Nontraded REIT Industry Full-Cycle Performance Study

June 1, 2012

General Overview

(Part 1 of 2)

THE UNIVERSITY OF TEXAS AT AUSTIN
McCOMBS REAL ESTATE FINANCE AND INVESTMENT CENTER

BlueVault PARTNERS, LLC

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Introduction

This study was prepared in collaboration with the Real Estate Finance and Investment Center at The University of Texas at Austin McCombs School of Business which is led by Dr. Jay C. Hartzell, Chair of the Department of Finance and Executive Director of the Real Estate Finance and Investment Center.

The nontraded REIT industry has experienced dramatic growth, reaching $84 billion in assets under management as of year-end 2011. While nontraded REITs typically offer above-average distribution yields, one cannot fully assess their performance until their shareholders experience an exit event that provides them with liquidity. Such an exit or liquidity event can take the form of an acquisition of the REIT's shares in exchange for cash, a merger with a private entity or an entity that is or ultimately becomes publicly traded, or listing the REIT's shares on a stock exchange.

It is believed that the first nontraded REIT was formed in 1990. In the early part of the industry's development, many sponsors evolved from the syndication business and utilized nontraded REITs as a vehicle to provide retail investors access to large, managed real estate funds. It was not until the early 2000's that the industry began to experience significant growth in terms of new product launches and fundraising.

Since its inception, the nontraded REIT industry has promoted several advantages to individual retail investors including:

- Access - retail investors have access to institutional quality real estate investments at market value. Prior to nontraded REITs, access to commercial real estate investments was limited to publicly traded REITs, which may or may not be trading at a premium to NAV.
- Lack of Price Volatility - traded REIT share prices fluctuate based upon forces outside of the real estate market.
- Steady Level of Return – consistent, cash driven yield that is above-average when compared to other alternatives.
- Return of Principal – a strong likelihood for the return of principal given the long-term nature of the investment.
- Residual Appreciation – the potential for capital gains due to the appreciation of the property portfolio.

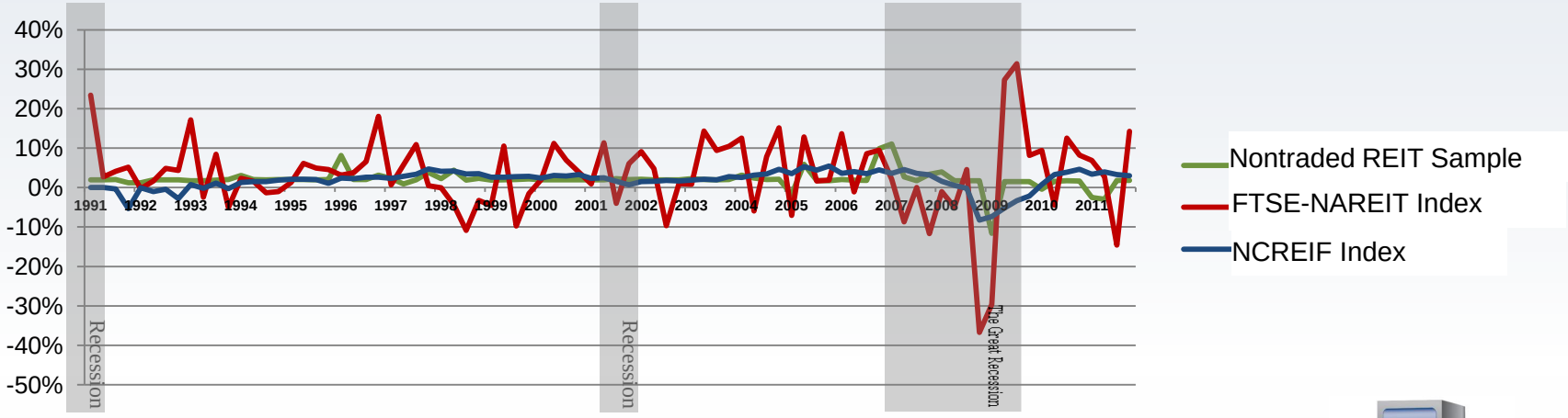
Introduction

Key Commercial Real Estate Industry Events:

It is important to note that the returns achieved by the nontraded REIT industry and highlighted in this report should be examined against the backdrop of critical events affecting the broader commercial real estate industry and the United States economy. From the late 1990's to present, there have been two economic downturns, the 9/11 attack, a robust global expansion and two major global financial shocks, each with an impact on returns. Key events during this timeframe include:

1991: Recession
1998: Russian Ruble crisis
1999: Significant portions of the Glass-Steagall Act repealed freeing up bank investment activity
2001: US Recession and 9/11 terrorist attack
2003: War in Iraq begins
2007: The Great Recession begins
2008: Oil prices hit $147 per barrel, Lehman Brothers collapses, TARP is passed and the Global Financial Crisis begins
2011: Narrow aversion of US debt default

Historical Returns for Various Real Estate Investments



Sample Description

We begin with a sample of 17 nontraded REITs whose investors experienced a full liquidity event as of March 31, 2012. To be considered as a full liquidity event, the shareholders must have had the ability to convert their entire investment to cash. The means of conversion include an acquisition of the REIT's shares in exchange for cash, a merger with a private entity or an entity that is or ultimately becomes publicly traded, or listing on a stock exchange. For nontraded REITs that were acquired by other nontraded REITs, we keep track of the number of shares involved, and use the liquidity event for the acquirer as the liquidity event date for the acquired REIT.

Our assumption is to consider the first date at which a shareholder could receive cash as the liquidity event. In other words, for acquisitions where shareholders had the option of receiving cash or shares, we assume that the shareholders received cash. For nontraded REITs that were acquired by publicly-traded firms, we use the first date at which the nontraded shareholders could sell in the public market as the liquidity event date. We define the date of inception as the date that the REIT "broke escrow" and began to raise and invest external capital.

The table on page 7 describes the sample in more detail. Dates of inception range from June 1990 to January 2008, while the full liquidity events range from April 1997 through March 2012. Five of the 17 liquidity events were listings on public exchanges (four on the NYSE and one on NASDAQ), and two more were acquired by publicly-traded firms. Four firms were acquired by nontraded firms, and six were merged with other nontraded REITs (that ultimately had their own liquidity events).

For each nontraded REIT, we collected several pieces of information from their quarterly and annual filings. First among these are the data needed to compute returns – prices with and without a discount for any Dividend Reinvestment Program (DRIP) and quarterly distributions to shareholders. Next, we also collected for each quarter the fraction of each REIT's portfolio (i.e., the weight) that is invested across eight different regions of the US, and across six property types (apartment, office, industrial, retail, hotel, and other). These regional and property-type weights both sum to 100%, where book value is used to determine the relative size of each investment. Finally, we collected the size and leverage of each nontraded REIT for all quarters, as well as whether the REIT was or was not open to new investors.

Sample Description

The goal of this study was to provide an assessment of performance for those nontraded REITs that have experienced a full-cycle event between 1990 and May 2012. While a total of 21 nontraded REITs have experienced liquidity events during this time frame, performance for only 17 nontraded REITs were included in the study as explained on the next page.

Nontraded REIT	Date of Inception	Date of Full Liquidity Event	Liquidity Event Type
American Realty Capital Trust, Inc.	1/25/2008	3/1/2012	Listed on NASDAQ
Apple Hospitality Two, Inc.	5/1/2001	5/23/2007	Acquired by Lion ES Hotels, LP (ING Clarion Partners)
Apple Hospitality Five, Inc.	12/3/2002	10/11/2007	Acquired by Inland American Real Estate Trust
Apple Residential Income Trust, Inc.	11/19/1996	4/14/2005	Merged with Cornerstone Realty Income Trust, Inc.
Apple Suites, Inc.	7/26/1999	1/31/2003	Merged with Apple Hospitality Two
Carey Institutional Properties, Inc.	8/1/1991	8/25/2004	Merged with Corporate Property Associates 15
CNL Hotels & Resorts (CNL Hospitality)	7/9/1997	4/12/2007	Acquired by MS Resort Purchaser MSREF, Ashford Hospitality Trust
CNL Restaurant Properties, Inc. (CNL American)	4/29/1995	2/25/2005	Merged with U.S. Restaurant Properties
CNL Retirement Properties, Inc.	9/18/1998	10/5/2006	Acquired by Health Care Property Investors
Cornerstone Realty Income Trust, Inc.	12/31/1992	4/18/1997	Listed on NYSE
Corporate Property Associates 10, Inc.	6/20/1990	8/25/2004*	Merged with Carey Institutional Properties Inc.
Corporate Property Associates 12, Inc.	2/18/1994	12/1/2006	Merged with Corporate Property Associates 14
Corporate Property Associates 14, Inc.	12/11/1997	5/2/2011	Merged with Corporate Property Associates 16 - Global
DCT Industrial Trust, Inc. (Dividend Capital Trust)	7/17/2002	12/13/2006	Listed on NYSE
Inland Real Estate Corporation	10/14/1994	6/9/2004	Listed on NYSE
Inland Retail Real Estate Trust, Inc.	2/11/1999	3/14/2007	Acquired by Developers Diversified Realty Corp.
Piedmont Office Realty Trust (Wells REIT)	1/30/1998	1/30/2011**	Listed on NYSE

**CPA 10 investors were offered the opportunity to receive cash and .8445 shares of Carey Institutional Properties Inc. or a promissory note. Returns calculated for this REIT reflect the returns of those investors who chose to receive cash and .8445 shares of Carey Institutional Properties Inc. As a result, the full-cycle liquidity event was the same as that of Carey Institutional Properties.*

*** While Piedmont Office Realty Trust listed its first tranche of shares on February 10, 2010, full-cycle returns are calculated on the assumption that investors held their shares and did not liquidate until the final tranche of common stock was converted into a tradable shares which was January 30, 2011.*

Sample Description

For the following reasons, these nontraded REITs were excluded from the sample:

T REIT, Inc.: Board and shareholders approved full liquidation in 2005. Because the REIT did not complete a full liquidation within a 24 month time frame, the REIT transferred its remaining assets into a liquidating trust in 2007. An extension was approved to allow for a complete liquidation by 2013.

G REIT, Inc.: Board and shareholders approved full liquidation in 2006. Because the REIT did not complete a full liquidation within a 24 month time frame, the REIT transferred its remaining assets into a liquidating trust in 2008. An extension was approved to allow for a complete liquidation by 2014.

Whitestone REIT: Listed shares on AMEX in 2010 – has not fully converted unlisted Class B shares to tradable listed Class A shares.

Retail Properties of America, Inc. (formerly Inland Western Retail Real Estate Trust, Inc.): Listed shares on NYSE in 2012 – has not fully converted all shares to listed shares via tranches.

Sample Description

Geographic Diversity:

The table below lists the average weights for each REIT in the sample, where the average is taken over time (across quarters). As one can see, there is considerable geographic diversity, with a few firms concentrating in one or two regions (e.g., Apple Residential Income Trust and Cornerstone Realty), with others diversifying geographically (e.g., Apple Hospitality Two).

	Average Regional Weights							
Name	Northeast	Mideast	Southeast	East North Central	West North Central	Southwest	Mountain	Pacific
American Realty Capital Trust, Inc.	45%	6%	10%	12%	8%	10%	4%	4%
Apple Hospitality Five, Inc.	23%	4%	6%	3%	0%	33%	23%	8%
Apple Hospitality Two, Inc.	14%	7%	20%	10%	4%	9%	7%	29%
Apple Residential Income Trust, Inc.	0%	0%	0%	0%	0%	100%	0%	0%
Apple Suites, Inc.	9%	18%	26%	4%	4%	19%	12%	8%
Carey Institutional Properties	13%	13%	7%	19%	4%	15%	10%	19%
CNL Hotels & Resorts (CNL Hospitality)	17%	8%	15%	5%	2%	20%	9%	25%
CNL Restaurant Properties, Inc. (CNL American)	8%	9%	20%	23%	9%	17%	6%	9%
CNL Retirement Properties, Inc.	8%	11%	17%	13%	2%	35%	3%	9%
Cornerstone Realty Income Trust, Inc.	0%	97%	3%	0%	0%	0%	0%	0%
Corporate Property Associates 10, Inc.	9%	6%	8%	36%	3%	12%	7%	19%
Corporate Property Associates 12, Inc.	13%	5%	3%	17%	4%	27%	3%	27%
Corporate Property Associates 14, Inc.	4%	7%	10%	19%	7%	8%	9%	35%
DCT Industrial Trust, Inc. (Dividend Capital Trust)	3%	4%	33%	24%	2%	24%	4%	7%
Inland Real Estate Corporation	0%	0%	0%	91%	9%	0%	0%	0%
Inland Retail Real Estate Trust, Inc.	8%	18%	70%	3%	0%	1%	0%	0%
Piedmont Office Realty Trust (Wells REIT)	19%	20%	6%	26%	6%	8%	3%	10%

Sample Description

Property Type:

The nontraded REITs in this sample tend to be more focused on specific property types, with the exception of a few firms (such as the CPA REITs and Carey Institutional Properties) that diversify across office, industrial, retail and other properties.

