THE NCREIF DATABASE OFFERS MORE THAN JUST RETURNS

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The NCREIF Property Index (NPI) is best known for its historical returns, in aggregate and by property sector and region. But the NCREIF database has more than just returns – it contains information on vacancy, operating income, capital expenditures, market value, and location and property type identifiers. Relevant and useful metrics, such as capitalization rates, cashflow yields, growth of same-store income and ownership turnover, can be aggregated or inferred from the database. The following illustrates four possible applications of the NCREIF database, all for a better understanding of the real estate space and investment markets.

THE BATTLE OF THE SECTORS

Exhibit 1 shows the performance of the office and retail sectors relative to the NPI. In the early years of NCREIF, office had excellent returns and retail underperformed. When the back-to-back recessions in 1980-83 were over, retail began its decade-long, strong relative performance, boosted in large part by the expanding purchasing power of the baby boomers. Office, however, was plagued by chronic overbuilding, which culminated in a depression, the likes of which had not been seen since the 1930s. A five-year pause in new supply led to a strong recovery in the office market in the second half of the 1990s, while retail struggled to digest its own excesses following unprecedented expansions in retail space, formats and retailers in the 1980s. The 2001 recession reversed the fortune of the office market as phantom demand generated by equally phantom tech companies disappeared overnight. But the courageous spending of consumers in a perilous employment environment boosted retail's relative standing.

As of 1Q03, office commanded a NCREIF share of 39.6%, twice retail's 19.1% share. Retail, therefore, is not nearly as important as office to the NPI. The significance of this battle of the sectors, however, lies in that retail, the consumer sector of real estate, is the opposite of office, which is driven by the corporate sector. At times, the consumer and corporate economies grow in tandem, but frequently they diverge. We have been experiencing a severe corporate recession since 2001, but a consumer recession has not occurred despite the stock market meltdown and a loss of more than 2 million jobs over the last two years.

DECOUPLING OF CAP RATES

Exhibit 2 shows the trends in capitalization rates derived from the NCREIF database. In the early 1990s, when the market repriced commercial real estate on a wholesale basis, cap rates rose significantly from their cyclical lows achieved in 1987-90. Over the last two years, while cap rates declined noticeably in the industrial, office and retail sectors, the decline of apartment cap rates was nothing short of spectacular.

Both the reduced income due to weakening space markets and the strong capital markets for real estate have caused the cap rate declines. Although the numerator as well as the denominator of the cap rate ratio likely contributed to the changes in the ratio, important differences exist among the sectors in their relative contributions. Because of long-term leases and a near absolute pause in leasing activities, most of the in-place income for office and industrial properties has not been marked to market yet. The cap rate declines in office, industrial and retail may largely be traced to the strong capital market demand for real estate. Because apartments have short-term leases, generally one year or less, most of the in-place rents in the 1Q03 data should already reflect the much lower market rents. Therefore, the decline in the apartment cap rate likely was caused by both a decrease in income as well as a strong capital market for real estate.

Low interest rates and falling expectations for stock market returns have raised the relative attractiveness of real estate despite weakening real estate fundamentals. The stock market affected the real estate market in two ways. First, investors' hopes regarding the stock market have dwindled. Expectations have fallen from double-digit returns to a more rational dividend yield plus nominal GDP growth (e.g. 2% + 5.5%). This has made commercial real estate's 6%-7% cash yield, plus 2% inflationary growth over the long term, extremely competitive on an absolute return basis as well as on a risk-adjusted basis. Second, the shift in market sentiment from growth to value-oriented investments further fueled the demand for real estate. After all, real estate belongs to the greater value-investment universe.

The low-interest-rate environment boosted the capital market demand for real estate investments in two ways as well. First, the sub-4% yield on the 10-year Treasury bond not only promises low returns on bonds, but also ensures an extreme asymmetry between downside risk and upside potential that's not in investors' favor. Many fixed-income investors, therefore, substituted properties with quality, medium- to long-term credit leases for fixed-income instruments to enhance current returns. Second, real estate is highly financeable. With historically low floaters and fixed-rate mortgages, the weighted average cost of capital for a property fell sharply, which brought down cap rates with it.

A COMPARISON OF VACANCY RATES

Exhibit 3 shows the office vacancy rates of the NCREIF properties and three national real estate data suppliers. The four vacancy series behave remarkably similarly; the correlation coefficient between any two pairs of data points is 0.97 or higher. On average, the vacancy rates among the NCREIF properties is approximately 320 basis points lower than the national averages provided by Property and Portfolio Research (PPR), REIS and Torto-Wheaton Research.

Currently, REIS's vacancy rate estimate is 188 basis points higher than NCREIF's actual vacancy rates, while PPR and Torto-Wheaton Research's vacancy rate estimates are both 258 basis points higher. Since Class B/C space tends to have higher vacancy rates than Class A space, the lower NCREIF vacancy rate could be attributed to the disproportionate share of Class A properties owned by institutional investors.

