A PRIMER ON US EQUITY REITS AND THEIR ROLE IN AN INSTITUTIONAL INVESTMENT PORTFOLIO

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Executive Summary

Are real estate investment trusts, or REITs, real estate? Should they be included in institutional real estate portfolios? We frequently hear these questions when discussing real estate portfolio construction and REITs.

There are many views on this subject. The naysayers argue that REITs are not real estate but equities, which is true. They trade like equities, exhibit volatility similar to equities and are highly correlated to equities, at least in the short term. On the other hand, proponents of REITs argue the fundamental assets owned by REITs are buildings. They highlight that the occupancy level, rental rates, and operating costs such as property taxes, maintenance costs and utilities of a property are largely independent of the entity through which it is owned. To this end, REIT values are dictated by property values and, therefore, REITs are real estate.

At NEPC, we view REITs as core real estate and we think they should be included in many institutional real estate portfolios. At the same time, investing in REITs comes with important caveats that are critical for investors to evaluate. We believe investors in REITs must have a long-term investment horizon, similar to those investing in private core real estate. To be sure, REITs trade like equities in the short term, with high volatility and correlations. That said, over the long term, the values of REITs and private core real estate are highly correlated, offering similar risk and return attributes.

This paper will explore the rationale as to why REITs should be included in institutional real estate portfolios (the 'yes' camp) and also the caveats associated with investing in REITs (the 'no' camp). In addition, we will discuss other pertinent areas such as investment vehicles, benchmarks, taxes and market timing. For the scope of this review, we will focus on US publicly-listed equity REITs, such as those traded on the New York Stock Exchange. We will not focus on non-US REITs, mortgage REITs or public non-listed REITs. Throughout this paper, we use the NCREIF Fund Index-Open End Diversified Core Equity ("ODCE"), an index of US private open-end core funds, to represent private core real estate.

An Introduction to REITs

Before diving in, we thought it helpful to provide a short overview of REITs. A real estate investment trust, or REIT, is a company that owns and, typically, operates income-producing assets such as shopping malls, apartment buildings, student housing complexes, office buildings, medical facilities, hotels, and cell towers, among other property types. Congress created the basic structure for REITs in 1960 in the United States, using mutual funds as a model. The genesis for the REIT structure was to provide all investors, big and small, with the opportunity to invest in large, diversified portfolios of income-producing real estate in the same way they typically invested in other asset classes such as stocks and bonds. Today, the REIT universe is diverse and global, with nearly 30 countries having adopted variations of the US REIT model.

In the US, REITs operate under laws established by Congress and are overseen by the Internal Revenue Service. REITs can be public or private. Private REITs are not registered with the US Securities and Exchange Commission and do not have listed or traded shares. Public REITs are registered with the SEC and may or may not have their shares listed on major stock exchanges. Pub-

lic REITs operate under the same rules as other public companies for regulatory and financial reporting purposes. Public non-listed REITs are sold directly to mainly retail investors by brokerage firms and are not listed on exchanges. These vehicles also have significantly higher fee loads compared to publicly-listed REIT vehicles.

The general requirements for a company to qualify as a REIT, as summarized by the SEC, are that it must:

- Invest at least 75% of its total assets in real estate assets and cash
- Derive at least 75% of its gross income from real estate-related sources, including rents from real property and interest on mortgages financing real property
- Derive at least 95% of its gross income from such real estate sources and dividends or interest from any source
- Have no more than 25% of its assets consist of non-qualifying securities or stock in taxable REIT subsidiaries
- Distribute at least 90% of its taxable income to shareholders annually via dividends
- Be an entity that would be taxable as a corporation but for its REIT status
- Be managed by a board of directors or trustees
- Have shares that are fully transferable
- Have a minimum of 100 shareholders after its first year as a REIT and have no more than 50% of its shares held by five or fewer individuals during the last half of the taxable year

From an investment strategy standpoint, REITs broadly fall into two categories: equity REITs and mortgage REITs. Equity REITs own and operate income-producing real estate and generate the majority of their revenue from rent. Mortgage REITs lend money to real estate owners, either directly in the form of mortgages or indirectly through the acquisition of mortgage-backed securities. Mortgage REITs generate the majority of their revenue from interest. The majority of publicly-listed REITs are equity REITs, which represent approximately 90% of the total REIT market capitalization.

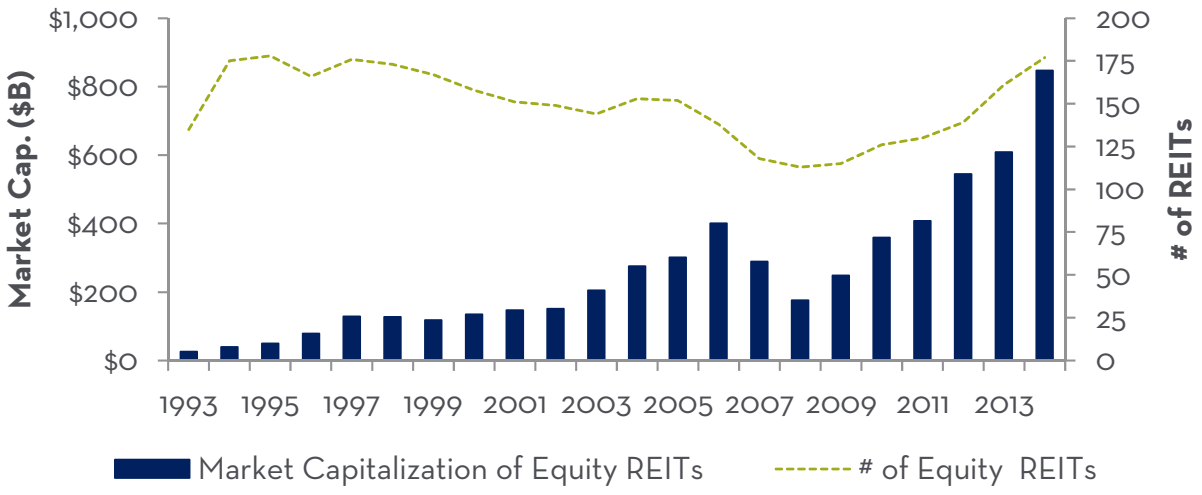
The 'Yes' Camp: REITs Should Be Included in Institutional Portfolios

At NEPC, we believe there are many reasons for institutions to invest in REITs. The most compelling include the size and quality of the REIT universe, the diverse range of REIT property sectors, the long-term linkage between REIT and private real estate valuations, strong historical returns, limited exposure provided by traditional equity managers, inflation-hedging characteristics, liquidity and comparable fee drag. We explore these in greater detail in the following paragraphs.

Size and Quality of the REIT Universe

The size of the US REIT universe is large, especially compared to the ODCE. There are over 170 US equity REITs with a total market capitalization

Exhibit 1: Market Capitalization and Number of Publicly-Listed US REITs



Source: NAREIT (Data as of December 31, 2014)

of over $800 billion. In comparison, the ODCE contains 22 funds with a total net asset value, or NAV—the equivalent of market capitalization for private assets—of a little over $120 billion. US REITs own an estimated $1 trillion of commercial real estate assets, including more than 40,000 properties in all 50 states and the District of Columbia, according to the National Association of Real Estate Investment Trusts, or NAREIT. This includes some of the highest quality and most recognizable properties in the US, for instance, the Empire State Building, Hancock Tower and the General Motors Building. Altogether, US REITs own an estimated 15% of total commercial real estate assets in the US. Exhibit 1 shows the growth of US equity REITs since 1992.