	Average Property Weights					
Name	Apt	Office	Indust	Retail	Hotels	Other
American Realty Capital Trust, Inc.	0%	2%	18%	79%	0%	0%
Apple Hospitality Five, Inc.	0%	0%	0%	0%	100%	0%
Apple Hospitality Two, Inc.	0%	0%	0%	0%	100%	0%
Apple Residential Income Trust, Inc.	0%	0%	0%	0%	100%	0%
Apple Suites, Inc.	0%	0%	0%	0%	100%	0%
Carey Institutional Properties	0%	23%	22%	45%	0%	10%
CNL Hotels & Resorts (CNL Hospitality)	0%	0%	0%	0%	100%	0%
CNL Restaurant Properties, Inc. (CNL American)	0%	0%	0%	100%	0%	0%
CNL Retirement Properties, Inc.	92%	8%	0%	0%	0%	0%
Cornerstone Realty Income Trust, Inc.	0%	0%	100%	0%	0%	0%
Corporate Property Associates 10, Inc.	0%	48%	9%	22%	16%	5%
Corporate Property Associates 12, Inc.	0%	41%	16%	29%	0%	14%
Corporate Property Associates 14, Inc.	0%	28%	46%	14%	0%	11%
DCT Industrial Trust, Inc. (Dividend Capital Trust)	0%	0%	100%	0%	0%	0%
Inland Real Estate Corporation	0%	0%	0%	100%	0%	0%
Inland Retail Real Estate Trust, Inc.	0%	0%	0%	100%	0%	0%
Piedmont Office Realty Trust (Wells REIT)	0%	90%	3%	0%	0%	7%

Sample Description

The table below presents the summary statistics for the sample, where firm size and leverage are averaged across all quarters for each firm. As the table shows, the average firm has about $1 billion in assets, a number that is slightly skewed by a few large firms, as the median is about $718 million. The typical firm has about 40% leverage, defined the ratio of total debt to book assets.

Name	Total Assets* (in $ Millions)	*Leverage (Debt/Total Assets)	Conventional IRR**	Annual Internal Rate of Return (Includes Reinvestment of Distribution	Conditional Annual Dividend yield***	Initial Price($)	Exit Price($)
American Realty Capital Trust, Inc.	$ 812.15	65.73%	7.35%	8.59%	6.63%	$ 10.00	$ 10.49
Apple Hospitality Five, Inc.	$ 391.39	1.45%	13.49%	15.13%	8.58%	$ 10.50	$ 14.05
Apple Hospitality Two, Inc.	$ 598.28	54.99%	13.40%	13.67%	9.91%	$ 9.50	$ 11.20
Apple Residential Income Trust, Inc.	$ 271.27	10.55%	7.96%	6.89%	8.24%	$ 9.00	$ 7.82
Apple Suites, Inc.	$ 160.73	48.10%	11.63%	12.75%	9.19%	$ 9.00	$ 10.00
Carey Institutional Properties	$ 342.34	47.78%	9.41%	9.65%	8.10%	$ 10.00	$ 13.90
CNL Hotels & Resorts (CNL Hospitality)	$ 2,702.67	38.11%	6.65%	7.29%	6.58%	$ 10.00	$ 10.25
CNL Restaurant Properties, Inc. (CNL American)	$ 917.42	37.59%	6.33%	6.13%	7.21%	$ 10.00	$ 8.70
CNL Retirement Properties, Inc.	$ 1,587.59	34.25%	9.76%	11.74%	6.56%	$ 10.00	$ 13.89
Cornerstone Realty Income Trust, Inc.	$ 141.40	9.15%	11.08%	12.11%	9.01%	$ 9.50	$ 10.50
Corporate Property Associates 10, Inc.	$ 206.79	56.34%	8.39%	8.94%	7.57%	$ 10.00	$ 11.74
Corporate Property Associates 12, Inc.	$ 349.10	41.83%	9.61%	10.85%	8.05%	$ 10.00	$ 13.49
Corporate Property Associates 14, Inc.	$ 1,160.45	47.73%	7.99%	8.25%	7.48%	$ 10.00	$ 11.50
DCT Industrial Trust, Inc. (Dividend Capital Trust)	$ 1,197.18	33.86%	11.14%	13.08%	6.40%	$ 10.00	$ 12.35
Inland Real Estate Corporation	$ 718.13	43.83%	10.35%	11.34%	8.85%	$ 10.00	$ 11.95
Inland Retail Real Estate Trust, Inc.	$ 2,387.64	53.80%	12.07%	13.95%	8.46%	$ 10.00	$ 14.00
Piedmont Office Realty Trust (Wells REIT)	$ 3,075.70	26.95%	5.88%	5.29%	6.22%	$ 10.00	$ 6.59
Mean	$ 1,001.19	38.36%	9.56%	10.33%	7.83%	$ 9.85	$ 11.32
Median	$ 718.13	41.83%	9.61%	10.85%	8.05%	$ 10.00	$ 11.50

**Total Assets and Leverage are the average of quarterly data.*
*** Excludes reinvestment of distributions*
****Conditional on payment*

Return Calculation Methodologies

For each nontraded REIT, we calculate the internal rate of return (IRR) experienced by investors in two ways. In the first, we assume that all distributions are reinvested at the then-prevailing price (while considering any DRIP discount). Upon ultimate liquidation, we compute the quarterly IRR as the geometric mean (or compounded average rate of return) of the quarterly returns, which we then annualize for presentation. In the second, we assume no reinvestment of distributions. We compute the average annual dividend yield using a fixed share price of $10, both for all quarters and conditioning on quarters where a dividend was actually paid.

Looking at the realized returns assuming reinvestment of distributions, the IRRs range from 5.29% to 15.13%, with an average of 10.33% and a median of 10.85%. Assuming no reinvestment of dividends decreases the estimated IRR for most of the sample firms, resulting in an average of 9.56% and median IRR of 9.61
%. A portion of this drop is due to the advantage of the DRIP discount, which we estimate as improving the annual IRR by approximately 20 basis points (0.20%) for the typical firm in our sample.

As indicated in the table, the bulk of these IRRs is delivered via the dividend yield. The arithmetic average annual dividend yield assuming a $10 stock price is 7.83% when one only considers quarters where a dividend is paid. In terms of capital appreciation, the vast majority of the REITs have an initial price of $10, with an average (median) exit price of $11.32 ($11.50) per share, implying some modest capital gain over the life of the typical nontraded REIT in our sample.
Note that the assumed stock price of $10 is adjusted for stock splits where necessary.

Return Calculation Methodologies

Unless otherwise noted, annual internal rates of return (IRR) were calculated based on a reinvestment of distributions using the discounted reinvestment price for each individual nontraded REIT.

The methodology used to calculate these returns assumes:

- The initial price paid for shares was the offering price available to shareholders on the first day of the first public offering.

- Quarterly distributions were paid at the end of each subsequent quarter and immediately reinvested when paid into additional shares, including any discount for Distribution Reinvestment Plans (DRP) if applicable.

- All of the shareholder's additional shares from reinvested distributions subsequently received the same quarterly percentage distribution yields as the original shares.

- At the actual date of the full-cycle event, the calculation uses the total accumulated value of the shareholder's investment (including the amount of the earliest possible cash payout per share at the date of the full-cycle event) relative to the original investment to find the equivalent quarterly geometric average rate of return over the n-quarters holding period.

- In the cases of reverse stock splits, all distributions and other per share cash payments were adjusted to reflect the effects of the splits.

Formula:

$$\text{Quarterly IRR} = \left[\frac{Ending\ Account\ Value\ per\ Share}{Initial\ Share\ Price}\right]^{1/n} - 1$$

$$Annual\ IRR = (1 + Quarterly\ IRR)^4 - 1$$

Example:
If the shareholder's original investment is $10.00 per share and the ending account value is $18.00, which includes both an ending share price paid to shareholders of $10.50 and $7.50 of reinvested distributions over the 24 quarters of the full-cycle REIT, then the IRR calculation would be:

$$\text{Quarterly IRR} = \left[\frac{\$18.00}{\$10.00}\right]^{1/24} - 1 = .0248 = 2.48\%$$

$$Annual\ IRR = (1 + Quarterly\ IRR)^4 - 1 = 10.295\%$$

Benchmark Construction

Having documented the IRRs to investors, assuming they held for the entire life of the REIT and reinvested all dividends, we now focus on several means of analyzing these returns. We begin with the question of appropriate benchmarks for assessing performance. Given that nontraded REITs represent a hybrid between privately-held commercial real estate and publicly-traded REITs, we use both private and publicly-traded real estate returns to arrive at two different benchmarks for each REIT.

Our first benchmark starts with data from the National Council of Real Estate Investment Fiduciaries (NCREIF). These data are based on appraisal-based quarterly returns (both income and capital gains) as reported by institutional investors. The advantage of these returns is that they are reported by location and property type, enabling us to construct a benchmark return that corresponds to each REIT along these dimensions. The disadvantages are that the benchmarks are not investible (individual investors cannot buy shares of these institutionally-held properties), they are based on appraisals, and they are unlevered. The last of these we account for by "levering" the NCREIF-based returns using each REIT's quarterly leverage. Thus, our benchmark returns match each REIT's leverage level.

To construct the NCREIF benchmark return, we first construct the returns on two portfolios of NCREIF assets. The first is weighted by region (for all property types), where the weights are chosen to match the individual REIT's geographic weights for that year. The second is weighted by property type (for all regions), where the weights are similarly chosen to match the individual REIT's property-type weights for that year. The final NCREIF benchmark is an equal-weighted average of these two portfolios – one based on regional returns and one based on property-type returns. Thus, each REIT has a benchmark constructed to match its chosen leverage, and degree of diversification across both regions and property types.

The final step in constructing this benchmark is to adjust for the timing of dividends and capital gains. The nontraded REITs have initial phases where the share price is held constant (typically at $10), while dividends are paid out to investors. Eventually, the price is marked to market, implying that all of the "pent up" capital gains or losses are realized in the share price. Of course, this marked-to-market value is still not a price at which investors can sell – their ultimate return depends on the final liquidation value.

In order to construct benchmarks that are similar in terms of this timing, the return to our benchmark is defined as only the income portion of the reported NCREIF return for all quarters until the REIT's price is marked to market. At that point, the benchmark return is the combination of the income return and the compounded capital gains (or losses) to date. From that point forward, the benchmark returns consist of both income and capital gains for each particular quarter.
The formula for the leverage adjustment is: Levered Return = (Unlevered return)*(Firm value/Equity value) – (Cost of debt)*(Debt value/Equity value). Values are based on each firm's books, and the cost of debt is the historical average for the particular REIT, as reported in their annual filings.

Benchmark Construction

Our second benchmark uses the returns of publicly-traded REITs, specifically the FTSE NAREIT indices for each property type, as reported on REIT.com. Specifically, we use the FTSE NAREIT Equity Apartment, Office, Industrial, Retail, and Lodging/Resort indices, weighted by each nontraded REIT's (annual) allocations across each property type. For the "other" property-type category, we equally weight the FTSE NAREIT Self Storage and Health Care indices. For the few early quarters prior to the inception of the FTSE NAREIT property-type indices in December 1993, we use the broad FTSE NAREIT Equity REIT index for all property types.

This benchmark has the advantage of being investible by individuals (thus representing a better measure of their opportunity costs of investing in a nontraded REIT), with the drawback that it is not tailored by region due to the difficulty in decomposing all publicly-traded REITs' returns into regional components. Publicly-traded REITs can also have different degrees of leverage relative to their nontraded counterparts. We adjust for these differences by "unlevering" the publicly-traded returns using the average leverage of all publicly-traded REITs, and then "re-levering" using the individual nontraded REITs' quarterly leverage (as done for the NCREIF-based benchmark). Finally, as with the NCREIF-based benchmark, we include only the dividend yield for the publicly-traded REITs until the nontraded REIT in question is marked to market. At that point, we include the compound capital gains or losses on the index since the REIT's inception, and for later quarters, both dividends and capital gains are included.

To assess the reasonableness of these benchmarks, we calculated the correlation between the benchmarks' returns and those of each nontraded REIT. These correlations are often quite large in magnitude (either positive or negative) due to the fact that capital gains (or losses) are postponed until at or near the liquidation event for both the nontraded REITs and the benchmarks, and in many cases the cumulative capital gains or losses are large relative to the annual dividend returns. Still, for the typical REIT, the benchmarks appear reasonable. The median correlation between the nontraded REIT returns and those of the NCREIF-based benchmark is 0.47, while the median correlation between the nontraded and publicly-traded benchmark returns is a bit higher at 0.57.

Benchmark Construction

Having documented the IRRs to investors, assuming they held for the entire life of the REIT and reinvested all dividends, we now focus on several means of analyzing these returns. We begin with the question of appropriate benchmarks for assessing performance. Given that nontraded REITs represent a hybrid between privately-held commercial real estate and publicly-traded REITs, we use both private and publicly-traded real estate returns to arrive at two different benchmarks for each REIT.

REIT-Specific Custom Benchmark (Institutional Real Estate Investment model):

Our first benchmark starts with data from the National Council of Real Estate Investment Fiduciaries (NCREIF). These data are based on appraisal-based quarterly returns (both income and capital gains) as reported by institutional investors. The advantage of these returns is that they are reported by location and property type, enabling us to construct a benchmark return that corresponds to each REIT along these dimensions. The disadvantages are that the benchmarks are not investible (individual investors cannot buy shares of these institutionally-held properties), they are based on appraisals, and they are unlevered. The last of these we account for by "levering" the NCREIF-based returns using each REIT's quarterly leverage. Thus, our benchmark returns match each REIT's leverage level.

To construct the NCREIF benchmark return, we first construct the returns on two portfolios of NCREIF assets. The first is weighted by region (for all property types), where the weights are chosen to match the individual REIT's geographic weights for that year. The second is weighted by property type (for all regions), where the weights are similarly chosen to match the individual REIT's property-type weights for that year. The final NCREIF benchmark is an equal-weighted average of these two portfolios – one based on regional returns and one based on property-type returns. Thus, each REIT has a benchmark constructed to match its chosen leverage, and degree of diversification across both regions and property types.

