

# Public and Private Real Estate: Divergences, Harbingers, and Opportunities



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**Public and private real estate** markets can diverge, as they did last year. Although the increased uncertainty associated with such dislocations may be unsettling, these environments provide investors with tactical and strategic investment opportunities. With REIT implied capitalization (cap) rates

significantly higher than private real estate transaction cap rates, the attractiveness of public equity REITs has increased. Today, REITs offer investors access to institutional-quality properties with best-in-class operators at substantially discounted prices relative to the private market.

Though past performance may not be indicative of future results, a review of historical public and private real estate market divergences shows that significant public-private property dislocations can also be harbingers of future REIT total return outperformance. Specifically, analysis shows that public equity REIT total returns have tended to bounce back—and even surge—after extreme periods of REIT total return underperformance relative to the private market. REIT recoveries have tended to be stronger after more extreme divergences as well.

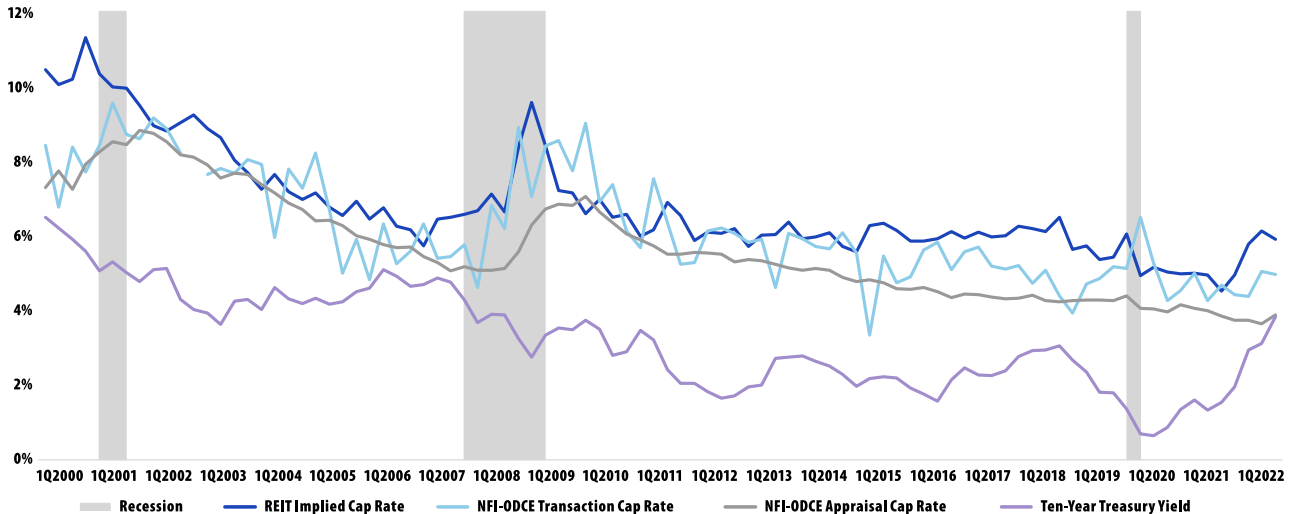
## REITs Offer Real Estate at Attractive Prices

Differences in cap rates capture the divergence between the US public and private real estate markets. A cap rate is often used as a real estate valuation metric. It typically measures the ratio of a property’s net operating income (NOI) in the coming year to its current market value. Holding NOI constant, a higher cap rate translates to a lower price.

Exhibit 1 displays public and private real estate cap rates, ten-year US Treasury yields, and periods of US recession from the first quarter of 2000 to the fourth quarter of 2022. Data from Nareit’s T-Tracker and NCREIF were utilized to indicate trends in public and private real estate pricing, respectively. The NCREIF transaction cap rates were based on actual sales prices, and the appraisal cap rates were calculated using appraised market values; both focus solely on properties from the NCREIF Fund Index—Open End Diversified Core Equity (NFI-ODCE). All the public and private cap rate metrics were calculated using backward-looking NOIs.

