versus floating rate matters.

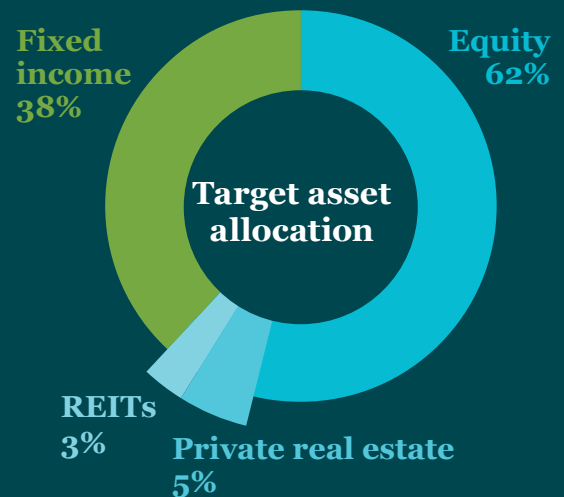
Additionally, one must consider property sector differences. Public REIT strategies tend to be more heavily weighted to alternative sectors such as cell towers, data centers and self-storage. Additionally, there are regional allocation differences, whereby traditional office public REITs are heavily weighted toward gateway cities vs. private real estate that has shifted exposures to Sun Belt markets in the U.S.

## Is it one or the other — or both?

Real estate is indeed real estate, and the various ways to access it have portfolio implications. We contend diversified portfolios should contain strategic allocations to both public REITs and private real estate. Public REITs may diversify equity returns and provide a source of incremental return within one's equity allocation. And private real estate may deliver a dependable source of income with less fluctuation in price movement and serve more of a fixed income role. The sacrifice is the liquidity, but in our portfolio consulting efforts we find clients overestimate the level of liquidity truly needed.

## A MODEL PORTFOLIO

Nuveen's target, longer-term allocations (not reflecting tactical shifts) aim to achieve superior risk-adjusted returns versus a 60/40 equity/fixed income portfolio. A healthy allocation to private real estate may help to achieve this goal.



| EQUITY                       |  | 62% |
|------------------------------|--|-----|
| U.S. large cap               |  | 24% |
| Non-U.S. developed (ex U.S.) |  | 10% |
| Emerging markets             |  | 5%  |
| U.S. private equity          |  | 7%  |
| U.S. small cap               |  | 5%  |
| Private real estate          |  | 5%  |
| Global infrastructure        |  | 3%  |
| REIT                         |  | 3%  |

| FIXED INCOME                      |  | 38% |
|-----------------------------------|--|-----|
| U.S. bond market                  |  | 9%  |
| Intermediate-term municipal bonds |  | 9%  |
| U.S. private credit               |  | 8%  |
| High yield municipal bonds        |  | 3%  |
| High yield corporate bonds        |  | 3%  |
| Preferred securities              |  | 3%  |
| U.S. senior loans                 |  | 3%  |

Source: Nuveen Portfolio Strategy and Solutions. The portfolios above are hypothetical and for informational purposes only. They do not necessarily reflect the experience of any Nuveen product or service. Investors should consult with their financial professionals before making any investment decisions.

# Surprise!

## *Retail real estate is going strong*

Contrary to what many believe, the retail real estate sector may offer the resilience income and growth investors are seeking. Compared to the other major real estate sectors, retail currently offers higher yields and likely less competition for investor acquisitions.

Despite shifting consumer behaviors and the threat of a potential recession, necessity retail (grocery, discount and convenience stores) has performed particularly well. Even as consumers scale back on spending, they continue to purchase essential items. And hybrid working models mean shoppers are heading to their local retail centers.

### **U.S. RETAIL RECOVERS FROM THE PANDEMIC**

Grocery-anchored retail is set up for solid performance, mainly because renewed retailer demand and lack of new construction have combined to produce historically low vacancy rates.

