



December 29, 2022

Private Real Estate appreciation moves negative as re-valuation starts

SUMMARY

US private real estate returns weakened considerably in 3Q 2022 as higher interest rates continued to have a major impact on market pricing and appraised values. This trend is expected to continue in the remainder of 2022 and into the opening quarters of 2023. This is leading to a dramatic slowdown in returns from the record levels seen less than a year ago.

Returns in the third quarter showed negative appreciation, with total returns remaining positive for both the NPI and ODCE. The slowdown in returns was most significant for industrial, with apartments delivering the highest returns. Looking ahead, the dominant theme in sector performance is expected to be the under-performance of offices.

This note provides details on the third quarter performance of the NPI and ODCE indices, summarizes the outlook for future returns, and provides some information regarding insights from the first release of data related to the new NCREIF subtypes.

Highlights from the 3Q data releases include:

- The quarterly total NPI return declined 260 bps from 2Q to 0.6%. The 3Q return was a 0.93% income return (an all-time low), and the appreciation return went negative for the first time since 3Q 2020 at -0.37%.
- The trailing-year return declined more than 500 bps quarter-over-quarter to 16.08%, which is still high relative to history.
- Returns for all property types were down from the previous quarter, with industrial seeing the greatest decline. For the first time since 1Q 2016, industrial was not the highest-returning property type.
- The ODCE value-weighted quarterly gross total return of 0.52% was down 430 bps from the second quarter. Appreciation turned negative at an index level and the income return continued to fall to 0.81%, an all-time low. Mark to market on leverage was a positive as interest rates rose, but negative appreciation caused leverage to be an overall negative to returns.

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Figure 1	Trailing Four-Quarter Return	10-Year Return
NCREIF Property Index (NPI)	16.1%	9.5%
NCREIF ODCE Index	22.1%	10.9%
FTSE NAREIT (Equity REITs)	-16.3%	7.0%
S&P 500	-15.5%	11.7%
MSCI World Total Stock Index	-19.2%	8.7%
US Government 90 Day T-Bill	1.0%	0.7%
Citigroup Broad Corporate Bond Index	-18.5%	1.8%

Source: NCREIF, Bloomberg, 3Q 2022. All pre-fee.

Apartments edge out industrial as returns continue to slow across sectors

The NPI returned just 0.6% in the third quarter, down from 3.2% in 2Q22. Apartments and industrial continued to outperform the index, but apartments moved ahead in the rankings of overall quarterly return. Retail trailed the index but remained positive, while office posted the only decline in overall value. Hotels saw the only improvement in total return at 2.7%.

