

Publicly-traded REITs Own Properties But Don't Give Investors All the Benefits of Private Real Estate Ownership

It is commonly accepted wisdom that a diverse portfolio of direct private real estate can substantially diversify an overall investment portfolio because of its history of lower volatility and very low correlation with publicly-traded equities of all types (both real estate and otherwise). Yet, it has also offered substantially similar returns. In short, adding real estate may reduce both volatility and risk in a prudently-structured investment portfolio without sacrificing potential return.

Yet, there is one factor that typically restrains institutional investors from committing more than a token amount to private real estate: the often lengthy and cumbersome process of obtaining liquidity. Fair market transactions in the private property market can often take three to six months or more. Thus publicly-traded REITs are often viewed (albeit mistakenly) as a solution to this problem. Publicly-traded REITs hold portfolios of properties that do indeed look a lot like those held in private portfolios, yet they also offer investors shares that can be quickly sold over the listed stock exchanges or on the over-the-counter market. Voila! Exposure to institutional quality real estate without the usual pesky sluggish liquidity.

The Trouble With Publicly-Traded REITs

Except the problem is, that's not entirely accurate. The very characteristic of immediate liquidity is actually what causes the publicly-traded REIT investor to lose the connection to, and some of the benefits of, the underlying property portfolio.

Public stock markets are subject to the complex, changing and powerful forces of greed and fear that drive investor behavior. These forces can cause prices to swing wildly, to overshoot on the upside for years in a bull market trend and to undershoot disturbingly on the downside in a market downturn. Thus, it is rare for an investor to purchase shares in a publicly-traded REIT at just the right price, i.e., at the aggregated net value of all of the individual assets within the portfolio. The publicly traded price is usually either higher or lower, and can vary significantly depending upon lots of other factors... many of which are totally unrelated to the underlying value of the assets in the portfolio.

Reviewing the Return History

Let us examine the data in Exhibit 1 on the next page, a bar chart showing the annual returns for the last decade in four common areas of U.S.

**Please see last page for important disclosures.*

investing: stocks, bonds, real estate and public REITs. Stock market returns are represented by the S&P 500 index, bonds by the Barclays Aggregate US Bond index, private real estate by the NCREIF Open-end Diversified Core Equity Fund index (NFI-ODCE index) and public REITs by the FTSE NAREIT U.S. Real Estate Equity index (NAREIT Equity REIT index).

The first year on the bar chart, 2008, was a standout anomaly, with all different types of equity declining dramatically. The one prior comparable time for such an event was in the crash of 1929. Since the recovery in 2010 and after, private real estate has returned to its historically more typical steady, low volatility performance, in stark contrast to the wild swings experienced by stocks and publicly-traded REITs. As a result, real estate has been back to performing its diversification function for investment portfolios. The same cannot be

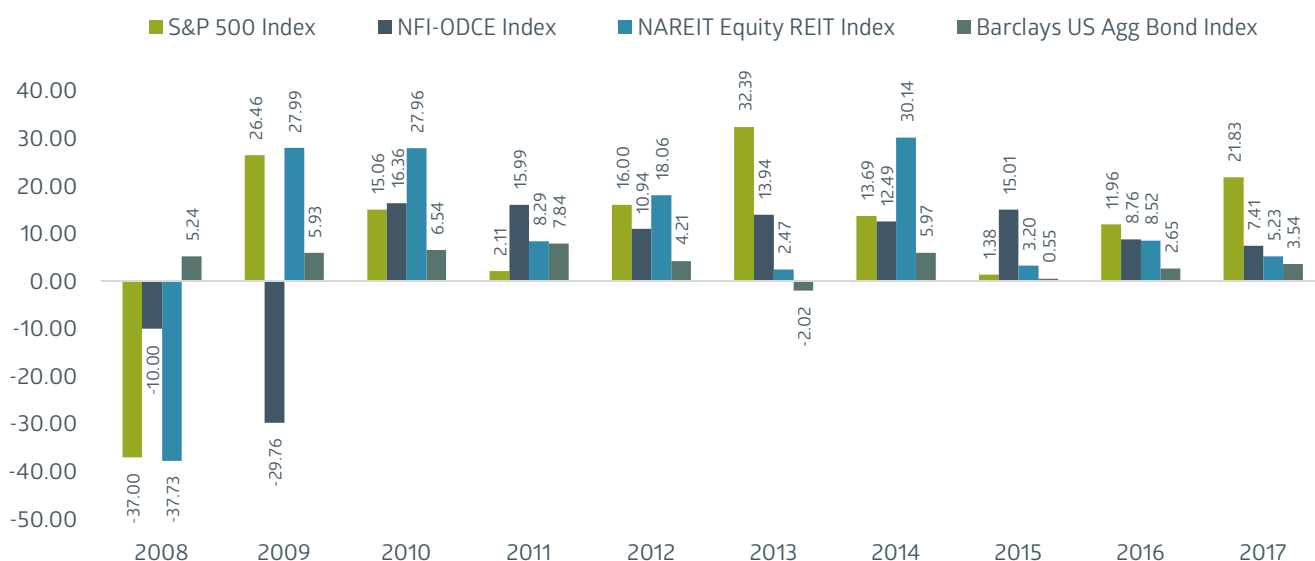
said for public REITs, in which boom years have been interspersed with lackluster years.