The final step in constructing this benchmark is to adjust for the timing of dividends and capital gains. The nontraded REITs have initial phases where the share price is held constant (typically at $10), while dividends are paid out to investors. Eventually, the price is marked to market, implying that all of the "pent up" capital gains or losses are realized in the share price. Of course, this marked-to-market value is still not a price at which investors can sell – their ultimate return depends on the final liquidation value.

In order to construct benchmarks that are similar in terms of this timing, the return to our benchmark is defined as only the income portion of the reported NCREIF return for all quarters until the REIT's price is marked to market. At that point, the benchmark return is the combination of the income return and the compounded capital gains (or losses) to date. From that point forward, the benchmark returns consist of both income and capital gains for each particular quarter.

Benchmark Construction

The formula for the leverage adjustment is: Levered Return = (Unlevered return)*(Firm value/Equity value) – (Cost of debt)*(Debt value/Equity value). Values are based on each firm's books, and the cost of debt is the historical average for the particular REIT, as reported in their annual filings.

REIT-Specific Custom Benchmark (Publicly-Traded REIT model):

Our second benchmark uses the returns of publicly-traded REITs, specifically the FTSE NAREIT indices for each property type, as reported on REIT.com. We use the FTSE NAREIT Equity Apartment, Office, Industrial, Retail, and Lodging/Resort indices, weighted by each nontraded REIT's (annual) allocations across each property type. For the "other" property-type category, we equally weight the FTSE NAREIT Self Storage and Health Care indices. For the few early quarters prior to the inception of the FTSE NAREIT property-type indices in December 1993, we use the broad FTSE NAREIT Equity REIT index for all property types.

This benchmark has the advantage of being investible by individuals (thus representing a better measure of their opportunity costs of investing in a nontraded REIT), with the drawback that it is not tailored by region due to the difficulty in decomposing all publicly-traded REITs' returns into regional components. Publicly-traded REITs can also have different degrees of leverage relative to their nontraded counterparts. We adjust for these differences by "unlevering" the publicly-traded returns using the average leverage of all publicly-traded REITs, and then "re-levering" using the individual nontraded REITs' quarterly leverage (as done for the NCREIF-based benchmark). Finally, as with the NCREIF-based benchmark, we include only the dividend yield for the publicly-traded REITs until the nontraded REIT in question is marked to market. At that point, we include the compound capital gains or losses on the index since the REIT's inception, and for later quarters, both dividends and capital gains are included.

To assess the reasonableness of these benchmarks, we calculated the correlation between the benchmarks' returns and those of each nontraded REIT. These correlations are often quite large in magnitude (either positive or negative) due to the fact that capital gains (or losses) are postponed until at or near the liquidation event for both the nontraded REITs and the benchmarks, and in many cases the cumulative capital gains or losses are large relative to the annual dividend returns. Still, for the typical REIT, the benchmarks appear reasonable. The median correlation between the nontraded REIT returns and those of the NCREIF-based benchmark is 0.47, while the median correlation between the nontraded and publicly-traded benchmark returns is a bit higher at 0.57.

Performance Relative to Benchmarks

The table on page 18 presents the IRR for each nontraded REIT (assuming reinvested dividends), along with the IRRs for the NCREIF-based and FTSE-NAREIT-based benchmarks. As the table indicates, for the typical nontraded REIT, the benchmarks exhibit annual returns that are slightly higher. The mean and median NCREIF-based benchmark returns are 11.68% and 13.38%, which are quite similar to the mean and median FTSE-NAREIT-based benchmark returns of 11.67% and 11.29%. These compare to the mean and median nontraded REIT returns of 10.33% and 10.85%. Using either the NCREIF-based or publicly-traded methodology, five out of the 17 nontraded REITs outperformed their respective benchmarks, while one nontraded REIT outperformed both.

The calculated IRRs also indicate that the benchmark portfolios exhibit greater cross-sectional volatility in their realized returns. The minimum and maximum realized IRRs for the nontraded REIT sample are 5.29% and 15.13%, respectively, with a (cross-sectional) standard deviation of 3.0%. In contrast, for the NCREIF-based benchmarks, the realized IRRs range from -4.7% to 22.5%, with a standard deviation of 7.44%. For the publicly-traded benchmarks, the IRRs range from -4.6% to 22.0%, with a standard deviation of 6.24%. The lower degree of variation across the full-cycle nontraded REITs can also be predicted by the consistent dividend yields and fairly similar exit prices across nontraded REITs.

The results in the table on page 18 also illustrate the importance of benchmarking performance rather than looking solely at raw returns. If one calculates each REIT's abnormal performance as the difference between its IRR and the NCREIF-based benchmark IRR, the correlation between the raw IRR and the abnormal performance is only 0.05. As an example, consider Apple Hospitality Five, which has the highest realized IRR, at 15.13%. But, its NCREIF-based benchmark also exhibited a relatively high IRR of 16.16% (although the publicly-traded benchmark was lower, at 9.72%). At the other end of the spectrum, Apple Residential Income Trust had a relatively low IRR of 6.89%, but this actually exceeded the publicly-traded benchmark return of 6.20%.

Across the nontraded REITs in our sample, realized returns are positively correlated with those of both benchmarks (NCREIF and FTSE-NAREIT). This suggests that nontraded REITs provide a means for individual investors to gain exposure to high-quality real estate assets, but in a way that is not perfectly correlated with the returns of either set of benchmark assets. The cross-sectional correlation between the returns on nontraded REITs and their publicly-traded REIT benchmarks is quite high, with the publicly-traded benchmarks explaining about 70% of the variation in the nontraded REITs' cumulative returns.

Performance Relative to Benchmarks

Name	Individual REIT Internal Rate of Return*	Benchmarks*	
		NCREIF-Based	FTSE-NAREIT-Based****
American Realty Capital Trust, Inc.	8.59%	-4.69%	10.58%
Apple Hospitality Five, Inc.	15.13%	16.16%	9.72%
Apple Hospitality Two, Inc.	13.67%	17.12%	10.21%
Apple Residential Income Trust, Inc.	6.89%	11.27%	6.20%
Apple Suites, Inc.	12.75%	5.39%	-4.61%
Carey Institutional Properties	9.65%	4.96%	12.93%
CNL Hotels & Resorts (CNL Hospitality)	7.29%	20.49%	3.27%
CNL Restaurant Properties, Inc. (CNL American)	6.13%	14.44%	15.69%
CNL Retirement Properties, Inc.	11.74%	16.45%	16.54%
Cornerstone Realty Income Trust, Inc.	12.11%	9.14%	14.37%
Corporate Property Associates 10, Inc.	8.94%	-0.46%	11.29%
Corporate Property Associates 12, Inc.	10.85%	14.38%	13.44%
Corporate Property Associates 14, Inc.	8.25%	8.38%	10.17%
DCT Industrial Trust, Inc. (Dividend Capital Trust)	13.08%	22.46%	19.80%
Inland Real Estate Corporation	11.34%	13.38%	16.32%
Inland Retail Real Estate Trust, Inc.	13.95%	20.50%	22.02%
Piedmont Office Realty Trust (Wells REIT)	5.29%	9.17%	10.50%
Mean	10.33%	11.68%	11.67%
Median	10.85%	13.38%	11.29%
Minimum	5.29%	-4.69%	-4.61%
Maximum	15.13%	22.46%	22.02%

**Includes distribution reinvestment..*
***Unlevered using mean (leverage) of traded REITs, and then levered up.*

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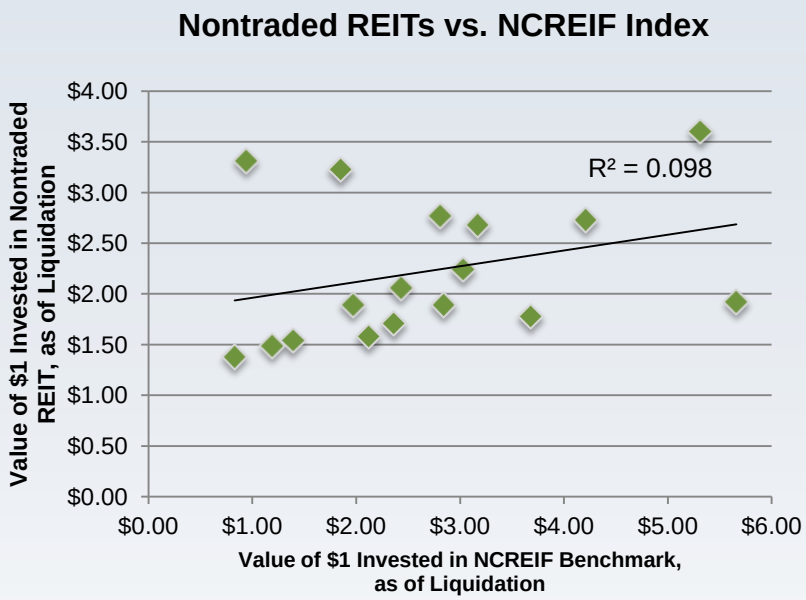
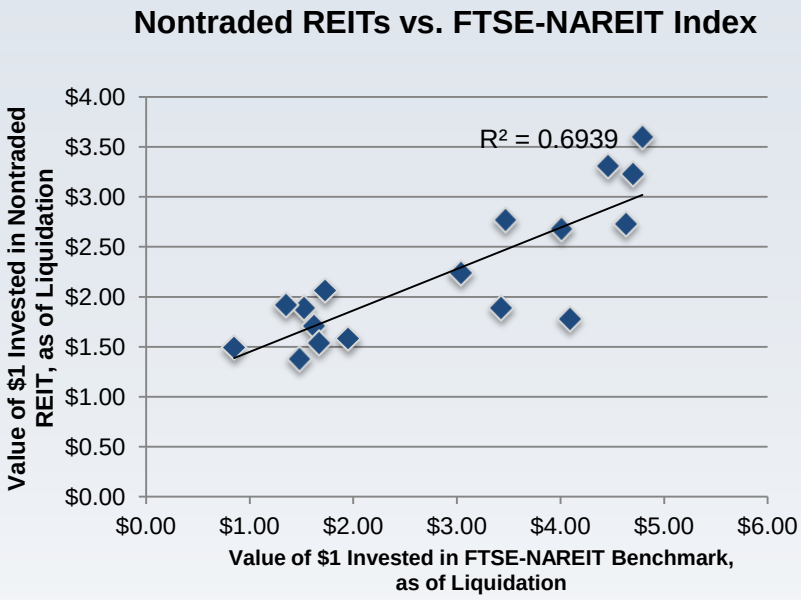
Performance Relative to Benchmarks

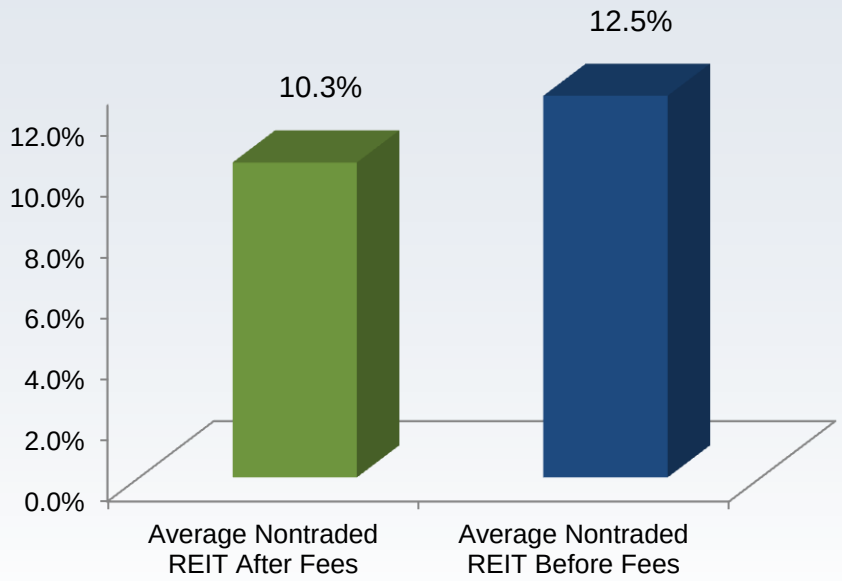




** These returns are estimated based on the early stage investment period.*

Impact of Fees on Performance

The differences in typical performance between the nontraded REITs and their benchmarks raise the question of the impact of fees or loads on performance. Of note, the median wealth relative of 0.85 implies a loss of 15 cents per dollar invested relative to the benchmark, which is roughly in line with many nontraded REITs' upfront total costs to the investor. While we do not attempt to ascertain the impact of each nontraded REIT's fees (which can also vary over time or across investors), we do present calculations based on an assumed 12% front-end load for all REITs in the sample, a number we believe to be in the ballpark and perhaps even conservative for some sample firms. By adding back the assumed load, we can begin to gauge the degree to which the nontraded REITs' relative performance can be attributed to the performance of their real estate holdings themselves, apart from the impact of fees or loads.



** These returns are estimated based on the early stage investment period and adding back an assumed front-end load of 12% for each nontraded REIT. We note that the actual front-end and total fees paid by investors may have been higher or lower.*

Impact of Fees on Performance

As further illustrated below, after adding back a plausible front-end load, the mean and median returns increase from 10.33% and 10.85% to 12.52% and 12.19%. Thus, a 12% front-end load equates to approximately a two-percent difference in annual performance over the life of a typical nontraded REIT in our sample. Turning to our measures of abnormal performance, one can see that before fees (on an unloaded basis), seven out of the 17 nontraded REITs now outperform each respective benchmark. While this is not quite half of the sample (and the sample size precludes formal tests), this suggests that on a real-estate-performance basis, the probability that a nontraded REIT outperforms its benchmark is relatively close to a coin flip, at least based on the sample of full-cycle events.