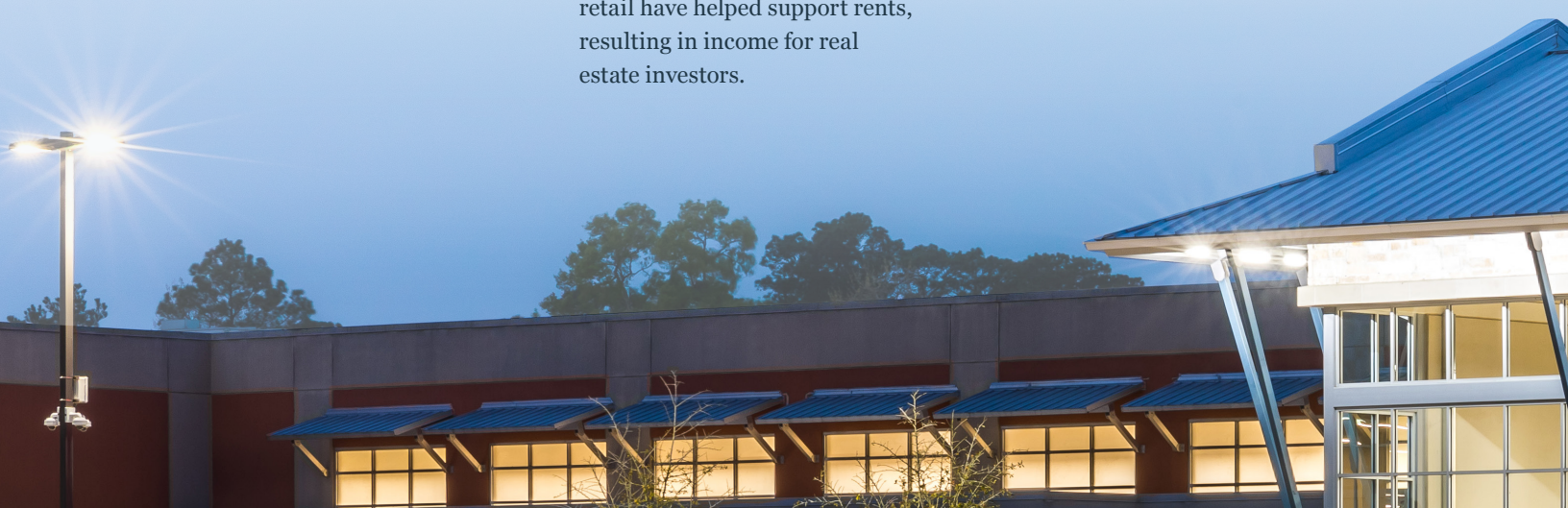
In 2022, retailers announced more store openings than closures for the first time since 2016. The U.S. saw 5,103 store openings by major retailers in 2022 versus 2,603 closures, with discount retailers leading openings.<sup>5</sup>

### **HIGH DEMAND MEETS SLOWING SUPPLY**

Necessity retail is typically concentrated in local neighborhoods and community or strip centers. New supply has slowed in the past six years, with fewer new properties coming online compared to more discretionary retail centers. Meanwhile, lower vacancy rates in grocery-anchored retail have helped support rents, resulting in income for real estate investors.

### **EUROPEAN RETAIL HAS PROVEN RESILIENT**

Macroeconomic headwinds in Europe led to continued market correction in late 2022 and early 2023, with cap rates rapidly expanding across the real estate market. While the European retail sector has not gone unscathed, it proved remarkably more resilient against capital value loss versus its office and logistic counterparts. This is partially due to the retail market's pricing reset. As property yields soften across all sectors, European retail continues to provide elevated income returns driving strong performance and gaining increased investor interest.



Grocery-anchored and convenience retail assets (namely retail parks) offer the strongest opportunities. From an occupier side, retail parks favor a diverse mix of occupiers less reliant on fashion, which continues to be impacted by online sales.

Retail parks have greater compatibility with e-commerce through click-and-collect facilities, allowing assets to form hybrid retail and logistics components driving growth. We believe that click-and-collect will remain a key strategy, and growth in this sector is expected to outperform pure channel sales.