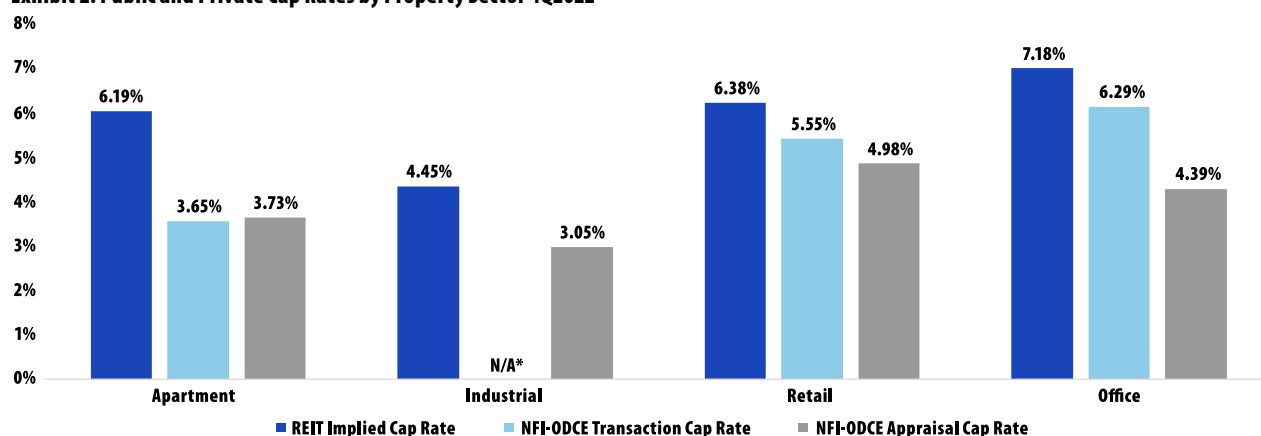
The exhibit shows that the REIT implied and NFI-ODCE transaction cap rate time series shared a similar jaggedness through time, while the appraisal cap rate path, perhaps not surprisingly, exhibited a smoothness. On average,

**Exhibit 1: Real Estate Cap Rates, Ten-Year Treasury Yields, and Recessions**



Sources: FRED, Federal Reserve Bank of St. Louis, Nareit T-Tracker, NCREIF

**Exhibit 2: Public and Private Cap Rates by Property Sector 4Q2022**



Sources: NCREIF, Nareit T-Tracker

\*No data was available for the NFI-ODCE industrial transaction cap rate in 4Q2022.

transaction cap rates were more than 50 basis points (bps) higher than appraisal cap rates over the examination period.

Although cap rates do not move in lockstep with interest rates, the public real estate market had a meaningful reaction to the surge in the ten-year Treasury yield in 2022; the private market did not. From the fourth quarter of 2021 to the fourth quarter of 2022, the ten-year Treasury yield increased by 229 bps. Over the same time frame, the REIT implied cap rate rose by 138 bps. Reflecting the recent dearth of transactions and the appraisal process, the private real estate transaction and appraisal cap rates grew by just 28 bps and 3 bps, respectively. As of the fourth quarter of 2022, the difference between the REIT implied and NFI-ODCE transaction cap rates stood at 94 bps. All else being equal, this spread suggests that the public real estate market is priced more than 15% below the private market.

### Focus on the Four Core Property Types

Some may argue that the above analysis may be an imperfect comparison. After all, NFI-ODCE funds tend to focus on the four core property types—apartment, industrial, retail, and office. In contrast, Nareit’s T-Tracker covers 12 property sectors. It includes the four traditional property types as well as modern economy sectors such as cell towers, data centers, self-storage, and health care. The apartment sector is part of a larger residential category that includes manufactured housing and single-family rentals. Focusing solely on the four core property sectors, the fourth quarter 2022 delta between the REIT implied and

NFI-ODCE transaction cap rates was 108 bps. The higher spread suggests that public equity REITs currently offer even more attractive pricing relative to private real estate across the four traditional property types.

Exhibit 2 presents public and private real estate cap rates for the apartment, industrial, retail, and office sectors in the fourth quarter of 2022. REIT implied cap rates were obtained from T-Tracker. The transaction and appraisal cap rates were from NCREIF and focused on NFI-ODCE properties.

REIT implied cap rates exceeded their respective NFI-ODCE transaction and appraisal cap rate counterparts across all the examined property types with available data, but sector-specific spreads differed materially. Focusing on the differences between REIT implied and transaction cap rates, apartment had the largest differential, at 254 bps. Because of a lack of sufficient transactions, no data was available for the NFI-ODCE industrial transaction cap rate in the fourth quarter of 2022, but the same measure for the broader NCREIF Property Index was 3.16%. Using this value, the industrial spread was 129 bps. The cap rate differences for the retail and office sectors were 83 bps and 89 bps, respectively. For each property type, REITs offer access to high-quality real estate at attractive prices, and pricing in some sectors is particularly compelling.