Annualized	Nontraded REIT IRR*	Unloaded Nontraded REIT IRR* **	NCREIF-based Benchmark	Diff (Nontraded REIT- NAREIT-based Benchmark)	FTSE-NAREIT-based Benchmark	Diff (Nontraded REIT - FTSE-NAREIT Benchmark)
American Realty Capital Trust, Inc.	8.59%	12.19%	-4.69%	13.28%	10.58%	-2.00%
Apple Hospitality Five, Inc.	15.13%	18.43%	16.16%	-1.03%	9.72%	5.41%
Apple Hospitality Two, Inc.	13.67%	16.28%	17.12%	-3.45%	10.21%	3.47%
Apple Residential Income Trust, Inc.	6.89%	8.61%	11.27%	-4.38%	6.20%	0.69%
Apple Suites, Inc.	12.75%	17.15%	5.39%	7.36%	-4.61%	17.36%
Carey Institutional Properties	9.65%	10.76%	4.96%	4.69%	12.93%	-3.27%
CNL Hotels & Resorts (CNL Hospitality)	7.29%	8.78%	20.49%	-13.20%	3.27%	4.02%
CNL Restaurant Properties, Inc. (CNL American)	6.13%	7.54%	14.44%	-8.31%	15.69%	-9.57%
CNL Retirement Properties, Inc.	11.74%	13.72%	16.45%	-4.71%	16.54%	-4.81%
Cornerstone Realty Income Trust, Inc.	12.11%	15.95%	9.14%	2.97%	14.37%	-2.25%
Corporate Property Associates 10, Inc.	8.94%	9.94%	-0.46%	9.40%	11.29%	-2.35%
Corporate Property Associates 12, Inc.	10.85%	12.00%	14.38%	-3.53%	13.44%	-2.59%
Corporate Property Associates 14, Inc.	8.25%	9.33%	8.38%	-0.13%	10.17%	-1.92%
DCT Industrial Trust, Inc. (Dividend Capital Trust)	13.08%	17.05%	22.46%	-9.38%	19.80%	-6.72%
Inland Real Estate Corporation	11.34%	12.90%	13.38%	-2.04%	16.32%	-4.98%
Inland Retail Real Estate Trust, Inc.	13.95%	15.85%	20.50%	-6.55%	22.02%	-8.07%
Piedmont Office Realty Trust (Wells REIT)	5.29%	6.38%	9.17%	-3.88%	10.50%	-5.21%
Mean	10.33%	12.52%				
Median	10.85%	12.19%				

**Includes distribution reinvestment..* ***Unloaded by adding back12% fee.*

Investment Timing: Early Stage vs. Late Stage

Next, we turn our attention to the question of the impact of the timing of shareholders' investment on their ultimate realized returns, both on an absolute basis and relative to each REIT's respective benchmarks. The structure and timing of nontraded REITs' pricing and investment cycle lead to interesting questions regarding when shareholders should invest in order to maximize their returns. Because share prices are typically fixed or change very little during the capital raising period, investors may do better by waiting (in order to reduce the time until capital gains are realized) or by investing early (in order to receive more dividends).

Up to this point, our returns have been calculated based on the assumption that the shareholder invests during the first fund-raising quarter (and then either reinvests all or no distributions). We now calculate returns assuming that distributions are reinvested, but with investment occurring at three different times – during the first fund-raising quarter (as before), during the last fund-raising quarter, and during the chronological midpoint of the fund-raising period (i.e., halfway between the first and final quarters). In this way, we seek to assess the impact of timing on the variation of different investors' realized returns.

An alternative means of calculating returns would be to try to assess the realized returns for a "typical" investor – e.g., the dollar-weighted mean return or the return on the median dollar raised. Such summary measures present one typical return but convey nothing about the variation in realized returns across various hypothetical shareholders; our approach focuses instead on this variation. It is also likely that realized returns are reasonably smooth or continuous over varying times of investment, so by characterizing returns for investing at the beginning, middle, and end of the capital-raising period, one can likely infer the direction of the impact on returns of other investment times, as well. Finally, it is worth noting that we are not assuming that the shareholders can perfectly forecast the date at which a particular REIT becomes closed for investment – our goal is to describe returns for the last investors in a REIT. That said, our results may have implications for whether for this sample of firms, investors would have realized higher returns by investing immediately or waiting until later in the capital-raising period.

The results of these calculations are presented in the table on the following page. Based on summary statistics, the mean IRR is highest for the last-quarter investors, at 14.0%. However, that is due to some extreme observations (such as CNL Retirement's IRR of 65.4% for last-quarter investors). The median IRR for last-quarter investors is actually slightly below that of first-quarter investors, at 10.14% versus 10.85%.

Investment Timing: Early Stage vs. Late Stage

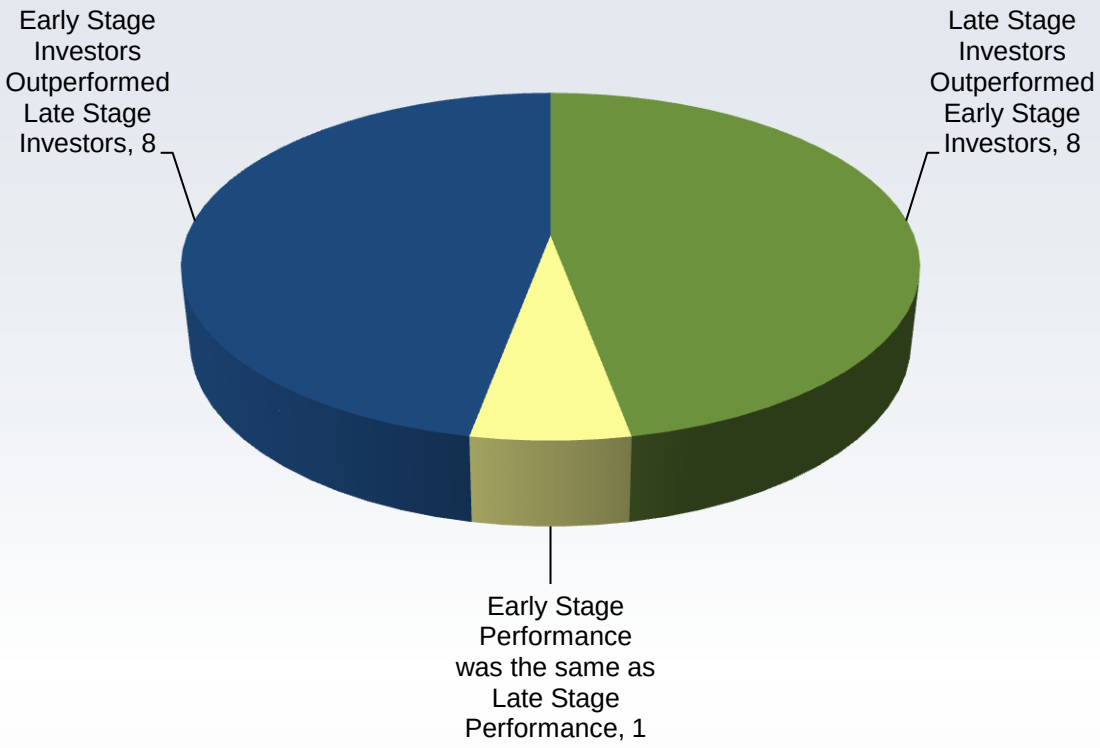
Clearly, if one could anticipate the magnitude of the realized exit price relative to the investment price (typically $10), then one could optimize investment timing in order to maximize the realized IRR. The greater the capital gain component is relative to the dividend yield (assuming the capital gains are positive), the better off a shareholder would be by waiting to invest until later in the capital-raising period (at least in terms of realized IRR). This is illustrated by the CNL Retirement case. CNL Retirement's exit price was the second highest in our sample, at $13.89, and they were still raising capital a year before the liquidation event. This combination of a large capital gain over a short period explains the superior IRRs of the final-quarter investors relative to the initial-quarter investors.

	(a) If came in the first fund raising quarter			(b) If came in the middle fund raising quarter			(c) If came in the last fund raising quarter		
Name	Nontraded REIT IRR*	NCREIF-based Benchmark	FTSE-NAREIT-based Benchmark	Nontraded REIT IRR*	NCREIF-based Benchmark	FTSE-NAREIT-based Benchmark	Nontraded REIT IRR*	NCREIF-based Benchmark	FTSE-NAREIT-based Benchmark
American Realty Capital Trust, Inc.	8.59%	-4.69%	10.58%	9.82%	-6.76%	3.03%	13.18%	-26.89%	-2.23%
Apple Hospitality Five, Inc.	15.13%	16.16%	9.72%	14.30%	16.72%	10.41%	15.13%	17.97%	10.99%
Apple Hospitality Two, Inc.	13.67%	17.12%	10.21%	12.87%	20.90%	14.89%	13.14%	22.14%	16.15%
Apple Residential Income Trust, Inc.	6.89%	11.27%	6.20%	5.22%	10.83%	5.64%	4.75%	10.99%	5.58%
Apple Suites, Inc.	12.75%	5.39%	-4.61%	9.96%	2.37%	1.51%	9.62%	-0.71%	-1.49%
Carey Institutional Properties	9.65%	4.96%	12.93%	9.97%	4.84%	13.31%	10.14%	4.68%	13.84%
CNL Hotels & Resorts (CNL Hospitality)	7.29%	20.49%	3.27%	7.47%	25.81%	1.11%	6.51%	46.99%	-4.27%
CNL Restaurant Properties, Inc. (CNL American)	6.13%	14.44%	15.69%	5.97%	15.77%	17.58%	5.46%	17.78%	20.80%
CNL Retirement Properties, Inc.	11.74%	16.45%	16.54%	16.67%	21.57%	23.29%	65.41%	107.81%	121.18%
Cornerstone Realty Income Trust, Inc.	12.11%	9.14%	14.37%	8.18%	12.20%	20.20%	4.90%	20.28%	72.96%
Corporate Property Associates 10, Inc.	8.94%	-0.46%	11.29%	9.11%	-0.55%	11.36%	9.13%	-0.64%	11.46%
Corporate Property Associates 12, Inc.	10.85%	14.38%	13.44%	11.36%	15.05%	14.33%	11.85%	15.96%	15.62%
Corporate Property Associates 14, Inc.	8.25%	8.38%	10.17%	8.48%	8.36%	10.57%	8.76%	8.19%	11.08%
DCT Industrial Trust, Inc. (Dividend Capital Trust)	13.08%	22.46%	19.80%	16.37%	30.14%	26.89%	26.52%	64.44%	32.88%
Inland Real Estate Corporation	11.34%	13.38%	16.32%	11.89%	14.43%	18.35%	10.70%	16.37%	18.07%
Inland Retail Real Estate Trust, Inc.	13.95%	20.50%	22.02%	15.76%	23.54%	26.21%	19.61%	31.19%	37.06%
Piedmont Office Realty Trust (Wells REIT)	5.29%	9.17%	10.50%	4.79%	9.10%	11.14%	3.83%	9.14%	12.37%
Mean	10.33%	11.68%	11.67%	10.48%	13.20%	13.52%	14.04%	21.51%	23.06%
Median	10.85%	13.38%	11.29%	9.96%	14.43%	13.31%	10.14%	16.37%	13.84%

**Includes distribution reinvestment..*

Investment Timing: Early Stage vs. Late Stage

Perhaps the most striking thing about these results is that there is no obvious pattern for the differences in returns between those who invested at the beginning and end of the fund-raising cycle. For eight out of the 17 REITs, first-quarter investors experienced greater IRRs than last-quarter investors; last-stage investors did better for the other nine. There are similar, nearly 50-50 splits for comparisons of first-quarter versus middle-quarter investors and middle-quarter versus last-quarter investors.



Performance Attribution Analysis

This discussion of the impact of the relative magnitudes of dividends and capital gains on realized returns of investors who buy shares at different times raises the question of the degree to which realized returns in our sample are driven by dividends or capital gains. In the final portion of our analysis, we decompose each REIT's returns into dividends and capital gains. For these calculations, we assume no reinvestment of distributions.

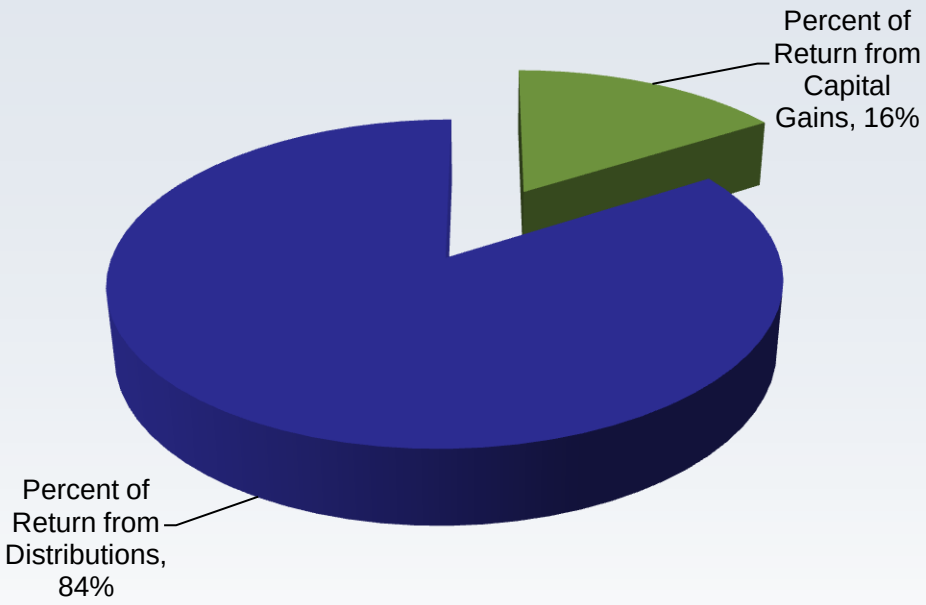
To decompose returns, one can calculate the present value of the dividends and the present value of the capital gains, using the realized IRR as the discount rate. Next, one can divide these respective present values by the initial investment (e.g., $10) in order to calculate the percentage of the total return that is attributable to each source. By using the IRR as the discount rate, these percentages will sum to 100%. For the three REITs with capital losses, these calculations are not as meaningful, so we instead just report that dividends comprised 100% of the (positive) cash flows that investors received. For the benchmark portfolios, here we no longer delay capital gains until the nontraded REIT marks to market – capital gains are realized in the quarter they initially occur. The table below presents the results of these calculations.

