



September 12, 2016

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Re: Statement of Policy Regarding Real Estate Investment Trusts (“NASAA Guidelines”)

Dear Mr. Pieciak, Mr. Heuerman, Ms. Coverman and Mr. Stewart,

I submit this letter with attachments in support of your efforts to protect investors from abusive nontraded REIT practices. This letter, by its nature, provides limited scope for explanation and no opportunity for dialogue. If you hold public hearings in the future, I will welcome an opportunity to testify further about the issues I raise herein.

My comments are organized into five related areas:

- 1) nontraded REITs;
- 2) conflicts of interest;
- 3) concentration limits;
- 4) roll-ups; and
- 5) other self-serving conduct by Sponsors.

1) Nontraded REITs

Non-traded REITs are registered with the Securities and Exchange Commission (SEC), enabling their sale to unsophisticated investors. My coauthors and I have analyzed the returns to 81 non-traded REITs including 41 non-traded REITs which have become listed REITs or were

merged with or acquired by a REIT and 40 additional non-traded REITs which have started reporting a Net Asset Value (NAV) different from their offering price by May 1, 2015.¹ The 81 non-traded REITs we study including substantially all of the non-traded REITs in existence except those which stopped filing Form 10-Ks with the SEC without becoming a traded REIT and those which have not yet updated their NAVs.

We find that investors are at least \$45.5 billion worse off as a result of investing in the 81 non-traded REITs compared to investing in a diversified portfolio of traded REITs. Investors' non-traded REIT holdings were worth \$89.7 billion, dramatically lower than the \$135.2 billion the same investments in traded REITs would have been worth. Non-traded REIT investors would have had over 50% more wealth had they invested in a diversified portfolio of traded REITs instead of the 81 non-traded REITs.

The \$45.5 billion wealth loss results from non-traded REIT investors bearing similar real estate risk but earning much lower returns than investors in traded REITs. An alternative perspective on these inexcusably bad risk-adjusted returns is to note that investors in US Treasury securities have earned the same returns as non-traded REIT investors but at much lower risk.

The average non-traded REIT internal rate of return ("IRR") is 6.3%, compared to 11.6% for the traded REITs. The IRR of the aggregated 81 non-traded REIT sample is only 4.0%. The same cash flow stream applied to a diversified, liquid portfolio of traded REITs would have generated an IRR of 11.3%.

Unlike traded REITs, non-traded REITs offer virtually no secondary market liquidity prior to their liquidity event. Non-traded REIT returns should be higher than traded REITs to compensate investors for illiquidity. Also, our benchmark contains over one hundred traded REITs and so is much less volatile than the average REIT. Thus investors in diversified portfolios of traded REITs bear less liquidity and market risk and earn substantially higher returns than investors in non-traded REITs.

More than half of the non-traded REITs' underperformance results from \$15 billion in upfront fees which average 13.2% charged to investors in the offerings. This \$15 billion in upfront fees, which largely serves to compensate brokers, would have grown to approximately \$25 billion by the time the traded REITs became traded or last updated their NAVs. The rest of the non-traded REITs' underperformance results from conflicts of interest which permeate the organizational structure of non-traded REITs and which are largely absent in traded REITs.

Non-traded REITs are so inferior to traded REITs that no advisor taking due care could develop a reasonable basis for recommending a non-traded REIT. Advisors recommending non-traded REITs either are not exercising due care or are succumbing to the corrupting influence of

¹ See Brian Henderson, Joshua Mallett and Craig McCann, "An Empirical Analysis of Non-traded REITs", *Journal of Wealth Management*, 19(1): 83-94, Summer 2016 and Craig McCann, "Fiduciary Duties and Non-Traded REITs" *Investments & Wealth Monitor* July/August 2015.

the extraordinary commissions sponsors pay brokers and investment advisors for recommending non-traded REITs. The brokerage industry is well aware that recommending non-traded REITs is inconsistent with fiduciary duties.

2) Conflicts of Interest

Conflicts of interest permeate non-traded REITs. These conflicts of interest include portfolio managers affiliated with the sponsor, transactions with related parties, and governance structures ensuring absolute power and discretion to affiliated parties. Non-traded REITs compensate the affiliated portfolio manager with fees, including asset-based fees and incentive fees. Sponsors effectively determine how much REIT investors pay to the sponsor-owned firms for these services.

Non-traded REITs have corporate control and governance structures that concentrate power and completely eliminate channels for investors to affect change or impose discipline on management. Top executives of non-traded REIT Sponsors frequently own controlling interests in other business entities that serve as the portfolio manager and dealer-manager. By ensuring dispersed ownership across non-institutional investors, and maintaining control of every level of corporate decision-making (executive positions) and oversight (the board of directors), this structure effectively prevents any form of shareholder activism.

Although institutional investment in traded REITs is common, institutional investors almost never own material stakes in non-traded REITs. The absence of large, sophisticated investors ensures non-traded REITs are not subject to the same discipline as internally advised and managed traded REITs.

Non-traded REITs' operating performance predictably suffers from high fees paid by the sponsor in related-party transactions. The wealth transfer from investors to sponsors and their salesforce only survives because of the lack of price discovery. If there was an active market for non-traded REIT shares, transaction prices would quickly reflect wasteful offering costs and inefficient management making it impossible for brokers and investment advisors to continue to sell non-traded REITs.

3) Concentration Limits

NASAA proposes to limit non-traded REITs to 10% of an investor's liquid net worth, defined to be cash, cash equivalents, and readily marketable securities.

Many retail investors add real estate exposure to their portfolios despite already having a leveraged and undiversified real estate investment in their own home. Institutional investors' allocations and published literature provide useful guidelines on the level of appropriate real estate exposure for the typical investor. Pennachi and Rastad (2011) find that U.S. state and local government pension funds allocated an average of 3.1% to 6.5% of their total portfolio to U.S. real estate from 2000 to 2009. I have observed investors' portfolios with more than 50% invested in non-traded REITs as a result of brokers and investment advisors' recommendations.

How much, if any, additional real estate exposure is suitable for investors depends on the extent to which alternative real estate investments are plagued by high costs, risks and illiquidity. Open-end funds from established mutual fund companies like the Vanguard REIT Index (VGSIX), Nuveen Real Estate Securities (FREAX), and Fidelity Real Estate Investment Portfolio (FRESX) provide investors with professional management with established track records, access to a wide variety of real estate markets, transparent pricing, large portfolios, and ready liquidity.

Retail investors can also purchase shares issued by individual traded REITs. REITs tend to be less diversified than real estate mutual funds and ETFs, but can be used for targeted exposure to particular geographic regions or asset classes within the broader real estate market.

With readily available, liquid, low-cost alternatives to non-traded REITs, no investor will be harmed by NASAA's adoption of a 10% concentration limit. Brokers and investment advisors may have a good faith basis for recommending that a client make a focused real estate investment but they cannot justify a recommendation to purchase a non-traded REIT. Clients' interests are clearly better served by investments in low-cost, liquid mutual funds, closed-end funds, exchange-traded funds and individual REITs managed by individuals with the expertise and incentives to construct diversified portfolios of the best real estate investments.

4) Roll-ups

Sponsors are ignoring the Roll-up protections in Section I.B.23 of the NASAA Guidelines. This section is supposed to protect shareholders in REITs which have not been trading for at least 12 months before being rolled-up. The protections afforded by the NASAA guidelines include the requirement of a contemporaneous independent appraisal of the non-traded REIT and the option for the non-traded REIT investors who vote against a proposed roll-up to receive their pro rata share of the appraised value in cash.

Non-traded REIT shareholders need protection because, unlike traded REIT shareholders, they can't observe thickly traded market transaction prices when assessing the value of their shares. Also, non-traded REIT shareholders can't rely on the market for corporate control to bid up the merger consideration if risk arbitrageurs determine the value offered is too low. This need is especially pronounced when, as is often the case in suspect acquisitions skirting the roll-up protections, the acquiring traded REIT is affiliated with the acquired non-traded REIT through the Sponsor.

We have preliminarily analyzed 12 rollup transactions: 2 occurred in 2006, 1 in 2012, 3 in 2013, 3 in 2014 and 3 occurred in 2015. The two transactions in 2006 maintain language which closely tracks the NASAA guidelines at the time of the merger. The 10 more recent roll-ups exhibit a disturbing pattern. While the REITs are selling shares and raising proceeds, their bylaws include the NASAA Guidelines protections discussed above. Then shortly before a merger is announced, the non-traded REITs amend their bylaws, changing the definition of a roll-up and removing the investor protections the Sponsors had agreed to provide investors.

American Realty Capital's Nicholas Schorsch signed six Certificates of Correction for all six of the nontraded REITs he controlled. The six Certificates of Correction can be downloaded by clicking on the hyperlinks below.

American Realty Capital Daily Net Asset Value Trust, Inc. (January 20, 2012)
www.sec.gov/Archives/edgar/data/1501745/000144530512000528/v304180dnav33.htm

American Realty Capital Healthcare Trust, Inc. (January 20, 2012)
www.sec.gov/Archives/edgar/data/1499875/000144530512000532/v304182hc33.htm

American Realty Capital - Retail Centers of America (January 20, 2012)
www.sec.gov/Archives/edgar/data/1500554/000114420412009708/v302696_ex3-3.htm

American Realty Capital New York Recovery REIT, Inc. (January 20, 2012)
www.sec.gov/Archives/edgar/data/1474464/000144530512000541/ex34-arcnx1231201110k.htm

American Realty Capital Trust (January 20, 2012)
www.sec.gov/Archives/edgar/data/1410997/000114420412028152/v304866_ex3-1.htm

American Realty Capital Trust III, Inc. (January 20, 2012)
www.sec.gov/Archives/edgar/data/1503828/000144530512000525/arctiii12312011ex34.htm

With each Certificate of Correction, a passage in an American Realty Capital nontraded REIT's Corporate Charter which read as follows

“ROLL-UP TRANSACTION” means a transaction involving the acquisition, merger, conversion or consolidation either directly or indirectly of the Company and the issuance of securities of a Roll-Up Entity to the holders of Common Shares. Such term does not include:

(a) a transaction involving securities of the Company that have been for at least twelve (12) months listed on a national securities exchange; or...

was changed to read

“ROLL-UP TRANSACTION” means a transaction involving the acquisition, merger, conversion or consolidation either directly or indirectly of the Company and the issuance of securities of a Roll-Up Entity to the holders of Common Shares. Such term does not include:

(a) a transaction involving securities of a company that have been for at least twelve (12) months listed on a national securities exchange; or...

You can be forgiven for missing the change. American Realty Capital changed “the Company” to “a company”. With this innocuous form, intended to be used to fix typos and other drafting errors, American Realty Capital eliminated shareholder protections it promised to investors as they were being duped into buying nontraded REITs.

These Certificates of Correction were not immediately filed with the Securities and Exchange Commission as stand-alone documents attached to a Form 8-K where they might be

noticed. Instead, they were referenced in exhibit lists at the end of four lengthy Form 10-K filings, one S-3 registration Statement and one post-effective amendment to an S-11 Registration Statement, filed with the SEC, on average, 50 days after these highly consequential changes were made.

A year later, on January 25, 2013 Cole Capital's D. Kirk McAllaster, Jr. signed Certificates of Correction for all five Cole Capital nontraded REITs as their Executive Vice President, Chief Financial Officer and Treasurer which were virtually identical to the ones Mr. Schorsch signed a year earlier. The Certificates changed "the Corporation" to "a corporation" in the REITs' Corporate Charters, eliminating shareholder protections required by NASAA as if he were correcting a typo.

None of the five Cole Capital Certificates of Correction were filed as stand-alone documents attached to a Form 8-K. All were referenced in exhibit lists at the end of lengthy Form 10-K filings, filed with the Securities and Exchange Commission on average 50 days after the change was made.

Cole Corporate Income Trust (January 25, 2013)

www.sec.gov/Archives/edgar/data/1490626/000149062613000027/ccitex3412312012.htm

Cole Credit Property Trust II, Inc. (January 25, 2013)

www.sec.gov/Archives/edgar/data/1308606/000130860613000004/ccptiiexhibit3-5.htm

Cole Credit Property Trust III, Inc. (January 25, 2013)

www.sec.gov/Archives/edgar/data/1425923/000142592313000003/ccptiii12312012ex35.htm

Cole Credit Property Trust IV, Inc. (January 25, 2013)

www.sec.gov/Archives/edgar/data/1498547/000149854713000024/ccptiv12312012ex36.htm

Cole Real Estate Income Strategy (Daily NAV), Inc. (January 25, 2013)

www.sec.gov/Archives/edgar/data/1498542/000149854213000021/cinav1231201210kexhibit3-4.htm

Four more nontraded REITs played the Certificate of Correction sleight of hand in March and May 2014.

Industrial Income Trust Inc. (March 19, 2014)

www.sec.gov/Archives/edgar/data/1464720/000119312514110223/d697219dex31.htm

Industrial Property Trust Inc. (March 19, 2014)

www.sec.gov/Archives/edgar/data/1558441/000119312514145963/d713283dex34.htm

Dividend Capital Diversified Property Fund Inc. (March 26, 2014)

www.sec.gov/Archives/edgar/data/1327978/000119312514116702/d698902dex31.htm

Griffin-American Healthcare REIT II, Inc. (May 1, 2014)

www.sec.gov/Archives/edgar/data/1455271/000145527114000027/gahcr3form8k050114exh31.htm

Seven of the nontraded REITs that “corrected” away shareholder protections were subsequently involved in Roll-ups.

- American Realty Capital Trust III, Cole Corporate Income Trust, Cole Credit Property Trust II and Griffin-American Healthcare REIT II were acquired in stock or stock and cash mergers while still nontraded REITs.
- American Realty Capital Healthcare Trust, American Realty Capital Trust and Cole Real Estate Investments were acquired in stock or stock and cash mergers after they became listed REITs but before they had been listed for 12 months.

If the Sponsors for these seven REITs had not eliminated the Roll-up protections they committed to as a condition for registering securities for sale with abusive Certificates of Correction, shareholders would have been entitled to have an independent appraisal of the REIT they owned. Also, nontraded REIT shareholders who voted “No” would have been entitled to receive their pro rata share of the appraised value in cash.

The problem with these seven mergers is not just that more of the consideration investors received would have been paid in cash rather than stock if the abusive Certificates of Correction had not been invoked. “Correcting” away the shareholder protections changed voting incentives. With the protections in place, a “No” vote would have given the voting shareholder the option to receive cash if the merger went forward. Without the protections, shareholders receive the same outcome regardless of how they vote. Shareholders thus have less of an incentive to vote “No” if the Sponsor eliminates the protections than if the protections are in place. Without the protections in place, the nontraded REIT shareholders might vote “Yes” because they prefer a less-than-equitable merger over no merger. However, that does not mean the shareholders would have voted the same way if the protections had allowed the shareholders the additional choice of an equitable cash merger.

