

# THE NPI VS. A TRUE “PASSIVE INDEX” - IMPLICATIONS FOR PORTFOLIO REBALANCING

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More than 25 years since its inception, the NCREIF Property Index now contains almost 4,000 institutionally owned properties, representing over 75 managers and valued at over \$125 billion. The properties are geographically diversified across 100 markets and represent significant exposure to the four major property types. They also represent a very broad mix of sizes ranging from trophy malls and office properties all the way down to smaller retail and industrial properties. The index has clearly achieved recognition as the Industry Standard, notwithstanding some of the challenges associated with appraisal-based valuation, and is generally regarded as the de facto benchmark for most all industry participants. However, even with the significant growth over time in the Index itself and the impressive body of research it has spawned, industry participants recognize that the Index, at best, represents only a subset of the true universe of institutional quality properties. This article offers an example of a more broadly constructed “Passive Index” which is intended to estimate the total institutional investment universe of real estate. As such, the Passive Index can serve as a supplemental benchmark that is largely free of the potential biases found in the acquisition patterns of the NCREIF members.

By providing a more accurate measure of the potential investment universe, the Passive Index can assist in developing diversified portfolios further minimizing unsystematic risk. Its intended use is as a supplement to the NPI that can provide investors with additional perspective and insight on property type and geographic allocations, and perhaps allow them to further fine-tune portfolio exposures depending on their specific goals and objectives. By understanding both the NPI and, as importantly, how it differs from the broader universe of properties, industry participants will have more and better information with which to make investment related decisions.

## PROPERTY TYPE COMPARISONS

The exhibit below indicates the estimated size and percentage allocations of the NPI by property type relative to the Passive Index. Several observations are notable from a national-level property sector perspective. First, the aggregate NPI value comprises only about 6% of the U.S. institutional investment market, up from 4% three years ago. The low ownership share

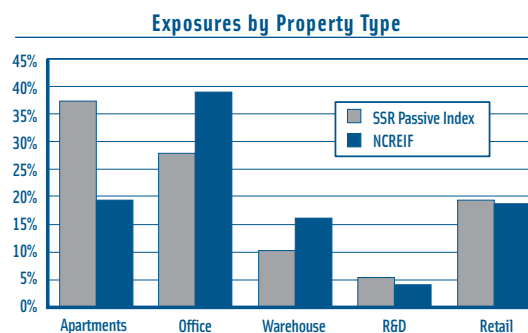
of institutional investors of the “universe” – it is still only 25% if we include the market value of NAREIT properties – provides support for ample inventory in the larger institutional markets for continued inflows of capital to the sector, without forcing investors to push downward into thinner tertiary markets. Second, on a relative basis, the NPI is substantially under weighted in the apartment sector and substantially over weighted in the office sector. It is modestly over weighted to the warehouse sector.

Third, given the historical risk/return characteristics of both the office and apartment sectors (the office sector has produced some of the lowest returns and highest standard deviation of returns, while the apartment sector has produced the highest returns and lowest standard deviation of returns), the current weightings in the NPI support a lower-return/higher-volatility benchmark than the Passive Index would suggest. Indeed, this seems to have been noticed by investors who have been rotating out of the office sector and into the apartment sector over the past several years. As a result, the office weighting in the NPI has gone from 41% in 2000 to its current level of 39%, while over the same time period, the apartment sector has risen from 18% to its current level of 20%. Finally, investors’ appetite for warehouse product has increased as evidenced by an increased weighting in the sector from 12% to 16%.

Our forecasts suggest that an investor who employs a strategy of over weighting an under weighted sector (e.g. the apartment sector) while under weighting an over weighted sector (e.g. the office sector) should theoretically have a better chance of beating the NPI benchmark than an investor who merely buys the NPI basket. This is because, in the long run, it is reasonable to expect the NPI to look more like the Passive Index – along with increased market share should come more demand for these assets which would drive up their prices. This would certainly help to explain some of the excess performance in the apartment sector and the underperformance in the office sector. Over the long term, if investors continue to rotate out of the office sector and into the apartment sector, the strategy will become harder to execute and the risk/return characteristic of the NPI should also migrate to a higher-return/lower-risk benchmark.