	Conventional IRR*			Fraction of Dividend Income		
Name	Nontraded REIT IRR*	NCREIF-based Benchmark	FTSE-NAREIT-based Benchmark	Nontraded REIT IRR*	NCREIF-based Benchmark	FTSE-NAREIT-based Benchmark
American Realty Capital Trust, Inc.	7.35%	-0.62%	4.69%	86.08%	100.00%	100.00%
Apple Hospitality Five, Inc.	13.49%	13.85%	8.59%	61.70%	56.35%	29.13%
Apple Hospitality Two, Inc.	13.40%	15.95%	8.69%	84.11%	74.83%	40.17%
Apple Residential Income Trust, Inc.	7.96%	10.76%	6.07%	100.00%	90.44%	100.00%
Apple Suites, Inc.	11.63%	5.90%	-0.19%	78.24%	100.00%	100.00%
Carey Institutional Properties	9.41%	6.90%	8.99%	82.44%	100.00%	46.00%
CNL Hotels & Resorts (CNL Hospitality)	6.65%	22.04%	4.41%	97.14%	86.71%	100.00%
CNL Restaurant Properties, Inc. (CNL American)	6.33%	13.95%	12.45%	100.00%	89.39%	48.70%
CNL Retirement Properties, Inc.	9.76%	14.85%	13.11%	63.22%	73.62%	34.27%
Cornerstone Realty Income Trust, Inc.	11.08%	9.20%	12.29%	81.31%	100.00%	40.07%
Corporate Property Associates 10, Inc.	8.39%	5.52%	7.90%	91.92%	100.00%	53.27%
Corporate Property Associates 12, Inc.	9.61%	12.26%	10.00%	84.29%	83.45%	38.73%
Corporate Property Associates 14, Inc.	7.99%	9.25%	6.47%	91.52%	91.84%	88.95%
DCT Industrial Trust, Inc. (Dividend Capital Trust)	11.14%	23.53%	20.49%	55.29%	63.93%	19.43%
Inland Real Estate Corporation	10.35%	15.26%	16.50%	87.41%	96.82%	62.20%
Inland Retail Real Estate Trust, Inc.	12.07%	19.82%	17.53%	73.11%	76.05%	30.13%
Piedmont Office Realty Trust (Wells REIT)	5.88%	9.67%	8.91%	100.00%	94.46%	76.48%
Mean	9.56%	12.24%	9.82%	83.40%	86.93%	59.27%
Median	9.61%	12.26%	8.91%	84.29%	90.44%	48.70%
Mean (positive capital gains only)	10.17%	15.10%	11.69%	79.84%	81.49%	46.73%
Median (positive capital gains only)	10.06%	14.40%	10.00%	83.28%	85.08%	40.17%

**Excludes distribution reinvestment.*

Performance Attribution Analysis

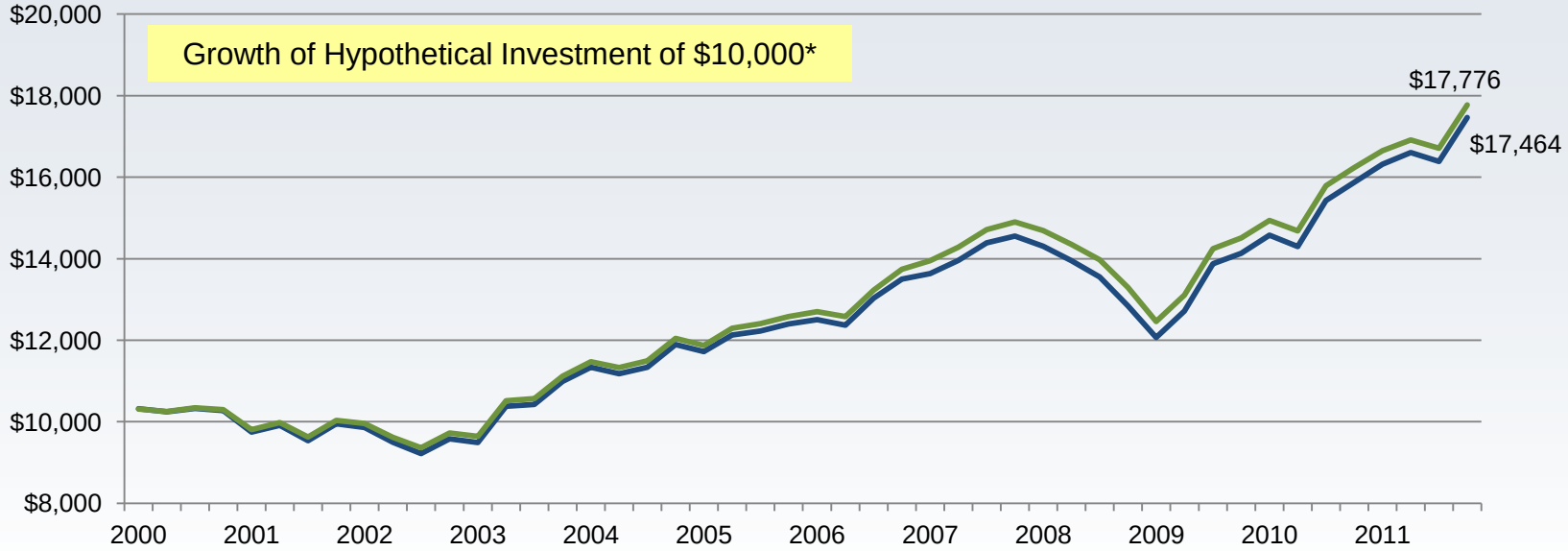
Nontraded REITs are often pitched to investors as an investment with high current income, and our sample's returns are consistent with the pitch. For the average firm, dividends represent 84.3% of their total returns, or 83.3% of total returns for those 14 firms with positive capital gains. These percentages are close to those of the NCREIF-based benchmarks, which are 90.4% for the full sample and 85.1% for the firms with positive capital gains. In contrast, the publicly-traded benchmark portfolios tend to derive more of their returns from capital gains; their dividends average 48.7% of total returns for all observations and 40.2% for the observations with positive capital gains.



** These returns are estimated based on the early stage investment period.*

Portfolio Allocations & Performance

Perhaps the ultimate question for an investor considering nontraded REITs is their role in a portfolio. A full examination of this issue requires an assessment of both risk and expected returns. Given the limited sample size, we cannot obtain reliable measures of the risk of nontraded REITs relative to other asset classes, and our return calculations are limited to the REITs that have experienced liquidity events. As a result, we can only consider realized returns for our sample, which may not be indicative of future returns and may not generalize to the full set of all nontraded REITs. We also cannot reliably assess the degree to which these realized returns were or were not commensurate with the risks investors faced. Thus, without implying that any particular portfolio is optimal from the standpoint of an investor, below we use the realized returns of the 17 nontraded REITs in this sample to show how a 5% allocation to these particular nontraded REITs would have compared to the returns of a portfolio that did not include our sample firms. This calculation has the benefit of hindsight, as if one knew which firms would have a full-cycle event, and may imply concentrated positions in a very small number of nontraded REITs at particular points in time.



Portfolio Allocation:
47.5% S&P 500
47.5% 10-Year Treasury Bonds
5.0% Nontraded REIT Sample

Portfolio Allocation:
50% S&P 500
50% 10-Year Treasury Bonds

** These returns are estimated based on the early stage investment period.*

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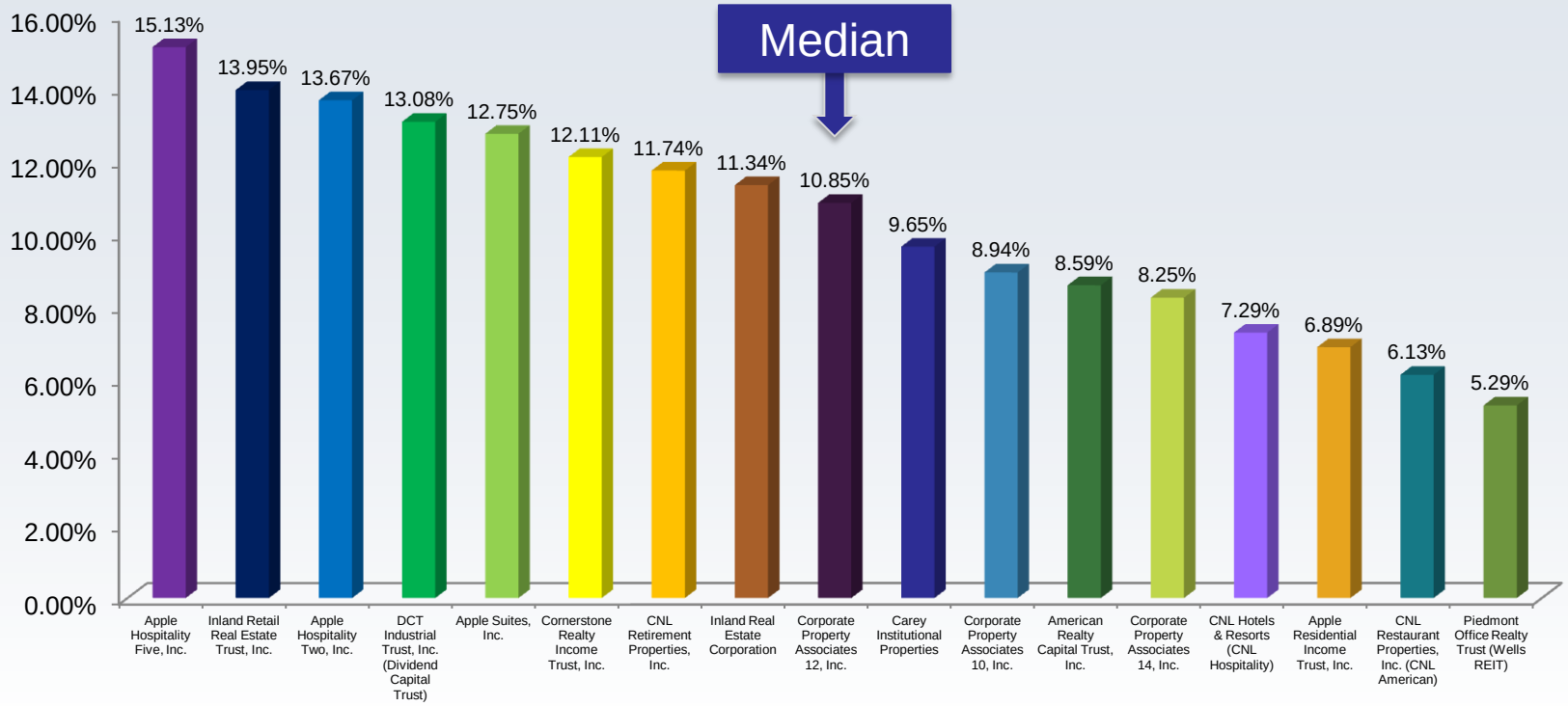
Early Stage Investment Performance

Early Stage Investment Performance

Individual Nontraded REIT Return Comparisons:

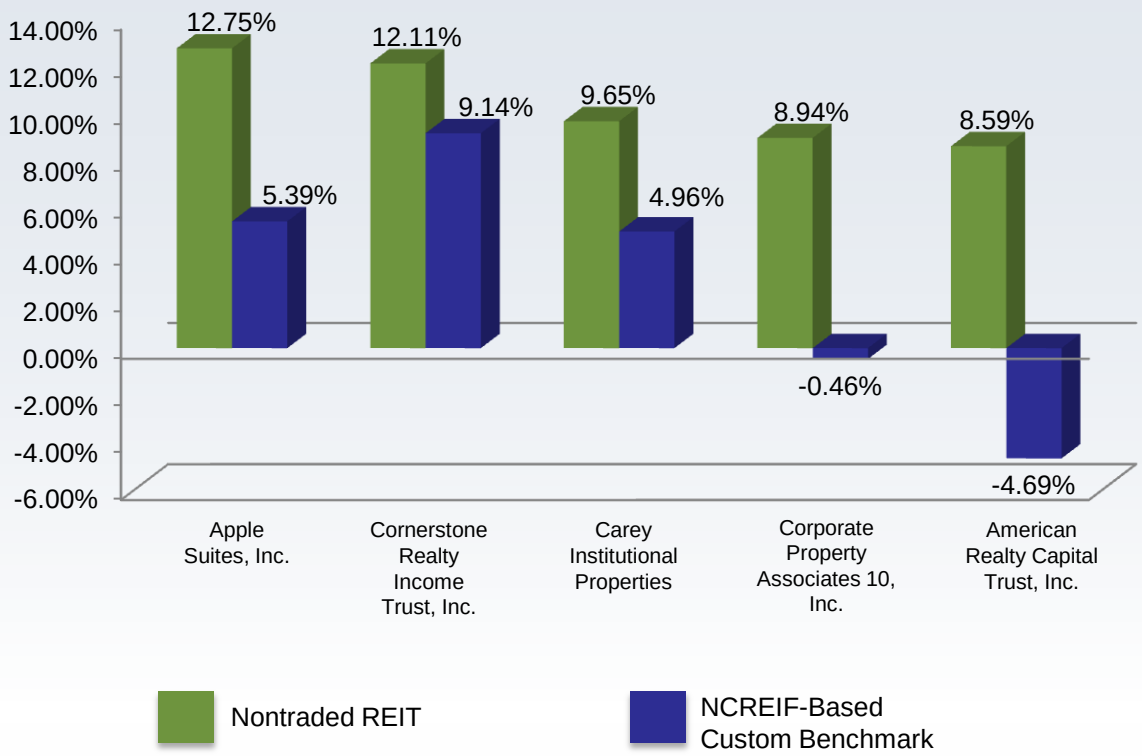
For the 17 nontraded REITs analyzed in this study, the median internal rate of return was 10.85%.