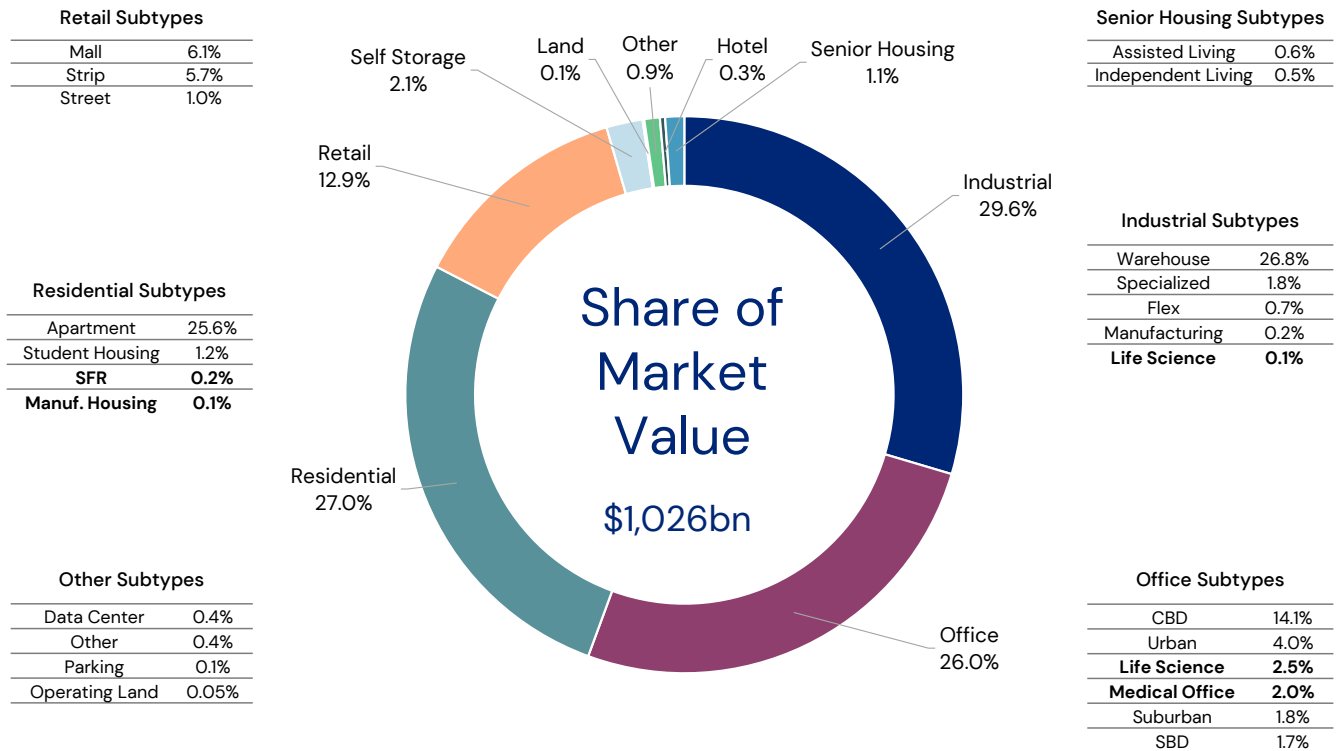
- **Apartments lead the pack on quarterly returns** – Apartments eked out the highest quarterly return of the four main food groups at 1.2%, down 270 bps from 2Q. Trailing-year returns came in at 18.2%, still behind industrial. NOI growth slowed a substantial 480 bps to 1.5% from 2Q, although NOI remains 17.6% above the previous year level.
- **Industrial returns trail apartments** – Total returns for industrial properties came in at 1.1% in 3Q, trailing apartments by just 10 bps. Industrial posted the highest appreciation return at 0.4% but that is down 470 bps from 2Q while income returns remained flat at 0.8%, the lowest of all property types. However, the industrial sector continues to post the strongest 1-year return at 34.6%, and it had the strongest NOI growth in 3Q at 3.4% (13.6% annualized), down just 40 bps from 2Q.
- **Office returns go negative, remain lowest of all property types** – Office returns went negative in 3Q at -0.7% as the -1.7% appreciation return outweighed the second highest income return of 1.0%. The negative appreciation was driven by CBD office, which returned -1.2% in 3Q vs. 0.0% for suburban office. However, the latter likely benefits from a larger share of medical office and life science buildings. NOI also declined from 2Q at -3.6% and is down 0.8% from a year ago.
- **Retail returns stay positive** – Retail trails the index but maintained a positive quarterly total return at 0.4% in 3Q. While the sector boasted the highest income return at 1.2% (4.8% annualized), it also saw negative appreciation of -1.1%. NOI also declined from 2Q at -4.5%. Malls continue to drag on the overall sector with a -0.2% quarterly return versus 0.9% for open-air centers. However, both subsectors posted a negative appreciation return at -1.3% and -0.4%, respectively.

NPI return detail (as of 3Q 2022)

	Current NPI Weight	1 Year			Historic Total Returns			
		Total Return	Income	Appreciation	3 Year	5 Year	10 Year	15 Year
All Property	100%	16.1%	4.0%	11.8%	9.9%	8.5%	9.5%	7.0%
Apartment	28%	18.2%	3.8%	14.0%	11.1%	8.5%	9.2%	7.0%
Hotel	0.3%	11.3%	6.3%	4.8%	-5.8%	-1.3%	3.5%	2.1%
Industrial	32%	34.6%	3.3%	30.6%	25.2%	18.2%	16.7%	11.4%
Office	26%	3.2%	4.3%	-1.1%	3.6%	5.3%	7.0%	5.1%
CBD Office	14%	0.8%	4.1%	-3.2%	1.6%	4.2%	6.3%	4.9%
Suburban Office	12%	6.3%	4.6%	1.7%	6.4%	6.9%	8.0%	5.4%
Retail	14%	6.6%	5.0%	1.6%	0.2%	3.2%	6.2%	5.6%
Open-Air Retail	7%	8.3%	5.2%	3.0%	2.9%	3.3%	6.8%	5.4%
Mall Retail	6%	4.8%	4.7%	0.1%	-2.4%	-0.9%	5.7%	5.8%

New Subtype definitions and specialty property types

After years of planning, NCREIF has started to release preliminary data based on new subtype definitions. These allow more transparency into the scope of investment and returns of many specialty sectors. This includes medical office, life sciences, single-family homes for rent, student housing, and truck terminals. It also includes additional data that can be used to dig deeper into the traditional property types, such as comparing returns of grocery-anchored retail relative to non-grocery-anchored open-air centers. The chart below is a snapshot of the full scope of properties with division by subtypes.