Exhibit 2: Comparison of Select Equity REIT Market Capitalizations

REIT Sub-Sector	Company Name	Market Cap. ($B)
Regional Mall	Simon Property Group Inc.	$57.6
Storage	Public Storage	$32.3
Multifamily	Equity Residential	$26.6
Industrial	Prologis, Inc.	$21.7
Office	Vornado Realty Trust	$22.4
Healthcare	Health Care REIT, Inc.	$25.2
Lodging	Host Hotels & Resorts, Inc.	$18.0
Net Lease	Realty Income Corporation	$10.8
Shopping Center	Kimco Realty Corporation	$10.5
Data Center	Digital Realty Trust Inc.	$9.0
Student Housing	American Campus Communities, Inc.	$4.4
Single Family	American Homes 4 Rent	$3.7

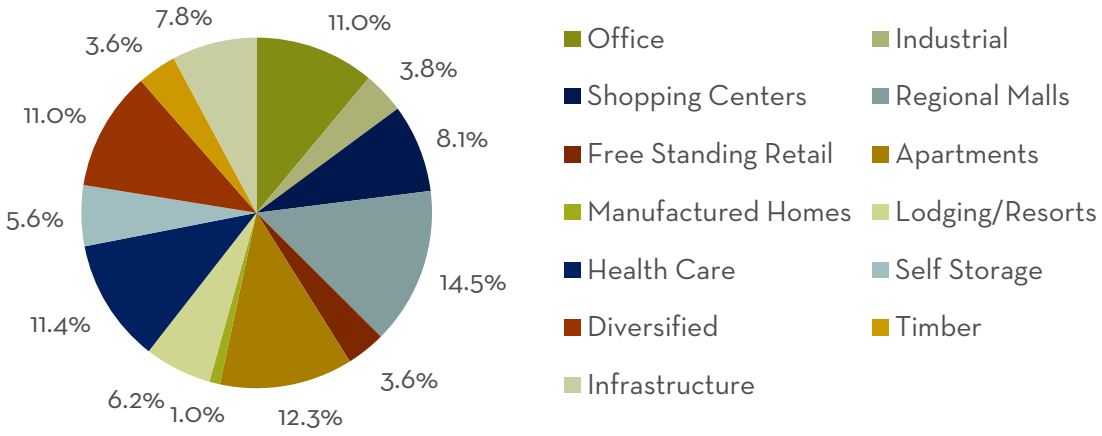
Source: Goldman Sachs (Data as of January 2, 2015)

Individual REITs are generally focused by type of property such as office, apartment, retail, data centers, hotels and healthcare; many specialize even further by subsector, for instance, regional malls within the retail sector and/ or geographic location such as coastal infill locations versus suburban locations. In contrast, ODCE funds are generally diversified by geography and property sector (mainly across the four main property types of office, apartment, retail and multifamily). REITs and REIT fund portfolio managers benefit from this size and focus.

For REITs, size can be a significant competitive advantage from an operating and capital standpoint. As an example, Simon Property Group Inc. ("Simon"), a regional mall owner, has a market capitalization of over $57 billion, which is about half of the total market capitalization of the ODCE. Simon owns 180 malls with over 150 million square feet of space. Simon's size and focus provide a significant advantage versus competitors that own only a small number of malls. Simon can brand its malls to increase consumer awareness and has significant lease negotiating power with retailers given the number of malls it owns. In contrast, owners with only one or two malls have significantly less power. Additionally, Simon's scale enables it to own larger assets without incurring significant concentration risk. From a capital standpoint, Simon has diverse sources of capital through equity and debt, which can be accessed opportunistically to fund acquisitions and to lower the firm's cost of capital. Exhibit 2 shows the market capitalizations for the largest REITs across different real estate subsectors.

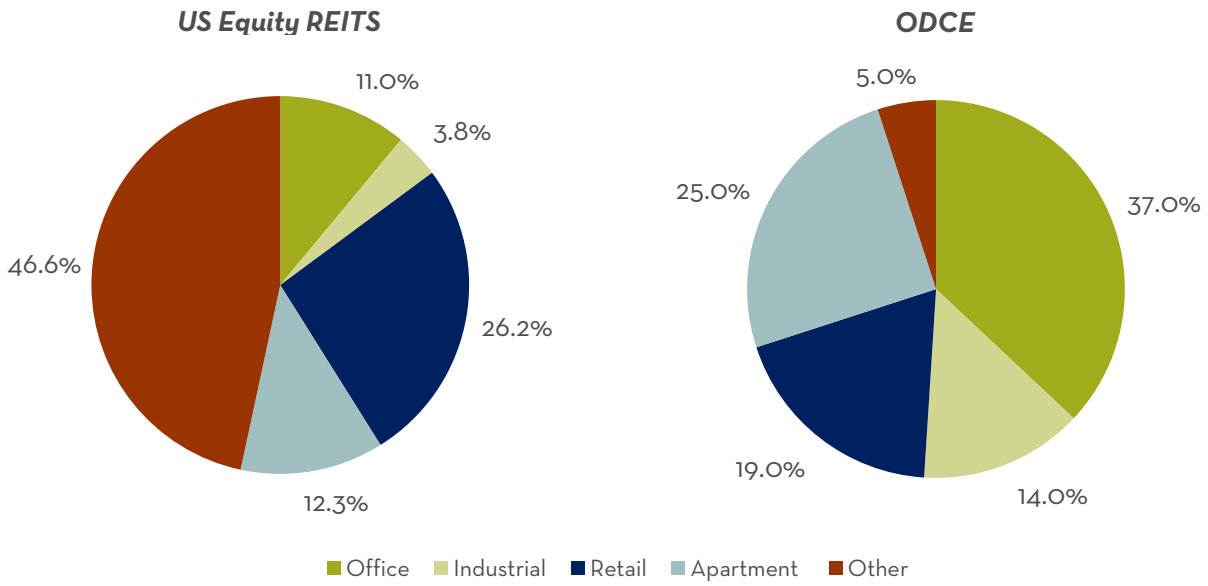
For REIT fund portfolio managers ("REIT PM"), the focused nature of individual REITs provides the ability to customize portfolios based on market views and with limited transaction costs. As an

Exhibit 3: Diversification in US Equity REITS by Market Capitalization



Source: FTSE NAREIT All Equity REITs Index (Data as of December 31, 2014)

Exhibit 4: Diversification by Market Capitalization



Source: FTSE NAREIT All Equity REITs Index (Data as of December 31, 2014); NCREIF Fund Index-Open End Diversified Core Equity (Data as of December 31, 2014)

example, if a REIT PM believes the office sector is overpriced, he/she can sell REIT stocks in that sector to reduce exposure. Additionally, if a REIT PM believes a particular area within a sector, for instance, coastal infill locations versus suburban locations, is overpriced, he/she can sell the REITs focusing in those areas. For an ODCE fund to reduce particular exposures, the fund would have to sell individual properties. This is far less efficient from a time and cost perspective versus selling stocks.