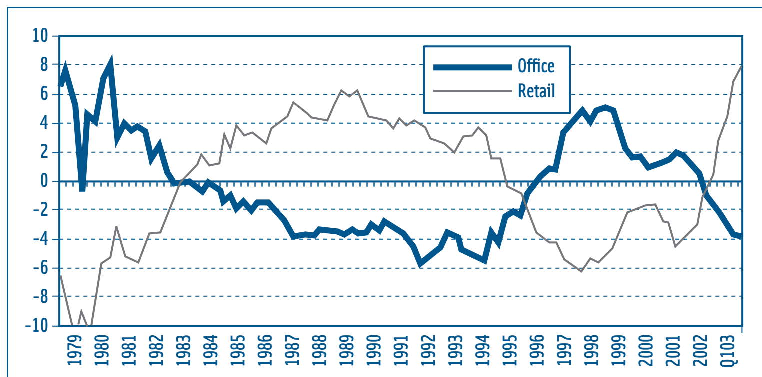
CONCENTRATION OF NCREIF INVESTMENTS

As of 1Q03, the NPI has 3,847 properties with a market value of $124 billion. These NCREIF investments are scattered in 61 metropolitan areas and a few remote places not designated as metropolitan areas by the US government. As **Exhibit 4** illustrates, institutional investors have a strong preference for largest metropolitan areas. For example, the top five metro areas comprise 45.4% of the NCREIF investments. The top 10 account for 66.1%, and the top 16 represent 80.2%.

Institutional preference for large metro areas may partially reflect the natural concentration of commercial real estate in large urban areas. Office buildings, for example, are highly concentrated in a few large cities. Warehouses tend to be located in a few national and regional distribution centers. The high level of investment concentration may also reflect institutional investors' preference for the higher liquidity afforded by large cities.

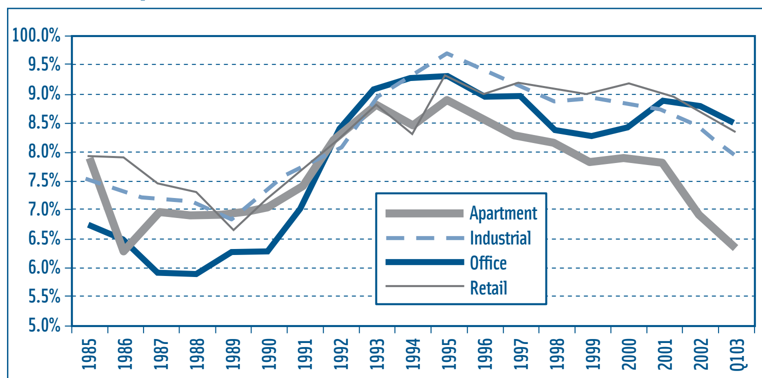
Note from NCREIF – This article illustrated just a few of the many insights into the performance of institutional real estate that are possible through the use of the NCREIF database. As NCREIF continues to expand its database, the entire real estate industry will benefit from a better understanding of space and capital markets.

Exhibit 1: Trailing 4-Quarter Return Difference (%) Between Office/Retail and NPI



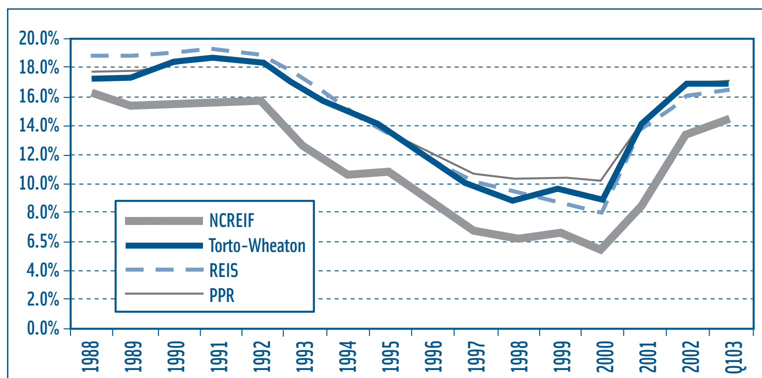
Source: NCREIF, Prudential Real Estate Investors

Exhibit 2: Capitalization Rate Trends



Source: NCREIF
Note: Yearly cap rate is an average of the quarterly cap rates

Exhibit 3: Office Vacancy Rates (%) from Different Sources



Source: NCREIF, PPR, REIS, Torto-Wheaton Research
Note: All data as of 1Q03 except PPR, which is as of 4Q02

Exhibit 4: Spatial Distribution of NCREIF Investments

	NCREIF Share	Cumulative Share
Los Angeles Area	10.4%	10.4%
Washington DC - Baltimore	9.3%	19.7%
San Francisco Bay Area	9.2%	28.9%
New York Area	9.0%	37.9%
Chicago	7.5%	45.4%
Dallas-Ft. Worth	4.7%	50.1%
Boston	4.5%	54.6%
Miami-Ft. Lauderdale-West Palm Beach	4.3%	58.9%
Atlanta	4.1%	63.0%
San Diego	3.2%	66.1%
Houston	3.0%	69.1%
Seattle	2.6%	71.7%
Phoenix	2.5%	74.2%
Denver	2.4%	76.6%
Philadelphia	1.9%	78.5%
Minneapolis	1.7%	80.2%

Source: NCREIF 1Q03, Prudential Real Estate Investors