The total returns for each asset class are summarized for various periods in Exhibit 2 below. Over most time series, the NAREIT Equity REIT index appears to perform about the same as the NFI-ODCE index. However, when one considers the higher leverage taken on by equity REITs (typically 35-45% loan to value) versus the funds in the NFI-ODCE index (20-30% loan to value), the fact is that public REIT stocks should have outperformed. In any case, private real estate generally has competed favorably in returns to the other equity assets.

Comparing Volatility

The real differences in behavior between public and private real estate shows up when one considers

Exhibit 1: Total Returns of Market Indices (%)



Source: Morningstar. **Past performance is no indication of future results.** All investments have the risk of loss.

Exhibit 2: Total Market Index Returns for Periods Ending December 31, 2017

Return	S&P 500 Index	CRSP US Small Cap Index	Barclays US Agg Bond Index	NFI-ODCE Index	NAREIT Equity REIT Index	NAREIT Equity REIT Index Vs NFI-ODCE
1 Year	21.83%	16.24%	3.54%	7.41%	5.23%	-2.18%
3 Years	11.41%	9.81%	2.24%	10.34%	5.62%	-4.72%
5 Years	15.79%	14.54%	2.10%	11.48%	9.46%	-2.02%
10 Years	8.50%	10.03%	4.01%	5.01%	7.44%	2.43%
20 Years	7.20%	NA	4.98%	8.93%	8.95%	0.02%

Source: Morningstar. **Past performance is no indication of future results.** All investments have the risk of loss.

differences in volatility (standard deviation of returns) as shown in Exhibit 3 and in the correlation of returns shown in Exhibit 4, both below.

For the ten-, fifteen- and 20-year time periods presented in Exhibit 3, the private real estate markets, as shown by the NFI-ODCE index, were more volatile than bonds, but generally only about half as volatile (or less) as the S&P 500 stocks and even less volatile than small cap value stocks, as measured by the CRSP US Small Cap index. Publicly-traded equity REITs, on the other hand, were clearly high risk with a volatility higher than even small cap value stocks! Thus, based on this historic data, if one substitutes publicly-traded REITs for the real estate portion in a mixed asset portfolio, one is potentially more than doubling the risk of that allocation.

Analyzing Correlations

The final chart on correlation of returns is probably the most negative for advocates of publicly-traded REITs. If the point of investing in real estate is to diversify the

portfolio, then one wants to invest in something that behaves differently from the other equity securities. Private real estate, as represented by the NFI-ODCE index, clearly has historically offered that diversification, with essentially very low correlation to either the S&P 500 or the CRSP US Small Cap index. Publicly-traded REITs on the other hand, owed 69% of their return to the same forces that drove the S&P 500 and 76% to those of the CRSP US Small Cap index. Private real estate was a true diversifier, public REITs were not. It is as simple as that. If one added REITs to a mixed asset portfolio, one was simply taking on more of the same stock market risk that was already in the portfolio.

In conclusion, it seems pretty clear that, based upon this historic evidence, if one wants the returns, the low volatility risk and the real diversification benefits inherent in real estate investments, one should invest in a well-diversified portfolio of privately-held real property rather than in publicly-traded REITs.

Exhibit 3: Standard Deviation of Quarterly Market Index Returns for Periods Ending December 31, 2017

Standard Deviation	S&P 500 Index	CRSP US Small Cap Index	Barclays US Agg Bond Index	NFI-ODCE Index	NAREIT Equity REIT Index
10 Year	16.35%	20.30%	3.30%	8.53%	24.85%
15 Year	14.46%	18.54%	3.30%	7.37%	22.43%
20 Year	16.50%	NA	3.43%	6.50%	20.53%

Source: Morningstar. **Past performance is no indication of future results.** All investments have the risk of loss.

Exhibit 4: Correlation of Quarterly Returns, January 2002 to December 2017

	S&P 500 Index	CRSP US Small Cap Index	Barclays US Agg Bond Index	NFI-ODCE Index	NAREIT Equity REIT Index
S&P 500 Index	1.00	0.95	-0.28	0.20	0.69
CRSP US Small Cap Index		1.00	-0.26	0.14	0.76
Barclays US Agg Bond Index			1.00	-0.21	0.07
NFI-ODCE Index				1.00	0.21
NAREIT Equity REIT Index					1.00
NAREIT Equity REIT Index					

Source: Morningstar. **Past performance is no indication of future results.** All investments have the risk of loss. CRSP US Small Cap index data not available prior to January 2002.

ABOUT THE 9:05

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