Sponsors promised investors these important roll-up protections as a condition for registering the offerings. Once investors were trapped in these illiquid REITs, American Realty Capital and Cole Credit unilaterally deleted the protections and subsequently caused the non-traded REITs to enter into abusive roll-up transactions. NASAA members should work to sanction Sponsors that engage in such obvious perfidy.

5) Other self-serving conduct by Sponsors.

My co-authors and I found that roughly \$25 billion of the \$45 billion in nontraded REIT investor shortfalls was due to the high upfront costs – mostly commissions paid to brokers and brokerage firms. The remaining difference appears to result from the affiliated party transactions between the REITs and service providers controlled by the REITs’ Sponsors orchestrated by the Sponsors.

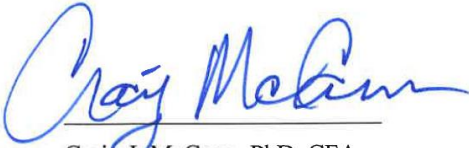
Investors in nontraded REITs do not just bear the costs of these affiliated party transactions while the REIT is non-traded. NASAA Guidelines, II.F.2 reads “Each contract for the services of an ADVISOR entered into by the TRUSTEES shall have a term of no more than

one year.” and II.F.3 reads “Each advisory contract shall be terminable by a majority of the INDEPENDENT TRUSTEES, or the ADVISOR on sixty (60) days written notice without cause or penalty. ...”.

For example, concurrent with its NYSE listing, non-traded REIT American Realty Capital Global Trust Inc. - rechristened Global Net Lease, Inc. or GNL - entered into a new 20-year contract with its Advisor (controlled by American Realty Capital executives). The new contract increases the Advisor’s conflicts of interest, and makes it harder for the REIT to fire the Advisor. The sole purpose of such a contract can only be to force current shareholders to bear the costs of years more of abusive affiliated party transactions without the recourse and discipline typically provided by an exchange listing.

Thank you for giving me an opportunity to comment on your proposed amendments to the NASAA Guidelines. It is critical that NASAA adopt, implement and enforce a concentration limit on nontraded REITs because investor protections otherwise provided by the marketplace are ineffective with nontraded REITs. Even after a nontraded REIT becomes a traded REIT, investors continue to suffer at the hands of the Sponsors and brokerage firms which sell these defective products.

Sincerely,

A handwritten signature in blue ink that reads "Craig McCann". The signature is written in a cursive, flowing style. Below the signature is a horizontal line.

Craig J. McCann, PhD, CFA

Enclosures (2)

An Empirical Analysis of Non-Traded REITs

Brian Henderson, PhD, CFA, Joshua Mallett, CPA,
and Craig McCann, PhD, CFA¹

Non-traded REITs are registered investment companies marketed to retail investors. We find that returns to 81 non-traded REITs which had listed, been acquired by or merged with a listed REIT or had updated per share values average 6.3% annually compared to 11.6% returns earned over the same period in traded REITs. The economic magnitude of the underperformance is over \$45 billion. A significant portion of non-traded REITs' underperformance results from high upfront fees and expenses, which average 13.2%, and largely serve to compensate brokers. Conflicts of interest permeate the structure of non-traded REITs, which typically use affiliated firms as advisors and managers.

Non-traded REITs that list on a major securities exchange almost always "internalize" their management and administrative functions prior to listing. We observe corresponding reductions in expenses, on average equal to 9.0% of revenues, largely attributable to the elimination of payments to affiliated parties. Institutional ownership of non-traded REITs rarely occurs until after both an exchange listing and the severing of management and advisory functions from the sponsor, consistent with our view that non-traded REIT investors suffer from the lack of monitoring and effective mechanisms for shareholder protection.

I. Introduction

Non-traded REITs are one type of Direct Participation Program (DPP) marketed primarily to retail investors by independent broker/dealer networks.² Non-traded REITs are registered with the Securities and Exchange Commission (SEC), enabling their sale to unsophisticated investors. Non-traded REITs' high fees, illiquidity and organizational structures full of conflicts of interest have led to a debate over their suitability for retail investors.

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² FINRA defines and sets out its current regulatory treatment of DPPs in Rule 2310.

Non-traded REIT up-front fees, which average 13.2% of invested capital and in some cases are as high as 16.0%, pay for sales commissions and other offering costs. Non-traded REITs have limited, and in some cases, no secondary market liquidity for years after their issuance. Additionally, there are significant conflicts of interest since the non-traded REITs' property transactions and service agreements are typically conducted with other entities in which sponsors have economic interests.

We investigate the ex-post investment performance of non-traded REITs and document that investors would have realized significantly higher returns had they invested in traded REITs rather than non-traded REITs.

These “liquidity events” are the first date by when any investor could have sold all her shares. Prior to liquidity events, non-traded REITs offer limited to no opportunities for investors to sell their investment. Non-traded REITs begin with an initial capital offering. Once a critical amount of capital has been raised, the company is said to “break escrow,” and at that point the advisor begins establishing the portfolio holdings by purchasing properties. The capital raising process for non-traded REITs differs from the typical initial public offering since the capital raise takes place over a period of time, as opposed to a single date. Non-traded REITs are said to have come “full-cycle” when they experience a “liquidity event.”³

To qualify for preferential tax treatment, non-traded REITs must pay at least 90% of earnings as dividends. Non-traded REITs have Dividend Reinvestment Plans (“DRPs”), which give investors the option of re-investing their dividends rather than receiving the dividends in cash. Similar to direct share purchases, investors are charged fees on dividend reinvestments, although those fees are typically lower than the fees on share purchases. Most non-traded REITs have severely limited Share Redemption Programs (“SRPs”) allowing investors to sell shares back to the trust. Non-traded REITs redeem shares for less than investors paid for them and will not spend more redeeming shares than the non-traded

³ The terms “full cycle” and “liquidity event” have more marketing than economic significance. These terms are used in other DPPs as well. Many non-traded REITs fail completely and they surely have gone full cycle, just to a different outcome. There is nothing in the underlying exposures that make “full cycle” or “liquidity event” necessary or even meaningful concepts.

REITs receive from selling DRP shares. Non-traded REITs frequently change the rules to reduce the size of SRPs over time, generally reducing the fraction of DRP proceeds that may be used to redeem shares. These rules effectively prohibit investors from selling their shares prior to a liquidity event.

Traded REITs enjoy the same tax-advantages as non-traded REITs but have better liquidity since they are listed on a major stock exchange. Given that traded REITs have the same investment opportunities and regulatory and tax treatment as non-traded REITs, traded REITs provide a natural benchmark against which to evaluate the investment performance of non-traded REITs. We use an investable mutual fund that invests in traded REITs so our traded REIT returns already account for fees and transactions costs. We find that had non-traded REIT investors instead invested in a low-cost and liquid REIT mutual fund they would have accumulated \$45.5 billion more than they accumulated in the non-traded REITs. Non-traded REITs' average annual returns are 6.3%, compared to 11.6% in the traded REIT portfolio.

Our comparison of non-traded REIT returns to those of traded REITs understates the true opportunity cost of investing in non-traded REITs for two reasons. First, non-traded REIT investments have limited liquidity prior to a liquidity event. Non-traded REIT secondary market liquidity is primarily the Share Repurchase Programs (SRP), often limited to some fraction of investors' participation in the Dividend Reinvestment Program (DRP).⁴ Non-traded REITs typically purchase shares at a fraction of their value and impose fees on sales, which make liquidations costly. Investors require higher returns for investing in illiquid investments (Amihud 2002 and Pastor and Stambaugh 2003). Given their illiquidity, non-traded REITs should have higher returns than their traded, liquid counterparts. Second, we compare the returns to non-traded REITs with the returns to a large, diversified REIT mutual fund that holds more than 100 traded REITs. Given the lack of mark-to-market returns it is impossible to know how much more volatile the returns to the individual non-traded REITs are than our benchmark but the average standard deviation of

⁴ Non-traded REITs frequently alter the rules of their SRPs in ways that further limit the amount of capital available for share repurchases.

daily returns across the individual traded REITs in our benchmark is 40% greater than the standard deviation of the fund's daily returns.

After documenting the non-traded REIT return shortfalls relative to traded REITs, we investigate the determinants of those shortfalls. We begin with the upfront costs levied on the investors at the time of non-traded REIT share purchases, which average 13.2% and range from 9% to 16% across our sample. We estimate the contribution of these fees to the shortfalls by determining the future value as of the liquidation date of the money that investors paid in fees when acquiring non-traded REIT shares. We find that fees account for approximately 56% of the return shortfalls.

In addition to levying high upfront fees, non-traded REITs have organizational structures that are laced with conflicts of interest. These conflicts of interest include advisors and portfolio managers with poorly aligned incentives, property transactions with related parties, and governance structures ensuring absolute power and discretion to the sponsor. These conflicts are disclosed in offering documents filed with the U.S. SEC and should be cause for concern to any financial advisor exercising due diligence.

We investigate the contribution of conflicts of interest to the underperformance of non-traded REITs by examining changes in expenses, focusing on payments to sponsor-affiliated advisors and managers, around the time non-traded REITs list their shares for trading on an exchange. We show that the overwhelming fraction of listings closely coincide with the separation of the sponsor from advisory and managerial roles. We observe corresponding reductions in expenses of approximately 9.0% of annual revenues, which are primarily driven by the reduction in expenses paid to affiliates of the sponsor.

Previous research found that institutional owners perform monitoring roles when investing in traded REITs, and that they are able to ameliorate the potentially harmful effects of conflicts of interest. Unlike their traded counterparts, non-traded REITs almost never have institutional investors.⁵ The first disclosed institutional holdings occur in the months following the internalization of advisory and managerial roles and exchange

⁵ We define large investor as one owning at least 5% of the outstanding shares, at which point they are required to disclose their position under SEC Rule 13.

listings. Institutional ownership is clearly not an effective monitoring mechanism in non-traded REITs, consistent with our observation that conflicts of interest permeate non-traded REITs and adversely impact investor returns.

The remainder of the paper is organized as follows. Section II presents the sample of 81 non-traded REITs and describes our empirical approach and construction of the dataset. Section III presents the main results comparing non-traded REIT returns to traded REIT returns. Section IV investigates the role of conflicts of interest in non-traded REIT organizational structures, and Section V concludes briefly.

II. Sample Description and Research Design

a. Sample Description

The sample includes 81 non-traded REITs that have reported updated share prices by May 1, 2015. (Have there been additional share price updates since January 30, 2015? How many are in the offering stage? It would be good to have a clearer idea of how much of the total market our sample cover? Is it 30%, is it 80%) Approximately half (41) of the REITs in the sample listed on an exchange or merged with or been acquired by a traded REIT. The remaining 40 REITs in the sample have not had a liquidity event, but have published an estimated net asset value as required by law.⁶

Table 1 summarizes Appendix 1 presents the sample non-traded REITs, including the name, effective date of the first offering, the type and date of the liquidity event, number of years from first offering to liquidity event, and the up-front fees charged to investors. Public filings available through the SEC's EDGAR website, including 10-K, 10-Q, and 424(b) filings are the source for our data. The sample begins in June 1990 when Corporate Properties Trust began raising capital. The first liquidity event is Cornerstone Realty Income Trust's April 1997 listing on the NYSE. 18 of the 41 non-traded REITs listed on an exchange and the other 23 merged with or were acquired by a traded REIT. The time from initial offering to a liquidity event ranged from 1.5 years to 13.5 years and averaged 6.6 years.

⁶ FINRA requires REITs to provide an updated estimate of the REIT's NAV per share at least once per year

Table 1: Sample Descriptive Statistics

	Years Before Liquidity Event	Up Front Fees
Average	6.6	13.2%
Minimum	1.5	9.0%
Maximum	13.5	16.0%

Non-traded REIT investors pay large up-front fees which dramatically reduces the capital available to purchase portfolio holdings. The up-front fees in the non-traded REITs listed in Table 1 range from 9% to 16% and average 13.2%. The majority of these fees are paid as compensation to brokers and advisors for selling REIT shares. Those sales commissions average 6.8%. The balance is allocated among “other fees” (4.3%), property acquisition fees (2.1%), and reserve fees (0.2%). Very few broker-sold mutual funds charge more than a 5% sales load and mutual fund breakpoints ensure sales loads decline significantly with the size of an investment. By comparison, the average up-front fees charged to non-traded REIT investors (13.2%), is a full 5.0% greater than the maximum allowable mutual fund front-end load.

b. Research Design

To quantitatively evaluate the performance of non-traded REIT investments, we construct a full history of non-affiliated investors’ capital flows for each non-traded REIT. These capital flows begin on the effective date of the initial share offering for each sample non-traded REIT, and consist of all share purchases and re-invested dividends. Distributions include the portion of dividend payments not re-invested through DRPs plus the amount investors receive when they sell shares through SRPs.

We compare the value of unaffiliated investors’ shares in non-traded REITs at the time of each liquidity event or last share value update to the value of a traded REIT portfolio that would have cost exactly the same amount to purchase as the shares in the non-traded REITs.⁷ To determine the liquidation amount, we assume all non-affiliated investors liquidate their shares on the first date they are able to do so through a merger,

⁷ An alternative approach is that of Seguin (2012) who uses financial statement analysis of traded and non-traded REITs to compute implied market valuations of NTRs. Our approach differs by focusing on returns-based evidence as a direct measure of investor performance.

acquisition, or exchange listing or at the latest share value update if the REIT is still non-traded but has published an updated share value. The benchmark amount that we use for comparison is the value non-traded REIT investors would have amassed had they instead invested the same net inflows and outflows in a low-cost mutual fund of traded REITs. Additionally, we compare the annualized rate of return generated by the non-traded REIT investment against the returns of the same investments in the traded REIT mutual fund.

The first step to our approach is to estimate the timing and magnitude of unaffiliated investors' share purchases and participation in the dividend reinvestment programs in each sample non-traded REIT. We next determine the cash flows back out to investors in the form of redemptions and dividends that are not reinvested. We construct the capital flow data series for each sample non-traded REIT by analyzing the financial statements contained in 10-K, 10-Q, and 424(b) filings. The SEC filings provide additional details which are used in the analysis, such as the dates that offerings commence and conclude, the number of shares issued and clues to the timing of the cash flows.

