

# PROPERTY PERFORMANCE MONITOR

## Fourth Quarter 2018



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Marketing Material

### QUARTERLY HIGHLIGHTS

- Core real estate, as measured by the NCREIF Property Index (NPI), registered unlevered total returns of 6.7% during 2018.
- Industrial outperformed by a wide margin, returning 14.3%. Office and Apartment properties returned a distant 6.8% and 6.1%, respectively. The Retail sector continued to decelerate, returning 2.2%.
- Performance bifurcation persisted within sectors. In the Retail sector, Neighborhood and Community center returns were in the mid-single digits while those of Malls were marginally positive or negative; within the Apartment sector, Garden returns were nearly double those of High-Rise.
- West Coast markets generally led the index while New York, Chicago and Washington, DC generally underperformed.

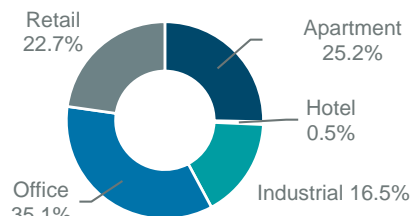
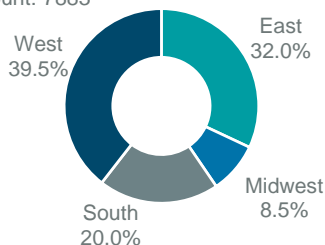
### PRIVATE REAL ESTATE PROPERTY RETURNS

- Commercial real estate returns ticked down 30 bps (trailing four-quarters) from 2017 to 2018.
- Private real estate outperformed both bonds and equities during 2018.
- Returns were income-driven. In the fourth quarter, appreciation returns (trailing four-quarters) were at their lowest level since 2010.
- Overall vacancy remained near its lowest level in 30 years (6.0%). NOI growth was strong, at 3.9% (year-over-year, four-quarter moving average).
- Industrial's outperformance continued to widen, as its return spread to the overall NPI reached 760 bps. Retail's negative gap increased; the fourth quarter marked the twelfth straight quarter of decelerating Retail returns.
- The Bay Area and Seattle were notable outperformers, leading several other strong West Coast markets. The bottom of the list was mixed but generally included Chicago and markets in the Northeast.

### NPI MARKET CAPITALIZATION

Index market value: \$611.7 billion

Property count: 7883



### RECENT PERFORMANCE TRENDS

	Quarter	12 months trailing	
	4Q 2018	4Q 2018	4Q 2017
Private Real Estate (NPI)	1.4%	6.7%	7.0%
Broad Equities (large cap)	-13.5%	-4.4%	21.8%
Bonds	1.6%	0.0%	3.5%
Listed Real Estate	-6.1%	-4.0%	8.7%
10-Year Treasury <sup>1</sup>	2.7%	2.7%	2.4%
12-Month LIBOR <sup>1</sup>	3.0%	3.0%	2.1%
CPI (SA)	0.3%	1.9%	2.1%

Sources: NCREIF, Standard and Poor's, Barclay's and Federal Reserve. As of December 31, 2018. Past performance is no guarantee of future results. For definitions of indices, see the last page of this report.

<sup>1</sup> These figures represent annual yields.

## NCREIF PROPERTY INDEX (NPI) PERFORMANCE BY SECTOR AND REGION

- Overall returns were steady, led by Industrial. Office showed signs of strength while Apartment moderated. Retail continued to struggle, posting its lowest rolling one-year return since mid-2010.
- Returns for all three Industrial subsectors remained in double digits, bolstered by both strong income yields and capital appreciation. In 2018, Industrial sector NOI growth accelerated to 9.0% (year-over-year, four-quarter moving average), the highest on record.
- The divide between Retail's winners and losers is pronounced. Regional and Super Regional shopping centers returned 0.0% over the past year, while Neighborhood and Community centers returned 5.1%.
- The Office sector has realized an uptick in returns over the past six quarters. Suburban Office returned 7.4% year-over-year while CBD Office returned 6.4%. Suburban Office has outperformed CBD Office for eleven straight quarters.
- Garden Apartments were the standout subtype outside of Industrial, returning 8.9%. High-Rise Apartments were weak on a relative basis, although returns stabilized.
- Regional dynamics were unchanged, with the West leading the pack by a significant margin, followed by the South. Total returns in the East and Midwest were comparable.