* NPI+ Market Value is \$1,026bn (12,304 properties) while the NPI Market Value is \$957bn (10,603 properties) as of Q3 2022.

Source: NCREIF (Q3 2022)

This makes a lot of new analysis possible, and two examples highlighted in the table below are the performance of life sciences and medical office relative to all office, and the performance of grocery-anchored retail relative to non-grocery-anchored open-air retail and all retail. While the out-performance of life sciences, medical office, and grocery-anchored retail is not a surprise, it is valuable to see that based on data rather than anecdote.

	1 Year	3 Year	5 Year	10 Year
Life Sciences	18.0%	19.2%	16.2%	14.3%
Medical Office	9.3%	9.1%	8.8%	9.0%
All Office	3.2%	3.6%	4.8%	7.0%
Grocery-Anchored Retail	9.2%	4.3%	4.8%	8.0%
Non-Grocery-Anchored Open-Air Retail	6.9%	1.7%	2.3%	5.9%
All Retail	6.6%	0.2%	1.2%	6.2%

Valuation trends and dynamics

Valuation data was collected and released by NCREIF for 24 of the 27 ODCE funds in aggregate form. This data is similar to, but not as detailed as information shared by the Altus Group with investment managers who are clients of Altus. The NCREIF-released datapoints are summarized in the table below by property type. The changes relative to last quarter are also shown in the table to give an indicative direction of change, but it is important to note this is not a same-property sample, and some variation between quarters can be attributed to a changing sample of properties in the funds and shifts in the funds participating.

	Discount Rate	Terminal Cap Rate	Implied 1-Year Cap Rate	10-Year Avg. Market Rent Growth
Overall	6.20% (+17 bps)	4.94% (+9 bps)	3.78% (+9 bps)	3.25% (-1 bps)
Apartment	5.92% (+21 bps)	4.46% (+11 bps)	3.71% (+17 bps)	3.28% (-4 bps)
Industrial	5.86% (+23 bps)	4.62% (+14 bps)	3.11% (+7 bps)	3.40% (-1 bps)
Office	6.64% (+12 bps)	5.57% (+6 bps)	4.26% (+5 bps)	2.91% (-2 bps)
Retail	6.93% (+7 bps)	5.70% (+2 bps)	4.89% (+12 bps)	2.84% (+1 bps)

With the caveat mentioned above, it is clear appraisal yield metrics are putting downward pressure on property values. In the third quarter, this was seen the most for apartments and industrial, which remain the most liquid property types. Appraisals are an exercise in modeling, with changes to valuation metrics and cash flows determining value changes. But appraised values are also assessed relative to the transaction value of properties. Often there is an observable transaction value, but the valuation metrics associated with the transaction are not known. This means it is important to view valuation metrics as only part of the story of what is causing property appraised values to shift.

As discussed below in the forecast return section, we expect further changes in these valuation metrics in the coming quarters. If one views the appraisal cash flow projections as accurate, then the discount rate can be viewed as the stabilized return. In our assessment, real estate is no longer priced in the market to long-term returns in the high-5% range. We expect discount rates will continue to be revised higher as values are marked down. The discount rates for office and retail remain meaningfully higher than apartments and industrial. This is justified, but in the case of office, we would take the view that further increases to the discount rates are still needed given the risk profile of that property type. And we believe that appraisal cash flows for office assets are overly optimistic. Either those cash flow projections will be revised lower, which will lead to value declines in the near-term; or, more likely in our view, many assets will see misses on appreciation as cash flow projections are not realized.

We will continue to watch these valuation metrics in coming quarters as one guide to where appraised values are heading and when they might stabilize. But just as important is to keep an eye on the signals coming from the market, in terms of transactions that are closing and those that are not closing because of a gap between buyer return requirements and seller pricing expectations.

Open-End Core Equity Fund Index (ODCE)

The NCREIF Open-End Core Equity Fund Index (ODCE) posted a 0.52% gross total return in 3Q 2022, down 430 bps from 2Q. This brought the full-year gross ODCE return to 22.1%, down from the all-time high set in 2Q. Income returns continued to decline to 0.81%, an all-time low. Appreciation returns turned negative for the first time since 3Q 2020 at -0.28%.

The table below shows the buildup to the fund-level index return. The largest portion of return comes from unleveraged property returns, but leverage is also a meaningful contributor. Average index leverage held flat at 21.5%, but leverage provided a smaller lift to total returns at 0.1% after much larger contributions in 1H2022. While mark to market impacts remained positive, this was offset by funds' negative appreciation during the quarter. The positive mark to market will eventually unwind as below-market debt gets closer to maturity; but until that happens (or interest rates fall again), it will be an asset for open-end funds. Other contributors to the index return were relatively minor and tend not to vary much from quarter to quarter.

Net capital flows to ODCE funds were positive in 3Q after going negative the previous quarter. Contributions of \$5.3 BN, down from \$6.3 BN in 2Q, outweighed \$4.5 BN in distributions, down from \$7.2 BN in 2Q. Both contributions and distributions remained above their 10- and 20-year averages. This resulted in net cash flow of \$776.6 M. It is important to note that distributions include both capital redemptions as well as income distributions. The move away from negative cash flow is encouraging and may reflect the stock market recovery that occurred early in the third quarter. This rebound in stock prices would have reduced the pressure of the "denominator effect", whereby relatively stable real estate values begin to make up a larger-than-desired share of a shrinking total investment portfolio due to declining stock and bond prices. Open-end funds are often the first stop for diversified institutional investors looking to re-balance their portfolios. However, there are still many investors - notably high-net-worth investors - who have limited allocations to real estate and despite market shifts are looking to increase their real estate allocations.

ODCE Return Reconciliation	3Q 2022	Trailing Year
Unleveraged Property Returns	+0.45%	17.89%
Leverage (Principal Impacts)	-0.13%	+4.19%
Leverage (Marked to Market Impacts)	+0.24%	+1.47%
Cash Balances	-0.01%	-0.63%
Acquisitions (Partial Period)	+0.01%	-0.14%
Other Non-Property Investments	+0.02%	+0.08%
Other Assets and Liabilities	+0.01%	+0.24%
Fund Costs	-0.01%	-0.08%
Other (Including JV Structuring)	-0.05%	-0.93%
Total Gross Returns	0.52%	22.09%

Market performance

The table below shows trailing-year returns by market and property type. Property type mix remains the dominant driver of relative market performance. Performance is color coded within each property type, so the lowest-returning industrial market is orange/red even though returns are higher than the best-returning retail market.

With total market returns being heavily driven by property type mix, perhaps the best view on relative market performance comes from a comparison of apartment returns across markets. This shows the very strong performance of Sunbelt markets, led by the 30.8% return on Phoenix apartments and a 27.4% return in Miami. By comparison, the returns in gateway markets are much weaker, although still solid if viewed on an absolute basis relative to history. The lowest returns in apartment markets are 4.8% in San Francisco and 8.6% in Chicago.

Although industrial returns vary widely, almost all markets have returns that would be considered phenomenal in a historical context. However, exposure to the right industrial markets provides a significant boost to investors aiming to outperform the index. The southern California industrial markets of Riverside, Los Angeles, and Orange County saw the largest gains over the past year, ranging from 46.5% to 56.2%; while San Francisco, Denver, and Houston came in on the low end at 17.0% to 19.4%.

Retail assets show less variation by market, which is partly due to property-level distinctions. However, there is some geographic correlation, with some of the strongest returns concentrated in Sunbelt markets like Atlanta and Austin, with gateway markets trailing. The exception is Seattle, which tops the retail rankings with a 13.5% return.

Office returns are generally weak across markets. The top markets of San Diego and Cambridge likely benefit from their high concentration of life sciences buildings. Excluding those, the next highest performing markets were Miami and Austin at 8.4%.

NPI Trailing 1 Year Total Returns by Metro	Total	Apartment	Industrial	Office	Retail
Riverside	50.6%	26.6%	56.2%	-	7.4%
Orange County	24.7%	22.4%	46.5%	-1.4%	4.5%
Miami	24.0%	27.4%	37.3%	8.4%	3.3%
Phoenix	23.1%	30.8%	34.2%	2.8%	10.6%
Los Angeles	21.3%	12.4%	52.2%	3.3%	4.9%
San Diego	19.7%	23.1%	34.8%	16.5%	9.9%
Atlanta	19.4%	21.5%	30.7%	1.1%	12.9%
Austin	18.5%	25.8%	24.0%	8.4%	12.0%
Dallas	18.4%	20.4%	29.3%	3.8%	8.4%
Oakland	15.6%	11.1%	27.8%	5.7%	4.8%
Cambridge	14.6%	19.5%	31.2%	12.7%	-0.2%
Denver	14.2%	21.0%	17.1%	2.1%	4.9%
Seattle	13.1%	15.4%	23.9%	5.4%	13.5%
Houston	10.0%	16.4%	19.4%	1.0%	7.9%
New York	9.1%	11.2%	34.0%	-0.2%	2.1%
San Jose	8.4%	10.0%	24.3%	5.6%	4.7%
Chicago	8.2%	8.6%	19.5%	-2.5%	4.4%
Boston	8.2%	15.9%	29.1%	3.5%	4.6%
Washington DC	5.6%	13.9%	31.3%	0.3%	2.1%
San Francisco	4.1%	4.8%	17.0%	3.4%	-3.3%
US	16.1%	18.2%	34.6%	3.2%	6.6%