### REITs: The Rise After the Fall

The simple difference of total returns can also act as a signal of divergence in the US public and private property markets. In the third quarter of 2022, the FTSE Nareit All Equity



## Identifying potential that others may overlook

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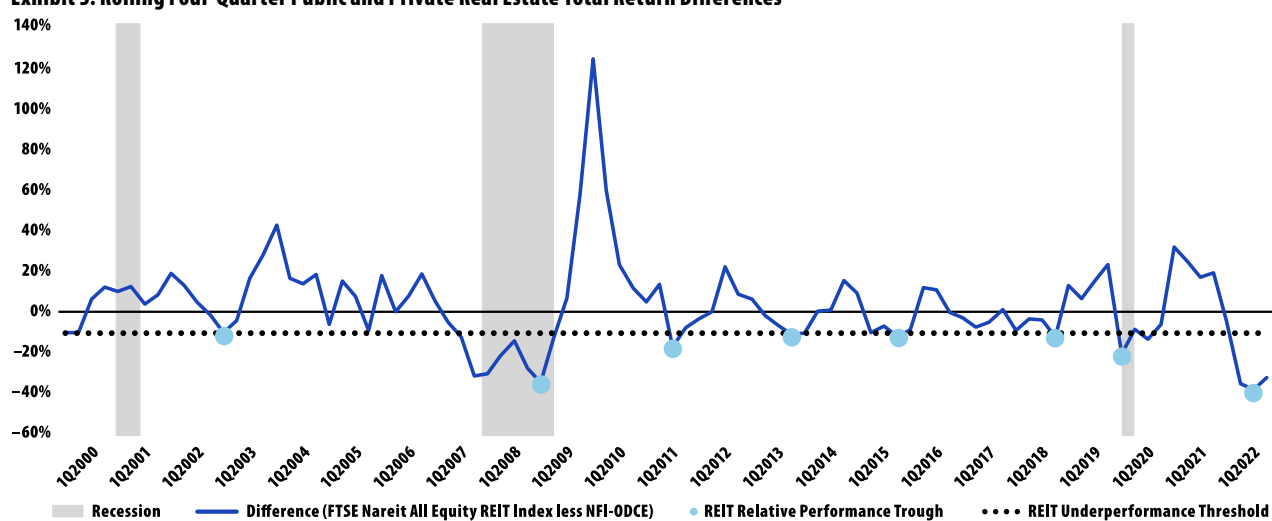
**\$82.4B**

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**Exhibit 3: Rolling Four-Quarter Public and Private Real Estate Total Return Differences**



Sources: Nareit, NCREIF, FactSet

Index and NFI-ODCE posted rolling four-quarter total returns of -16.3% and 22.1%, respectively—a difference of -38.4%. This delta marked the most significant degree of REIT relative underperformance in the history of the indices.

In Exhibit 3, the FTSE Nareit All Equity Index and the NFI-ODCE were utilized to measure REIT and private real estate market performances, respectively. It shows rolling four-quarter total return differences for public less private real estate from the first quarter of 2000 to the fourth quarter of 2022. Negative values highlight periods of REIT total return underperformance relative to private real estate; positive values indicate times of REIT outperformance. The chart also displays REIT relative performance troughs and periods of US recessions. The eight troughs denote quarters that experienced significant REIT relative underperformance. Each nadir was more negative than an established threshold of -10%. Interestingly, only two troughs coincided with US recessionary periods.

The exhibit reveals a pattern in which public-private total return differences tended to significantly rebound after the identified troughs. Following the local minimum in the first quarter of 2009, REIT total returns surged by 106.7% in the next year. The most significant degree of REIT relative underperformance in the history of the indices occurred in the third quarter of 2022. The degree and duration of this current divergence remains uncertain.

Exhibit 4 presents the dates and rolling four-quarter total return differences for each of the eight identified REIT relative performance troughs. It also displays the total consecutive number of negative difference quarters associated with each trough. The magnitude of the trough total return difference indicates the degree or severity of REIT relative underperformance during that quarter. The total number of negative quarters highlights the duration of REIT relative underperformance, or period of REIT dislocation. Seven dislocations have been fully realized; the current (third quarter of 2022) dislocation remains a work in progress.