Early Stage Investment Performance

Custom Benchmark Comparisons:

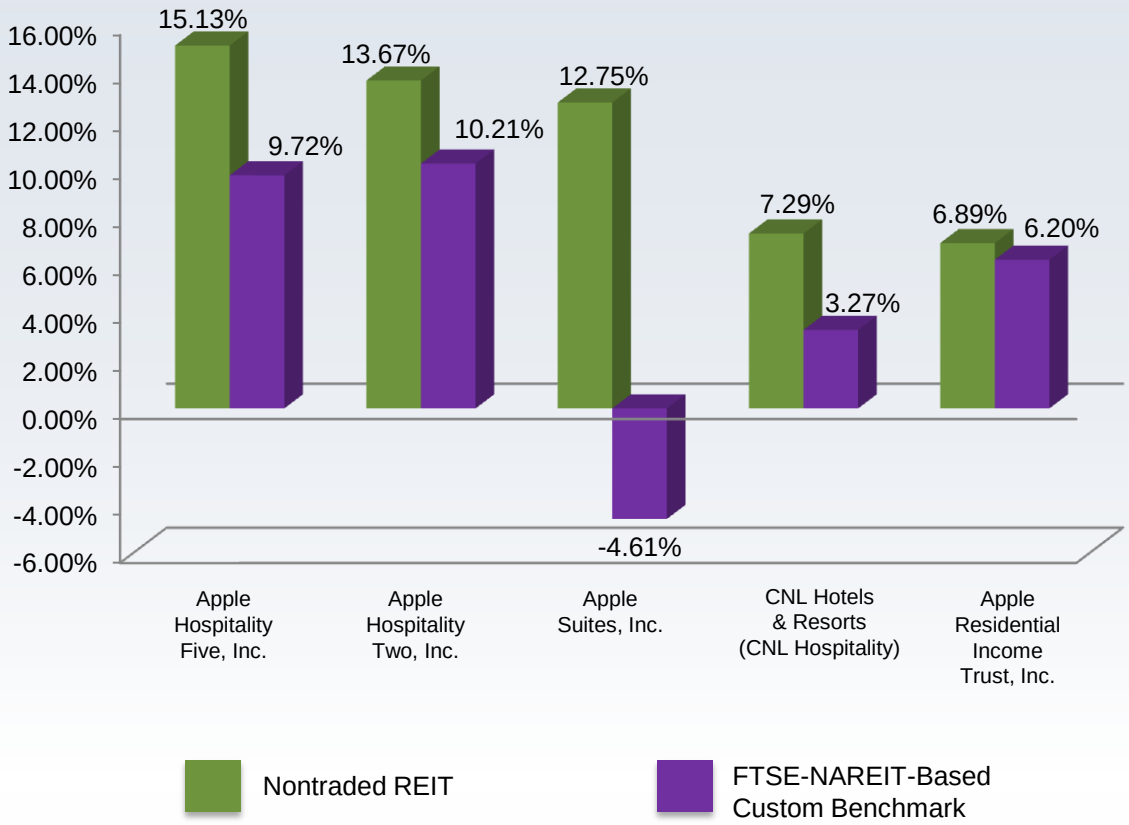
Comparing the nontraded REITs to their respective benchmarks, the results are less positive. Five out of the 17 nontraded REITs outperformed their respective NCREIF-based benchmarks.



Early Stage Investment Performance

Custom Benchmark Comparisons:

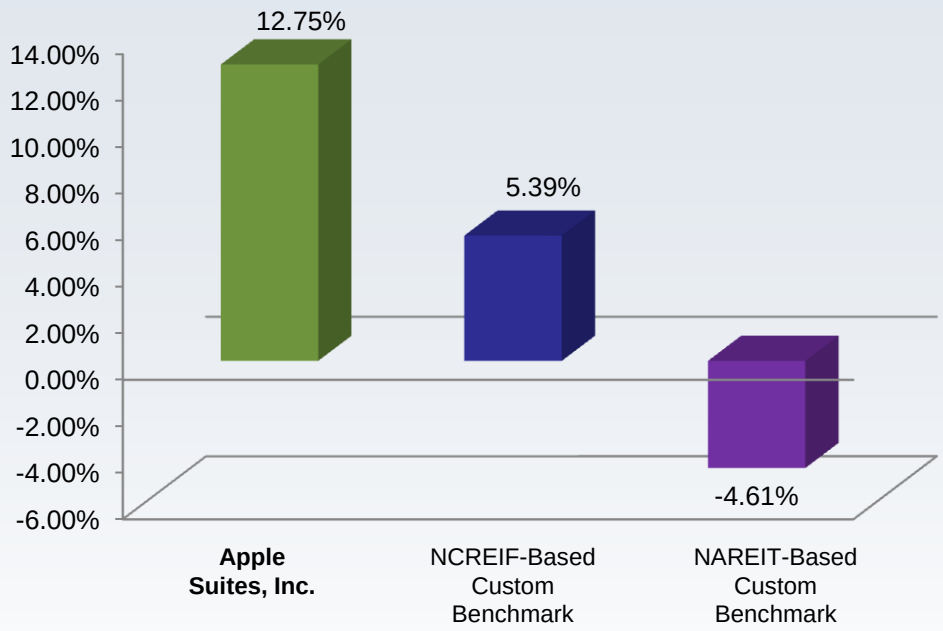
Five out of the 17 nontraded REITs outperformed their respective FTSE-NAREIT-based benchmarks.



Early Stage Investment Performance

Custom Benchmark Comparisons:

Only one out of the 17 nontraded REITs outperformed both their respective NCREIF-based benchmark and NCREIF-based benchmark.

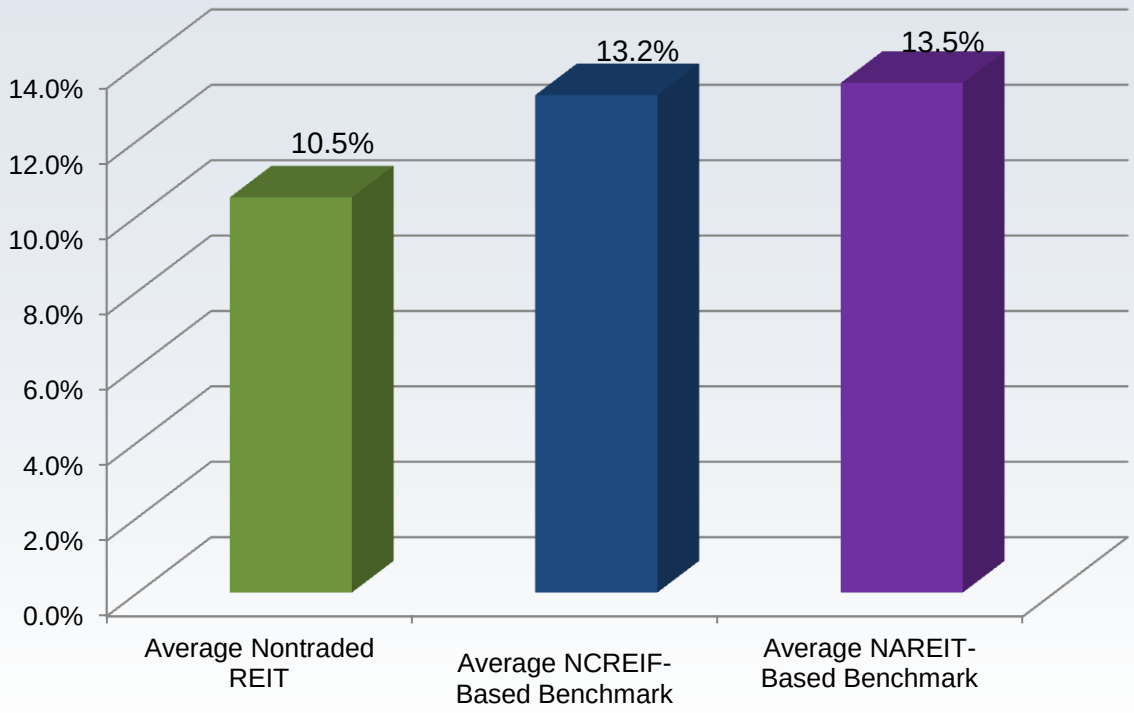


Mid Stage Investment Performance

Mid Stage Investment Performance

Average Return Comparisons:

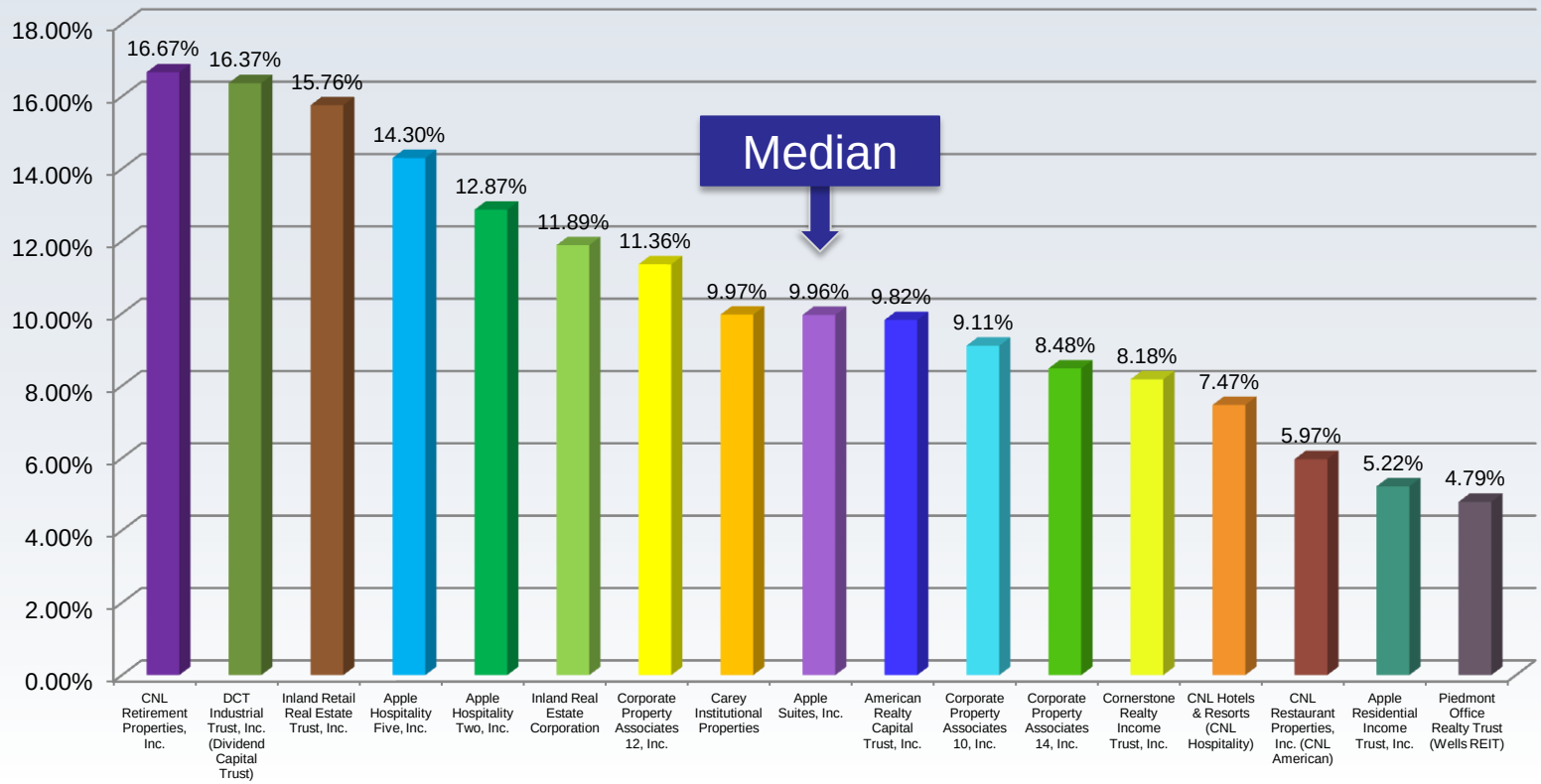
For performance returns calculated based on an investment made during the middle of the fundraising period through the final liquidity event, the average internal rate of return for the 17 REITs in the sample was 10.5%.