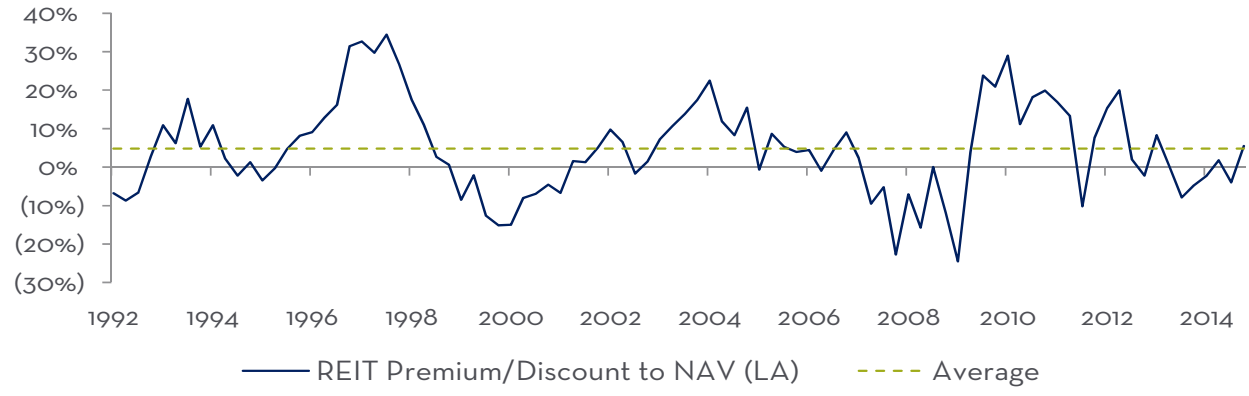
Diverse Range of REIT Property Sectors

The REIT universe is extremely diverse, investing across a broad range of property types not covered by the ODCE (Exhibits 3 and 4). Institutional investors limit their ability to access these property types by not investing in REITs. Within the REIT universe, the core real estate sectors of office, industrial, retail and apartments comprise about 53% of the total REIT market capitalization. In comparison, 95% of the ODCE consists of these four sectors. This diversity provides REIT investors with an expanded array of property types with different risk and return profiles as compared to the ODCE funds.

Long-Term Linkage Between REIT and Private Real Estate Valuations

When calculating asset values, REIT analysts and private real estate use many of the same metrics to determine value, including discounted cash flow analysis, sum-of-parts analysis, capitalization rates or cap rates, price per square foot, and

Exhibit 5: Historical REIT Premium/ Discount to NAV



Source: Green Street Advisors (Data as of January 2, 2015)

price per unit/ room/ bed. On a trading basis, price-to-NAV, funds from operations (FFO) multiple, implied cap rate, adjusted funds from operations (AFFO) multiple, EBITDA multiple and dividend yield are the primary metrics used to assess and compare REITs. Among these, price-to-NAV, FFO multiple and implied cap rate, discussed in further detail below, are the most commonly used.

Price-to-NAV

Price-to-NAV looks at the implied share price of a REIT, based on the underlying value of the REIT's assets less liabilities, divided by the number of shares outstanding. A REIT trades at a premium to NAV when the market share price is greater than the implied share price. When the opposite is true, it trades at a discount to NAV. Historically, REITs have traded at slight premiums to NAV to account for the platform value associated with the REIT (Exhibit 5).

As real estate is the principal asset owned by a REIT, price-to-NAV is based on the value of the underlying real estate owned by the REIT. This ties public and private market pricing together for real estate over longer time periods. Historically, when private market pricing consistently trends above public market pricing, private buyers have tended to acquire public companies to capture the private market arbitrage. Conversely, private entities tend to go public when public market pricing consistently trends above private market pricing. Over extended periods of time, these two counter-balancing market forces help to keep private and public real estate values in check. As shown in Exhibit 5, public market pricing oscillates around the underlying NAV.

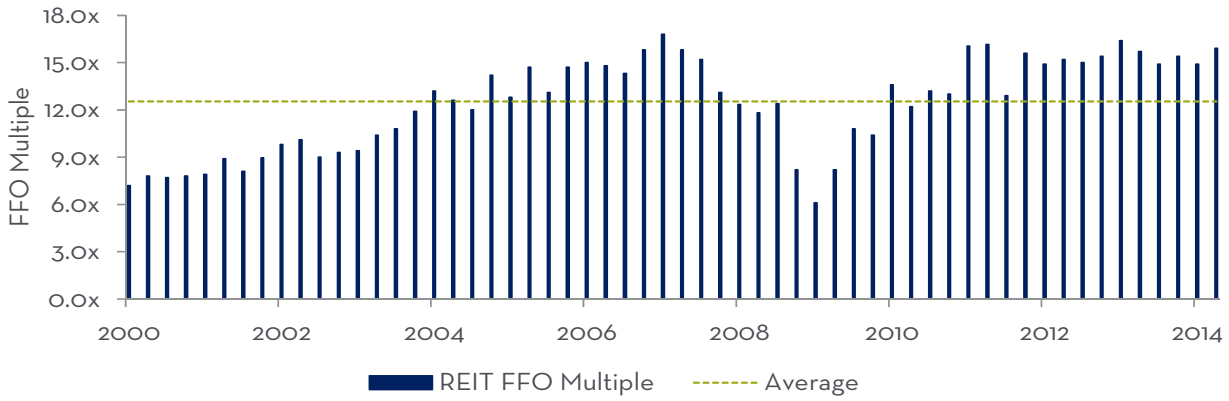
FFO Multiple

A funds from operations, or FFO, multiple is similar to the price-to-earnings multiple, that is, the P/E multiple, commonly used to value public companies. FFO is a measure of a REIT's operating performance. It is defined as net income, excluding gains or losses from sales of property, and adding back real estate depreciation. An FFO multiple is determined by dividing a REIT's share price by its FFO per share. P/E multiples are far less meaningful for REITs as depreciation can be a misleading factor that's included in earnings. For example, two very similar buildings can have very different depreciation numbers based on the age of the buildings, which would skew earnings for each building but not impact the cash flow the buildings are able to generate. Exhibit 6 shows historical FFO multiples for the US REIT market.

Implied Cap Rate

The implied cap rate for a REIT is an attempt to measure the cap rate that a REIT trades at, based on its enterprise value. This calculation involves some subjectivity to assess and strip out the value of non-income-producing and non-real estate assets from the value of the REIT. For instance, management fee income, construction in progress, and land held for development are commonly excluded items. The ultimate goal is to isolate the implied value of the REIT's income-producing real estate and the net operating income, or NOI, generated by that real estate to calculate an implied cap rate for real estate and the REIT.

Exhibit 6: Historical REIT FFO Multiples



Source: Eastdil Secured | Wells Fargo Securities (Data as of January 2, 2015)

Additional Valuation Metrics

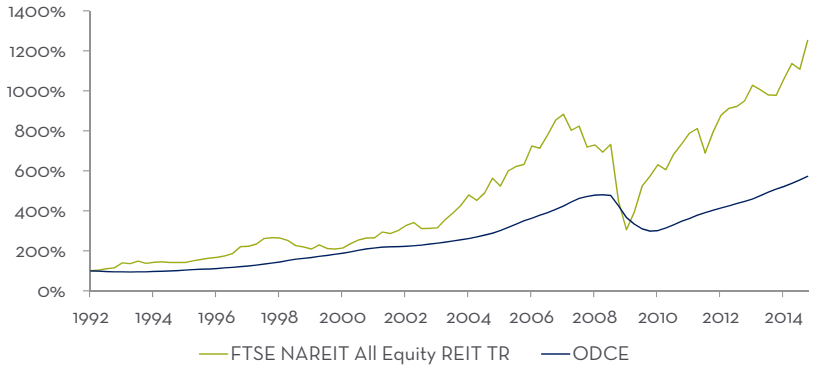
AFFO multiples, EBITDA multiples and dividend yield are other commonly used metrics to value REITs.

- ***AFFO Multiple*** – AFFO is defined as a REIT's adjusted funds from operations and is a more refined attempt, relative to FFO, to measure a REIT's true levered cash flow. AFFO is calculated by subtracting from FFO (i) recurring and necessary expenditures that are capitalized by the REIT and then amortized and (ii) "straight-lining" of rents, which is a GAAP accounting requirement. Similar to an FFO multiple, an AFFO multiple is determined by dividing a REIT's share price by its AFFO per share. This calculation is also called cash available for distribution, or CAD, or funds available for distribution, or FAD.