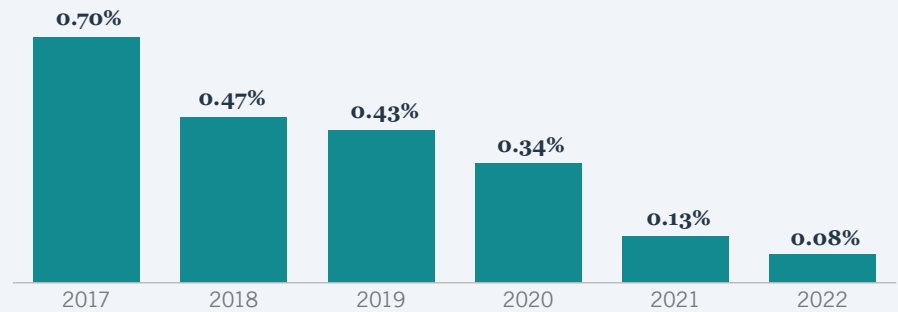
### OUTLOOK

Global retail markets differ due to cultural nuances and local market drivers. However, the trends supporting necessity and convenience retail investments transcend continental divides.

Investors can take advantage of disruption in the capital markets, seek discounted asset opportunities and capitalize on the stable income returns that necessity retail can provide. Traffic at these retail assets has proven resilient and defensive against e-commerce trends, reinforcing our view that not all retail is created equal.

### NECESSITY RETAIL SUPPLY HAS DECLINED

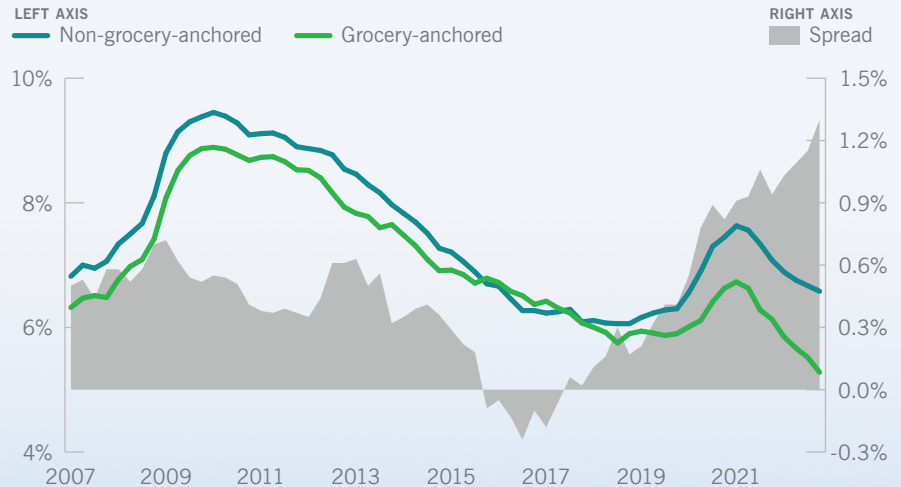
U.S. new supply growth, % change year-over-year



Data source: Costar Advisory Services and NRE Real Estate Research.

### LOW VACANCY RATES DRIVE HIGHER DEMAND

Vacancy rate



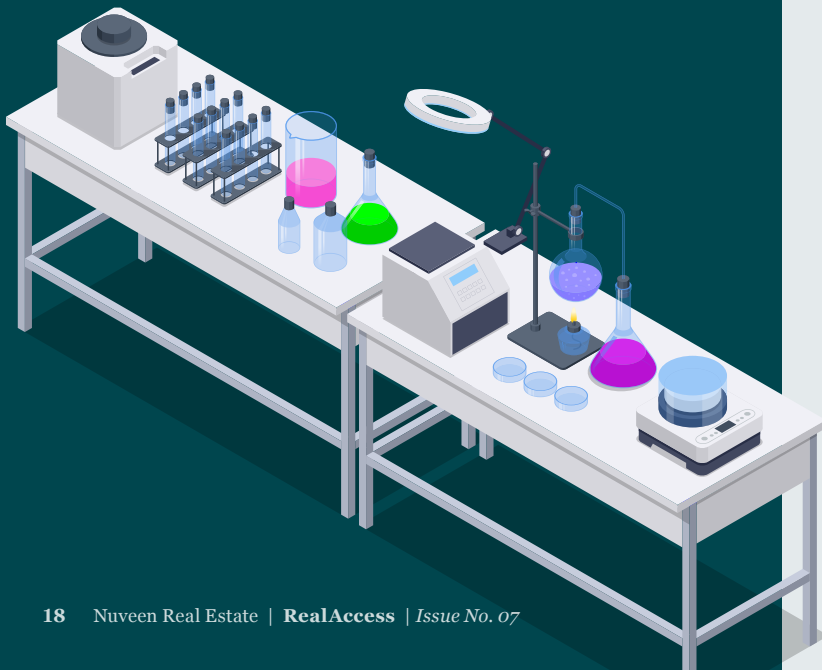
Data source: Costar Advisory Services and NRE Real Estate Research, 31 Mar 2007 – 31 Dec 2022.