Mid Stage Investment Performance

Individual Nontraded REIT Return Comparisons:

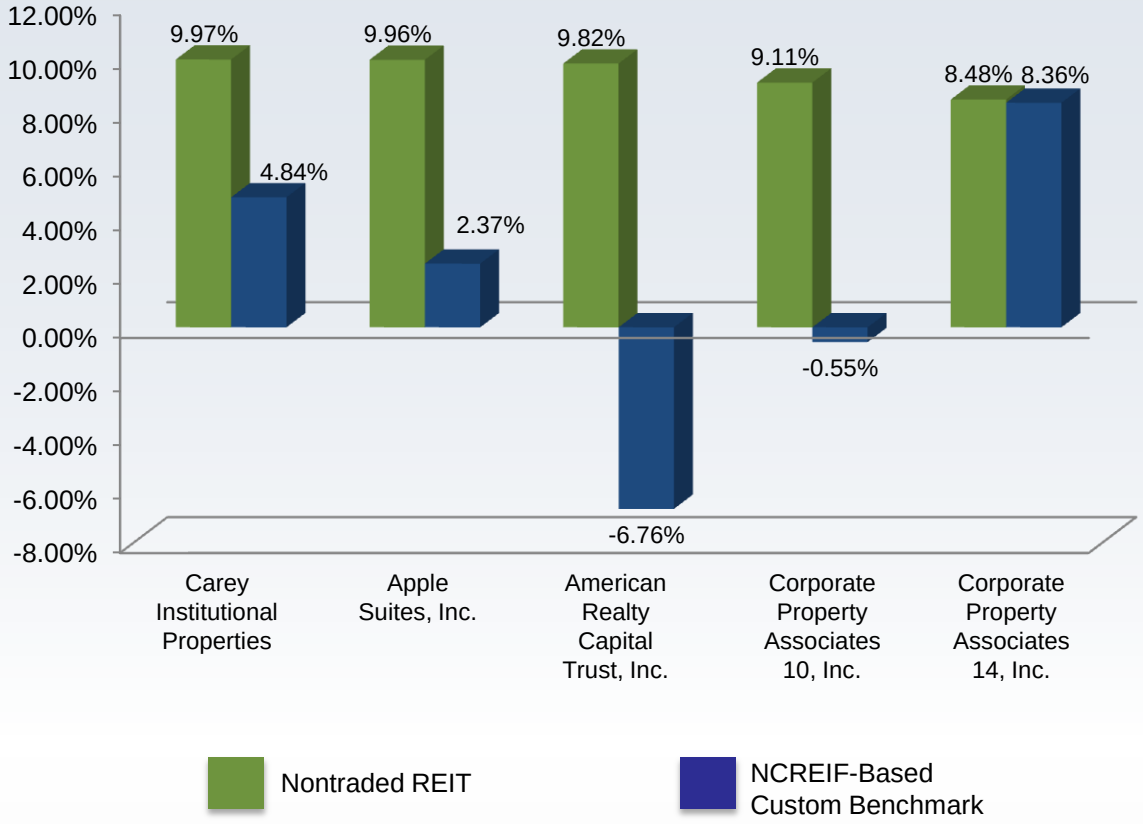
For the 17 nontraded REITs analyzed in this study, the median internal rate of return was 9.96%.



Mid Stage Investment Performance

Custom Benchmark Comparisons:

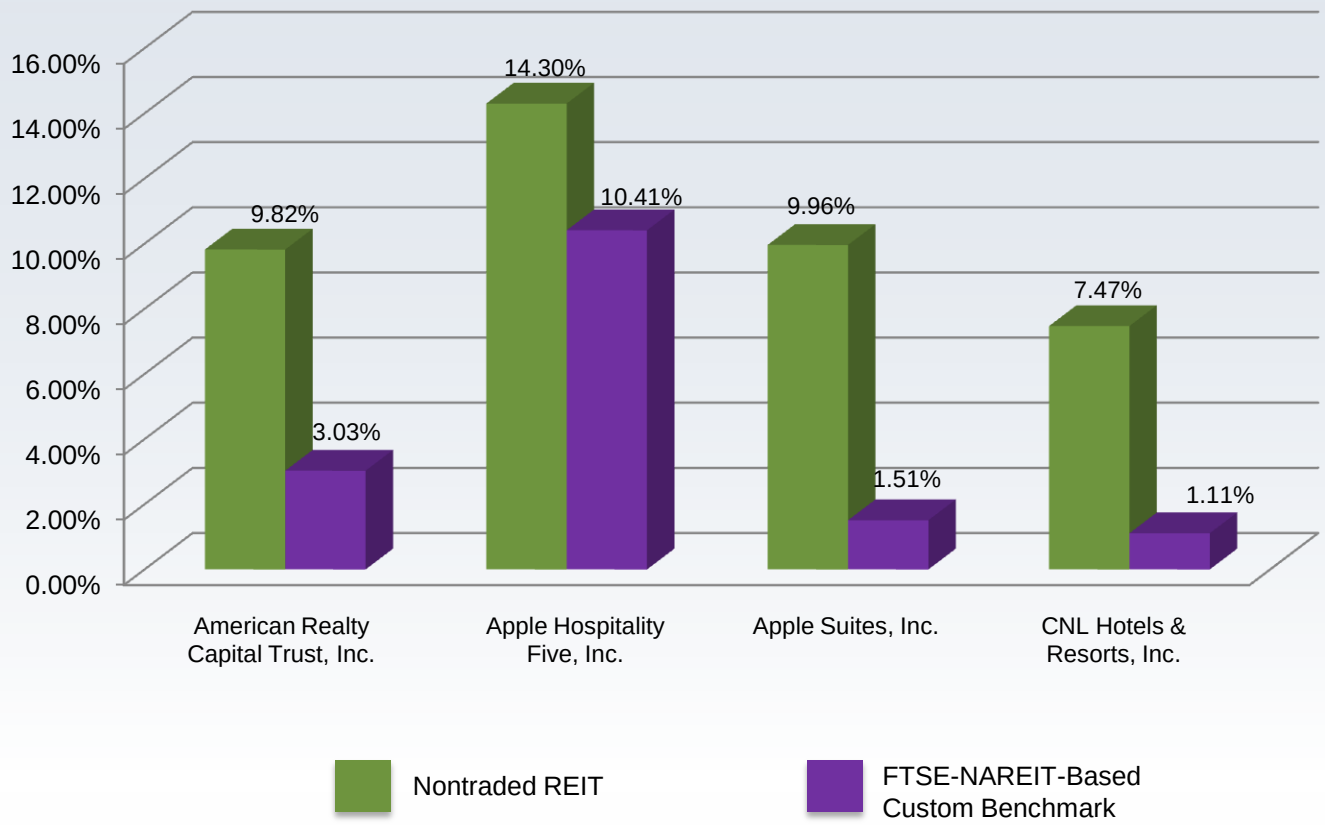
Comparing the nontraded REITs to their respective benchmarks, five out of the 17 nontraded REITs outperformed their respective NCREIF-based benchmarks.



Mid Stage Investment Performance

Custom Benchmark Comparisons:

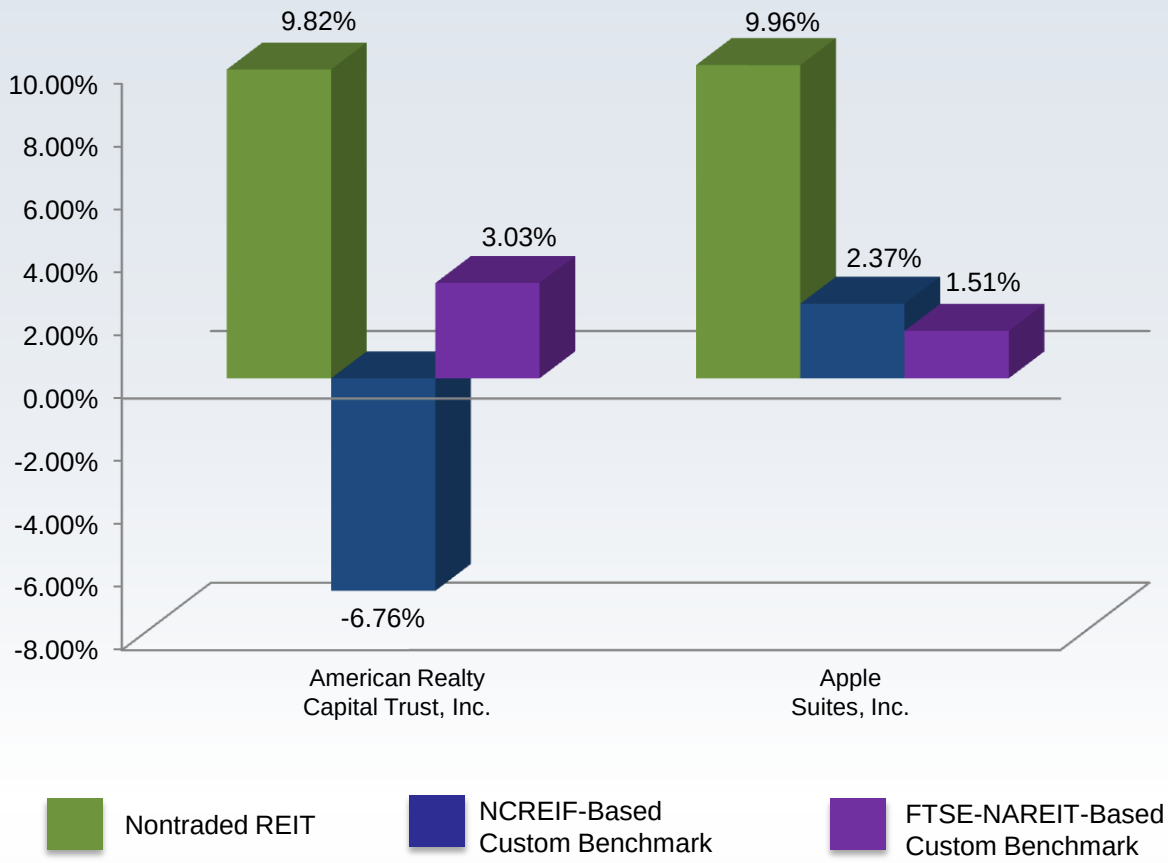
Four out of the 17 nontraded REITs outperformed their respective FTSE-NAREIT-based benchmarks.



Mid Stage Investment Performance

Custom Benchmark Comparisons:

Two out of the 17 nontraded REITs outperformed both their respective NCREIF-based benchmark and FTSE-NAREIT-based benchmarks.

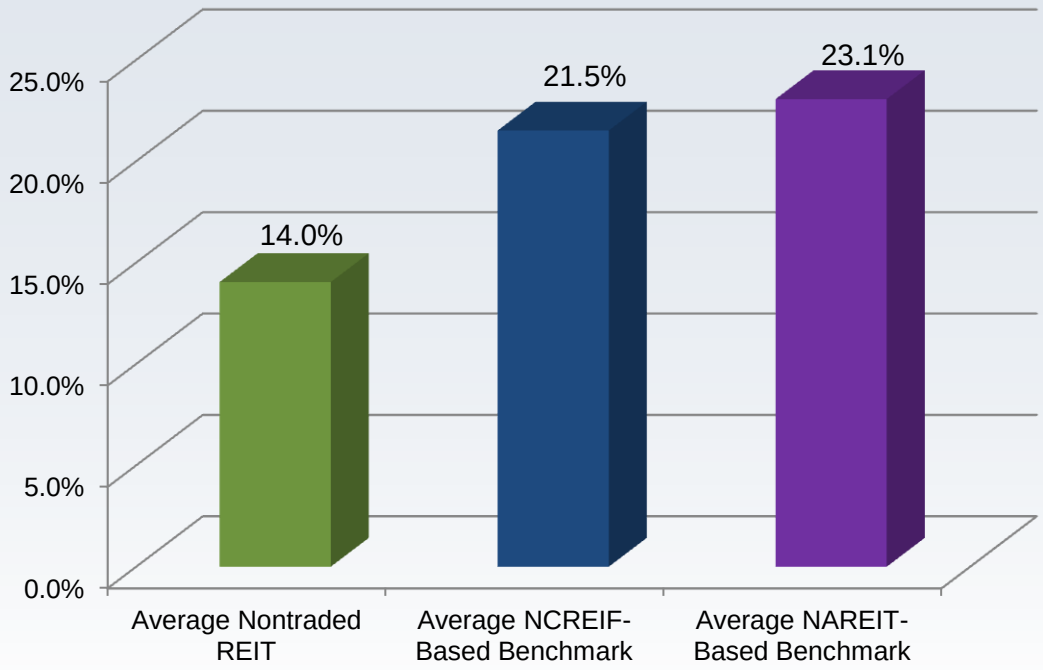


Late Stage Investment Performance

Late Stage Investment Performance

Average Return Comparisons:

