Real Estate Research

November 2022

U.S. Property Performance Monitor

Third Quarter 2022

IN A NUTSHELL

- Total returns for U.S. core real estate, as measured by the NCREIF Property Index (NPI), moderated to 0.57% in the third quarter of 2022 from 3.2% in the previous quarter. The quarterly return consisted of 0.93% from income and negative 0.37% from appreciation – the first negative appreciation return since the second quarter of 2020.Yet trailing four-quarter returns remained healthy (16.1%).
- Total returns for industrial property (trailing four quarters) were the highest of any sector, followed by apartment returns. The retail and office sectors lagged behind, albeit with substantial variation by market and subtype.
- Sun Belt and Mountain West markets generally outperformed while New York, Chicago, Washington, DC, and San Francisco struggled.

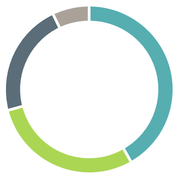
Private Real Estate Property Returns

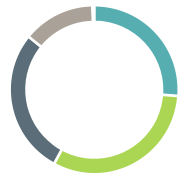
- Core real estate total returns continued to post strong performance, averaging 16.1% (trailing four quarters) in the third quarter of 2022, a deceleration from 21.5% in the second quarter.[1]
- The industrial sector's total returns (34.6%) remained high, yet decelerated from their annual peak of 51.9% in the first quarter of 2022. Apartment returns (18.2%) outpaced the overall NPI's yet moderated from their recent high (24.4%) reached in the previous quarter. Retail continued to increase (6.7%) and returns registered the fith positive quarter since 2019. Office returns (3.2%) deteriorated further and were the lowest among sectors, amid high vacancies and concerns over the effects of remote work.
- Relative to other major asset classes, private real estate meaningfully outperformed stocks (-15.5%) and bonds (-14.6%) over the past year as investors favored its diversification and inflation-hedging qualities.
- Property fundamentals were strong in the third quarter, as evidenced by overall vacancy for the NPI falling to its lowest level in history (5.3%). Industrial vacancies dropped to a low of 1.5%, the lowest ever recorded. Net Operating Income (NOI) increased by 7.9% (trailing four quarters), a moderation from the previous quarter (11.5%) but healthy relative to historical norms. NOI growth was led by Apartment (17.6%), Industrial (13.6%) and Retail (4.1%). Office NOI growth was negative (-0.8%) as a result of sector's struggle with high vacancies and weak demand.
- Geographic trends were largely unchanged. Regional markets generally benefitting from lower costs and in-migration (e.g., Sun Belt and Mountain West) performed well. Gateway markets with comparatively higher costs (e.g., New York, Chicago, Washington, DC, and San Francisco) generally underperformed.

[1] NCREIF Property Index as of September 30, 2022. Past performance is no guarantee of future results

NPI Market Capitalization

Index market value U.S. $ 957.0 billion – Property count 10,602





Recent Performance Trends

	Quarter	12 months trailing	
	3Q 2022	**3Q 2022**	**2Q 2022**
Private Real Estate (NPI)	0.6%	16.1%	21.5%
Broad Equities (large cap)	-4.9%	-15.5%	-10.6%
Bonds	-4.8%	-14.6%	-10.3%
Listed Real Estate	-10.8%	-16.3%	-5.9%
10-Year Treasury[2]	3.8%	3.8%	3.0%
12-Month LIBOR[3]	4.8%	4.8%	3.6%
CPI (SA)	0.5%	8.2%	9.0%

Sources: NCREIF, Standard and Poor's, Barclay's, NAREIT, and Federal Reserve as of September 30, 2022.

[2] These figures represent annual yields.
[3] These figures represent annual yields.

NCREIF Property Index (NPI) Performance by Sector and Region

- Industrial total returns of 34.6% (trailing four quarters) were lower than the 47.7% in the second quarter of 2022 yet remained among the strongest recorded by any other sector in the history of the NPI. NOI growth accelerated to a new all-time high (since 1983) of 13.6% (year-over-year) in the third quarter as vacancies slipped to 1.5%, also a record (since 1988). E-commerce has been a pivotal driver of the sector's impressive performance.
- Apartments were the second-best performing sector, producing total returns of 18.2% (trailing four quarters). Vacancies ticked up and NOI growth slipped back in the third quarter, but at 5.9% and 17.6% (year-over-year), respectively, they remained near record levels. A housing shortage, of both single-family and rental apartment units, has continued to benefit apartments. An ongoing migration of ageing Millennials to the suburbs, a trend that first surfaced in 2015 and accelerated with the pandemic, helped Garden (24.2%) to outperform High-Rise (14.9%) assets.
- Total returns for retail property were 6.7% in the third quarter of 2022 (trailing four quarters). Neighborhood (8.7%) and community (10.9%) centers outperformed as vacancies fell to their lowest level in at least 17 years. Malls (about half the index) generated the weakest returns.
- Office performance continued to be modest in the third quarter, delivering total returns of 3.2% (trailing four quarters). Suburban outperformed CBDs by a wide margin (6.3% vs. 0.8%, respectively). Workplace occupancy remained depressed, and NOI losses are starting to materialize as tenants reassess their space needs at lease expiration.
- Regional dynamics were generally unchanged. The West led the pack (19.2%), followed closely by the South (19.1%). Returns in the East and Midwest lagged the index over the past year.