Main Street at Kingwood  
Houston, Texas



# Labs: *Specialized spaces offer growth in innovation*



The global spotlight shines on the life sciences sector, thanks to record mobilization to deliver life-saving vaccines. This unprecedented success was the culmination of decades of research performed in just a handful of laboratory clusters in select cities across the U.S.

Medical research is driven by macroeconomic tailwinds as well. The rapidly aging global population will continue to demand breakthroughs in treatments for degenerative diseases. This megatrend has led to record levels of both public and private funding for the life sciences, more than doubling over the past decade. This has created an unprecedented demand for laboratory R&D real estate.

Market fundamentals are currently healthy, with low vacancy, strong funding and above-average tenant demand. A wave of supply is set to deliver this year, which has tempered near-term growth projections. However, it's important to note that three-quarters of this supply is in the three largest laboratory markets of Boston/Cambridge, the San Francisco Bay Area and San Diego. Tighter capital markets have increased the cost of debt, and stricter lending standards are leading to less new supply breaking ground moving forward that should aid market fundamentals in absorbing the new supply.

Strong demand tailwinds should propel this sector forward over the long term. Life sciences sector employment is 16% above its pre-pandemic level. The sector is more robust and less volatile than average, and it is less correlated with business cycles due to the long-term nature of the R&D process. Additionally, rents have grown by 40% cumulatively over the past two years.

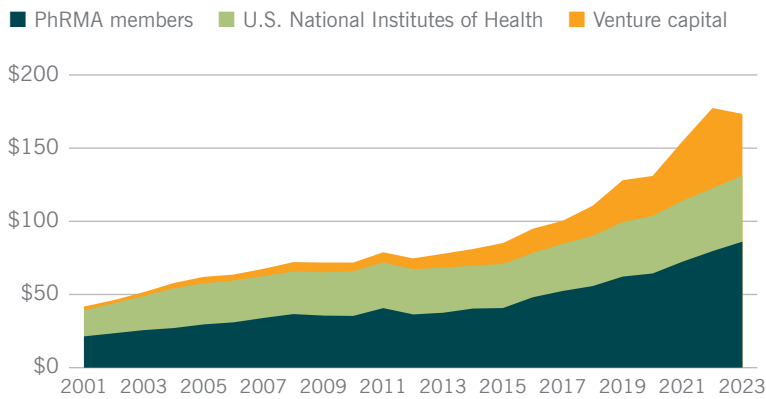
### Life sciences real estate remains a compelling opportunity

Several key factors continue to favor the life sciences sector, namely jobs, demographics and funding. The many years of strong rent growth have led to wide leasing spreads for existing lab properties and even wider spreads when compared against in-place rents for target flex and office property conversions. From a capital markets standpoint, the pricing reset occurring across commercial real estate sectors presents an opportunity for current buyers given the more favorable cost basis.



### UNPRECEDENTED FUNDING FOR MEDICAL RESEARCH IS DRIVING DEMAND

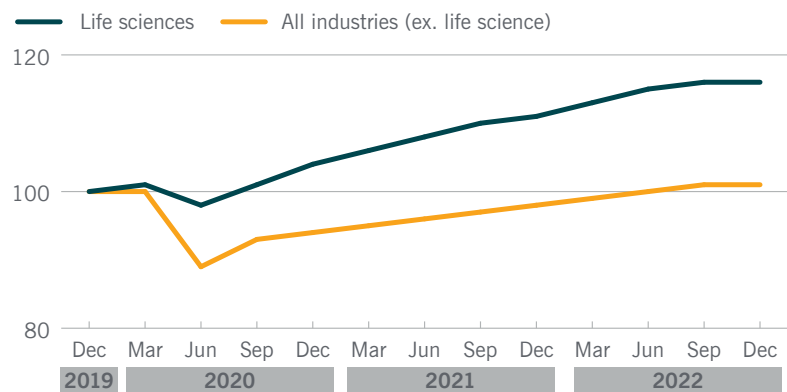
U.S. spending on life sciences (\$ billions)



Data source: Pharmaceutical Research and Manufacturers of America (PhRMA) Annual Membership Survey, 2022; National Institutes of Health. NRE Research PhRMA membership surveys are published in July, so the 2022 10-year compound annual growth was estimated using 10-Yr CAGR.

### LIFE SCIENCES EMPLOYMENT HAS SURPASSED ITS PRE-PANDEMIC LEVEL

U.S. employment growth index



Data source: U.S. Bureau of Labor Statistics, 31 Dec 2022. 4Q 2009 = 100.

## A more **LIVABLE** city

*Our research team analyzed more than 4,000 cities and identified the top 2% we believe are most attractive to people and businesses, today and in the future. Copenhagen is one of those cities.*

Copenhagen was among the first cities in Europe to take town planning to a new level. It pioneered the walkable city approach, investing in public transport and progressively expanding cycle lanes. This focus on planning and green growth has made Copenhagen one of the most livable cities in Europe, and a magnet for young professionals, fueling a vibrant economy and strong housing market.

Convenient motorway and rail connections place Copenhagen as the gateway between the Scandinavian Peninsula and Mainland Europe.

### Five-finger plan

# 1947

The year this regional plan was enacted, requiring major new growth areas to be sited along transit lines.<sup>6</sup>

### Smart city technology

# 2025

The year Copenhagen has targeted to be entirely carbon-neutral.<sup>7</sup>

### Bicycle paths

# 49%

Percentage of commuter trips by bicycle.<sup>8</sup>

### Metro system

# 43km

Total length of the metro, including the 15.5km, driverless Cityringen Metro.<sup>9</sup>

### Smart lighting

# 22,000

Number of smart streetlights that have produced 76% savings for public lighting.<sup>7</sup>



# Copenhagen

**For more information, please visit [nuveen.com](https://nuveen.com).**

#### Endnotes

#### Sources

- 1 Data source: Morningstar, calendar year returns from 1996 to 2021. Representative indexes: REITs: FTSE NAREIT All Equity REITs Index; U.S. equities: S&P 500 Index; private real estate: NCREIF Fund ODCE Index.
- 2 Data source: Morningstar, 01 Jan 2007 to 31 Dec 2010. Representative indexes: REITs: FTSE NAREIT All Equity REITs Index; private real estate: NCREIF Fund ODCE Index.
- 3 Data source: Bloomberg, L.P., 1995 to 2022. Representative indexes: REITs: FTSE NAREIT All Equity REITs Index; private real estate: NCREIF Fund ODCE Index.
- 4 Data source: Bloomberg, L.P., 30 Sept 2022. Representative indexes: U.S. REITs: FTSE NAREIT All Equity REITs Total Return Index; private real estate: NCREIF Fund Index Open End Diversified Core (ODCE).
- 5 Data source: Coresight Research.
- 6 Data source: "A Brief Look at Urban Planning in Copenhagen," [scandinaviastandard.com](https://scandinaviastandard.com).
- 7 Data source: "The Green Growth City: Copenhagen," HEC Paris, 2021.
- 8 Data source: [visitcopenhagen.com](https://visitcopenhagen.com)
- 9 Data source: "Cityringen Metro, Copenhagen, Denmark," *Railway Technology*, 21 Aug 2020.

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