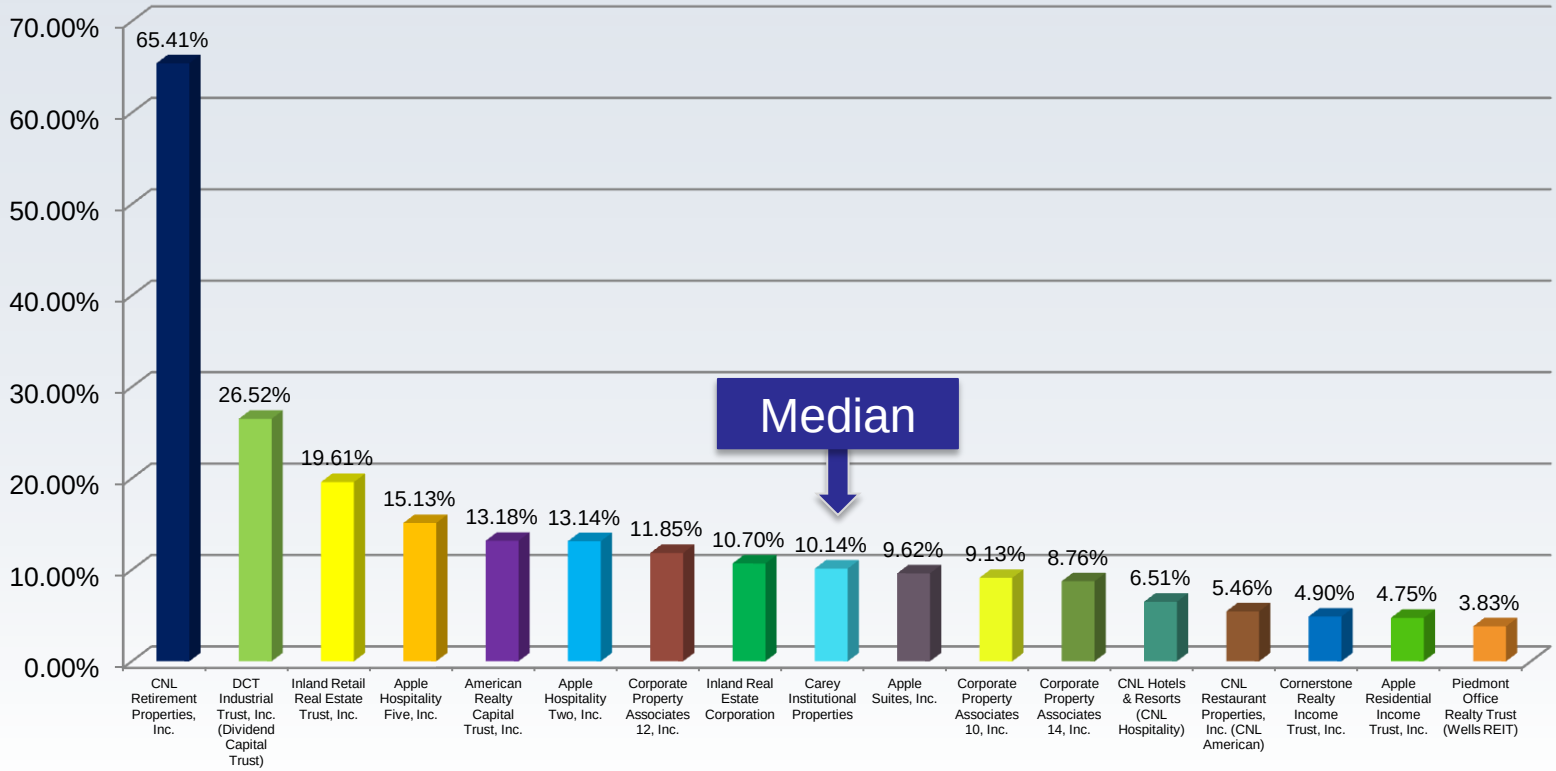
For performance returns calculated based on an investment made during the last quarter of the fundraising period through the final liquidity event, the average internal rate of return for the 17 REITs in the sample was 14.0%.



Late Stage Investment Performance

Individual Nontraded REIT Return Comparisons:

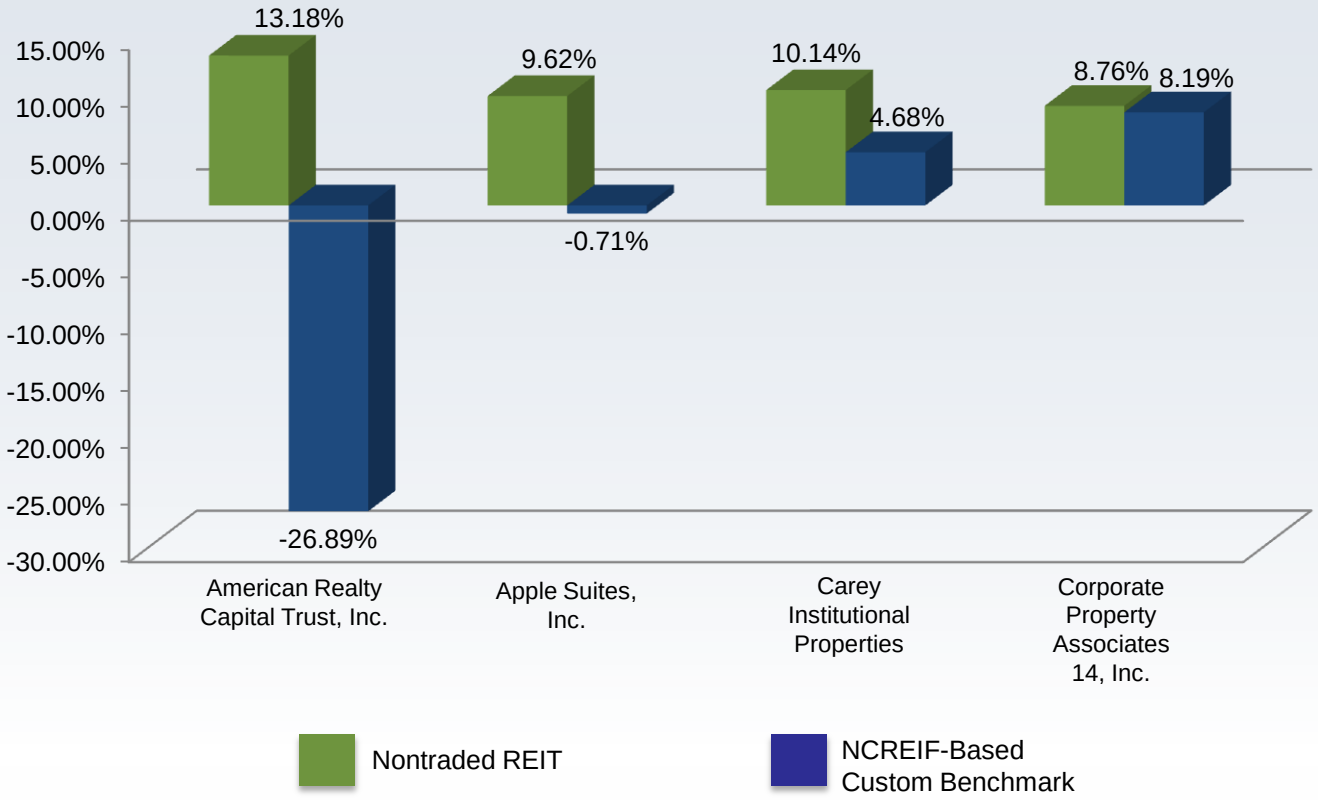
For the 17 nontraded REITs analyzed in this study, the median internal rate of return was 10.14%.



Late Stage Investment Performance

Custom Benchmark Comparisons:

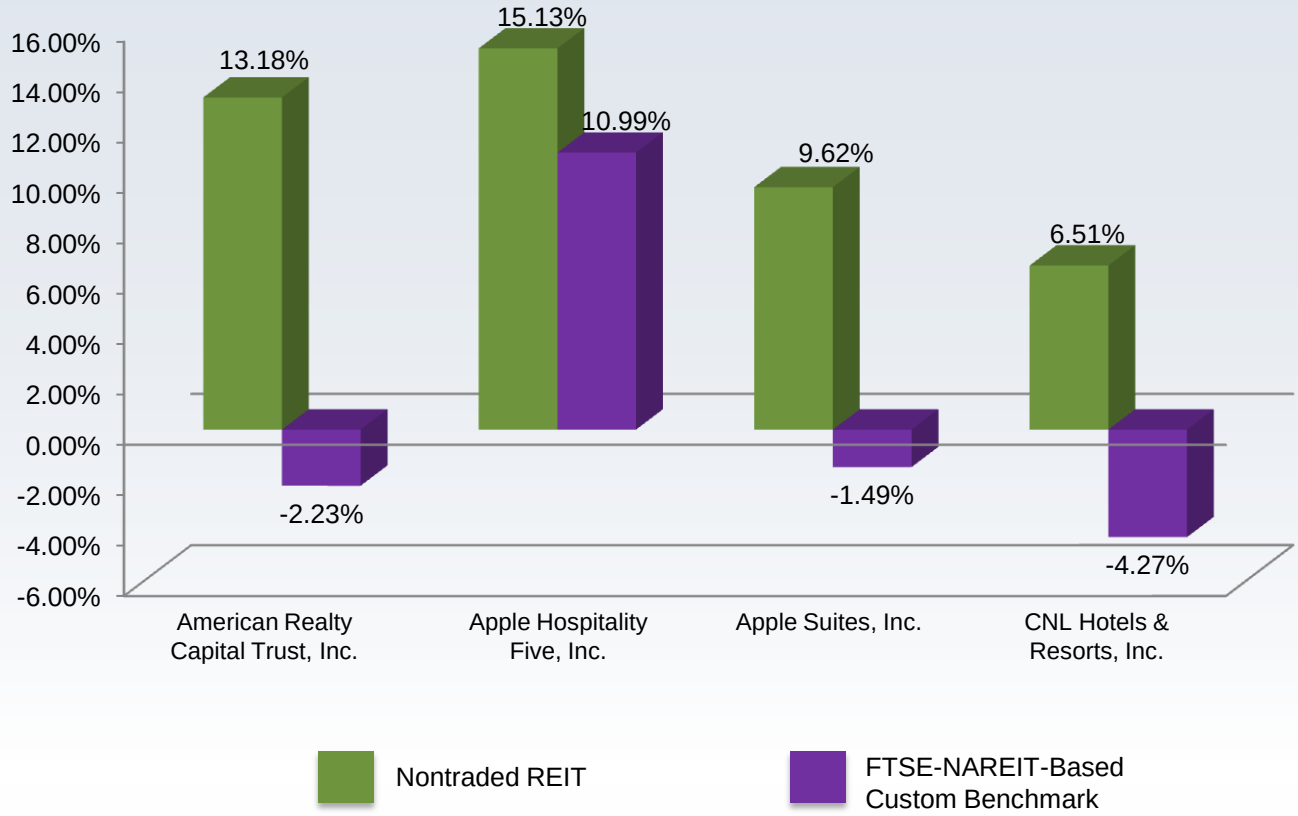
Comparing the nontraded REITs to their respective benchmarks, four out of the 17 nontraded REITs outperformed their respective NCREIF-based benchmarks.



Late Stage Investment Performance

Custom Benchmark Comparisons:

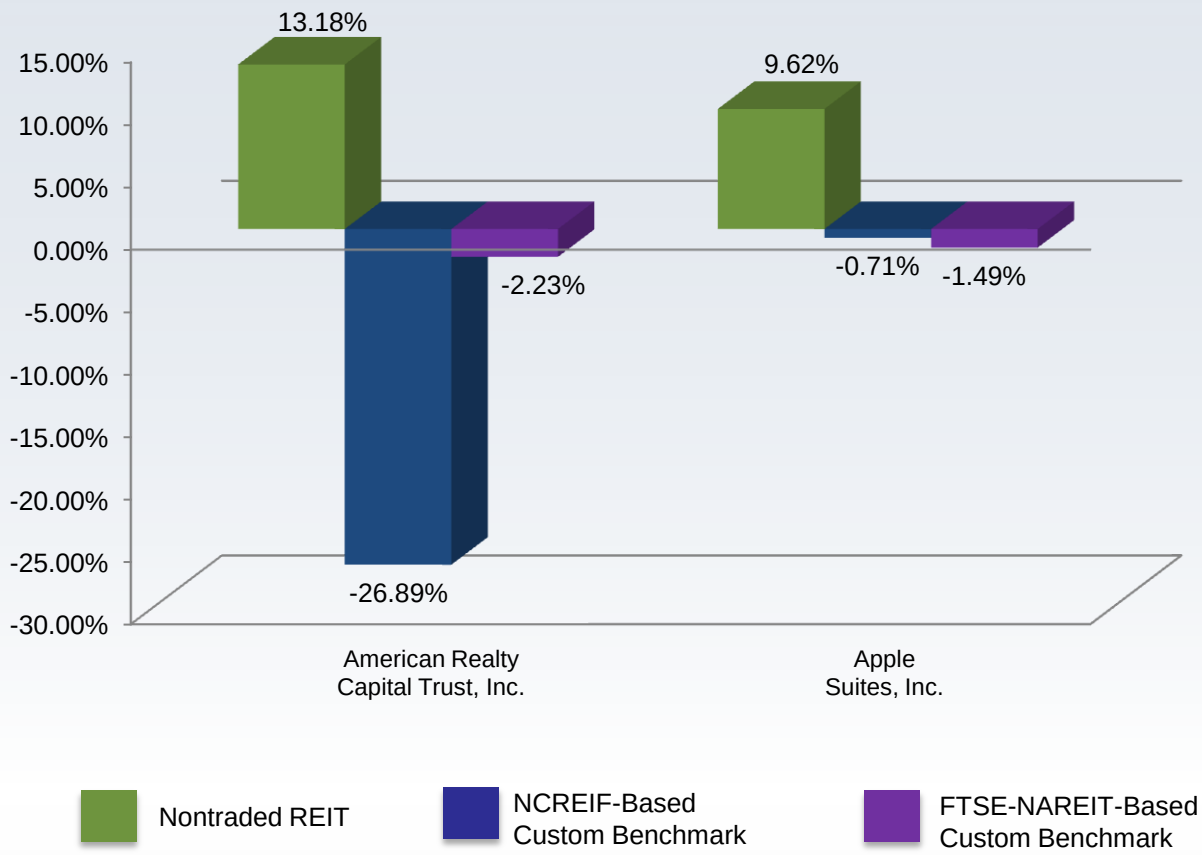
Four out of the 17 nontraded REITs outperformed their respective FTSE-NAREIT-based benchmarks.



Late Stage Investment Performance

Custom Benchmark Comparisons:

Two out of the 17 nontraded REITs outperformed both their respective NCREIF-based benchmark and FTSE-NAREIT-based benchmarks.



Supplemental Information

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