The Statements of Cash Flows provide details on the amount of capital raised from equity sales during each period. The statements themselves provide the amount raised and corresponding notes frequently identify the amount raised from affiliated and unaffiliated investors over time. In cases where we do not find any reference to shares purchased by affiliates or related parties, we assume all of the shares were purchased by non-affiliates. The statement notes provide additional details as to whether the equity proceeds are reported net or gross of fees. For the purposes of return comparisons, we track investments gross of fees so they reflect the total cash paid by investors.

In addition to the amount of capital raised from investors each period, we also track dividend distributions paid to investors, the amount investors reinvest through DRPs, and the amount of capital returned to investors through share repurchases. The cash flow statements indicate the amount spent to redeem stock through SRPs. The size of SRP programs is limited by the amount of DRP activity.⁸ Financial statement information on

⁸ Non-traded REITs frequently change the terms of their SRPs to limit repurchase activity. This is accomplished by decreasing the fraction of DRP proceeds that may be allocated toward SRPs.

the amount of share repurchases, combined with the rules of the SRP, allow us to determine the minimum amount of dividends reinvested through the DRP. When the filings do not directly report DRP activity, they instead report “Redeemable Common Shares,” which are the difference between proceeds from DRP shares in the current year and proceeds spent on SRP shares in the current year. In this case, DRP proceeds equal Redeemable Common Shares plus money spent through the SRP. We track whether or not the reported issuance of common stock includes shares issued through DRPs to avoid double-counting reinvestments. Finally, we assume that non-affiliated investors use the DRP and SRP programs in the same proportion as affiliated investors. Thus, some of each year’s DRP and SRP activity is attributed to affiliated investors in proportion to the number of shares held by affiliated investors at the end of the prior fiscal year.⁹

The next step is to determine the timing of the cash flows. Although the 10-K’s only provide one data point per year, we improve our timing estimates by examining 424b3s filed by the non-traded REITs between their 10-K filings. These forms are filed sporadically, and often disclose total gross proceeds accumulated from the first capital raise to a specified date in the 424b3. We assume that the REIT raises cash from investors evenly over time between the 424b3 and 10-K dates.

Dividend payment dates from 10-K filings frequently indicate that dividends are paid quarterly. For non-traded REITs that disclose total dividends only once a year rather than each dividend payment, we assume that the dividend is the same in all four quarters - or in all twelve months if the REIT pays monthly dividends. Since share repurchases are reported in financial statements only, we assume the non-traded REITs conduct repurchases evenly between financial statement filings.

On the date of the liquidity event or latest share value update, we estimate the market value of non-affiliated investors’ non-traded REIT investments as the product of

⁹ As a robustness check, we collect the same data denominated in quantity of shares instead of dollar amounts and calculate how many shares were held by non-affiliated investors. We then compare our calculation to the number of shares held by non-affiliated investors as sometimes reported in small print at the beginning of the 10-K. We obtain similar estimates through both approaches.

the liquidity event price and the number of shares held by non-affiliates.¹⁰ Analysis of press releases and historical pricing data yields the liquidity event date and the liquidity event share price.

Constructing investor cash flows into and out of non-traded REITs allows us to directly compare the returns that investors have realized versus an alternative investment of similar risks characteristics. We determine the traded REIT liquidation value to compare with the non-traded REIT value by assuming investors had instead invested the same cash flows on the same dates in a traded REIT mutual fund as they invested in each non-traded REIT. To evaluate returns to non-traded REIT investments, we compare the liquidation value of each non-traded REIT to the traded REIT liquidation value, and compute the annualized internal rate of return on the non-traded REIT and traded REIT investments.

III. Empirical Analysis

In this section, we provide returns-based evidence that non-traded REITs have dramatically underperformed investments in traded REITs. As a consequence of non-traded REIT's lack of timely mark-to-market valuations and transaction data, we focus our analysis on non-traded REITs that have permitted investors to sell all their shares in a liquid secondary market through listing, merger or acquisition.

a. Main results

When selecting a return benchmark against which non-traded REITs' performance may be judged, we consider an investor's hypothetical investment in a passive, low-fee mutual fund, the Vanguard REIT Index Fund (VGSIX).¹¹ This mutual fund invests in a diversified portfolio of traded REITs. This investable and passive benchmark is preferable to an appraisal-based index for three reasons. First, an appraisal-based index is un-

¹⁰ We use the shares held by unaffiliated investors as of the SEC filing immediately preceding the liquidity event date.

¹¹ We use returns to Vanguard investor-class shares, not admiral-class share. Although admiral-class shares have lower expenses, the \$10,000 investment minimum is above the typical minimum purchase amounts of \$1,000 to \$2,500 set forth in offering documents. Investing in the lower fee Admiral-class shares would increase the magnitude of losses we report to investing in non-traded REITs.

investable, making it impossible to construct a true opportunity cost that corresponds to the exact timing of investments in non-traded REITs. Second, the returns to the Vanguard REIT Index Fund reflect actual investment performance after accounting for all fees and transactions costs. Third, appraisal-based indexes are known to incorporate value-relevant information with a lag compared to the prices of traded REITs (Giliberto [1993] and Gyourko and Keim [1992]).¹²

Table 2 presents the main results. The second column presents the liquidation value of non-affiliated investor holdings in each sample non-traded REIT, which cumulate to \$89.72 billion across the sample. The third column presents the wealth amounts unaffiliated investors would have accumulated had they invested the same cash flows in the traded REIT mutual fund. The rightmost column presents the non-traded REIT shortfalls, defined as the traded REIT value minus the non-traded REIT liquidation value.

The cumulative shortfall for the 41 non-traded REITs that had a liquidity event is over \$24.2 billion. Non-affiliated investors' non-traded REIT holdings were worth \$53.6 billion on their liquidity event dates, dramatically lower than the \$77.8 billion the same investments in traded REITs would have been worth. That is, non-traded REIT investors would have had 45% more wealth had they invested in a diversified portfolio of traded REITs instead of the 41 non-traded REITs which have had liquidity events.

The cumulative shortfall for the 40 non-traded REITs that have not had a liquidity event but have updated their per share values is over \$21.2 billion.¹³ Non-affiliated investors' holdings in these non-traded REITs were worth \$36.2 billion on their liquidity event dates, dramatically lower than the \$57.4 billion the same investments in traded REITs would have been worth. That is, non-traded REIT investors would have had 59% more wealth had they invested in a diversified portfolio of traded REITs instead of the 40 non-traded REITs which have not had liquidity events.

¹² The main analysis conducted by Blue Vault Partners (2012) relies on an un-investable appraisal-based index.

¹³ This is a lower bound on the shortfall since the limited secondary market data available for non-traded REITs uniformly shows the non-traded REITs per share values significantly exceed the prices at which investors can actually sell their shares.

Table 2: Comparison of Non-Traded and Traded REIT Returns

Price Discovery Event	Non-Traded REIT Value	Traded REIT Value	Total Shortfall	Number	Number Positive	p-value
Listed	\$23,338,366,384	\$38,839,364,565	\$15,500,998,165	18	15	0.001
Merged	\$30,217,755,532	\$38,968,554,360	\$8,750,798,828	23	19	0.000
Updated NAV	\$36,161,348,045	\$57,397,589,318	\$21,236,241,522	40	35	0.000
Total	\$89,717,469,961	\$135,205,508,243	\$45,488,038,515	81	69	0.000

69 of the 81 non-traded REITs in Table 2 suffer shortfalls relative to the traded REIT portfolio. Under the null hypothesis that non-traded REITs do not produce inferior returns compared to the traded REIT index, positive shortfalls are equally likely as negative shortfalls. The table reports at the bottom of the fourth column the probability, under the null hypothesis, that the number of positive shortfalls observed is at least 69 out of 81. This probability is calculated as $Prob(k \geq x) = \sum_{k=x}^n \binom{n}{k} p^k (1-p)^{n-k}$, where x is the number of positive shortfalls observed in the sample, n is the sample size, and p is the probability of a positive shortfall and equals 0.5 under the null hypothesis. The p -value of observing 69 or more positive shortfalls is less than 0.000 under the null hypothesis, confirming that non-traded REITs systematically underperform the benchmark.

Table 3 expands the shortfall analysis by presenting the internal rates of return (IRRs) to the non-traded REITs and the traded REITs. To calculate the non-traded REIT IRRs, we solve for the rate of return that equates the present value of the non-traded REITs investments with that of the liquidation amount. The procedure is the same for calculating the traded REIT IRR, where the final cash flow is the traded REIT amount instead of the non-traded REIT liquidation amount. Since the non-traded REITs differ in size and the number of years in existence, the IRR analysis augments the shortfall analysis by providing estimates of annual return differences between the non-traded REITs and the traded REITs, which speaks to the economic significance of the shortfalls.

Table 3 presents annualized IRRs for the sample non-traded REITs and the traded REITs. Consistent with the NPV results presented in Table 2, the traded REIT IRR is greater than the non-traded REIT IRR for 69 of the 81 sample funds. The average non-

traded REIT IRR is 6.3%, compared to 11.6% for the traded REITs. The non-traded REIT IRRs range from -14.7% to 36.8%, with an interquartile range of 6.4% (3.0% to 9.4%).

We calculate the aggregate IRR of the 81 non-traded REITs by combining all non-affiliated investors' cash flows across the non-traded REITs into a single stream of cash flows from June 1990 to April 2015. When a non-traded REIT has a liquidity event or at the latest share value update, we treat the market value of that non-traded REIT as a cash flow returned to investors. The IRR of the aggregated non-traded REIT sample is 4.0%. The same cash flow stream applied to a diversified, liquid portfolio of traded REITs would have generated an IRR of 11.3%. In other words, investors in a liquid, diversified portfolio of traded REITs that exposes investors to the same underlying real estate market as the non-traded REITs received returns of 11.3% per year in comparison to the 4.0% returns earned in the non-traded REITs.

Table 3: Non-Traded REITs Internal Rate of Returns

	Non-Traded REIT IRR	Traded REIT IRR	Difference
Minimum	-14.7%	-24.3%	-53.4%
25th Percentile	3.0%	7.5%	3.0%
Mean	6.3%	11.6%	5.3%
75th Percentile	9.4%	15.3%	10.6%
Maximum	36.8%	25.4%	32.1%
Aggregate Investment	4.0%	11.3%	7.3%

The variability of IRRs presented in Table 3 provides ex-post evidence that non-traded REITs expose investors to considerable risk. The non-traded REIT IRRs have a 9.4% standard deviation, compared to 6.6% for the traded REIT IRRs. The distribution of ex-post realized returns is in stark contrast to claims that non-traded REITs are less volatile investments than traded REITs.

Non-Traded REITs' underlying risk derives from their real estate assets and financing structure. The apparent lack of volatility in non-traded REITs and appraisal based indices results from the lack of transactions prices which only masks the true volatility of non-traded REITs and provides the illusion of price stability. For example, research has shown that traded REITs exhibit larger return variations and higher correlation with equity

returns than appraisal-based real estate benchmark indices (Burns and Epley [1982], Kühle [1987], and Cheng, Lin, and Liu [2010]). Contrary to the claims of non-traded REIT advocates (Morris and Morris 2010, and Jain 2013), traded REIT returns are not excessively volatile and properly reckoned are not more volatile than non-traded REITs. Traded REIT valuations reflect value-relevant information that is incorporated in appraisal-driven indices with a lag (Giliberto [1993] and Gyourko and Keim [1992]).

That non-traded REITs result in lower average returns than the traded REIT mutual fund is glaring for two reasons. First, unlike the traded REIT fund that provides daily bi-directional liquidity at its reported NAV, the sample non-traded REITs offer virtually no secondary market liquidity prior to their liquidity event, apart from their very limited SRPs. To compensate investors for their illiquidity, non-traded REITs returns should be higher than traded REITs. As a point of comparison, Lin, Wang, and Wu (2011) estimate that bond market investors require an additional return of approximately 4% annually as compensation for illiquidity. Second, for inclusion in our sample, a non-traded REIT must have undergone a liquidity event. Typically, only the most successful non-traded REITs become listed, merged or acquired so our sample is biased towards the most successful non-traded REITs and omits those that have suffered worse performance. For both of these reasons, our findings understate the true magnitude of non-traded REIT underperformance compared to traded REITs.

b. Contribution of up-front fees to shortfalls

As we highlighted in Table 1, non-traded REITs charge high upfront fees which reduce the amount of investor capital that goes toward purchasing portfolio properties. Non-traded REIT offerings are sold primarily to retail investors through an affiliated dealer-manager. The REIT compensates the dealer-manager with commissions that are large percentages of the offering proceeds. These commissions drastically reduce the investors' capital allocated to the acquisition of properties. Across the companies in our sample, selling commissions ranges from 1.5% to 8.0% and the average is 6.8%.

We next assess the contribution of the up-front fees to the observed underperformance of non-traded REITs. For each non-traded REIT, we determine the fees

paid by unaffiliated investors when they purchase shares through offerings and the fees charged through DRP share purchases. Table 4 lists the fees for each of the sample non-traded REITs.¹⁴

The fourth column of Table 4 presents the upfront fees paid by unaffiliated investors at the time they acquire non-traded REIT shares. Across the full sample, investors paid \$14.4 billion in upfront fees, the majority of which compensated brokers. The fifth column presents the future value of the fees, computed under the assumption that they are invested in the traded REIT fund until the non-traded REIT's liquidation date. Across the sample, upfront fees charged to investors total \$25.3 billion after including the opportunity cost of investing those dollars in the non-traded REITs. Given the cumulative investor shortfall of \$45.5 billion, upfront fees contribute to 56% of the total shortfall.

Clearly the large upfront fees charged to investors are significant drivers of non-traded REITs' underperformance relative to the traded REITs. The upfront fees account for over half of the shortfall, but a significant portion remains. For 50 of the 81 sample funds, the shortfall estimates are larger than the future value of upfront fees. Under the null hypothesis that these upfront fees account for the entire underperformance, the estimated shortfalls are equally likely to be greater than and less than the future values of the upfront fees. Under the null hypothesis, the probability of observing 50 or more shortfalls that are larger than the portion attributable to upfront fees in a sample of 81 is 1.3%. These results support the conclusion that upfront fees are a significant determinant, but not the only driver of, non-traded REIT underperformance. We next discuss the role of conflicts of interest and the impact they have on realized returns.

Table 4: The Effect of Upfront Fees on Investor Returns

	Embedded Fees	Liquidity Date Value of Invested Fees	Investor Shortfall
Total	\$14,395,423,542	\$25,335,191,559	\$45,488,038,515

¹⁴ We use the correct upfront fee for each sample fund, unlike Blue Vault Partners (2012) who assume a constant 12% front-end load in their analysis.