Property Sector	SSR Passive Index		NCREIF			
	Market Value (Millions)	% Total	Market Value (Millions)	% Total	% of Passive Index	Relative Deviation
Apartments	\$766,750	37%	\$24,834	20%	3%	-17.7%
Office	574,054	28%	49,703	39%	9%	11.2%
Warehouse	211,894	10%	20,481	16%	10%	5.8%
R&D	107,439	5%	5,029	4%	5%	-1.3%
Retail	397,413	19%	24,191	19%	6%	-0.3%
Other/Unclassified1	na	na	2,988	2%	na	na
<b>Total</b>	<b>\$2,057,550</b>	<b>100%</b>	<b>\$127,225</b>	<b>100%</b>	<b>6%</b>	

Sources: SSR Realty Advisors, NCREIF, NREI, REIS, TWR, NRB



Relative Deviation	SSR Passive Index		NCREIF			
	Market Value (Millions)	% Total	Market Value (Millions)	% Total	% of Passive Index	Relative Deviation
Northeast	\$415,760	20%	\$21,091	17%	5%	-3.6%
Midwest	223,734	11%	15,820	12%	7%	1.6%
East N Central	238,611	12%	14,754	12%	6%	0.0%
West N Central	77,219	4%	4,202	3%	5%	-0.4%
Southeast	207,224	10%	15,486	12%	7%	2.1%
Southwest	203,510	10%	12,680	10%	6%	0.1%
Mountain	123,627	6%	8,332	7%	7%	0.5%
Pacific	567,865	28%	34,861	27%	6%	-0.2%
<b>Total</b>	<b>\$2,057,550</b>	<b>100%</b>	<b>\$127,225</b>	<b>100%</b>	<b>6%</b>	

Sources: SSR Realty Advisors, NCREIF, NREI, REIS, TWR, NRB

### Geographic Comparisons

Analyzing the Passive Index based on geography (using the eight NCREIF divisions) results in the following exhibit. The magnitude of the differences between the Passive Index and the NPI is smaller when viewed from the divisional perspective. Nonetheless, several observations are still notable. First, while still under weighted relative to the Passive Index, the Northeast division's exposure has grown from 14% of the NPI three years ago to its current weighting of 17%. Second, the Southeast and Midwest divisions are slightly over weighted relative to the Passive Index and the Pacific division, which had previously been under weighted at 25% of the NPI, is now neutral weighted at 27%.

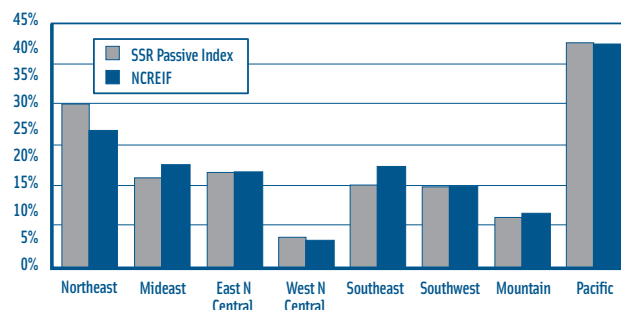
These trends represent the fact that portfolio managers of NPI properties have added disproportionately more assets in the Northeast and Pacific over the last three years, increasing their average exposure in these two divisions. This has come mostly at the expense of the Midwest region and the Mountain division which have seen their exposures pull back to near-neutral weightings. Similar to the portfolio managers' decisions to increase allocations to apartments, a shift to the more land-constrained coastal markets brings the NPI closer to the geographic composition of the Passive Index.

### Methodology

**The SSR Passive Index:** SSR Research maintains a data warehouse that contains inventory and current sales price per square foot for each property type in a metro area. The inventory for each metro area is computed by examining the inventories published by REIS.com (for apartments and office), Torto Wheaton (for office, warehouse and R&D) and National Research Bureau (for retail). We adjust the inventory to exclude office, industrial and shopping centers whose total GLA is less than 50,000 sf and exclude apartment complexes with less than 50 units. For each metro area the current market value is computed by multiplying the NREI sales price per square foot by the number of square feet in that market.

**NCREIF Property Index:** SSR Research receives from NCREIF disaggregated data which contains the number of properties and the current market value for each property type in a metropoli-

Exposures by NCREIF Division



Relative MSA Weightings of NPI to Passive Index



Sources: SSR Realty Advisors, NCREIF, NREI, REIS, TWR, NRB

Areas of darker grey indicate under weighted allocations to the local area, while darker blue areas indicate over weighting. The analysis is conducted at the metro level, the accuracy of the values diminishes with distance from city points.

tan area and for each NCREIF division. When the market value is masked by NCREIF due to fewer than 4 properties in a metropolitan area, we estimate the market value by multiplying the property count by the average property market value for that property type.

At the MSA level, the NPI maintains an over weighting across the U.S. to a number of high-growth/high-development markets. These include Southern Florida, Atlanta, Phoenix, Denver, and some of the Texas markets. At the same time, the NPI remains under weighted in some of the space-constrained costal markets, especially Los Angeles and the New York/New Jersey/Southern Connecticut metro areas. Investors who shift assets to some of the space-constrained costal markets that are expected to outperform should theoretically have a better chance of beating the NPI benchmark.