- ***EBITDA Multiple*** – EBITDA is defined as earnings before interest, taxes, depreciation and amortization. EBITDA is a basic measure of a REIT's net operating income, including the overhead costs associated with managing the REIT, but excluding interest costs. An EBITDA multiple is determined by dividing a REIT's enterprise value by EBITDA. Enterprise value is calculated as market capitalization plus debt, minority interest and preferred shares, minus total cash and cash equivalents. EBITDA multiples are more commonly used in the operating-intensive real estate sectors such as hotels, senior living and student housing.

- ***Dividend Yield*** – Dividend yield is a ratio that shows how much a REIT pays out in dividends each year relative to its share price. Many analysts look at dividend per share payout relative to FFO and AFFO per share to understand how much of a REIT's cash flow is paid out in dividends. Generally, the percentage is less than 100%. When the ratio exceeds 100%, it indicates the REIT has a potentially unsustainable dividend.

Exhibit 7: Cumulative Compounded Total Returns

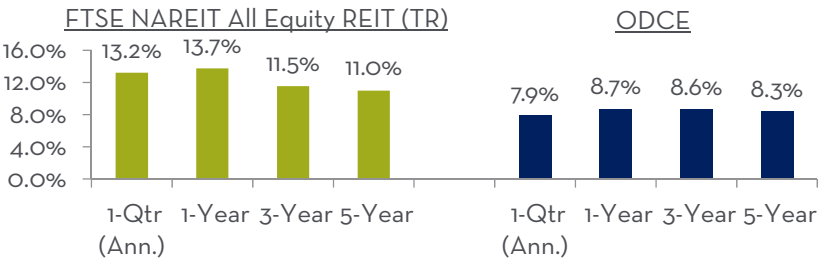


Source: NCREIF and Bloomberg (Data from December 31, 1991 through December 31, 2014)

Strong Historical Returns

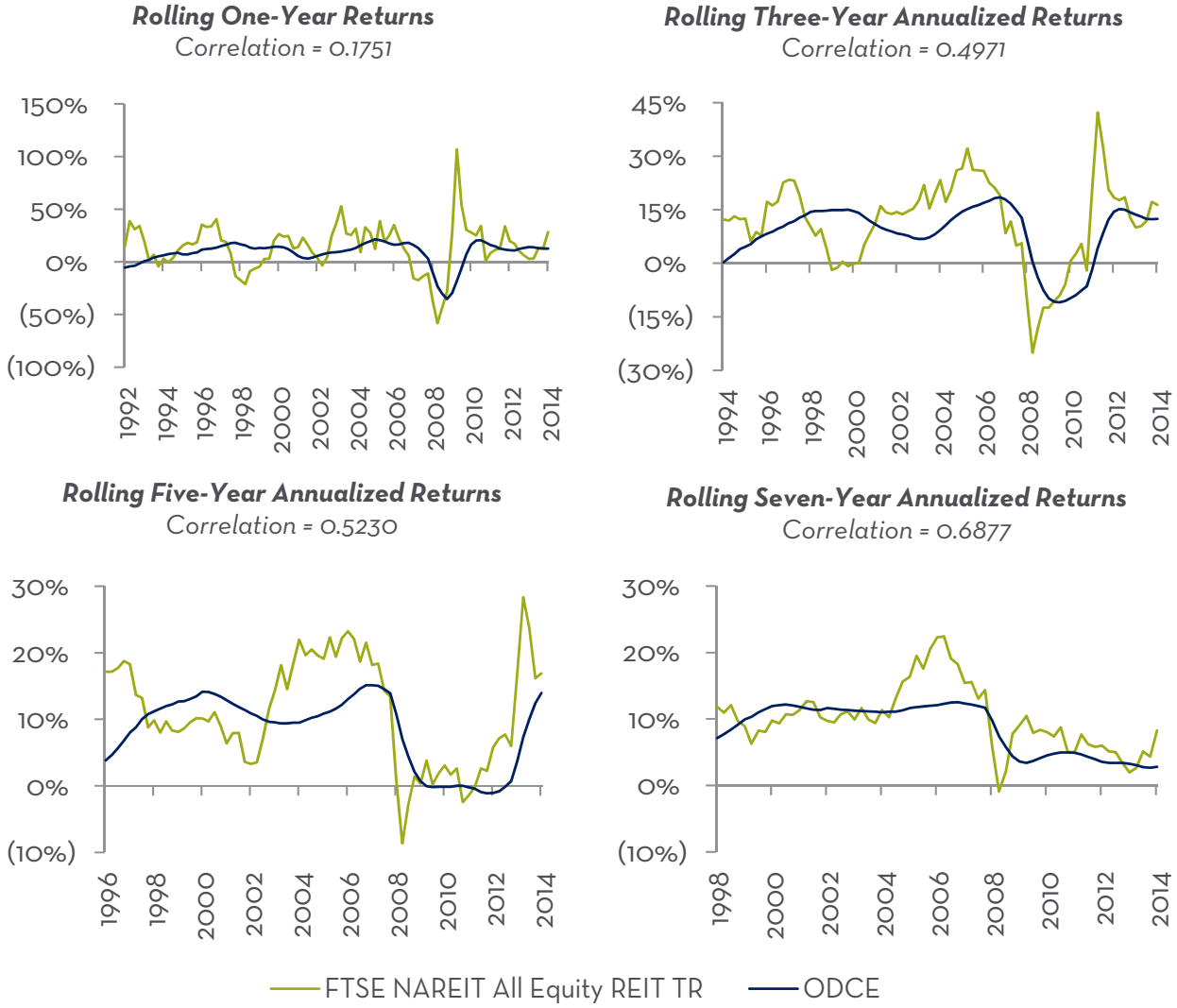
REIT returns have been strong relative to the ODCE. Exhibit 7 shows cumulative compounded returns since 1991, and Exhibit 8 indicates average rolling returns for different hold periods. REITs have significantly outperformed the ODCE over long time periods and for different investment hold periods. Two factors partially drive this outperformance: REITs have slightly higher leverage versus the ODCE (see the *Leverage* section of this paper), and they invest in non-core property sectors, for instance, self-storage and data centers, that have generated outsized returns relative to the four core property types held by ODCE funds (office, industrial, retail and apartments). Exhibit 9 shows the historical rolling one-, three-, five-, and seven-year returns for REITs and the ODCE. An interesting point to note in these graphs is that as the hold period increases, REIT and ODCE returns start to look more alike and the correlations increase. This is also shown in Exhibit 10, which compares REIT returns less ODCE, Russell 2000 and Russell 3000 returns for different investment hold periods. The difference between REIT returns and the ODCE is much greater versus REITs to the Russell 2000 and

Exhibit 8: Average Returns for Different Rolling Hold Periods



Source: NCREIF and Bloomberg (Data from December 31, 1991 through December 31, 2014)

Exhibit 9: Rolling Return Comparison



Source: NCREIF and Bloomberg (Data from December 31, 1991 through December 31, 2014)

Russell 3000 for shorter hold periods. However, REIT and ODCE returns start to converge and Russell 2000 and Russell 3000 returns start to diverge for longer hold periods. This further supports the view that over longer hold periods, REITs look more like private core real estate than equities.