IV. Conflicts of Interest

a. Description of non-traded REIT conflicts of interest

Conflicts of interest permeate non-traded REITs. These conflicts of interest include advisors and portfolio managers affiliated with the sponsor, transactions with related parties, and governance structures ensuring absolute power and discretion to affiliated parties. Non-traded REITs compensate the affiliated advisor with fees, including asset-based fees and incentive fees. Sponsors effectively determine how much REIT investors pay to the sponsor-owned firms for these services.

Non-traded REITs have corporate control and governance structures that concentrate power and completely eliminate channels for investors to affect change or impose discipline on management. Top executives of non-traded REITs sponsors frequently own controlling interests in other business entities that serve as the advisor and dealer-manager.

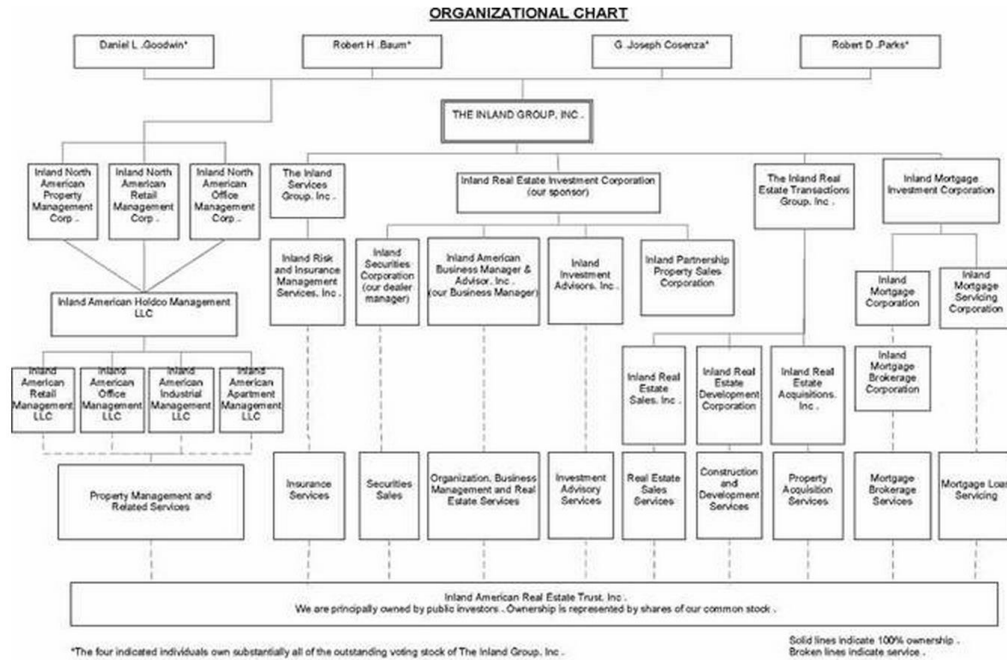
It is common for affiliated persons to hold executive positions at the non-traded REIT, often serving as the CEO, president, and Chairperson of the Board of Directors. This channel guarantees control over the non-traded REIT's decision-making, including selection of the advisor and capital-raising decisions. Additionally, these same affiliated parties frequently own controlling stakes in the entities acting as advisor and deal-manager, permitting them to benefit financially from the non-traded REIT's operations which they direct to their beneficial entities. This structure effectively prevents any form of shareholder activism from affecting change by ensuring disbursed ownership across non-institutional investors, and controlling every level of corporate decision-making (executive positions) and oversight (the board of directors).

Figure 1 reproduces the organizational chart for Inland American Real Estate Trust Inc. and illustrates a typical relationship between non-traded REITs and affiliated entities that serve as the advisor and dealer-manager.¹⁵ Four individuals control the non-traded REIT sponsor which entered into agreements on behalf of the Inland American REIT with

¹⁵ Inland American Real Estate Trust, 'Prospectus dated August 1, 2007', available at sec.gov/Archives/edgar/data/1307748/000110465907058012/a07-20593_1424b3.htm

13 different corporations owned directly or indirectly by the same four individuals for all services required by the REIT. The individuals who controlled the sponsor were able to substantially inflate the amounts investors in the non-traded REIT paid for services purchased from companies owned by the same individuals.

Figure 1: Illustration of Conflicts of Interest in Non-Traded REIT



A particularly egregious example comes from Desert Capital REIT, Inc. which was structured so that a single individual acted as the CEO, President, and Chairman of the Board of Directors.¹⁶ That individual also acted as the advisor and was the sole owner of both the advisory firm and dealer-manager. In his sole and absolute discretion, the REIT invested exclusively in loans identified by another company which he owned. As a result, Desert Capital REIT's corporate structure had absolutely no checks and balances since this single individual controlled the company's investment decisions through his role as the advisor, chaired the board of directors and held the REIT's most powerful management positions, and was the sole beneficiary of the loan originations that comprise the REIT's loan portfolio. As a result of these conflicts of interest, Desert Capital REIT held an

¹⁶ This illustration is based on the structure of Desert Capital REIT, as described in the July 16, 2004 prospectus supplement filed with the U.S. SEC and accessed through EDGAR at: <http://www.sec.gov/Archives/edgar/data/1274055/000095013404010419/d11503b2e424b2.htm#161>.

undiversified portfolio concentrated primarily in Nevada construction loans which suffered heavy losses during the financial crisis and forced Desert Capital REIT into bankruptcy.

b. Analysis of fees paid to affiliated parties and lack of institutional ownership

Selection of the advisor and property manager are among REITs' most important organizational decisions. The advisor performs portfolio investment functions, including the acquisition of investments, and the property manager oversees the operation of those portfolio properties. Each of these functions may be performed "internally" by REIT employees or "externally." In non-traded REITs, external doesn't mean "arms-length" or "independent"; it means owned by the same people who own the sponsor that controls the REIT management decision-making.

All of the sample non-traded REITs initially select firms affiliated with the sponsor to conduct their portfolio investment and advisor roles. Fees paid to external advisors are based on assets under management and additional incentive fees are based on performance. These fee structures may create conflicting incentives with those of REIT shareholders. Asset-based and performance-based fees may incentivize advisors to use leverage to increase portfolio assets and to recommend riskier investments. Additionally, analysis of offering documents reveals other manifestations of conflicts of interest between shareholders and sponsor-affiliated advisors, such as the potential to suffer inferior performance due to the advisor's dearth of experience managing REITs, and the possibility that the advisor may have limited time to allocate towards their role since they are permitted to pursue arrangements with competing REITs. Almost all of the sample non-traded REITs select advisors with no REIT management experience. The selection of advisors having no experience is inconsistent with claims advanced by Morris and Morris (2010) and Jain (2013) that non-traded REITs are low-risk investments.

Early research into the return performance of registered, traded REITs, establishes the underperformance of externally managed REITs relative to their internally managed counterparts (Howe and Shilling (1990), Cannon and Vogt (1995), and Capozza and Seguin (2000)). Subsequent research, however, finds that across organizational structures,

institutional owners are able to effectively monitor REITs and ameliorate the potential for conflicts of interest in externally managed funds to adversely impact return performance (Brockman, French, and Tamm 2014). Although institutional investment in traded REITs is common, institutional investors almost never own material stakes in non-traded REITs. We verify this claim by searching the SEC's EDGAR database for Rule 13-D and 13-F filings disclosing the ownership of 5% or larger portions of shares outstanding. The absence of large, sophisticated investors ensures non-traded REITs are not subject to the same discipline shown to effectively discipline externally advised and managed traded REITs.

To provide supportive evidence that sample non-traded REITs have external management and lack institutional ownership, we analyze each company's 10-K filings. Analysis of the regulatory filings reveals that, from inception, the sample non-traded REITs select sponsor-affiliated advisors and portfolio managers. For this analysis, we focus on the 18 sample firms that list their shares on major U.S. exchanges since we observed only the combined entities following mergers and acquisitions.

Table 5 presents the filing, internalization, and first institutional ownership dates for the 18 non-traded REITs that listed on U.S. exchanges. Of the 18 sample non-traded REITs to list on an exchange, 13 severed their advisory and management relationship with sponsor affiliated firms and each of those 13 did so on or before the listing date. This pattern suggests capital markets view management that is independent of the sponsor and accountable only to the REIT's investors as important. Institutional investors tend to invest only after non-traded REITs' exchange listing. Among the three sample observations where institutions invest in non-traded REITs prior to an exchange listing, the acquisitions took place only after the internalization of advisory and management roles. These patterns are consistent with the view that among non-traded REITs, institutional investors do not function as activist investors capable of controlling conflicts of interest that arise through the use of sponsor-affiliated advisors and managers.

If the conflicts of interest in non-traded REIT organizational structures are harmful to investors, then we would expect to observe the organizational changes that ameliorate the conflicts prior to a public listing or institutional investment documented in Table 5. The

immediate beneficial impact of those organizational changes can be seen in reductions in expenses paid for advisory and management purposes and increases in operating efficiency of non-traded REITs around the year in which they list. The expense categories we analyze are: property operating expenses, general and administrative expenses, total operating expenses, and management expenses paid to affiliated parties. For comparison, we normalize each non-traded REIT's expenses by its revenue.

Table 5: Internalization, Listing, and Institutional Investment Dates.

Name	Listing Date	Internalization Date	Internalization to Listing (days)	First Major Shareholder	Listing to Major Shareholder (days)	Internalization to Major Shareholder (days)
American Realty Capital Healthcare Trust	4/7/2014	none	n/a	8/28/2014	143	n/a
American Realty Capital New York Recovery REIT	4/15/2014	none	n/a	11/30/2014	229	n/a
American Realty Capital Trust	3/1/2012	3/1/2012	-	10/5/2012	218	218
Bluerock Residential Growth REIT	3/28/2014	none	n/a	4/2/2014	5	n/a
CatchMark Timber Trust	12/12/2013	10/25/2013	48	12/31/2013	19	67
Chambers Street Properties	5/21/2013	7/1/2012	324	5/31/2013	10	334
Cole Real Estate Investments	6/20/2013	3/5/2013	107	8/5/2013	46	153
Columbia Property Trust	10/10/2013	2/27/2013	225	11/12/2014	398	623
Cornerstone Realty Income Trust	4/18/1997	10/1/1996	199	12/31/1998	622	821
DCT Industrial Trust	12/13/2006	10/10/2006	64	8/11/2007	241	305
Healthcare Trust of America	6/6/2012	7/15/2009	1,057	11/30/2012	177	1,234
Independence Realty Trust *	8/13/2013	none	n/a	8/16/2013	3	n/a
Inland Real Estate Corporation **	6/9/2004	7/1/2000	1,439	7/1/2000	(1439)	-
Monogram Residential Trust	11/24/2014	7/1/2014	146	12/12/2014	18	164
Piedmont Office Realty Trust	2/10/2010	4/16/2007	1,031	12/31/2010	324	1,355
Retail Properties of America	4/5/2012	11/15/2007	1,603	11/15/2007	(1603)	-
United Development Funding IV	6/4/2014	none	n/a	none	n/a	n/a
Whitestone REIT	10/3/2011	11/14/2006	1,784	2/11/2011	(234)	1,550

* Majority owned subsidiary of RAIT Financial Trust
** Company traded on OTC-BB prior to NYSE listing.

Around the internalization of advisory and management functions, REIT expenses shift from the category “management expenses paid to affiliates” to “general and administrative expenses.” If expenses paid to affiliates exceed those paid to internal managers, then the net effect should be a decline in overall fees.

Table 6 presents the non-traded REITs' average annual expenses normalized by revenues around their exchange listings. Given the large overlap between firms that list and internalize in the same year, we are not able to isolate changes around each of those events. Table 6 presents the average expenses in the listing year and the prior and subsequent years. The next column presents the change in the expenses.

Table 6: Analysis of Fees Paid to External, Affiliated Advisors and Managers

Expenses (percent of annual revenue)	Prior Year	Year of Exchange Listing	Subsequent Year	Pre- to Post-Listing Change	t-statistic
Property Operating Costs	25.0%	22.8%	22.9%	-2.2%	-1.026
Management Expenses Paid to Affiliates	4.8%	3.2%	1.6%	-3.2%	-2.252
General & Administrative Expenses	7.3%	9.6%	8.1%	0.8%	0.939
Total Expenses	89.4%	82.2%	80.4%	-9.0%	-1.836

Around listings, expenses drop significantly. General and Administrative expenses (as a fraction of revenue) increase by 0.8% around the listing, which is attributable to the internalization of management and advisory functions. This is consistent with the corresponding reduction in management expenses paid to affiliates, which decline by a statistically significant 3.2%. Overall, operating expenses decline by an average of 9.0% of revenues around the exchange listing, and the decline is statistically significant at standard levels. The overall patterns are consistent with the view that on average, payments to affiliates prior to the exchange listing exceed the cost structure required to operate the REIT. As evidence, total expenses decline by 9.0% around the listing, which is driven by the 3.2% decline in management expenses paid to affiliates and a corresponding, but smaller, increase in general and administrative expenses as these functions are transferred to internal personnel. These patterns suggest that some combination of a liquid secondary market for the shares, institutional ownership, and reduced influence of sponsor-affiliated service providers corresponds to lower expenses, and support the findings that non-traded REIT underperformance stems from the conjunction of their high upfront fees and their extraordinary conflicts of interest.

c. Returns to first versus last round investments

Many non-traded REITs conduct multiple rounds of equity offerings. Given the conflicts of interest permeating their structure, and the absence of the discipline and monitoring imposed by institutional owners and an active secondary market for shares, conflicts may arise between early and late round investors in non-traded REITs. For example, in cases where the non-traded REIT has been successful, a portion of that wealth is transferred from the initial investors to late round investors if those investors are offered shares at the same share price as early investors. Conversely, in cases where the firm has experienced losses, late round investors will be diluted and their capital used to offset cumulative losses if late investors pay the same share price as early investors.

Using the offering data collected from SEC filings, we determine that 41 of the 81 sample non-traded REITs conducted multiple, non-overlapping equity offerings. Using the same methodology described in Section 2.b., we compute the annualized returns for first and last round investors for each of those 41 non-traded REITs. Table 7 presents the dates of the multiple offerings (effective and closing dates), as well as the annualized internal rates of return for both the first and last round investors. The final column presents the return for all investors, and matches the numbers reported in Table 3.

Scanning the right-most columns of Table 7 reveals that the returns to first and last round investors tend to be similar, and consistent with the total IRR across all investments. However, when the total IRR is negative, last round investments are lower than the first round. This pattern is consistent with the interpretation that last round investors subsidize the wealth of the first round investors. If the non-traded REIT is too slow to mark-down declining property values, the estimated net asset values may be over-stated, to the detriment of late round investors. Conversely, among non-traded REITs having the highest positive total returns, the last round investors tend to experience returns that are higher than those of the first-round investors. This pattern is consistent with the transfer of wealth from early investors in successful non-traded REITs to late-round investors and seems particularly nefarious.