Detailed Property Type NPI Performance

	No. of props.	Market value U.S.$ (Mil)	Trailing four quarters		
			Total return	Income	Apprec.
Apartment					
Garden	855	87,612	24.2%	4.1%	19.6%
High Rise	1,147	151,985	14.9%	3.6%	11.1%
Low Rise	275	27,477	19.0%	3.9%	14.7%
Industrial					
R&D	39	2,174	19.8%	4.3%	15.0%
Flex	203	6,449	32.4%	4.3%	27.2%
Warehouse	4,711	287,158	34.8%	3.3%	30.7%
Office					
CBD	479	137,350	0.8%	4.1%	-3.2%
Suburban	1,249	113,268	6.3%	4.6%	1.7%
Retail					
Community	204	14,319	10.9%	5.4%	5.3%
Neighborhood	594	25,115	8.7%	5.0%	3.5%
Power	181	13,982	9.7%	6.0%	3.6%
Regional	54	12,943	2.9%	4.5%	-1.5%
Super Regional	73	48,437	5.3%	4.8%	0.5%

Source: NCREIF Property Index as of September 30, 2022. Past performance is no guarantee of future results.

Returns by Property Type and Region

	Annual returns								Standard deviation	
	Total	1 year Income	Apprec.	3 years	5 years	10 years	20 years	Since inception[4]	20 years	Since inception[5]
Property type										
Apartment	18.2%	3.8%	14.0%	11.1%	9.0%	9.2%	8.7%	10.3%	9.0%	7.6%
Industrial	34.6%	3.3%	30.6%	25.2%	20.6%	16.7%	12.1%	10.9%	11.5%	9.1%
Office	3.2%	4.3%	-1.0%	3.6%	4.8%	7.0%	7.3%	8.0%	9.0%	9.2%
Retail	6.7%	5.0%	1.6%	0.2%	1.2%	6.2%	8.4%	8.8%	8.8%	6.9%
Total Index	16.1%	4.0%	11.7%	9.9%	8.6%	9.5%	8.9%	9.2%	8.6%	7.4%
Region										
East	11.3%	3.9%	7.2%	7.4%	6.4%	7.4%	8.1%	9.7%	8.9%	8.8%
Midwest	9.8%	4.3%	5.3%	5.6%	5.0%	7.2%	7.0%	7.8%	6.9%	5.9%
South	19.1%	4.3%	14.3%	11.0%	9.4%	10.2%	9.0%	8.5%	8.0%	6.9%
West	19.2%	3.8%	15.0%	12.1%	10.7%	11.3%	10.1%	9.9%	9.4%	8.3%
Total Index	16.1%	4.0%	11.7%	9.9%	8.6%	9.5%	8.9%	9.2%	8.6%	7.4%

Source: NCREIF Property Index as of September 30, 2022. Past performance is not indicative of future returns.

[4] Index returns start in 1978, equivalent to a 44.75 year calculation.
[5] Index returns start in 1978, equivalent to a 44.75 year calculation.

Market Analysis – Benchmark Insights and Portfolio Implications

The NCREIF Property Index is a value-weighted index of property returns and as such, a large portion of the index is located in just 20 markets. Local economic growth will affect properties located in the same market similarly, so we can estimate the effect of property geographical location on the overall index. Large metros, by value, will likely have the largest impact on the index, although small metros with particularly strong or weak performance may boost or weigh on returns from time to time. The tables on the following page list out which markets had the strongest positive and negative effect on returns during the past four quarters.

Apartments

The pandemic reinforced demographic trends underpinning apartment markets. Over the past year, the Sun Belt (e.g., Phoenix, Austin, Fort Lauderdale, Miami, Atlanta) and Denver, benefitting from in-migration, were the largest positive contributors. Gateway locations with comparatively higher costs (e.g., New York, Chicago, and San Francisco) lagged, although Boston and Seattle fared better.

Industrial

Performance remained impressive, with every market delivering high double-digit total returns over the trailing four quarters. Major port markets, including Riverside (56.2%), Los Angeles (52.2%), Orange County (46.5%), and Miami (37.3%) were particularly noteworthy. On a relative basis, major inland distribution hubs (i.e., Atlanta, Chicago, and Dallas) underperformed, although returns were still elevated. Markets in Noth West (e.g., Seattle and Portland) generally underperformed over the trailing four quarters. The worst-ranked major industrial market, Chicago (19.2%), nevertheless outperformed the overall NPI.