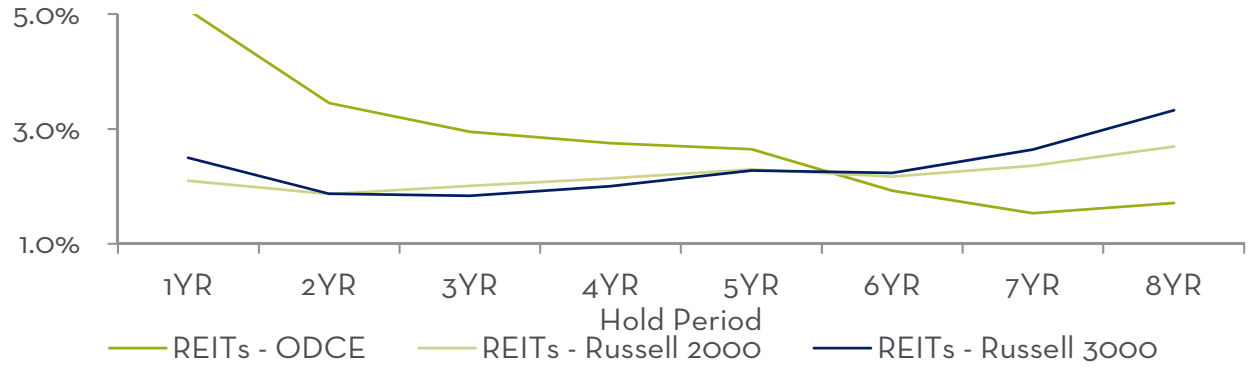
Limited Exposure Provided by Traditional Equity Managers

Traditional equity managers are typically significantly underweight REITs versus benchmarks. Exhibit 11 shows a snapshot of manager and index REIT weightings by market capitalization today. As shown, average equity funds have significantly lower weightings to REITs relative to their respective benchmark indexes.

Inflation-Hedging Characteristics

Over longer investment hold periods, REITs are more highly correlated to inflation and, as such, provide a partial hedge against inflation. REITs and private core real estate have a similar correlation to inflation as measured by the Consumer Price Index (CPI) for hold periods greater than five years. Conversely, public equities demonstrate a universally low correlation to inflation which actually decreases as the investment hold period increases. This makes sense given that REIT returns become more highly correlated to ODCE returns over long time periods, but have a low correlation over short time periods (Exhibit 12). Real estate's high correlation to inflation over long time periods is driven by two main factors: (i) rent or lease payments typically increase with inflation, and (ii) land values and building costs typically rise with inflation. It is important to note that

Exhibit 10: Average Annualized Return Difference by Investment Hold Period



Source: NCREIF and Bloomberg (Data from March 31, 1992 through December 31, 2014)

real estate's ability to provide an inflation hedge is market specific and volatile. Asset values do not necessarily track inflation in markets with long-term oversupply, lagging GDP growth and declining population.

Liquidity

REIT funds are generally completely liquid, which provides REIT investors with the ability to rebalance allocations at their discretion. This is not the same for ODCE funds, which are semi-liquid and, at best, offer quarterly liquidity at the fund manager's discretion. In functioning markets, ODCE funds are reasonably liquid and provide investors with the ability to enter and exit funds within one-to-two quarters. However, timeframes to enter and exit can be longer when markets are dislocated. In 2009, as an example, exit queues became very long with some funds delaying redemptions by more than a year. REIT fund liquidity does come with caveats. This will be discussed later in the paper, but to preview, we do not believe that REIT investors should treat their REIT allocations as the liquidity valve for their overall real estate portfolios. Doing so can lead to potentially suboptimal results.

Comparable Fee Drag

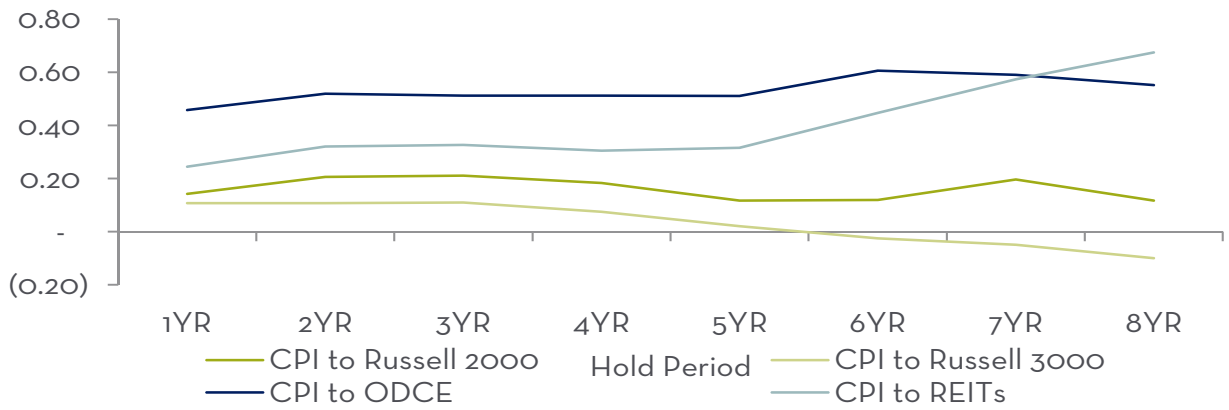
REIT and ODCE funds have similar all-in fee drag associated with managing underlying real estate assets. To evaluate this, we analyzed the total expenses incurred through each structure, beginning with revenue, and included property operating expenses, general and administrative expenses ("G&A"), and investment manager expenses. The goal of this analysis was to determine the better steward for managing real estate assets on a yield-drag basis, for instance, the drag for every dollar of real estate revenue generated through each structure. Exhibit 13 provides a comparison of the results based on 2013 data. For the REIT funds, the all-in fee drag is based on a build-up of underlying office, multifamily, retail and industrial REITs, weighted to mirror the ODCE composition. This shows that REIT funds have slightly lower drag on a yield basis relative to ODCE funds. In this analysis, enterprise value is the total asset value of the individual REIT or ODCE fund (for REITs, this is market capitalization plus net debt; for ODCE funds, this is NAV plus net debt). Revenue is 2013 income statement revenue. Property NOI is rental revenue less property operating expenses. Investment fund-level NOI is property NOI less total G&A expenses (including fund-level management fees).

Exhibit 11: Underweight US Equity Fund REIT

Manager Type	*Manager REIT Weighting*	*Index REIT Weighting*	*% of Index*
Small-Cap Manager Average	3.3%	8.4%	39%
Small-to-Mid-Cap Manager Average	3.4%	9.4%	36%
Mid-Cap Manager Average	3.7%	9.3%	39%
Large-Cap Manager Average	1.4%	3.0%	46%
All Equity Manager Average	2.9%	7.5%	39%

Source: NEPC Analysis (Data as of September 30, 2014); % of Index Equals Manager REIT Weighting Divided by Index REIT Weighting

Exhibit 12: Return Correlations to CPI



Source: NCREIF and Bloomberg (Data from March 31, 1992 through December 31, 2014)

At the investment manager level, management fees will vary by commitment size but are typically around 100 basis points for ODCE funds. Management fees will also vary by investment size and account structure for REIT funds, but they are typically between 50 basis points to 100 basis points. Exhibit 14 provides a sample fee structure for one REIT fund manager. It is important to note that fees are negotiable, particularly for large investments.

The 'No' Camp: REITs are Equities

There is no doubt that REITs act like public equities, at least over the short term. As such, there are three critical aspects investors must be comfortable with before allocating to REITs: they exhibit equity-like volatility, they possess a high short-term correlation to equities and allocations to REITs will impact the overall portfolio risk budget. The first two considerations become less pronounced as the hold period increases; however, over shorter hold periods, REITs very much act like equities. Regarding the risk budget of the overall portfolio, if a portfolio is already concentrated in equity risk and the investor has short-term risk aversion, incorporating REITs into a real estate portfolio will add to the equity risk exposure. In addition to these, there are also a few other important factors to consider: REITs have slightly higher leverage relative to ODCE funds; REITs are not an ideal short-term placeholder for private real estate; and REITs should not be viewed as a liquidity valve for a real estate allocation.