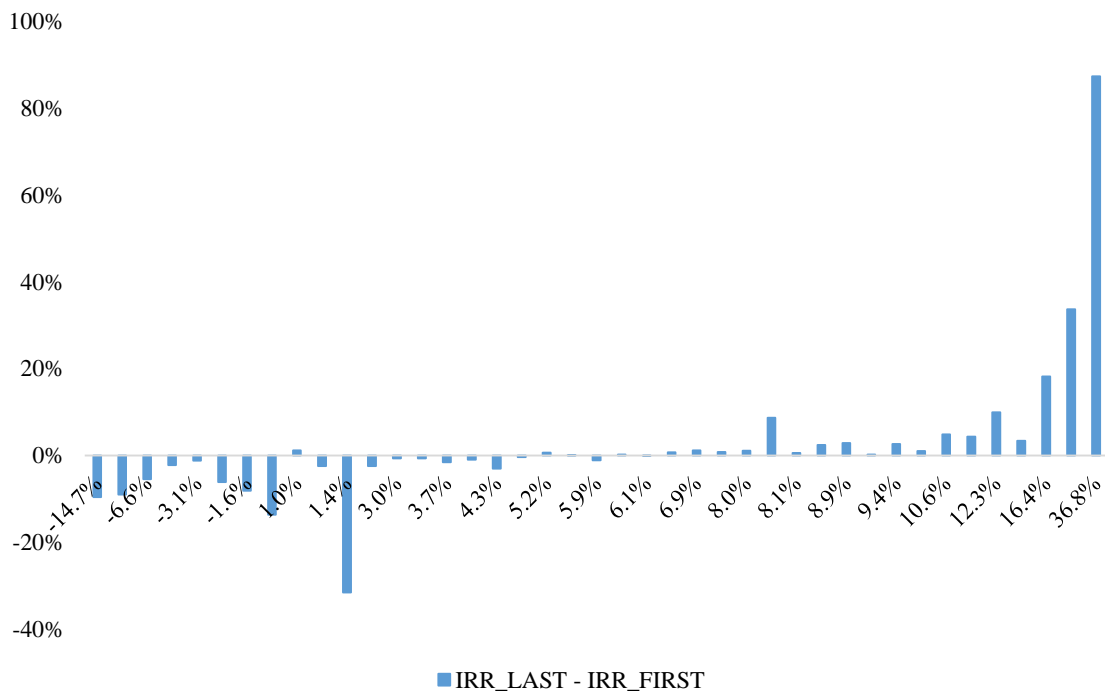
Table 7: Late Investors Earn Magnified Returns Relative to Early Investors

Name	First Offering	Last Offering	First Round IRR	Last Round IRR	Total IRR
Apple REIT Ten	1/19/2011 to 1/19/2014	4/10/2014 to 7/31/2014	7.82%	16.53%	8.04%
Apple Residential Income Trust	11/19/1996 to 9/15/1998	10/16/1998 to 3/31/1999	3.14%	2.46%	3.03%
Behringer Harvard Opportunity REIT II	1/21/2008 to 7/3/2011	7/5/2011 to 3/15/2012	3.66%	3.02%	3.65%
Bluerock Residential Growth REIT	10/15/2009 to 4/12/2013	4/12/2013 to 9/9/2013	21.83%	55.51%	21.97%
Carey Watermark Investors	9/15/2010 to 9/15/2013	1/1/2014 to 12/31/2014	31.59%	118.89%	36.77%
CatchMark Timber Trust	5/1/2007 to 8/11/2009	8/12/2009 to 12/31/2011	-11.27%	-20.26%	-14.07%
Chambers Street Properties	10/24/2006 to 1/29/2009	1/30/2009 to 1/30/2012	4.78%	5.48%	5.17%
CNL Growth Properties	10/20/2009 to 4/7/2013	8/19/2013 to 4/11/2014	0.68%	1.89%	1.05%
CNL Hotels & Resorts	7/9/1997 to 6/17/1999	2/4/2003 to 3/12/2004	6.40%	5.33%	5.88%
CNL Lifestyle Properties	4/16/2004 to 3/31/2006	4/9/2008 to 4/9/2011	0.29%	-5.84%	-1.82%
CNL Restaurant Properties	4/1/1995 to 2/6/1997	3/1/1998 to 1/31/1999	5.78%	6.02%	6.04%
CNL Retirement Properties	9/18/1998 to 9/18/2000	5/1/2004 to 3/26/2006	9.91%	28.11%	16.43%
Cole Real Estate Income Strategy (Daily NAV)	12/6/2011 to 8/25/2013	8/26/2013 to 12/31/2014	7.02%	11.92%	10.60%
Cole Real Estate Investments	10/1/2008 to 10/1/2010	10/2/2010 to 4/27/2012	8.43%	11.07%	9.36%
Columbia Property Trust	11/26/2003 to 11/26/2005	11/11/2008 to 7/31/2010	0.12%	-8.01%	-1.65%
Corporate Property Associates 12	2/18/1994 to 1/26/1996	2/2/1996 to 9/18/1997	8.88%	9.94%	9.57%
Corporate Property Associates 14	11/10/1997 to 11/10/1999	11/17/1999 to 11/15/2001	7.50%	8.35%	7.92%
Corporate Property Associates 15	11/7/2001 to 11/8/2002	3/20/2003 to 8/7/2003	7.72%	8.33%	8.08%
Corporate Property Associates 16	12/12/2003 to 3/8/2005	2/22/2006 to 12/1/2006	6.36%	7.07%	6.63%
Corporate Property Associates 17	12/19/2007 to 4/7/2011	4/7/2011 to 1/31/2013	5.38%	5.48%	5.41%
DCT Industrial Trust	7/17/2002 to 4/15/2004	6/9/2005 to 1/23/2006	8.86%	18.83%	12.31%
Dividend Capital Diversified Property Fund	1/27/2006 to 1/21/2008	7/12/2012 to 3/31/2015	1.89%	-29.61%	1.40%
G REIT	7/22/2002 to 2/9/2004	2/9/2004 to 4/30/2004	4.54%	3.60%	4.08%
Griffin-American Healthcare REIT II	8/24/2009 to 2/14/2013	2/14/2013 to 10/30/2013	10.70%	15.05%	12.28%
Healthcare Trust Of America	9/20/2006 to 3/19/2010	3/19/2010 to 2/28/2011	7.83%	8.93%	8.04%
Hines Global REIT	8/5/2009 to 2/1/2013	2/4/2013 to 4/11/2014	4.76%	1.77%	4.28%
Hines Real Estate Investment Trust	6/18/2004 to 6/18/2006	7/1/2008 to 1/1/2010	1.78%	-0.67%	1.05%
Industrial Income Trust	12/18/2009 to 4/16/2012	4/17/2012 to 7/18/2013	7.76%	10.19%	8.77%
Inland American Real Estate Trust	8/31/2005 to 7/31/2007	8/1/2007 to 4/6/2009	-3.56%	-5.73%	-4.35%
Inland Real Estate Corporation	10/14/1994 to 7/24/1996	4/7/1998 to 12/31/1998	8.99%	9.18%	9.19%
Inland Retail Real Estate Trust	2/11/1999 to 1/31/2001	6/7/2002 to 8/13/2003	11.46%	14.88%	14.07%
KBS Legacy Partners Apartment REIT	3/12/2010 to 3/12/2013	3/13/2013 to 4/30/2014	6.87%	8.04%	6.91%
Landmark Apartment Trust	7/19/2006 to 7/17/2009	7/20/2009 to 12/31/2010	2.17%	-0.24%	1.91%
Paladin Realty Income Properties	2/23/2005 to 7/28/2008	1/24/2012 to 7/16/2012	1.75%	-11.91%	-0.35%
Piedmont Office Realty Trust	1/30/1998 to 12/19/1999	7/26/2002 to 12/11/2003	4.87%	3.31%	3.74%

Retail Properties Of America	9/15/2003 to 3/22/2005	12/28/2004 to 9/30/2005	-2.54%	-3.73%	-3.10%
Sentio Healthcare Properties	6/20/2008 to 2/3/2011	2/4/2011 to 4/29/2011	6.11%	6.05%	6.11%
SmartStop Self Storage	3/17/2008 to 9/16/2011	9/22/2011 to 9/22/2013	8.31%	11.18%	8.90%
Spirit Realty Capital	6/27/2005 to 5/22/2007	5/23/2007 to 1/2/2009	5.24%	4.90%	5.01%
Summit Healthcare REIT	1/13/2006 to 6/1/2009	6/10/2009 to 11/23/2010	-14.50%	-24.09%	-14.66%
TIER REIT	2/19/2003 to 2/19/2005	10/20/2006 to 12/31/2008	-2.83%	-8.27%	-6.64%

To illustrate the relation between first and last round investor returns, Figure 2 presents the average rate of return to the last round investors minus the return to the first round investors. The results are sorted across the horizontal axis by the total IRR for the non-traded REIT. The left-most observation corresponds to Summit Healthcare REIT, where investors suffered a -14.7% annual return. Last round investors suffered on average -24.1% returns, 9.6% lower than the first round investors. The return differences across financing rounds are relatively small for the sample funds with average returns. Among the funds with the highest average returns, late round investors enjoy higher average returns than the early investors.

Figure 2: IRR of last round investors minus IRR of first round, sorted by total IRR



Collectively, the empirical results presented in this section are consistent with our view that significant conflicts of interest created by non-traded REITs' structures impact returns. Around the commencement of public trading, coinciding with the elimination of conflicts of interest in management and advisory functions, expenses decrease significantly, largely driven by the reduction in payments to firms owned by the sponsor.

V. Conclusions

We document significantly lower returns to non-traded REIT investors in 81 non-traded REITs compared to the returns they would have earned in a portfolio of traded REITs. We estimate that non-traded REITs underperform the traded REITs by approximately 7.3% annually. Our estimates of the dollar losses from investing in non-traded REITs instead of the traded REITs exceed \$45.4 billion on the liquidation dates or latest share value update. These estimates understate non-traded REITs' true underperformance since non-traded REITs are so illiquid that investors should receive a higher average return for investing in non-traded REITs compared to the traded REITs.

Returns to non-traded REIT investors are negatively impacted by the large up-front fees and the conflicts of interest that permeate the non-traded REIT structure. We estimate that approximately 56% of the wealth losses to non-traded REIT investors, where losses represent the wealth relative to the benchmark, are attributable to the up-front fees charged that primarily compensate the distribution agents. Non-traded REITs' operating performance, which suffers from high fees paid to related parties for management and advisement, also contributes to the investment underperformance. Unlike publicly traded REITs that are monitored by institutional investors and managed by employees accountable only to the REIT's shareholders, non-traded REITs have seriously conflicted managers and advisors who are not effectively monitored by institutional investors.

The average non-traded REIT's returns are significantly below what investors can earn in traded, liquid REITs. This underperformance occurs despite non-traded REITs being significantly less liquid than traded REITs. Our results highlight the importance of due diligence when selecting real estate investments, and highlight the deleterious impact

of conflicts of interest in cases where corporate control and decision-making are concentrated absolutely among a few, related parties.

VI. References

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Appendix 1: Details for each Non-Traded REIT (Part 1)

Name	First Effective Date	Liquidity Event Date	Years	Event	Upfront Fees	DRP Upfront Fees	Non-Traded REIT Value	Traded REIT Value	Dollar Shortfall
American Realty Capital Daily NAV Trust	8/15/11	4/1/15	3.6	Updated NAV	9.00%	2.90%	\$24,986,552	\$30,312,490	\$5,325,938
American Realty Capital Trust V	4/4/13	9/30/14	1.5	Updated NAV	12.80%	1.30%	\$1,502,220,928	\$1,629,733,504	\$127,512,576
Apple Hospitality REIT	4/25/08	12/31/14	6.7	Updated NAV	13.24%	5.74%	\$1,875,186,304	\$3,059,889,152	\$1,184,702,848
Apple REIT Eight	7/19/07	12/31/14	7.5	Updated NAV	13.24%	5.74%	\$948,944,896	\$958,501,824	\$9,556,928
Apple REIT Seven	3/15/06	12/31/14	8.8	Updated NAV	13.24%	5.74%	\$933,320,320	\$669,655,168	-\$263,665,152
Apple REIT Ten	1/19/11	12/31/14	4.0	Updated NAV	13.24%	5.74%	\$1,051,483,904	\$1,229,608,192	\$178,124,288
Behringer Harvard Opportunity REIT I	9/20/05	10/31/14	9.1	Updated NAV	14.40%	6.40%	\$202,182,240	\$771,881,856	\$569,699,584
Behringer Harvard Opportunity REIT II	1/21/08	10/31/14	6.8	Updated NAV	13.60%	2.90%	\$250,174,160	\$464,865,088	\$214,690,928
CNL Growth Properties	10/20/09	2/24/15	5.4	Updated NAV	14.50%	4.50%	\$210,954,736	\$288,210,816	\$77,256,080
CNL Healthcare Properties	6/27/11	9/30/14	3.3	Updated NAV	13.55%	3.55%	\$1,106,331,264	\$951,585,216	-\$154,746,048
CNL Lifestyle Properties	4/16/04	12/31/14	10.7	Updated NAV	12.39%	3.83%	\$1,690,328,704	\$3,737,378,816	\$2,047,050,112
Carey Watermark Investors	9/15/10	9/30/14	4.0	Updated NAV	13.66%	2.88%	\$1,297,418,752	\$853,703,360	-\$443,715,392
Cole Real Estate Income Strategy (Daily NAV)	12/6/11	12/31/14	3.1	Updated NAV	10.00%	0.00%	\$99,621,128	\$110,736,248	\$11,115,120
Corporate Property Associates 17	12/19/07	12/31/14	7.0	Updated NAV	13.24%	3.24%	\$3,101,569,280	\$4,726,883,840	\$1,625,314,560
Dividend Capital Diversified Property Fund	1/27/06	3/31/15	9.2	Updated NAV	11.00%	1.80%	\$1,298,282,496	\$2,192,132,352	\$893,849,856
G REIT	7/22/02	4/13/12	9.7	Updated NAV	12.50%	3.00%	\$37,242,352	\$392,703,392	\$355,461,056
Global Income Trust	4/23/10	12/31/14	4.7	Updated NAV	13.99%	3.99%	\$61,161,640	\$102,667,984	\$41,506,344
Hines Global REIT	8/5/09	12/31/14	5.4	Updated NAV	12.90%	2.90%	\$2,540,608,768	\$3,342,303,232	\$801,694,464
Hines Real Estate Investment Trust	6/18/04	12/31/14	10.5	Updated NAV	12.20%	8.00%	\$1,463,817,984	\$2,448,763,648	\$984,945,664
Industrial Income Trust	12/18/09	12/31/14	5.0	Updated NAV	12.50%	2.70%	\$2,334,691,840	\$2,642,870,784	\$308,178,944
Inland American Real Estate Trust	8/31/05	2/4/15	9.4	Updated NAV	13.01%	2.51%	\$3,444,335,872	\$9,910,977,536	\$6,466,641,920
Jones Lang LaSalle Income Property Trust	10/1/12	12/31/14	2.2	Updated NAV	12.20%	0.00%	\$255,864,080	\$289,131,264	\$33,267,184
KBS Legacy Partners Apartment REIT	3/12/10	12/9/14	4.7	Updated NAV	11.91%	0.14%	\$203,417,840	\$243,040,416	\$39,622,576
KBS Real Estate Investment Trust	1/27/06	12/31/14	8.9	Updated NAV	11.19%	3.25%	\$848,725,760	\$2,009,058,048	\$1,160,332,288
KBS Real Estate Investment Trust II	4/22/08	12/31/14	6.7	Updated NAV	11.41%	0.13%	\$1,115,244,288	\$2,497,795,072	\$1,382,550,784
KBS Real Estate Investment Trust III	10/26/10	12/31/14	4.2	Updated NAV	12.72%	0.13%	\$1,447,808,640	\$1,421,640,448	-\$26,168,192
KBS Strategic Opportunity REIT	11/20/09	12/31/14	5.1	Updated NAV	12.79%	0.17%	\$731,053,824	\$799,939,456	\$68,885,632
Landmark Apartment Trust	7/19/06	12/31/14	8.5	Updated NAV	15.00%	5.00%	\$167,171,424	\$266,097,904	\$98,926,480