Return forecasts

PREA and LaSalle return forecasts are both lower than in previous quarters based on higher interest rates, evidence from transaction pricing, and, most significantly, appraiser behavior. This is largely impacting the return outlook for the end of 2022 and start of 2023. The pace of adjustment that appears to be underway should allow the downward pressure on appraisal values to be alleviated by the second half of 2023; this assumes market conditions do not change and excludes the special case of offices.

As always, it is important to note that these return forecasts are a combination of an outlook on the market and a call on appraiser behavior. Our outlook is consistent with valuations reaching a point during 2023 that would enable what we consider to be a stabilized return of around 7% going forward. For industrial, apartment, and open-air retail, it is relatively straightforward to reach that stabilized return level with a moderate level of value declines in the next several quarters. This value decline is consistent with what we have seen in the transaction market over the last quarter or so. The exception to this outlook is office. The value decline required to reach a consistent 7% return from office is much greater based on our outlook. Realistically we expect that even with greater write-downs for the office sector in the near-term, it will still not be valued at a level to deliver the returns investors might expect. In addition, we are seeing much less transaction activity in the office sector, which is making it challenging for appraisers to peg a market value to match appraisals to.

The net result of this outlook is shown below. It is for a return in the fourth quarter that will continue to bring down the previously strong returns from 2022. And 2023 is expected to see returns well below the long-term average. The returns from 2024 onward are a mix of returns that are close to 7% for some sectors and below that for office. Mall retail is more of an unknown in terms of return outlook based on the wide differences in asset situation and the lack of transaction evidence. In our forecast the situation is closer to office, but there is upside to that forecast.

The PREA Consensus forecast is higher than the LaSalle forecast, but directionally similar. The difference in the two outlooks is largely due to the dimmer outlook LaSalle has on office. The expected under-performance of traditional office means that sector allocation will continue to have a major impact on relative portfolio performance, with our view being that portfolios that are underweight to office are positioned for better relative performance not just in the near-term but in the long-term as well.

NPI Forecast Returns									
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Average 2022-2026</u>
Income Return	4.7%	4.6%	4.5%	4.2%	4.2%	~4%	~4.5%	4.5%	4.4%
Appreciation Return	2.2%	2.1%	1.8%	-2.5%	13.1%	~2%	-7-9%	0-2%	-0.6%
Total Return	7.0%	6.7%	6.4%	1.6%	17.7%	~6%	-3-5%	4-6%	3.9%
PREA Consensus Survey Forecast						7.0%	-0.7%	6.2%	5.9%

ODCE Forecast Returns									
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Average 2022-2026</u>
Income Return	4.4%	4.3%	4.3%	3.8%	4.0%	~4%	~4%	~4.5%	~4.5%
Appreciation Return	3.2%	3.7%	1.7%	-2.6%	17.6%	~10%	~(-9%)	~1%	~0%
Total Return	7.6%	8.0%	5.9%	1.2%	22.2%	~9%	~(-5%)	6%	4-5%

NPI income comparison (As of 3Q 2022)

	NPI Trailing Four-Quarter Income Return	NPI Transaction ¹ Cap Rate (# of Transactions)	NPI Appraisal Cap Rate	15-Year Income Return
Apartment	3.8%	4.0% (32)	3.5%	4.7%
Hotels	6.3%	*	*	6.2%
Industrial	3.3%	4.3% (21)	3.0%	5.5%
Office	4.3%	4.6% (5)	4.2%	5.1%
CBD	4.1%	*	4.0%	4.7%
Suburban	4.6%	6.7% (3)	4.4%	5.6%
Retail	5.0%	6.3% (25)	4.7%	5.5%
Open Air	5.2%	6.3% (21)	4.9%	5.7%
Malls	4.7%	*	4.5%	5.2%
All Property	4.0%	4.6% (83)	3.7%	5.1%

* Too few transactions to calculate an average

¹ NCREIF Cap rates are calculated using income from the most recent quarter as a percent of the quarter's ending market value (multiplied by four). As a result, they are not directly comparable to cap rates typically used in the real estate industry, which incorporate the expected next year's income as a percent of the quarter's ending market value.

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