Higher Volatility

REITs are much more volatile than private core real estate, especially over shorter hold periods. On a rolling one-year basis, ODCE volatility is 11.0%, as measured by standard deviation. In comparison, REIT volatility is 22.2%, or more than twice that of the ODCE, and more akin to volatility in equities, which measures 19.5% for the Russell 2000, and 18.3% for the Russell 3000. This volatility is clearly observable in the quarterly return comparison for REITs and the ODCE (Exhibit 15). Given this volatility, REIT investors have to be prepared for a bumpy, or more circuitous ride, relative to private core real estate.

High Correlations to Public Equities

REITs have a low correlation to the ODCE and a high correlation to public equities over shorter hold periods (Exhibit 16). However, for longer hold periods, the inverse is true. The break in correlations occurs around the fifth or sixth year when REITs begin to look more like private core real estate and less like public equities. This makes sense because the underlying real estate asset value becomes the driving factor in returns over a longer hold period. Since buildings are the fundamental asset owned by REITs and occupancy levels, rental rates and operating costs are largely independent of ownership structure, REIT values

Exhibit 13: All-In Fee Drag Comparison

Yields to Enterprise Value	*REIT Funds*	*ODCE Funds*	*REITs less ODCE*
Revenue Yield/ Enterprise Value	8.2%	7.5%	76 bps
Property NOI Yield/ Enterprise Value	5.3%	4.7%	58 bps
Investment Fund-Level Yield/ Enterprise Value	4.1%	3.9%	22 bps

Source: eVestment and NEPC Analysis (Data as of June 30, 2014)

Exhibit 14: An Example of a REIT Fund Manager's Fee Schedule

Fees by Account Size	*$25M*	*$50M*	*$75M*	*$100m*
Separate/ Segregated Account	73 bps	69 bps	63 bps	60 bps
Pooled/ Commingled Fund	73 bps	69 bps	63 bps	60 bps
Retail Mutual Fund	125 bps	125 bps	125 bps	125 bps
Institutional Mutual Fund	78 bps	78 bps	78 bps	78 bps

Source: eVestment and NEPC Analysis (Data as of June 30, 2014)

are dictated by property values and, therefore, REITs are real estate.

Higher Leverage

REITs tend to use higher leverage than ODCE funds (Exhibit 17). This higher leverage increases the risk level for REITs, particularly during falling markets. However, there are some positives with regard to the type of leverage available to REITs. REITs have more diverse capital structures with common equity, preferred equity, convertible debt, unsecured debt and senior debt compared to mainly common equity and senior debt for private core real estate. This diversity of capital sources can be beneficial when capital is constrained. Overall, both REITs and private core real estate have low relative leverage ratios compared to non-core real estate strategies, which can employ, at times, leverage greater than 70% to 80%.

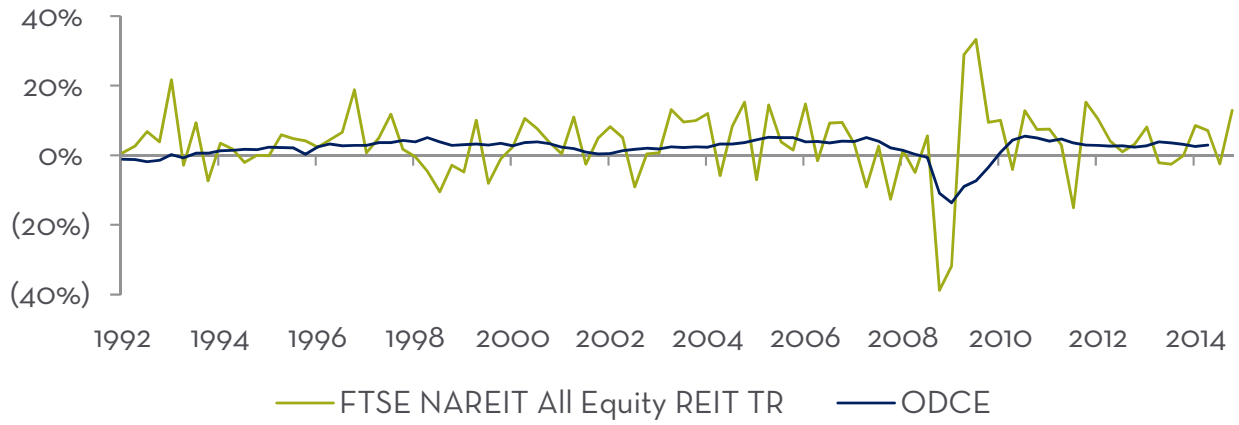
Poor Short-Term Placeholder for Private Real Estate

We do not view long-only equity REIT strategies as an ideal short-term placeholder for an underfunded private real estate allocation. The driving rationale for this view is that equity REITs have a high correlation to equities and a low correlation to private real estate over short time periods. Given this dynamic, an investor does not obtain true real estate exposure but concentrated equity exposure if using long-only equity REIT strategies as a short-term placeholder. It's interesting to note that historically using REITs as a short-term placeholder has been a good trade given the outperformance of REITs versus other asset classes. However, the fundamental rationale for using REITs in this fashion is not tied to the objective of quickly achieving a desired real estate allocation.

Poor Liquidity Valve for a Real Estate Allocation

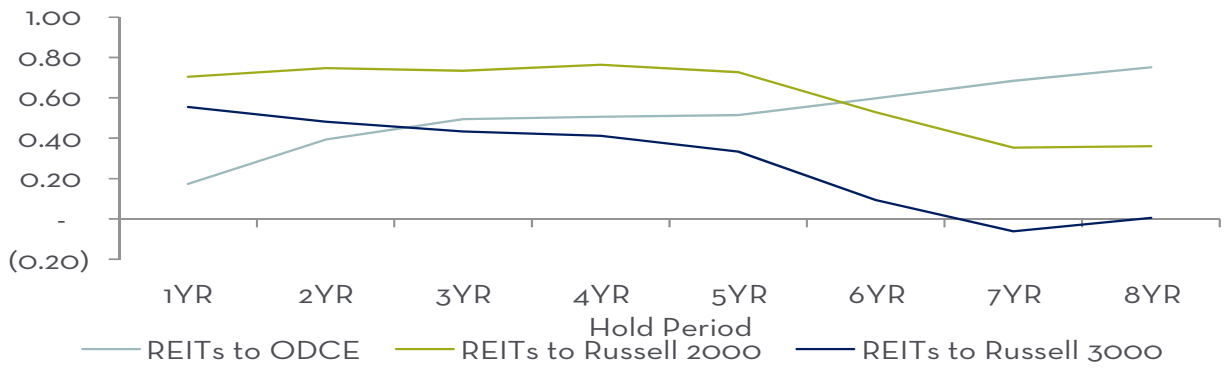
We do not believe a REIT allocation should be used as a liquidity valve for rebalancing or reducing a real estate allocation when the other components of the portfolio are illiquid. The rationale for this view is similar as to why we do not view REITs as a good short-term placeholder for private real estate. Since REITs are more correlated to equities in the short-term, the exit value at a point-in-time may not represent the true value of the underlying real estate. A good example of this occurred during the global financial crisis following Lehman Brothers' bankruptcy filing on September 15, 2008 (Exhibit 18). During the two quarters following Lehman's filing, REITs dropped by almost 60% while the ODCE was down 25%. Investors using REITs as a liquidity valve during this

Exhibit 15: Quarterly Return Comparison



Source: NCREIF and Bloomberg (Data from March 31, 1992 through December 31, 2014)

Exhibit 16: REIT Correlations



Source: NCREIF and Bloomberg (Data from March 31, 1992 through December 31, 2014)