Lightstone Value Plus REIT	5/24/05	9/30/14	9.4	Updated NAV	14.25%	6.25%	\$305,106,432	\$195,598,544	-\$109,507,888
NorthStar Healthcare Income	8/7/12	12/31/14	2.4	Updated NAV	13.20%	1.70%	\$994,948,608	\$1,048,999,744	\$54,051,136
NorthStar REIT	7/19/10	10/31/14	4.3	Updated NAV	12.80%	1.30%	\$1,139,921,920	\$1,251,809,280	\$111,887,360
RREEF Property Trust	1/3/13	12/31/14	2.0	Updated NAV	12.50%	0.00%	\$30,112,876	\$40,618,488	\$10,505,612
Sentio Healthcare Properties	6/20/08	12/31/13	5.5	Updated NAV	13.84%	0.00%	\$133,351,936	\$185,685,936	\$52,334,000
Signature Office REIT	9/29/10	12/31/14	4.3	Updated NAV	11.94%	2.00%	\$511,536,576	\$640,103,040	\$128,566,464
SmartStop Self Storage	3/17/08	6/30/14	6.3	Updated NAV	14.74%	4.74%	\$555,890,816	\$695,569,472	\$139,678,656
Steadfast Income REIT	7/19/10	12/31/14	4.5	Updated NAV	13.70%	2.45%	\$781,395,456	\$898,486,848	\$117,091,392
Strategic Realty Trust	8/7/09	3/31/14	4.6	Updated NAV	14.35%	2.60%	\$77,456,008	\$134,370,528	\$56,914,520
Summit Healthcare REIT	1/13/06	12/31/14	9.0	Updated NAV	13.50%	3.50%	\$46,329,480	\$262,330,912	\$216,001,440
T REIT	5/17/00	12/31/11	11.6	Updated NAV	12.50%	3.00%	\$915,513	\$37,013,996	\$36,098,484
TIER REIT	2/19/03	10/30/14	11.7	Updated NAV	15.70%	14.20%	\$1,340,232,448	\$3,964,935,424	\$2,624,702,976
American Realty Capital Trust III	3/31/11	3/1/13	1.9	Merged w T REIT	12.90%	2.90%	\$2,180,572,416	\$1,860,832,896	-\$319,739,520
American Realty Capital Trust IV	6/8/12	1/3/14	1.6	Merged w T REIT	12.90%	2.90%	\$2,014,715,520	\$1,658,988,928	-\$355,726,592
Apple Hospitality Five	1/3/03	10/5/07	4.8	Merged w T REIT	14.90%	4.40%	\$635,143,872	\$952,840,064	\$317,696,192
Apple Hospitality Two	5/1/01	5/23/07	6.1	Merged w T REIT	13.00%	2.50%	\$324,867,744	\$514,906,464	\$190,038,720
Apple REIT Six	4/23/04	5/14/13	9.1	Merged w T REIT	13.24%	2.74%	\$1,012,603,200	\$1,078,949,376	\$66,346,176
Apple Residential Income Trust	11/19/96	4/18/01	4.4	Merged w T REIT	12.90%	12.90%	\$268,201,312	\$274,409,248	\$6,207,936
Apple Suites	8/23/99	1/31/03	3.4	Merged w T REIT	13.00%	13.00%	\$126,566,320	\$132,682,096	\$6,115,776
Boston Capital REIT	6/22/05	1/15/08	2.6	Merged w T REIT	15.45%	10.25%	\$101,695,856	\$56,893,624	-\$44,802,232
CNL Hotels & Resorts	7/9/97	4/12/07	9.8	Merged w T REIT	16.00%	16.00%	\$3,038,922,240	\$6,407,571,968	\$3,368,649,728
CNL Restaurant Properties	4/1/95	2/25/05	9.9	Merged w T REIT	16.00%	16.00%	\$679,972,096	\$1,063,903,168	\$383,931,072
CNL Retirement Properties	9/18/98	10/5/06	8.1	Merged w T REIT	16.00%	16.00%	\$3,662,937,344	\$4,555,983,360	\$893,046,016
Carey Institutional Properties	8/1/91	9/1/04	13.1	Merged w NT REIT	13.28%	2.48%	\$391,521,856	\$568,357,312	\$176,835,456
Cole Corporate Income Trust	2/10/11	1/30/15	4.0	Merged w T REIT	12.80%	3.80%	\$2,025,171,584	\$2,503,895,296	\$478,723,712
Corporate Property Associates 10	6/20/90	12/27/02	12.5	Merged w NT REIT	13.28%	2.48%	\$83,074,328	\$204,656,624	\$121,582,296
Corporate Property Associates 12	2/18/94	12/1/06	12.8	Merged w NT REIT	13.38%	3.72%	\$383,575,584	\$644,868,864	\$261,293,280
Corporate Property Associates 14	11/10/97	5/2/11	13.5	Merged w NT REIT	13.71%	3.71%	\$718,164,992	\$1,198,416,640	\$480,251,648
Corporate Property Associates 15	11/7/01	9/28/12	10.9	Merged w T REIT	12.74%	0.00%	\$1,305,285,504	\$1,855,844,224	\$550,558,720
Corporate Property Associates 16	12/12/03	1/31/14	10.1	Merged w T REIT	12.73%	9.73%	\$1,295,653,248	\$1,176,821,248	-\$118,832,000
Griffin-American Healthcare REIT II	8/24/09	12/3/14	5.3	Merged w T REIT	13.40%	2.40%	\$3,345,165,056	\$3,474,387,712	\$129,222,656
Inland Diversified Real Estate Trust	8/24/09	7/1/14	4.9	Merged w T REIT	12.01%	0.50%	\$1,256,509,440	\$1,449,548,672	\$193,039,232

Inland Retail Real Estate Trust	2/11/99	2/27/07	8.0	Merged w T REIT	13.60%	4.10%	\$3,367,679,232	\$5,155,747,328	\$1,788,068,096
Paladin Realty Income Properties	2/23/05	1/28/14	8.9	Merged w NT REIT	14.49%	6.70%	\$55,759,860	\$81,735,520	\$25,975,660
Spirit Realty Capital	6/27/05	7/18/13	8.1	Merged w T REIT	12.20%	3.70%	\$1,943,996,928	\$2,096,313,728	\$152,316,800
American Realty Capital Healthcare Trust	2/18/11	4/7/14	3.1	Nasdaq	12.80%	2.80%	\$1,920,663,296	\$1,678,901,632	-\$241,761,664
American Realty Capital Trust	1/25/08	3/1/12	4.1	Nasdaq	12.89%	2.89%	\$1,849,907,968	\$1,942,668,032	\$92,760,064
United Development Funding IV	11/12/09	6/4/14	4.6	Nasdaq	15.53%	5.53%	\$628,021,056	\$691,228,160	\$63,207,104
Bluerock Residential Growth REIT	10/15/09	3/28/14	4.5	NYSE	13.32%	2.02%	\$34,000,528	\$25,442,136	-\$8,558,392
CatchMark Timber Trust	5/1/07	12/12/13	6.6	NYSE	10.00%	0.00%	\$160,300,688	\$459,388,320	\$299,087,616
Chambers Street Properties	10/24/06	5/21/13	6.6	NYSE	11.90%	2.40%	\$2,356,438,016	\$3,514,191,104	\$1,157,753,088
Cole Real Estate Investments	10/1/08	6/20/13	4.7	NYSE	12.80%	3.80%	\$5,231,596,032	\$6,189,483,008	\$957,886,976
Columbia Property Trust	11/26/03	10/10/13	9.9	NYSE	12.31%	2.34%	\$3,030,135,808	\$6,164,823,040	\$3,134,687,232
Cornerstone Realty Income Trust	8/18/92	4/18/97	4.7	NYSE	13.50%	13.50%	\$254,208,224	\$318,982,112	\$64,773,888
DCT Industrial Trust	7/17/02	12/13/06	4.4	NYSE	16.00%	16.00%	\$1,817,975,296	\$2,365,200,896	\$547,225,600
Healthcare Trust Of America	9/20/06	11/7/13	7.1	NYSE	15.00%	5.00%	\$623,719,296	\$1,395,315,712	\$771,596,416
Independence Realty Trust	6/10/11	8/13/13	2.2	NYSE	14.08%	4.08%	\$408,135	\$471,453	\$63,318
Inland Real Estate Corporation	10/14/94	6/9/04	9.7	NYSE	13.40%	3.90%	\$716,863,104	\$770,573,504	\$53,710,400
Monogram Residential Trust	9/5/08	11/24/14	6.2	NYSE	13.00%	2.30%	\$1,453,299,456	\$2,624,282,112	\$1,170,982,656
New York REIT	9/2/10	4/15/14	3.6	NYSE	12.80%	2.80%	\$1,846,525,952	\$1,806,471,424	-\$40,054,528
Piedmont Office Realty Trust	1/30/98	1/30/11	13.0	NYSE	16.00%	16.00%	\$782,077,568	\$4,229,197,824	\$3,447,120,384
Retail Properties Of America	9/15/03	10/7/13	10.1	NYSE	12.55%	2.05%	\$627,455,872	\$4,641,378,304	\$4,013,922,304
Whitestone REIT	9/15/04	6/27/12	7.8	NYSE	10.00%	4.50%	\$4,770,089	\$21,365,792	\$16,595,703
Average			6.6		13.2%	4.5%	\$1,107,623,086	\$1,669,203,805	\$561,580,722
Minimum	6/20/90	4/18/97	1.5		9.0%	0.0%	\$408,135	\$471,453	-\$443,715,392
Maximum	4/4/13	4/1/15	13.5		16.0%	16.0%	\$5,231,596,032	\$9,910,977,536	\$6,466,641,920

*Healthcare Trust of America, Piedmont Office Realty Trust, Retail Properties of America, and Whitestone REIT each converted their non-traded common stock to listed common stock through a series of four partial liquidation events. We use all of the partial liquidations, but only present the final liquidation date in the table.

Appendix 1: Details for each Non-Traded REIT (Part 2)

Name	Dollar Shortfall	Non-Traded REIT IRR	Traded REIT IRR	IRR Shortfall	Embedded Fees	Future Value of Invested Fees	First Offering	Last Offering	First Round IRR	Last Round IRR
American Realty Capital Daily Net Asset Value Trust	\$5,325,938	5.5%	14.5%	9.0%	\$2,268,069	\$3,049,216	N/A	N/A	N/A	N/A
American Realty Capital Trust V	\$127,512,576	1.2%	7.9%	6.7%	\$202,741,520	\$221,965,664	N/A	N/A	N/A	N/A
Apple Hospitality REIT	\$1,184,702,848	8.5%	15.7%	7.2%	\$272,320,352	\$616,096,640	N/A	N/A	N/A	N/A
Apple REIT Eight	\$9,556,928	4.4%	4.6%	0.1%	\$139,497,536	\$230,090,112	N/A	N/A	N/A	N/A
Apple REIT Seven	-\$263,665,152	5.5%	2.3%	-3.2%	\$139,945,648	\$221,790,912	N/A	N/A	N/A	N/A
Apple REIT Ten	\$178,124,288	8.0%	13.1%	5.1%	\$139,292,096	\$200,028,736	1/19/11 to 1/19/14	4/10/14 to 7/31/14	7.8%	16.5%
Behringer Harvard Opportunity REIT I	\$569,699,584	-11.8%	5.4%	17.2%	\$78,804,912	\$122,950,672	N/A	N/A	N/A	N/A
Behringer Harvard Opportunity REIT II	\$214,690,928	3.6%	14.8%	11.1%	\$33,841,704	\$72,167,288	1/21/08 to 7/3/11	7/5/11 to 3/15/12	3.7%	3.0%
CNL Growth Properties	\$77,256,080	1.0%	15.9%	14.9%	\$30,203,500	\$42,094,600	10/20/09 to 4/7/13	8/19/13 to 4/11/14	0.7%	1.9%
CNL Healthcare Properties	-\$154,746,048	20.4%	7.8%	-12.6%	\$121,688,064	\$132,783,744	N/A	N/A	N/A	N/A
CNL Lifestyle Properties	\$2,047,050,112	-1.8%	7.4%	9.2%	\$379,801,504	\$707,114,304	4/16/04 to 3/31/06	4/9/08 to 4/9/11	0.3%	-5.8%
Carey Watermark Investors	-\$443,715,392	36.8%	7.1%	-29.6%	\$111,280,912	\$121,650,160	9/15/10 to 9/15/13	1/1/14 to 12/31/14	31.6%	118.9%
Cole Real Estate Income Strategy (Daily NAV)	\$11,115,120	10.6%	21.0%	10.4%	\$10,806,722	\$13,145,347	12/6/11 to 8/25/13	8/26/13 to 12/31/14	7.0%	11.9%
Corporate Property Associates 17	\$1,625,314,560	5.4%	14.8%	9.4%	\$395,641,152	\$725,779,456	12/19/07 to 4/7/11	4/7/11 to 1/31/13	5.4%	5.5%
Dividend Capital Diversified Property Fund	\$893,849,856	1.4%	7.2%	5.8%	\$215,018,848	\$401,760,000	1/27/06 to 1/21/08	7/12/12 to 3/31/15	1.9%	-29.6%
G REIT	\$355,461,056	4.1%	13.7%	9.6%	\$54,135,768	\$115,812,408	7/22/02 to 2/9/04	2/9/04 to 4/30/04	4.5%	3.6%
Global Income Trust	\$41,506,344	-3.4%	13.6%	17.0%	\$11,528,549	\$16,902,424	N/A	N/A	N/A	N/A
Hines Global REIT	\$801,694,464	4.3%	14.6%	10.3%	\$333,877,856	\$481,851,424	8/5/09 to 2/1/13	2/4/13 to 4/11/14	4.8%	1.8%
Hines Real Estate Investment Trust	\$984,945,664	1.0%	6.3%	5.2%	\$311,338,144	\$580,707,520	6/18/04 to 6/18/06	7/1/08 to 1/1/10	1.8%	-0.7%
Industrial Income Trust	\$308,178,944	8.8%	13.3%	4.5%	\$257,739,296	\$364,574,592	12/18/09 to 4/16/12	4/17/12 to 7/18/13	7.8%	10.2%