Focusing on the fully realized REIT dislocations, no pattern was evident that troughs typically occurred in the beginning, middle, or end of the dislocations. For the troughs in which

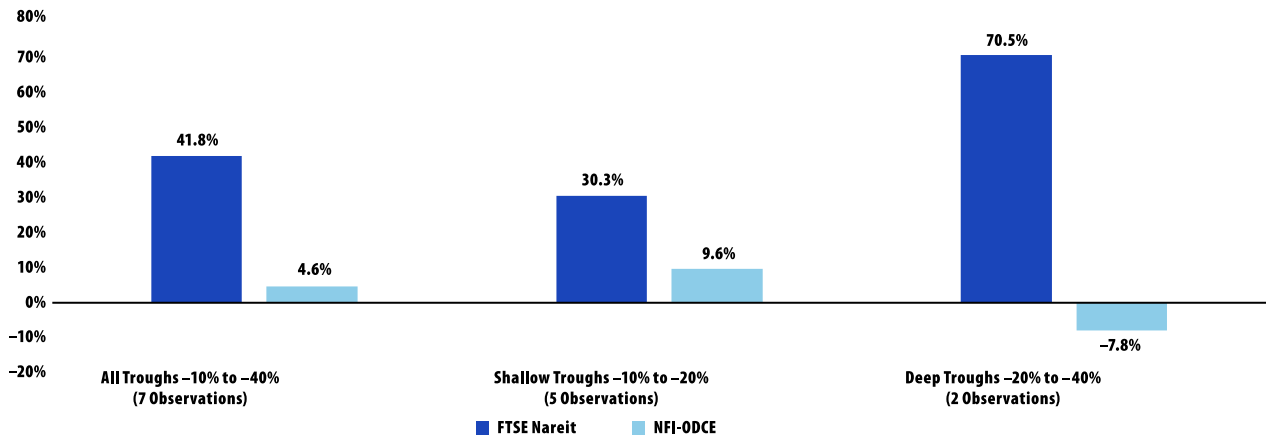
**Exhibit 4: REIT Relative Performance Troughs**

Date	Total Return Difference	Total Number of Negative Difference Quarters
1Q2003	-10.4%	Three
1Q2009	-34.8%	Nine
3Q2011	-17.3%	Three
4Q2013	-11.1%	Four
4Q2015	-12.2%	Four
4Q2018	-12.4%	Four
1Q2020	-20.8%	Four
3Q2022*	-38.4%	?

Sources: Nareit, NCREIF, FactSet

\*Valuation adjustment process is ongoing.

**Exhibit 5: Average Four-Quarter Real Estate Total Returns After REIT Relative Performance Troughs by Depth of Trough**



Sources: Nareit, NCREIF, FactSet

the total return difference ranged from -10% to -30%, the average duration of REIT relative underperformance was four quarters. The trough in the first quarter of 2009 experienced a more significant degree of REIT relative underperformance. Its total return differential was -34.8% and period of dislocation was nine quarters. If the current dislocation follows a similar path, it will face another five quarters of REIT relative underperformance, given that four quarters have already passed as of the end of 2022.

Exhibit 5 illustrates the average four-quarter total returns for public and private real estate after REIT relative performance troughs in aggregate and by depth of trough. Troughs were placed into two groups in which the rolling four-quarter total return differences ranged from -10% to -20% and -20% to -40%.

REIT relative performance troughs can be harbingers of future REIT total return outperformance. On average, REITs outperformed private real estate in the four quarters after a trough. The post-trough analysis shows that the REIT four-quarter total return averaged 41.8%; it was 4.6% for private real estate. Public real estate outperformed private real estate in six of seven instances, or 85.7% of the time.

The average outperformance of REITs relative to private equity real estate is also evident across the two trough-depth cohorts. As the depth of the trough deepened (or the difference became more negative), the average next four-quarter REIT total returns increased markedly. Average REIT total returns for the shallow and deep-trough groupings were 30.3% and 70.5%, respectively. At the same time, average private real

estate total returns decreased. The average NFI-ODCE total return turned negative in the deep-trough cohort, at -7.8%

**REITs Offer Opportunities Amid Uncertainty**

The divergence of US public and private real estate markets in 2022 has created an interesting property investment environment. With current cap rate spreads, the public real estate market is priced more than 15% below the private market. Today, public equity REITs offer investors access to high-quality properties with best-in-class operators across the four core property types and modern economy sectors at attractive prices. Historically, REIT total returns have also tended to bounce back—and even surge—after significant public and private real estate market dislocations. On average, REIT total returns exceeded those of the NFI-ODCE by more than 35% in the four quarters after a REIT relative performance trough from the first quarter of 2000 to the fourth quarter of 2022. Although investors may worry about the degree and duration of the current dislocation, they should stay tuned to the potential opportunities REITs may offer amid the uncertainty. ■

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