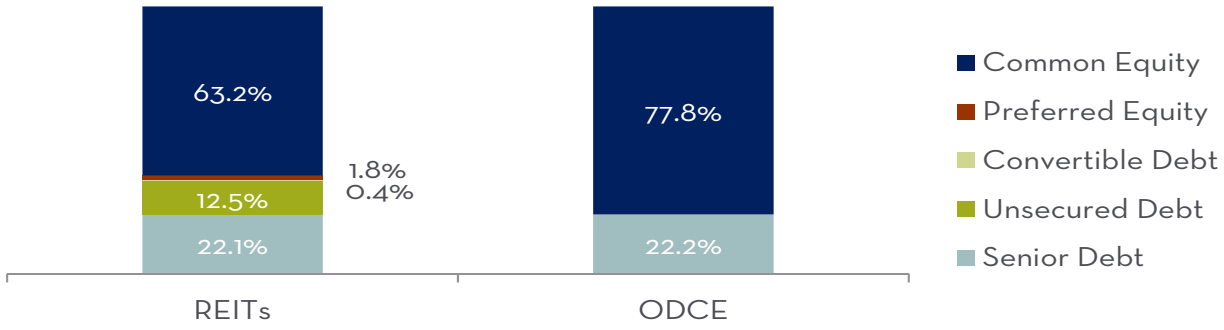
period would have sold their REIT investments at the wrong time, locking in losses that subsequently reversed in the following quarters.

Investment Vehicles and Strategies

Institutions typically invest in REITs through pooled/ commingled funds, separate/ segregated accounts and institutional mutual funds. Each of these structures has different provisions pertaining to type of limited partner, liquidity options and account minimums. From a strategy standpoint, most REIT investment vehicles pursue one of five main strategies:

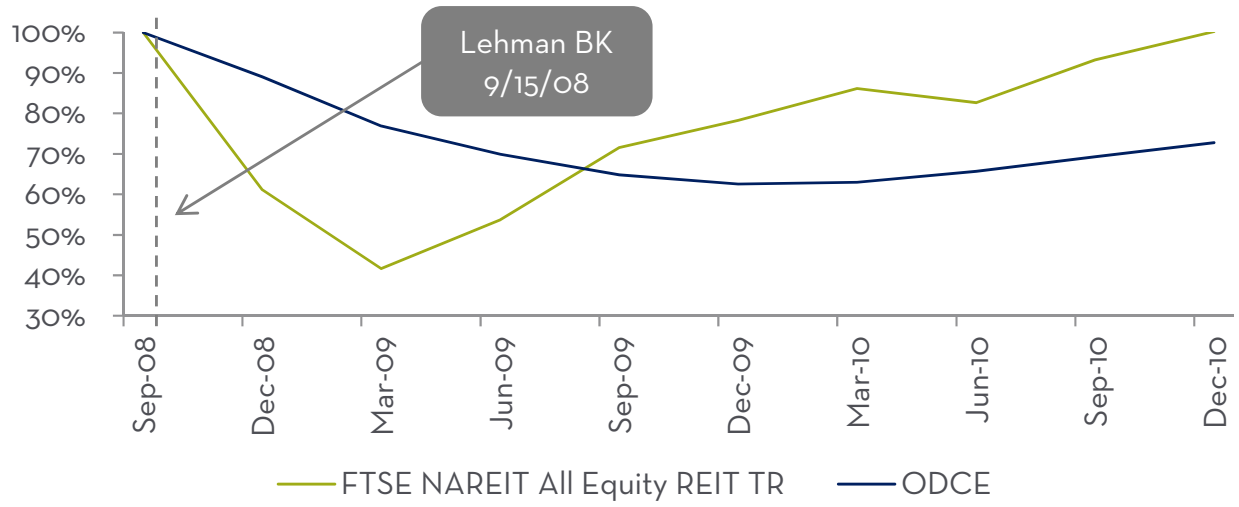
- ***Diversified Equity Investment Strategies*** – this strategy invests only in the common equity of REITs, typically holding a large diversified pool of REIT stocks. This strategy should be viewed as more of a beta play with slight alpha-generating ability relative to US REIT indexes. As such, good managers in this strategy should have similar or lower volatility compared to broad REIT indexes and, ideally, should slightly/ moderately outperform given the active mandate.
- ***Concentrated Equity Investment Strategies*** – this strategy invests only in the common equity of REITs, typically taking larger and more concentrated positions in a smaller number of REITs. It should be viewed as more of an active alpha-generating strategy relative to US REIT indexes. As such, this strategy is expected to have increased volatility compared to broad REIT indexes and should be expected to materially outperform over longer time periods given the increased risk profile.
- ***Debt Investment Strategies*** – this strategy invests in the preferred equity, convertible debt, unsecured debt and secured debt of REITs. This strategy is expected to have the lowest volatility of all the REIT strategies and should underperform broad REIT indexes over longer time periods given the more defensive debt positions taken by the funds.
- ***Hybrid Investment Strategies*** – this strategy invests across the capital stack of REITs, including common equity, preferred equity, convertible debt, unsecured debt and secured debt. This strategy is also more defensive relative to pure equity-only strategies

Exhibit 17: REIT and ODCE Leverage Comparison



Source: REIT Data Per Security Capital Group as of June 30, 2014; ODCE Data per NCREIF as of December 31, 2014

Exhibit 18: Compounded Total Return Comparison Since the Global Financial Crisis



Source: NCREIF and Bloomberg

and, as such, should have lower volatility compared to equity strategies over longer time periods.

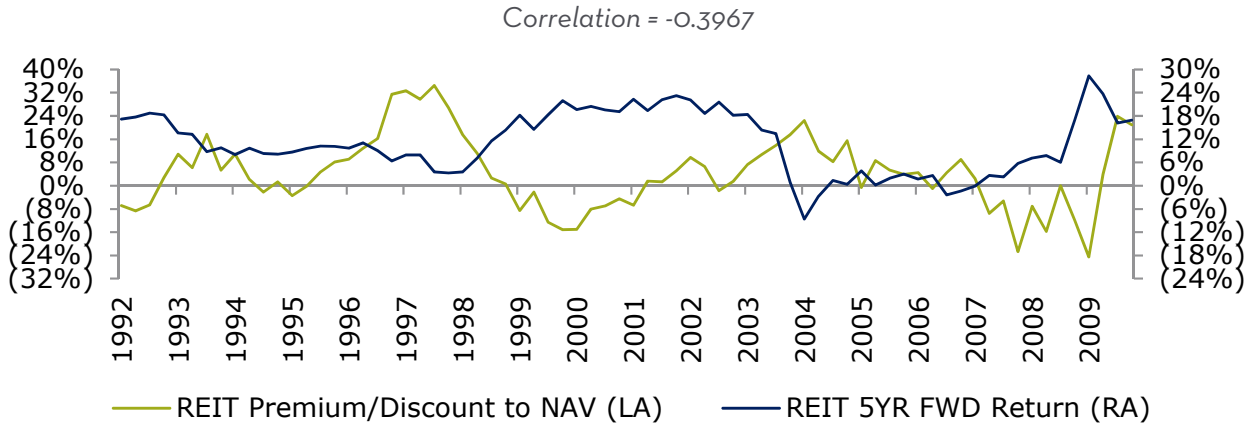
- ***Long/ Short Strategies*** – this strategy invests in long- and short-positions in REIT securities. Given the long/ short nature of this strategy, it should not only be more defensive and less volatile compared to long-only equity strategies, but also it should have lower returns compared to equity strategies over longer time periods. Additionally, long/ short strategies have low correlations to equity REITs and private core real estate. As such, we view long/ short REIT strategies as less pure real estate and more a hedge fund strategy that can be compared to other long/ short equity strategies outside of real estate.