Inland American Real Estate Trust	\$6,466,641,920	-4.4%	6.8%	11.2%	\$1,061,187,904	\$1,958,496,256	8/31/05 to 7/31/07	8/1/07 to 4/6/09	-3.6%	-5.7%
Jones Lang LaSalle Income Property Trust	\$33,267,184	6.0%	15.4%	9.4%	\$31,164,410	\$37,822,848	N/A	N/A	N/A	N/A
KBS Legacy Partners Apartment REIT	\$39,622,576	6.9%	13.9%	7.0%	\$22,821,876	\$31,965,684	3/12/10 to 3/12/13	3/13/13 to 4/30/14	6.9%	8.0%
KBS Real Estate Investment Trust	\$1,160,332,288	-5.2%	5.5%	10.7%	\$197,805,664	\$327,614,784	N/A	N/A	N/A	N/A
KBS Real Estate Investment Trust II	\$1,382,550,784	7.4%	16.6%	9.2%	\$208,099,792	\$483,570,816	N/A	N/A	N/A	N/A
KBS Real Estate Investment Trust III	-\$26,168,192	17.2%	16.0%	-1.2%	\$151,973,264	\$189,151,296	N/A	N/A	N/A	N/A
KBS Strategic Opportunity REIT	\$68,885,632	10.8%	13.9%	3.0%	\$71,903,144	\$107,164,232	N/A	N/A	N/A	N/A
Landmark Apartment Trust	\$98,926,480	1.9%	8.2%	6.3%	\$29,156,994	\$53,949,308	7/19/06 to 7/17/09	7/20/09 to 12/31/10	2.2%	-0.2%
Lightstone Value Plus REIT	-\$109,507,888	8.8%	4.6%	-4.2%	\$45,686,940	\$70,713,664	N/A	N/A	N/A	N/A
NorthStar Healthcare Income	\$54,051,136	10.8%	22.9%	12.1%	\$126,993,632	\$140,150,288	N/A	N/A	N/A	N/A
NorthStar Real Estate Income Trust	\$111,887,360	8.0%	12.4%	4.4%	\$137,606,144	\$177,423,488	N/A	N/A	N/A	N/A
RREEF Property Trust	\$10,505,612	-13.6%	18.5%	32.1%	\$4,376,274	\$5,210,658	N/A	N/A	N/A	N/A
Sentio Healthcare Properties	\$52,334,000	6.1%	13.9%	7.8%	\$17,589,118	\$29,750,612	6/20/08 to 2/3/11	2/4/11 to 4/29/11	6.1%	6.0%
Signature Office REIT	\$128,566,464	6.5%	13.6%	7.1%	\$59,991,132	\$89,069,672	N/A	N/A	N/A	N/A
SmartStop Self Storage	\$139,678,656	8.9%	15.4%	6.5%	\$76,305,152	\$122,611,704	3/17/08 to 9/16/11	9/22/11 to 9/22/13	8.3%	11.2%
Steadfast Income REIT	\$117,091,392	7.9%	15.6%	7.7%	\$100,931,896	\$132,518,360	N/A	N/A	N/A	N/A
Strategic Realty Trust	\$56,914,520	-8.5%	12.1%	20.7%	\$15,319,927	\$20,999,068	N/A	N/A	N/A	N/A
Summit Healthcare REIT	\$216,001,440	-14.7%	8.6%	23.2%	\$23,161,240	\$45,449,856	1/13/06 to 6/1/09	6/10/09 to 11/23/10	-14.5%	-24.1%
T REIT	\$36,098,484	8.4%	14.1%	5.7%	\$5,733,772	\$15,441,070	N/A	N/A	N/A	N/A
TIER REIT	\$2,624,702,976	-6.6%	6.8%	13.5%	\$462,904,736	\$829,188,672	2/19/03 to 2/19/05	10/20/06 to 12/31/08	-2.8%	-8.3%
American Realty Capital Trust III	-\$319,739,520	35.5%	14.4%	-21.1%	\$217,977,280	\$242,582,480	N/A	N/A	N/A	N/A
American Realty Capital Trust IV	-\$355,726,592	19.8%	-2.2%	-22.1%	\$224,106,496	\$219,680,032	N/A	N/A	N/A	N/A
Apple Hospitality Five	\$317,696,192	11.9%	20.5%	8.6%	\$76,138,240	\$175,011,392	N/A	N/A	N/A	N/A
Apple Hospitality Two	\$190,038,720	11.5%	18.3%	6.8%	\$38,570,836	\$104,913,848	N/A	N/A	N/A	N/A
Apple REIT Six	\$66,346,176	7.3%	7.9%	0.6%	\$137,935,168	\$283,419,520	N/A	N/A	N/A	N/A
Apple Residential Income Trust	\$6,207,936	3.0%	3.7%	0.6%	\$38,271,700	\$43,508,076	11/19/96 to 9/15/98	10/16/98 to 3/31/99	3.1%	2.5%
Apple Suites	\$6,115,776	7.8%	9.5%	1.7%	\$16,237,127	\$20,424,322	N/A	N/A	N/A	N/A
Boston Capital REIT	-\$44,802,232	29.1%	-24.3%	-53.4%	\$11,789,518	\$9,089,151	N/A	N/A	N/A	N/A

CNL Hotels & Resorts	\$3,368,649,728	5.9%	19.9%	14.0%	\$508,537,856	\$1,316,262,784	7/9/97 to 6/17/99	2/4/03 to 3/12/04	6.4%	5.3%
CNL Restaurant Properties	\$383,931,072	6.0%	10.8%	4.7%	\$121,650,232	\$287,649,472	4/1/95 to 2/6/97	3/1/98 to 1/31/99	5.8%	6.0%
CNL Retirement Properties	\$893,046,016	16.4%	23.0%	6.6%	\$432,168,704	\$865,282,496	9/18/98 to 9/18/00	5/1/04 to 3/26/06	9.9%	28.1%
Carey Institutional Properties	\$176,835,456	9.0%	12.1%	3.1%	\$42,347,500	\$126,466,264	N/A	N/A	N/A	N/A
Cole Corporate Income Trust	\$478,723,712	5.8%	19.0%	13.2%	\$240,542,944	\$326,261,888	N/A	N/A	N/A	N/A
Corporate Property Associates 10	\$121,582,296	5.6%	11.4%	5.8%	\$9,558,006	\$36,148,856	N/A	N/A	N/A	N/A
Corporate Property Associates 12	\$261,293,280	9.6%	13.2%	3.6%	\$38,592,024	\$172,677,952	2/18/94 to 1/26/96 11/10/97	2/2/96 to 9/18/97 11/17/99	8.9%	9.9%
Corporate Property Associates 14	\$480,251,648	7.9%	11.0%	3.1%	\$92,109,296	\$306,316,320	to 11/10/99	to 11/15/01	7.5%	8.4%
Corporate Property Associates 15	\$550,558,720	8.1%	10.8%	2.7%	\$132,122,440	\$366,747,616	11/7/01 to 11/8/02	3/20/03 to 8/7/03	7.7%	8.3%
Corporate Property Associates 16	-\$118,832,000	6.6%	5.7%	-0.9%	\$163,153,744	\$278,694,720	12/12/03 to 3/8/05	2/22/06 to 12/1/06	6.4%	7.1%
Griffin-American Healthcare REIT II	\$129,222,656	12.3%	14.0%	1.7%	\$383,649,312	\$513,111,200	8/24/09 to 2/14/13	2/14/13 to 10/30/13	10.7%	15.0%
Inland Diversified Real Estate Trust	\$193,039,232	8.3%	13.0%	4.7%	\$132,470,240	\$191,531,040	N/A	N/A	N/A	N/A
Inland Retail Real Estate Trust	\$1,788,068,096	14.1%	22.6%	8.5%	\$305,842,944	\$852,405,376	2/11/99 to 1/31/01	6/7/02 to 8/13/03	11.5%	14.9%
Paladin Realty Income Properties	\$25,975,660	-0.4%	6.7%	7.1%	\$11,374,944	\$16,251,426	2/23/05 to 7/28/08	1/24/12 to 7/16/12	1.7%	-11.9%
Spirit Realty Capital	\$152,316,800	5.0%	6.1%	1.1%	\$254,892,912	\$392,810,688	6/27/05 to 5/22/07	5/23/07 to 1/2/09	5.2%	4.9%
American Realty Capital Healthcare Trust	-\$241,761,664	19.0%	8.6%	-10.4%	\$225,420,800	\$250,353,792	N/A	N/A	N/A	N/A
American Realty Capital Trust	\$92,760,064	9.6%	13.8%	4.2%	\$225,606,800	\$263,867,088	N/A	N/A	N/A	N/A
United Development Funding IV	\$63,207,104	6.3%	11.1%	4.8%	\$97,238,584	\$120,600,904	N/A	N/A	N/A	N/A
Bluerock Residential Growth REIT	-\$8,558,392	22.0%	11.0%	-10.9%	\$2,944,387	\$3,833,432	10/15/09 to 4/12/13	4/12/13 to 9/9/13	21.8%	55.5%
CatchMark Timber Trust	\$299,087,616	-14.1%	9.7%	23.8%	\$29,850,152	\$46,399,432	5/1/07 to 8/11/09	8/12/09 to 12/31/11	-11.3%	-20.3%
Chambers Street Properties	\$1,157,753,088	5.2%	15.9%	10.8%	\$282,519,456	\$492,996,288	10/24/06 to 1/29/09	1/30/09 to 1/30/12	4.8%	5.5%
Cole Real Estate Investments	\$957,886,976	9.4%	15.3%	6.0%	\$597,120,512	\$881,797,120	10/1/08 to 10/1/10 11/26/03	10/2/10 to 4/27/12	8.4%	11.1%
Columbia Property Trust	\$3,134,687,232	-1.6%	6.9%	8.6%	\$654,532,800	\$1,083,888,640	to 11/26/05	11/11/08 to 7/31/10	0.1%	-8.0%

Cornerstone Realty Income Trust	\$64,773,888	3.0%	19.6%	16.6%	\$35,949,168	\$46,539,328	N/A	N/A	N/A	N/A
DCT Industrial Trust	\$547,225,600	12.3%	25.4%	13.1%	\$245,375,968	\$400,906,048	7/17/02 to 4/15/04	6/9/05 to 1/23/06	8.9%	18.8%
Healthcare Trust Of America	\$771,596,416	8.0%	14.2%	6.2%	\$340,103,904	\$606,846,080	9/20/06 to 3/19/10	3/19/10 to 2/28/11	7.8%	8.9%
Independence Realty Trust	\$63,318	-14.7%	4.5%	19.2%	\$67,683	\$69,783	N/A	N/A	N/A	N/A
Inland Real Estate Corporation	\$53,710,400	9.2%	10.1%	1.0%	\$85,824,024	\$164,854,576	10/14/94 to 7/24/96	4/7/98 to 12/31/98	9.0%	9.2%
Monogram Residential Trust	\$1,170,982,656	3.3%	16.0%	12.8%	\$192,925,648	\$384,160,448	N/A	N/A	N/A	N/A
New York REIT	-\$40,054,528	14.6%	11.9%	-2.7%	\$213,769,680	\$234,756,832	N/A	N/A	N/A	N/A
Piedmont Office Realty Trust	\$3,447,120,384	3.7%	10.7%	7.0%	\$896,651,008	\$1,914,646,272	1/30/98 to 12/19/99	7/26/02 to 12/11/03	4.9%	3.3%
Retail Properties Of America	\$4,013,922,304	-3.1%	7.5%	10.6%	\$544,159,872	\$1,026,742,848	9/15/03 to 3/22/05	12/28/04 to 9/30/05	-2.5%	-3.7%
Whitestone REIT	\$16,595,703	-6.7%	4.5%	11.2%	\$2,838,471	\$4,108,175	N/A	N/A	N/A	N/A
Average	\$561,580,722	6.3%	11.6%	5.3%	\$177,721,278	\$312,780,143			5.3%	7.4%
Minimum	-\$443,715,392	-14.7%	-24.3%	-53.4%	\$67,683	\$69,783			-14.5%	-29.6%
Maximum	\$6,466,641,920	36.8%	25.4%	32.1%	\$1,061,187,90 4	\$1,958,496,256			31.6%	118.9%

*Healthcare Trust of America, Piedmont Office Realty Trust, Retail Properties of America, and Whitestone REIT each converted their non-traded common stock to listed common stock through a series of four partial liquidation events. We use all of the partial liquidations, but only present the final liquidation date in the table.

Fiduciary Duty and Non-Traded REITs

By Craig McCann, PhD, CFA*

Author's note: This article draws heavily on research performed by the author and others and published in "A Primer on Non-Traded REITs and Other Alternative Real Estate Investments," by Husson et al. (2013); and "An Empirical Analysis of Non-traded REITs," by Henderson et al. (2015).

Non-traded real estate investment trusts (REITs) are registered with the Securities and Exchange Commission (SEC), enabling their sale to unsophisticated investors. Previous REIT research has focused on listed REITs because their risk and returns can be calculated easily from reported transaction prices. Non-traded REITs on the other hand are illiquid, making the data gathering required for empirical research extremely time consuming. This lack of meaningful performance analysis is troubling because at least \$116 billion has been invested in non-traded REITs in the past 25 years.

