Public and Private Real Estate: Divergence, Resurgence, and Convergence



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Although many institutional investors

focus their property investment strategies on private equity real estate, current and expected market conditions tend to favor public real estate. With the divergence in public and private real estate valuations, public equity REITs continue to offer investors access to high-

quality, well-located properties at substantially discounted prices relative to the private market. REITs also appear to be well situated with the Federal Reserve at or near the end of its current set of rate hikes. Historically, REITs have enjoyed a resurgence in total return performance after monetary policy tightening cycles end. Taking a more inclusive perspective, recent research from Norges Bank Investment Management reaffirms that differences between public and private real estate diminish over long horizons. This convergence should pique increased investor interest in REITs. With their abilities to provide complementary tactical and strategic opportunities, public equity REITs should play an integral role in institutional investors' existing real estate portfolios.

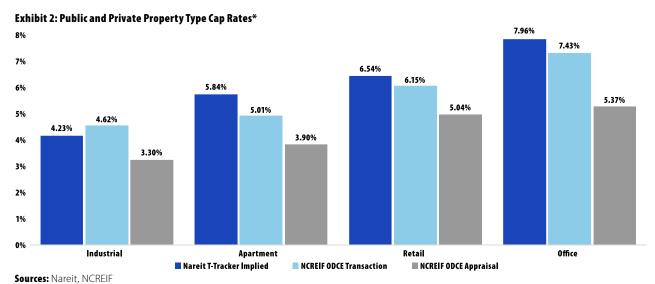
Valuation Divergence: Slow Wheels of Progress

The valuation divergence between US public and private real estate markets that started in 2022 can be captured via differences in capitalization (cap) rates. Today, public real estate cap rates remain materially higher than their private counterparts. Despite surges in the ten-year Treasury yield and property debt rates and corresponding material increases in REIT implied and private transaction cap rates, private appraisal cap rates have increased only slightly. Although private real estate investors may find comfort in the modest increases in appraisal cap rates (and the resultant modest declines in appraised property values), these adjustments provide a false sense of security because they fail to reflect market realities.

Data from the Nareit Total REIT Industry Tracker Series (T-Tracker) and NCREIF shine a light on the current state of the property valuation adjustment process and its progress. Exhibit 1 displays public (REIT implied) and private (transaction and appraisal) real estate cap rates from the fourth quarter of 2021 to the second quarter of 2023. The NCREIF transaction and appraisal cap rates solely focus on properties from open-end diversified core equity (ODCE) funds.



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* Cap rates reflect 2Q2023 data excluding retail and office transaction cap rates, which reflect 1Q2023 data.

The exhibit shows that the wheels of the valuation adjustment process turn slowly. The REIT implied cap rate has maintained a consistent level over the last four quarters, staying close to 6%. The gap between the REIT implied and the NCREIF ODCE transaction cap rates attempted to close, but reflecting the marketplace's limited transaction activity, the private transaction cap rate has been a fickle metric. During 2023, quarterly ODCE transaction market values averaged less than 0.5% of ODCE appraised values. The private appraisal cap rate has experienced measured—and possibly managed—increases since the third quarter of 2022; these token gestures averaged just 20 basis points (bps) per quarter.

The modest increases in appraisal cap rates have acknowledged the property valuation problem but failed to address its severity. Unfortunately, ignoring the gravity of a situation does not make it go away. Yet some private real estate participants may find the current observed appraisal behavior reassuring. After all, these actions bolster returns and limit volatility—but these reassurances also come with substantial costs. They impede the market's price discovery process, limit transaction market liquidity, and oblige investors to pay artificially high investment management fees. Note that most investment management fees are based on some measure of assets under management.

An examination of sector-specific public and private cap rates further highlights the differences between market-based and appraisal-based valuations. Exhibit 2 displays the latest available REIT implied and private transaction and appraisal cap rates for the four traditional property types using data from Nareit's T-Tracker and NCREIF. Again, the NCREIF transaction and appraisal cap rates solely focus on properties from ODCE funds. All cap rates reflect data from the second quarter of 2023 except the retail and office NCREIF ODCE transaction cap rates, which were from the first quarter of 2023. Retail and office transaction cap rates were unavailable in the second quarter of 2023 because of a lack of sufficient or no transactions.

While the gaps between REIT implied and transaction cap rates have been trying to close, REIT implied and appraisal cap rate spreads have remained wide because property appraisals have been slow to adjust to current market conditions. Case in point: the industrial appraisal cap rate has been lower than the US ten-year Treasury yield since the second quarter of 2022. The REIT implied and appraisal cap rate spread was largest for office, at 259 bps. The differences for apartment, retail, and industrial were 194 bps, 150 bps, and 93 bps, respectively. The great divides found in each property type are indicative of serious disparities between today's market-based and appraisal-based real estate valuations.

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Exhibit 3: Historical Fed Tightening Cycles* (1990-Present)

Cycle		Increases		Fed Funds Target	Yield Curve Inversion?
Start	End	Number	Total	End of Cycle	Ten-Year Treasury < Three-Month Treasury
2/4/94	2/1/95	7	3.00%	6.00%	No
6/30/99	5/16/00	6	1.75%	6.50%	Yes
6/30/04	6/29/06	17	4.25%	5.25%	Yes
12/17/15	12/20/18	9	2.25%	2.25%-2.50%	No
3/17/22	7/27/23	11	5.25%	5.25%-5.50%	Yes

Sources: Federal Reserve Board, Nareit, NCREIF, FactSet

Although the spreads exhibit considerable variation, the potential valuation impacts associated with appraisal cap rates that move to REIT implied cap rates are more similar. All else being equal, closing the gaps for industrial and retail requires private value writedowns of more than 20%; the declines need to exceed 30% for apartment and office. Though these valuation adjustments represent extreme scenarios, significant rises in appraisal cap rates are warranted, and further material write-downs are likely on the horizon for the private real estate market. The potential declines increase the appeal of public real estate investment, as US public equity REITs more accurately reflect current market valuations.

Total Return Resurgence: REIT Outperformance After Fed Tightening Cycles End

Rising interest rates have created headwinds for the US economy, as well as for the financial and real estate markets. Compared to private real estate and equities, REITs have borne the brunt of the valuation declines. Yet Fed tightening cycles typically mark inflection points in the economy and financial markets. With the Fed at or near the end of its current interest rate hike cycle, many investors are curious about how public and private real estate performances, as well as equity markets, may fare going forward.

Examining past monetary policy tightening cycles can provide some context for the current rate hike environment. Exhibit 3 identifies the five Fed tightening cycles since 1990 and their characteristics.

It also highlights whether the yield curve was inverted during the cycle, i.e., the three-month Treasury yield was greater than the ten-year Treasury yield. Of the five cycles, the first four time periods are considered full cycles. The current tightening cycle (3/17/23–7/27/23) may not yet be complete. Although the Fed maintained the fed funds target range after its September 2023 meeting, the possibility of another rate hike prior to the end of the year still looms.

Each monetary policy tightening cycle since 1990 had a unique backdrop. The 1994–1995 cycle was a rare occasion when the Fed was able to execute a "soft landing" after several years of strong economic growth. The interest rate hike cycles in 1999–2000 and 2005–2006 were related to the dot-com and housing booms, respectively. The 2015–2018 cycle was an effort to return to normalcy after the significant rate cuts stemming from the global financial crisis. The current cycle (2022–2023) has been a move against accelerating inflation.

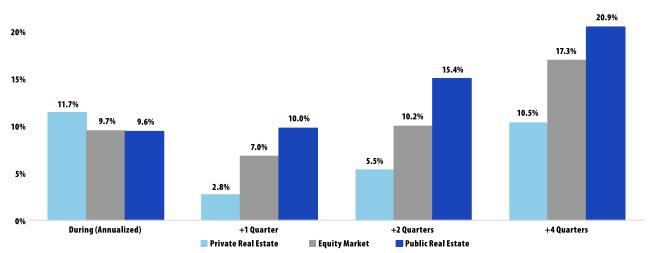
The exhibit also shows that the yield curve inverted during three of the five tightening cycles. Historically, this measure was an accurate predictor of future recessions. Nareit research shows that, on average, public equity REITs traditionally perform well during and in the four quarters after a recession, outperforming private real estate and the broad equity market.

Exhibit 4 displays average total returns for public and private real estate, as well as the equity market, for one-, two-, and four-quarter periods after Fed tightening cycles ended. The analysis includes the four full rate hike cycles that occurred since the first quarter of 1990.

^{*} The current Fed tightening cycle (3/17/22–7/27/23) may not yet be complete.

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Exhibit 4: Average Total Returns During and After FOMC Tightening Cycles 25%



Sources: Federal Reserve Board, Nareit, NCREIF, FactSet; data as of 2Q2023

Note: Public equity REIT, private equity real estate, and stock market performances were measured by the FTSE Nareit All Equity Index (FTSE Nareit), the NCREIF Fund Index-Open End Diversified Core Equity (NFI-ODCE), and the Standard & Poor's 500 (S&P 500), respectively.

The exhibit shows that, on average, public equity REITs experienced relative total return underperformance during FOMC tightening cycles. In contrast, REITs outperformed both private real estate and equities across each post-cycle time horizon. Further review reveals a distinct pecking order where REIT total returns were the highest, followed by equity returns and then private real estate returns. Average four-quarter post-cycle total returns for FTSE Nareit and S&P 500 were also higher than their average annualized total returns during the cycles. While past performance may not be indicative of future results, public equity REITs historically enjoyed a resurgence in performance in the aftermath of FOMC rate hikes.

Performance Convergence: Public and Private Real Estate Perform Similarly in Long Run

Many institutional investors draw clear distinctions between public and private real estate investment, but Norges Bank Investment Management (NBIM), the operator of the largest sovereign wealth fund in the world, views the real estate asset class through a different lens. Specifically, it employs a state-of-the-art property investment strategy in which it manages public and private real estate as one portfolio. Following an investment

thesis that public and private real estate behave similarly over long return horizons, NBIM is indifferent as to how it invests in property, focusing solely on the most efficient and profitable investment strategies.

NBIM recently published the paper "Drivers of Listed and Unlisted Real Estate Returns," which supports its investment thesis. Analyzing the drivers of US public and private real estate returns and evaluating real estate exposures in the context of a diversified investment portfolio, the paper reports the following:

- Differences between public and private real estate diminish over longer terms.
- Both public and private real estate hedge inflation risk, while equity and fixed income portfolios tend to be more exposed to the risk.

Exhibit 5 highlights one of the paper's primary findings. It displays correlation coefficients between public and private real estate returns, public real estate and equity market returns, and private real estate and equity market returns across different return horizons. The analysis utilized quarterly data from the fourth quarter of 1984 to the first quarter of 2023.

Over the one-quarter horizon, the correlation coefficient between public and private real estate returns was approximately 0.4; the measure increased to more



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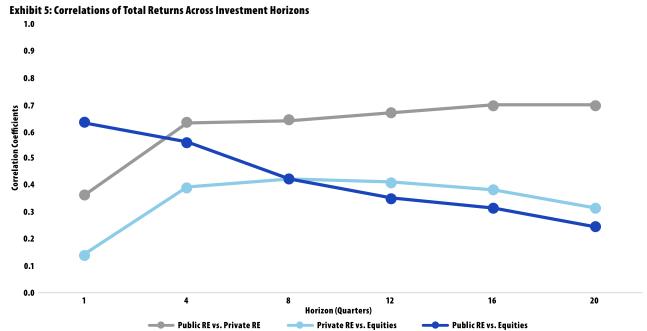
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Source: "Drivers of Listed and Unlisted Real Estate Returns," NBIM

than 0.7 at the 20-quarter horizon. The correlations between public and private real estate returns generally increased as the return horizon lengthened, indicating that public and private real estate returns tend to be more in sync with each other over longer terms. At the same time, public and private real estate correlations with the broader equity market converged and were lower with longer return horizons. These results support NBIM's investment thesis that differences between public and private real estate diminish in the long run and that real estate offers important portfolio diversification benefits.

Divergence + Resurgence + Convergence = REIT Opportunities

When it comes to real estate allocations, institutional investors have typically maintained strong preferences for private equity real estate. This focus may be shortsighted, particularly in today's property investment environment. With the valuation divergence, REITs offer investors access to institutional-quality properties at substantially discounted prices. While past performance may not be indicative of future results, the end of monetary policy tightening cycles

has typically marked the start of future REIT total return outperformance. Recent research also suggests that investors with long-term horizons should not draw clear distinctions between public and private real estate but rather treat the two investment vehicles similarly. Valuation divergence, potential total return resurgence, and public and private real estate convergence increase the appeal of REITs in the long run and offer investors both tactical and strategic investment opportunities. These prospects are a reminder that public equity REITs should play an integral role in institutional investors' existing real estate portfolios.

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