Office

Markets with outsized exposure to technology and life sciences (i.e., Boston, San Diego, Seattle, Austin and San Jose) continued to make the largest contribution to sector returns. Further, demographic tailwinds and corporate expansions continued to benefit Sun Belt office markets such as Miami, Charlotte and Dallas. Conversely, values slipped in several gateway markets, including Chicago, Washington D.C., and New York, collectively subtracting 120 basis points from sector returns.

Retail

Over the past year, tenant mix generally governed retail property performance as service-oriented, daily-needs shopping centers proved relatively resilient to e-commerce. Conversely, Malls and lifestyle shopping centers were challenged by store closures and bankruptcies. Case in point, metros with the largest negative contribution to sector returns (e.g., San Francisco, Washington, DC, New York and Los Angeles) had notable mall exposure. Markets which performed well on a relative basis (e.g., Las Vegas, Atlanta, Phoenix and Dallas) benefitted from demographic tailwinds. Additionally, tech and life science markets such as Seattle and San Diego posted strong returns.

Apartment			Industrial			Office			Retail		
Metro	Metro returns[6]	Impact on sector returns	Metro	Metro returns[7]	Impact on sector returns	Metro	Metro returns[8]	Impact on sector returns	Metro	Metro returns[9]	Impact on sector returns
Phoenix	30.8%	30	Riverside	56.2%	299	Boston	6.5%	38	Las Vegas	10.5%	24
Austin	25.8%	28	Los Angeles	52.2%	166	San Diego	16.5%	27	Atlanta	12.9%	15
Fort Lauder-dale	30.8%	25	Orange County	46.5%	45	Seattle	5.4%	12	Seattle	13.4%	15
Miami	27.4%	19	Miami	37.3%	9	Austin	8.4%	12	San Diego	9.9%	14
Atlanta	21.5%	17	Baltimore	34.8%	0	San Jose	5.6%	9	Phoenix	10.6%	13
Dallas	20.8%	15	Las Vegas	34.9%	0	Miami	8.4%	5	Dallas	9.0%	10
Denver	21.0%	15	San Diego	34.8%	0	Oakland	5.7%	4	Houston	7.8%	8
San Diego	23.1%	13	Phoenix	34.2%	-1	Charlotte	7.4%	3	Baltimore	8.4%	3
Orange County	22.4%	11	Philadelphia	32.8%	-3	Dallas	4.4%	3	Riverside	7.4%	1
Raleigh	23.5%	11	Washington, DC	31.6%	-4	San Fran-cisco	3.5%	3	Orlando	7.0%	1
Boston	17.9%	-2	New York	33.8%	-7	Los Angeles	3.3%	1	San Jose	4.7%	-5
Houston	16.4%	-6	Boston	29.6%	-7	Minneapolis	2.2%	-1	Oakland	4.8%	-5
Seattle	15.6%	-12	Atlanta	30.7%	-14	Denver	2.1%	-3	Orange County	4.5%	-6
Oakland	11.1%	-14	Portland	23.3%	-18	Atlanta	1.1%	-4	Miami	3.3%	-9
San Jose	10.0%	-20	Denver	17.1%	-26	Orange County	-1.4%	-6	Boston	2.4%	-10
Washington, DC	13.8%	-35	Oakland	27.8%	-27	Houston	1.0%	-7	Los Angeles	4.9%	-11
Los Angeles	12.4%	-40	Houston	19.4%	-31	Portland	-3.1%	-7	Chicago	4.1%	-16
San Fran-cisco	5.1%	-43	Dallas	28.5%	-39	Chicago	-2.5%	-28	San Fran-cisco	-1.0%	-17
Chicago	8.7%	-52	Seattle	26.8%	-47	Washington, DC	0.4%	-34	New York	1.1%	-25
New York	11.3%	-65	Chicago	19.2%	-115	New York	-0.2%	-58	Washington, DC	2.3%	-35

Source: NCREIF Property Index as of September 30, 2022.

[6] Four-quarter cumulative returns ending third quarter 2022.
[7] Four-quarter cumulative returns ending third quarter 2022.
[8] Four-quarter cumulative returns ending third quarter 2022.
[9] Four-quarter cumulative returns ending third quarter 2022.

Appendix – Historical Performance

	12 months trailing				
	9/30/2022	9/30/2021	9/30/2020	9/30/2019	9/30/2018
Private Real Estate (NPI)	16.1%	12.2%	2.0%	6.2%	7.2%
Broad Equities (large cap)	-15.5%	30.0%	15.1%	4.3%	17.9%
Bonds	-14.6%	-0.9%	7.0%	10.3%	-1.2%
Listed Real Estate	-16.3%	31.5%	-12.2%	20.7%	4.7%
10-Year Treasury[10]	3.8%	1.5%	0.7%	1.7%	3.1%
12-Month LIBOR[11]	4.8%	0.2%	0.4%	2.0%	2.9%
CPI (SA)	8.2%	5.4%	1.4%	1.7%	2.4%

Sources: NCREIF, Standard and Poor's, Barclay's, NAREIT, and Federal Reserve as of September 30, 2022.

[10] These figures represent annual yields.
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