## DETAILED PROPERTY TYPE NPI PERFORMANCE

	No. of props.	Market value (Mil)	Trailing four quarters		
			Total return	Income	Apprec.
Apartment					
Garden	640	\$43,356	8.9%	5.0%	3.8%
High Rise	897	\$96,029	4.7%	4.0%	0.7%
Low Rise	184	\$14,760	6.4%	4.3%	2.0%
Industrial					
R&D	27	\$822	12.1%	5.9%	6.0%
Flex	229	\$3,849	13.6%	5.6%	7.7%
Warehouse	3,059	\$93,834	14.3%	4.8%	9.2%
Office					
CBD	446	\$127,472	6.4%	4.2%	2.2%
Suburban	1,008	\$87,108	7.4%	5.0%	2.4%
Retail					
Community	240	\$15,353	4.6%	5.4%	-0.8%
Neighborhood	493	\$19,377	5.5%	5.0%	0.5%
Power	193	\$16,003	3.8%	5.4%	-1.6%
Regional	61	\$18,377	-1.5%	4.6%	-5.9%
Super Regional	62	\$52,259	0.6%	4.3%	-3.6%

Source: NCREIF Property Index as of December 31, 2018.  
Past performance is no guarantee of future results.

## RETURNS BY PROPERTY TYPE AND REGION

	Annual returns							Standard deviation	
	1 Year			3 years	5 years	10 years	20 years	Since inception <sup>2</sup>	20 years
Property Type	Total	Income	Apprec.						
Apartment	6.1%	4.3%	1.7%	6.5%	8.3%	7.5%	8.9%	10.3%	8.4%
Industrial	14.3%	4.9%	9.1%	13.2%	13.6%	9.2%	9.9%	9.9%	8.3%
Office	6.8%	4.5%	2.3%	6.4%	8.6%	6.4%	8.3%	8.4%	9.1%
Retail	2.2%	4.7%	-2.4%	5.6%	9.0%	8.2%	10.0%	9.5%	7.6%
<b>Total Index</b>	<b>6.7%</b>	<b>4.6%</b>	<b>2.1%</b>	<b>7.2%</b>	<b>9.3%</b>	<b>7.5%</b>	<b>9.0%</b>	<b>9.2%</b>	<b>8.2%</b>
Region	Total	Income	Apprec.						
East	4.9%	4.4%	0.6%	5.5%	7.4%	6.4%	8.8%	9.9%	8.7%
Midwest	4.3%	4.8%	-0.5%	5.6%	8.0%	6.7%	7.5%	8.0%	6.5%
South	6.7%	5.0%	1.7%	7.0%	9.6%	7.9%	8.5%	8.3%	7.3%
West	8.8%	4.5%	4.2%	9.2%	11.3%	8.5%	10.0%	9.8%	9.0%
<b>Total Index</b>	<b>6.7%</b>	<b>4.6%</b>	<b>2.1%</b>	<b>7.2%</b>	<b>9.3%</b>	<b>7.5%</b>	<b>9.0%</b>	<b>9.2%</b>	<b>8.2%</b>

Source: NCREIF Property Index. As of December 31, 2018. Past performance is not indicative of future returns.

<sup>2</sup> Index returns start in 1978, equivalent to a 41 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 metro with particularly strong or weak performance may boost or weigh on returns from time to time. The following tables lists out which markets had the strongest positive and negative effect on returns during the past four quarters.

### IMPACT OF TOP 20 MARKETS ON SECTOR PERFORMANCE

Apartment			Industrial			Office			Retail		
Metro	Metro returns <sup>3</sup>	Impact on sector returns	Metro	Metro returns <sup>3</sup>	Impact on sector returns	Metro	Metro returns <sup>3</sup>	Impact on sector returns	Metro	Metro returns <sup>3</sup>	Impact on sector returns
San Diego	8.8%	7	New York	18.7%	27	San Francisco	10.8%	38	San Diego	6.9%	20
Denver	7.5%	7	Seattle	17.5%	23	Boston	9.0%	23	Los Angeles	4.5%	14
Houston	7.6%	6	Los Angeles	15.9%	18	Seattle	10.6%	18	San Jose	6.4%	10
Atlanta	7.9%	6	Oakland	17.6%	13	San Jose	10.1%	13	Miami	4.7%	9
Oakland	7.9%	4	Orange County	16.6%	8	Los Angeles	8.4%	12	Dallas	3.6%	7
Orange County	7.8%	3	San Francisco	19.9%	8	Oakland	11.7%	10	Las Vegas	3.6%	7
San Jose	7.5%	3	Riverside	14.8%	7	Austin	11.2%	9	Washington, DC	2.8%	5
Boston	6.8%	3	Portland	18.1%	7	Dallas	9.5%	7	Denver	3.7%	5
Austin	6.8%	2	San Jose	15.6%	2	Atlanta	9.4%	4	Oakland	4.1%	5
Fort Lauderdale	6.4%	1	San Diego	14.2%	0	Portland	8.2%	1	Orlando	2.8%	2
Los Angeles	6.0%	-1	Fort Lauderdale	13.6%	-1	San Diego	6.1%	-2	Atlanta	2.6%	1
Miami	4.5%	-2	Denver	12.8%	-2	Phoenix	4.9%	-2	Orange County	2.6%	1
Seattle	5.5%	-3	Miami	13.6%	-2	Minneapolis	3.7%	-3	San Francisco	2.5%	1
Portland	3.8%	-4	Washington, DC	12.4%	-3	Miami	4.6%	-3	Seattle	1.0%	-3
Philadelphia	3.8%	-5	Atlanta	12.5%	-6	Orange County	4.9%	-4	Phoenix	0.5%	-6
Dallas	5.0%	-6	Harrisburg	9.0%	-7	Houston	5.1%	-5	Baltimore	-3.7%	-12
San Francisco	3.6%	-7	Houston	11.4%	-8	Chicago	5.6%	-6	Boston	-4.1%	-21
Washington, DC	5.2%	-8	Baltimore	9.4%	-10	Denver	3.6%	-7	Houston	-1.5%	-23
Chicago	3.1%	-22	Dallas	12.0%	-18	Washington, DC	3.6%	-39	New York	-2.4%	-26
New York	3.9%	-26	Chicago	10.0%	-39	New York	3.3%	-68	Chicago	-1.2%	-27

Source: NCREIF Property Index as of December 31, 2018. Past performance is no guarantee of future results. Forecasts are based on assumptions, estimates, opinions and hypothetical models or analysis which may prove to be incorrect.

**Apartment** – Orlando, Riverside, Nashville, and Tampa, smaller, regional markets that fell outside of the top 20, boasted some of the highest total returns. Generally, regional markets continued to outperform while several gateway markets struggled; New York, Chicago, Washington, DC, and San Francisco all detracted from sector returns. The Bay Area was divided as San Jose and Oakland outperformed while San Francisco lagged behind. San Diego, Denver, and Houston made the largest positive contributions.

**Industrial** – Performance remained strong across all metros, with all markets outperforming the overall NPI. West Coast metros continued to dominate, joined by New York. Los Angeles' contribution to sector returns was substantial thanks to its size. The major inland distribution hubs of Atlanta, Chicago, and Dallas, all of which have above-average construction activity, underperformed, as did Miami and Fort Lauderdale. Philadelphia was a standout, returning 18.1% over the trailing four quarters.

**Office** – Knowledge-based markets including Austin, Oakland, San Francisco, San Jose, and Seattle delivered a large positive contribution to sector returns. Underperformance was concentrated in key gateway markets with substantial supply pipelines (New York, Washington, DC) or anemic growth (Chicago). Markets in Texas (Dallas and Austin) benefited from robust overall corporate demand while an upward trend remains intact in Houston, although its returns remained below average. Denver continued to realize decelerated returns.

**Retail** – West Coast markets generally produced the highest returns. The Sunbelt was mixed with Nashville and Raleigh producing the highest returns and Atlanta and Orlando hovering around the middle of the pack. Metros with outsized mall exposure, namely Houston and Chicago were generally the largest detractors. New York and Boston's low returns and relatively large size imposed a significant drag on sector results.

<sup>3</sup> Four-quarter cumulative returns ending fourth quarter 2018.

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