Taxation

For practical purposes, REITs are generally exempt from taxation at the trust level, functioning as pass-through tax entities. This is due to the requirement that a REIT must distribute annually at least 90% of its taxable income to shareholders via dividends. The dividend payments made by REITs are taxed to the unit holder in three different ways, depending on the capital source of the REIT: as ordinary income, as return of capital, and as capital gains.

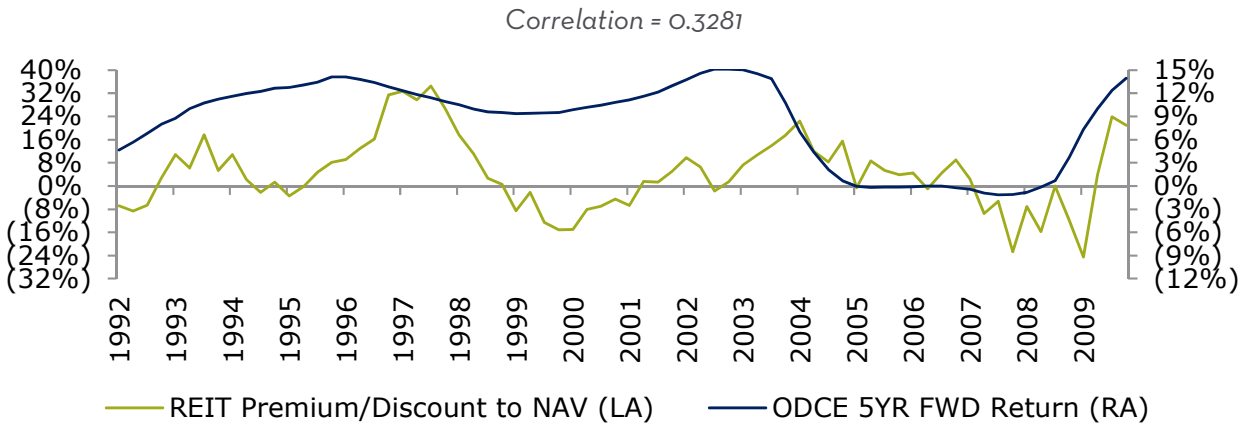
- Ordinary income includes distributions that occur from the REIT as part of its normal operations.
- Return of capital is distributions paid out in excess of the normal operations of the REIT. Return of capital distributions reduce the unit

Exhibit 19: REIT Premium/ Discount to NAV and REIT Forward 5-Year Returns



Source: NEPC Analysis, Green Street Advisors and Bloomberg (Data from March 31, 1992 through December 31, 2014)

Exhibit 20: REIT Premium/ Discount to NAV and ODCE Forward 5-Year Returns



Source: NEPC Analysis, Green Street Advisors and NCREIF (Data from March 31, 1992 through December 31, 2014)

holder's taxable income in the year the dividend is received and defer taxes on that portion until the capital asset is sold. These payments also reduce the cost basis for the unit holder.

- Capital gains are distributions paid out to REIT holders on the sale of a property above the cost basis of the property.

These three types of taxes will be applied each year at varying percentages, depending on the specifics of the individual REIT. Additionally, individual unit holders and different structures through which an underlying REIT is held may be impacted differently based on individual tax circumstances. As such, it is important to consult a tax expert when thinking through the full tax impact of distributions made by a REIT.

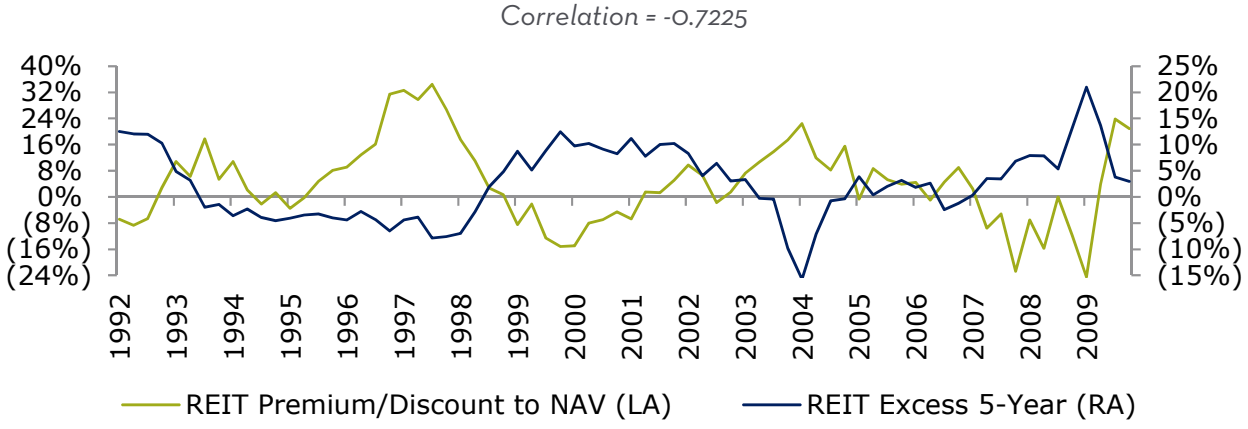
Benchmarks

There are a variety of broad, diversified US REIT indexes available to benchmark performance. The commonly used ones include the FTSE NAREIT All Equity REITs Index, FTSE NAREIT Equity REITs Index, DJ US Select REIT Index and MSCI US REIT Index, among others. These four indexes are highly correlated and share very similar historical returns. The FTSE NAREIT All Equity REITs Index is the most diversified of the group and includes timber and infrastructure REITs. On a relative basis, the DJ US Select REIT Index and the MSCI US REIT Index are slightly smaller than the NAREIT indexes.

Market Timing and Trends

A frequently asked question is whether it is possible to time the markets while investing in REITs or the ODCE, given a REIT's tendency to oscillate between trading at premiums and discounts to NAV. General trends do exist; however, the rela-

Exhibit 21: REIT Premium/ Discount to NAV and Excess REIT 5-Year Returns



Source: NEPC Analysis, Green Street Advisors, Bloomberg and NCREIF (Data from March 31, 1992 through December 31, 2014)

tionship is weak. Exhibit 19 shows REIT premium/ discount to NAV and forward five-year annualized REIT returns. The correlation is -0.3967, indicating a weak inverse relationship. Exhibit 20 shows REIT premium/ discount to NAV and forward five -year annualized ODCE returns. The correlation is 0.3281, indicating a weak positive relationship.

A more meaningful relationship exists for the excess returns generated by REITs over the ODCE relative to REIT premium/ discount to NAV (Exhibits 21). Historically, when REITs have traded at discounts to NAV, they have tended to outperform versus the ODCE on a forward five-year return basis. Conversely, when REITs are trading at a large premium to NAV, they have tended to underperform versus the ODCE on a forward five-year return basis. It is important to note that the relationship is not strong with an R^2 of 0.522.

Conclusion

So, returning to the question at the start of this paper: are REITs real estate and should they be included as part of institutional real estate portfolios? Our reply is generally yes. The fundamental assets owned by REITs are properties. The occupancy levels, rental rates and operating costs of these properties are largely independent of the structure through which they are owned. As such, REIT values are dictated by property values and, therefore, REITs are real estate over the long term. To be sure, there are important caveats to this view. Investors must be comfortable with the short-term volatility and public equity correlation associated with REITs. They should also have a long-term investment horizon for a REIT investment to act like core real estate as opposed to public equities. Finally, investors should not view a REIT allocation as a liquidity valve for their overall real estate allocation.

Disclaimers and Disclosures

- Past performance is no guarantee of future results.
- The information in this report has been obtained from sources NEPC believes to be reliable. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.
- This report contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.

In addition, it is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds, real estate and private equity:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy