

APARTMENT INDEX

APARTMENTS 2017Q4

NCREIF apartment property performance remains positive but total returns continue to weaken as the pace of appreciation slows. The NPI Apartment Sub-Index, comprised of 1,557 properties valued at \$133.1 billion, posted a quarterly total return of 1.62% in 2017Q4 and a one-year total return of 6.16%, with 4.4% income and 1.7% annual appreciation. This quarter marks the lowest annual appreciation return for apartments since 2010Q3 - the last time annual appreciation was negative across all property types. Since then, apartment values have increased 122% and now stand 55% above their 2007 peak, according to Real Capital Analytics.

Once again, NPI apartment one-year performance exceeded all other major property sectors in 2017Q4 except industrial, which has maintained double-digit returns since 2011Q1. Regionally, apartment one-year total returns were weakest in the Midwest at 4.14% and strongest in the West at 7.95%. The biggest driver of regional disparity was appreciation. The West, representing 35% of NPI apartments, posted appreciation of 3.42% for the year, while appreciation in the other three regions ranged from (0.28%) to 1.25%. On a 3-, 5- and 10-year basis, NCREIF apartment total returns as of 2017Q4 were 8.72%, 9.35% and 6.12%, respectively.

Capital remains plentiful for apartments, keeping pressure on yields. Each year, investors surveyed by Urban Land Institute and PWC for Emerging Trends in Real Estate have ranked multifamily in first or second place for investment/development prospects for more than a decade. Multifamily is also a perennial favorite among investors surveyed for the Association of Foreign Investors Real Estate. U.S. metropolitan areas most favored by investors – Los Angeles, New York, Seattle, Washington DC and San Francisco – account for over 30% of NPI Apartment Sub-Index value. These and other large coastal metropolitan areas have been magnets for investment and development of urban high-rise projects, which have dominated apartment construction activity for the past ten years. Apartment demand remains strong in these markets, where high-wage jobs are being created and homeownership is least affordable, but at this point in the cycle, pockets of overbuilding depress occupancy in many CBDs.

NCREIF high-rise properties (\$83 billion or 62% of Sub-Index), posted the weakest one-year total returns in 2017Q4 at 4.71%, comprised of 4.05% income and only 0.64% appreciation. High rise properties are more geographically concentrated, with the 10 largest high-rise markets (at least \$2 billion each) accounting for 68% of NPI high-rise value. Garden style properties are more geographically diverse, with the 18 largest garden markets (at least \$1 billion each) accounting for 68% of NPI garden value (\$40 billion or 30% of Sub-Index). Garden properties had the strongest one-year returns in 2017Q4 at 8.9%, comprised of 5.07% income and 3.69% appreciation. Low-rise properties, which are primarily in Texas, posted a 6.73% one-year return in 2017Q4.

Recent trends reflect growing interest in older properties and suburban locations, which capitalize on the need for more affordable rentals. NCREIF cap rates for older apartments, built before 2008, have fallen to an all-time low of 4.42% - just 43 bps above those built after 2008.

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APARTMENT TOTAL RETURNS

	Total NPI	Total Apartment	East	Midwest	South	West
4th Q 2017	1.80	1.62	1.13	0.85	1.75	2.17
3rd Q 2017	1.70	1.66	1.28	1.21	1.52	2.21
One Year	6.96	6.16	4.97	4.14	5.94	7.95
Three Years	9.38	8.47	6.54	7.00	8.02	11.12
Five Years	10.19	9.22	7.22	8.46	9.56	11.25
Ten Years	6.08	6.08	4.13	7.00	6.86	7.29
Twenty Years	9.44	9.27	8.98	8.70	9.16	10.38

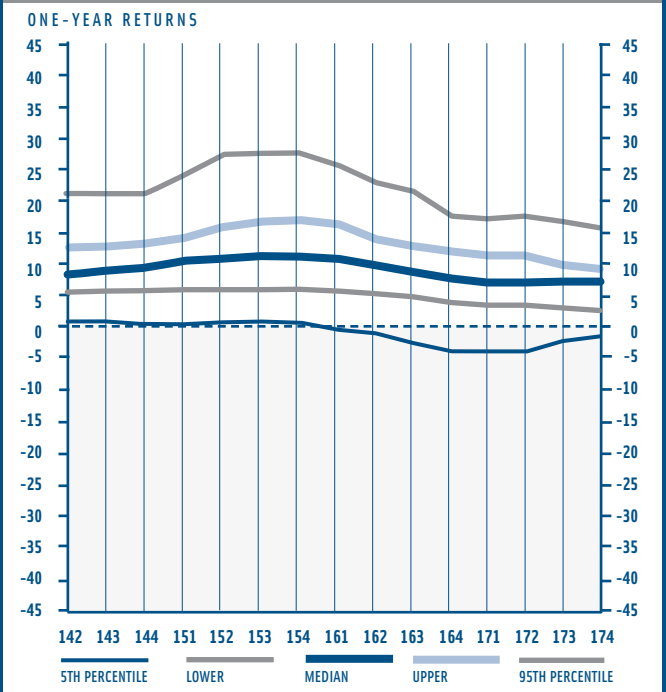
APARTMENT INCOME RETURNS

	Total NPI	Total Apartment	East	Midwest	South	West
4th Q 2017	1.16	1.07	1.03	1.04	1.14	1.07
3rd Q 2017	1.14	1.07	1.01	1.08	1.09	1.10
One Year	4.68	4.40	4.20	4.43	4.64	4.42
Three Years	4.82	4.59	4.35	4.56	4.93	4.56
Five Years	5.08	4.77	4.47	4.85	5.19	4.73
Ten Years	5.54	5.04	4.67	5.31	5.51	4.97
Twenty Years	6.60	5.94	5.81	6.07	6.25	5.82

APARTMENT APPRECIATION RETURNS

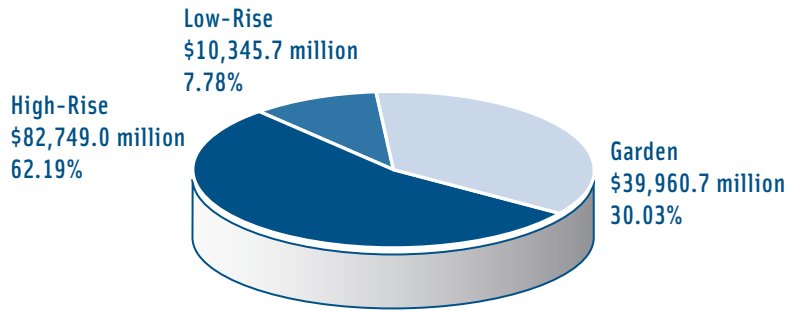
	Total NPI	Total Apartment	East	Midwest	South	West
4th Q 2017	0.63	0.55	0.10	-0.19	0.61	1.11
3rd Q 2017	0.56	0.59	0.27	0.13	0.43	1.11
One Year	2.20	1.70	0.74	-0.28	1.25	3.42
Three Years	4.41	3.75	2.12	2.36	2.98	6.34
Five Years	4.92	4.29	2.66	3.48	4.21	6.29
Ten Years	0.52	1.00	-0.51	1.62	1.30	2.24
Twenty Years	2.71	3.19	3.05	2.51	2.78	4.37

APARTMENT INDEX—QUARTILE RANGE OF RETURNS



APARTMENT SUB-TYPES INDEX

TOTAL APARTMENT



Apartment Properties	1,557
Garden Properties	627
HighRise Properties	797
LowRise Properties	133
Total Market Value	\$133,055.4M

GARDEN TOTAL RETURNS

	Total NPI	Total Apartment	Total Garden
4th Q 2017	1.80	1.62	2.45
3rd Q 2017	1.70	1.66	2.41
One Year	6.96	6.16	8.90
Three Years	9.38	8.47	10.98
Five Years	10.19	9.22	10.99
Ten Years	6.08	6.08	7.21
Twenty Years	9.44	9.27	9.67

GARDEN INCOME RETURNS

	Total NPI	Total Apartment	Total Garden
4th Q 2017	1.16	1.07	1.23
3rd Q 2017	1.14	1.07	1.23
One Year	4.68	4.40	5.07
Three Years	4.82	4.59	5.27
Five Years	5.08	4.77	5.45
Ten Years	5.54	5.04	5.60
Twenty Years	6.60	5.94	6.28

GARDEN APPRECIATION RETURNS

	Total NPI	Total Apartment	Total Garden
4th Q 2017	0.63	0.55	1.22
3rd Q 2017	0.56	0.59	1.18
One Year	2.20	1.70	3.69
Three Years	4.41	3.75	5.49
Five Years	4.92	4.29	5.33
Ten Years	0.52	1.00	1.55
Twenty Years	2.71	3.19	3.24

HIGH-RISE TOTAL RETURNS

	Total NPI	Total Apartment	Total High-Rise
4th Q 2017	1.80	1.62	1.15
3rd Q 2017	1.70	1.66	1.27
One Year	6.96	6.16	4.71
Three Years	9.38	8.47	7.11
Five Years	10.19	9.22	8.21
Ten Years	6.08	6.08	4.98
Twenty Years	9.44	9.27	9.66

HIGH-RISE INCOME RETURNS

	Total NPI	Total Apartment	Total High-Rise
4th Q 2017	1.16	1.07	0.99
3rd Q 2017	1.14	1.07	0.98
One Year	4.68	4.40	4.05
Three Years	4.82	4.59	4.22
Five Years	5.08	4.77	4.37
Ten Years	5.54	5.04	4.53
Twenty Years	6.60	5.94	5.51

HIGH-RISE APPRECIATION RETURNS

	Total NPI	Total Apartment	Total High-Rise
4th Q 2017	0.63	0.55	0.16
3rd Q 2017	0.56	0.59	0.29
One Year	2.20	1.70	0.64
Three Years	4.41	3.75	2.81
Five Years	4.92	4.29	3.72
Ten Years	0.52	1.00	0.44
Twenty Years	2.71	3.19	3.99

LOW-RISE TOTAL RETURNS

	Total NPI	Total Apartment	Total Low-Rise
4th Q 2017	1.80	1.62	2.05
3rd Q 2017	1.70	1.66	1.67
One Year	6.96	6.16	6.73
Three Years	9.38	8.47	8.79
Five Years	10.19	9.22	9.58
Ten Years	6.08	6.08	6.78
Twenty Years	9.44	9.27	

LOW-RISE INCOME RETURNS

	Total NPI	Total Apartment	Total Low-Rise
4th Q 2017	1.16	1.07	1.07
3rd Q 2017	1.14	1.07	1.08
One Year	4.68	4.40	4.45
Three Years	4.82	4.59	4.62
Five Years	5.08	4.77	4.83
Ten Years	5.54	5.04	5.02
Twenty Years	6.60	5.94	

LOW-RISE APPRECIATION RETURNS

	Total NPI	Total Apartment	Total Low-Rise
4th Q 2017	0.63	0.55	0.98
3rd Q 2017	0.56	0.59	0.59
One Year	2.20	1.70	2.20
Three Years	4.41	3.75	4.03
Five Years	4.92	4.29	4.59
Ten Years	0.52	1.00	1.70
Twenty Years	2.71	3.19	