My co-authors and I have analyzed the returns of 81 non-traded REITs, including the 41 non-traded REITs that have become listed REITs or were merged with or acquired by a REIT; and 40 additional non-traded REITs that have started reporting a net asset value (NAV) different from the offering price. The 81 non-traded REITs we study are substantially all non-traded REITs except those that stopped filing Form 10-Ks with the SEC without becoming a traded REIT and those that have not yet updated their NAVs.

We found that investors are at least \$45.5 billion worse off as a result of investing in the 81 non-traded REITs compared to investing in a diversified portfolio of traded REITs. Investors in the 41 non-traded REITs that became traded REITs or

were cashed out suffered \$24.25 billion in underperformance. Investors in the 40 non-traded REITs that are still non-traded but have updated their NAVs have suffered \$21.25 billion in underperformance. In fact, investors in non-traded REITs over the past 25 years would have earned as much or more investing in short and intermediate term U.S. Treasury securities without bearing the risks and illiquidity of non-traded REITs.

More than half of the non-traded REITs' underperformance results from \$15 billion in up-front fees charged to investors in the offerings. This \$15 billion in up-front fees, which largely serves to compensate brokers, would have grown to approximately \$25 billion by the time the traded REITs became traded or last updated their NAVs. The rest of the non-traded REITs' underperformance results from conflicts of interest that permeate the organizational structure of non-traded REITs and that are largely absent in traded REITs.

Fiduciary duties require advisors to take due care, have a reasonable basis, and to put clients' interests ahead of their own when making recommendations. Some, but not all, states impose fiduciary duties on brokers as well as investment advisors. The SEC continues to research and debate imposing the fiduciary standard on all brokers (Michaels 2015). In April 2015, the Department of Labor (DOL) proposed to impose fiduciary duties on anybody who provides investment advice for compensation to retirement accounts including individual retirement accounts (IRAs).¹ In addition, many advisors hold a professional designation such as the Chartered Financial Analyst and Certified Financial Planner designations that impose fiduciary duties.²

Eventually the fiduciary standard is likely to cover most situations where a broker, advisor, or agent gives advice or recommendations for compensation.

Non-traded REITs are so inferior to traded REITs that no advisor taking due care could develop a reasonable basis for recommending a non-traded REIT. Advisors recommending non-traded REITs either are not exercising due care or are succumbing to the corrupting influence of the extraordinary commissions sponsors pay brokers and investment advisors for recommending non-traded REITs. The brokerage industry is well aware that recommending non-traded REITs is inconsistent with fiduciary duties. For example, during LPL's First Quarter 2015 earnings conference call, LPL's chief executive officer stated that DOL's plan to apply fiduciary duties to IRAs effectively would prohibit the sale of non-traded REITs into IRA accounts.³

Non-Traded REITs

Non-traded REITs sell shares to retail investors primarily through independent broker-dealer networks in continuous offerings spanning long periods of time at a constant offering price—typically \$10. Once a critical amount of capital has been raised, the company is said to "break escrow," and the trust begins purchasing properties. Non-traded REITs are said to have come "full-cycle" when they experience a "liquidity event" typically defined to be a listing on the NASDAQ or NYSE and merger into or acquisition by a REIT.⁴

We have studied 81 non-traded REITs that had a liquidity event or had updated their NAV by May 1, 2015. Of the 41 non-traded REITs that had a liquidity event, 18 listed on an exchange and 23 merged with or

Table 1: 81 REITs With Some Price Discovery

Name	Price Discovery Date	Name	Price Discovery Date
23 Merged into or were Acquired by REIT			
American Realty Capital Trust III	3/1/2013	Cole Corporate Income Trust	1/30/2015
American Realty Capital Trust IV	1/3/2014	Corporate Property Associates 10	12/27/2002
Apple Hospitality Five	10/5/2007	Corporate Property Associates 12	12/1/2006
Apple Hospitality Two	5/23/2007	Corporate Property Associates 14	5/2/2011
Apple REIT Six	5/14/2013	Corporate Property Associates 15	9/28/2012
Apple Residential Income Trust	4/18/2001	Corporate Property Associates 16	1/31/2014
Apple Suites	1/31/2003	Griffin-American Healthcare REIT II	12/3/2014
Boston Capital Real Estate Investment Trust	1/15/2008	Inland Diversified Real Estate Trust	7/1/2014
Carey Institutional Properties	9/1/2004	Inland Retail Real Estate Trust	2/27/2007
CNL Hotels & Resorts	4/12/2007	Paladin Realty Income Properties	1/28/2014
CNL Restaurant Properties	2/25/2005	Spirit Realty Capital	7/18/2013
CNL Retirement Properties	10/5/2006		
15 Listed on the NYSE			
Bluerock Residential Growth REIT	3/28/2014	Independence Realty Trust	8/13/2013
CatchMark Timber Trust	12/12/2013	Inland Real Estate Corporation	6/9/2004
Chambers Street Properties	5/21/2013	Monogram Residential Trust	11/24/2014
Cole Real Estate Investments	6/20/2013	New York REIT	4/15/2014
Columbia Property Trust	10/10/2013	Piedmont Office Realty Trust	1/30/2011
Cornerstone Realty Income Trust	4/18/1997	Retail Properties Of America	10/7/2013
DCT Industrial Trust	12/13/2006	Whitestone REIT	6/27/2012
Healthcare Trust Of America	11/7/2013		
3 Listed on the Nasdaq			
American Realty Capital Healthcare Trust	4/7/2014	United Development Funding IV	6/4/2014
American Realty Capital Trust	3/1/2012		
40 Updated their Net Asset Values			
American Realty Capital Daily Net Asset Value Trust	4/1/2015	Inland American Real Estate Trust	2/4/2015
American Realty Capital Trust V	9/30/2014	Jones Lang LaSalle Income Property Trust	12/31/2014
Apple Hospitality REIT	12/31/2014	KBS Legacy Partners Apartment REIT	12/9/2014
Apple REIT Eight	12/31/2014	KBS Real Estate Investment Trust	12/31/2014
Apple REIT Seven	12/31/2014	KBS Real Estate Investment Trust II	12/31/2014
Apple REIT Ten	12/31/2014	KBS Real Estate Investment Trust III	12/31/2014
Behringer Harvard Opportunity REIT I	10/31/2014	KBS Strategic Opportunity REIT	12/31/2014
Behringer Harvard Opportunity REIT II	10/31/2014	Landmark Apartment Trust	12/31/2014
Carey Watermark Investors	9/30/2014	Lightstone Value Plus Real Estate Investment Trust	9/30/2014
CNL Growth Properties	2/24/2015	NorthStar Healthcare Income	12/31/2014
CNL Healthcare Properties	9/30/2014	NorthStar Real Estate Income Trust	10/31/2014
CNL Lifestyle Properties	12/31/2014	RREEF Property Trust	12/31/2014
Cole Real Estate Income Strategy (Daily NAV)	12/31/2014	Sentio Healthcare Properties	12/31/2013
Corporate Property Associates 17	12/31/2014	Signature Office REIT	12/31/2014
Dividend Capital Diversified Property Fund	3/31/2015	SmartStop Self Storage	6/30/2014
G REIT	4/13/2012	Steadfast Income REIT	12/31/2014
Global Income Trust	12/31/2014	Strategic Realty Trust	3/31/2014
Hines Global REIT	12/31/2014	Summit Healthcare REIT	12/31/2014
Hines Real Estate Investment Trust	12/31/2014	T REIT	12/31/2011
Industrial Income Trust	12/31/2014	TIER REIT	10/30/2014
*Healthcare Trust of America, Piedmont Office Realty Trust, Retail Properties of America, and Whitestone REIT each converted their non-traded common stock to listed common stock through a series of four partial liquidation events. We use all of the partial liquidations, but only present the final liquidation date in the table.			

were acquired by a REIT. The time from initial offering to a liquidity event ranged from 1.6 years to 13.5 years and averaged 6.9 years. We also included 40 non-traded REITs that are still non-traded but for which the REIT has published updated NAVs. These updated NAVs systematically overstate observed secondary market transactions in the non-traded REITs, but they provide some price discovery information. By including the 40 non-traded REITs for which updated NAVs were available, we eliminate the potential selection bias that comes from only evaluating non-traded REITs that have become traded REITs or have been acquired by another REIT.

The REITs in our study are listed in table 1, sorted by the type of price discovery event and the date on which we value the non-traded REIT investments.

Our 81 non-traded REITs include all 70 of the 91 non-traded REITs filing their first Form 10-Ks with the SEC after January 1, 2000, for which data were available to calculate returns. Thirty have listed or merged or been acquired by a REIT and another 40 have published updated NAVs. Of the remaining 21 non-traded REITs, two stopped filing Form 10-Ks but there was not enough information for us to determine what became of them, and 19 were still in the capital raise period and had not updated their NAVs by May 1, 2015. We add 11 non-traded REITs that started filing Form 10-Ks before 2000 and had a liquidity event.

Non-traded REIT investors pay up-front fees that average 13.2 percent and dramatically reduce the capital available to purchase portfolio holdings. Non-traded REIT offerings are sold primarily to retail investors

through an affiliated dealer-manager. The REIT compensates the dealer-manager with commissions that are large percentages of the offering proceeds. Across the 81 non-traded REITs, selling commissions range from 3 percent to 7.50 percent and average 6.96 percent. Very few broker-sold mutual funds charge more than a 5-percent sales load and mutual fund breakpoints ensure that sales loads decline significantly with the size of an investment. Also, directly comparable traded REITs can be purchased in secondary market transactions at minimal commissions. Thus, sponsors pay brokers and advisors extraordinarily high commissions, charged to investors through the offering costs, to recommend and sell non-traded REITs rather than other forms of real estate exposure.

Non-traded REITs' Returns are Inexcusably Bad

We compare the market value of each of the 81 non-traded REITs as of the liquidity event or the latest share-price update for REITs that are still non-traded to the market value investors would have if they had made the same investments and received the same distributions from the Vanguard REIT Index Fund (VGSIX). VGSIX is a passive, low-cost mutual fund that invests in a diversified portfolio of traded REITs. We compute the annualized internal rate of return on the non-traded REIT and traded REIT investments for each non-traded REIT.

The cumulative shortfall for the 81 non-traded REITs is \$45.5 billion. Investors' non-traded REIT holdings were worth \$89.7 billion, dramatically lower than the \$135.2 billion the same investments in traded REITs would have been worth. Non-traded REIT investors would have had

more than 50 percent more wealth had they invested in a diversified portfolio of traded REITs instead of the 81 non-traded REITs. The \$45.5 billion understates the true harm to investors in non-traded REITs because it counts a \$1 shortfall measured in 2001 the same as a \$1 shortfall measured in 2015. Bringing forward each non-traded REIT shortfall to May 29, 2015, at the returns to Vanguard's Short-Term Treasury Fund makes the shortfall \$47.9 billion as of May 29, 2015 (see table 2). Bringing forward the shortfalls at traded REIT returns makes the shortfall \$54.6 billion.

The shortfall as shown in table 2 is 40 percent for firms that have listed, 22 percent for firms that have merged into or been acquired by a REIT, and 37 percent for the 40 firms that have updated NAVs. This suggests that non-traded REITs that have underperformed the broad REIT market less are more likely to be acquisition targets than non-traded REITs that have performed much worse.

The \$45.5 billion wealth loss listed in table 2 results from non-traded REIT investors bearing similar real estate risk but earning much lower returns than traded REIT investors. An alternative perspective on these inexcusably bad risk-adjusted returns is to note that U.S. Treasury securities have earned the same returns as non-traded REITs but at much lower risk. Investors who invested more than \$116.2 billion in the 81 non-traded REITs received \$43.1 billion in distributions and had \$89.7 billion in value in the non-traded REIT shares at the time of a liquidity event or an updated NAV. The non-traded REIT investors thus had a net gain of \$16.6 billion. The same net investments would have had a gain of \$11.1 billion in Vanguard's Short-Term Treasury

Table 2: Comparison of Non-Traded and Traded REIT Accumulated Wealth (millions)

Event	Number	Non-Traded REITs	Traded REITs	Shortfall
Liquidity Events	41	\$53,556	\$77,808	\$24,252
Listing	18	\$23,338	\$38,839	\$15,501
Merger	23	\$30,218	\$38,969	\$8,751
Updated NAV	40	\$36,161	\$57,398	\$21,236
Total	81	\$89,717	\$135,206	\$45,488
With Short-Term Treasury returns				\$47,918
With traded REIT returns				\$54,636

Figure 1: Investors in Non-Traded REITs Earn Only Short-Term Treasury Returns (in billions)



Table 3: Summary of 81 Non-Traded REITs Internal Rates of Return

Name	Non-Traded REIT	Traded REIT
Minimum	-14.7%	-24.3%
25th Percentile	3.0%	7.5%
Mean	6.3%	11.6%
75th Percentile	9.3%	15.4%
Maximum	36.8%	25.4%
Aggregate Investment	4.0%	11.3%

Table 4: Effect of Up-Front Fees (millions)

Event	Up-Front Fees	Future Value of Invested Fees	Investor Shortfall
Liquidity Event	\$8,303	\$15,075	\$24,252
Updated NAV	\$6,092	\$10,261	\$21,236
	\$14,395	\$25,335	\$45,488

fund (VFISX), \$21.9 billion in Vanguard's Intermediate-Term Treasury fund (VFITX), \$37.6 billion in Vanguard's Long-Term Treasury fund (VUSTX), and \$62.1 billion in Vanguard's REIT Index Fund (VGSIX) (see figure 1).

The average non-traded REIT internal rate of return (IRR) is 6.3 percent, compared to 11.6 percent for the traded REITs. The non-traded REIT IRRs range from -14.7 percent to 36.8 percent, with an interquartile range of 6.3 percent (3.0 percent to 9.3 percent). The IRR of the aggregated non-traded REIT sample is 4.0 percent. The same cash-flow stream applied to a diversified, liquid portfolio of traded REITs would have generated an IRR of 11.3 percent. In other words,

investors in a liquid, diversified portfolio of traded REITs that exposes investors to the same underlying real estate market as the non-traded REITs received returns of 11.3 percent per year in comparison to the 4.0 percent returns earned in the non-traded REITs (see table 3).

The traded REIT IRR is more than the non-traded REIT IRR for 72 (86 percent) of the 81 non-traded REITs. The 12 non-traded REITs with higher IRRs than the traded REIT benchmark reflect cross-sectional variation in REIT returns and don't suggest an ability to pick non-traded REITs *ex ante* that will have higher *ex post* returns. VGSIX had between 97 and 139 individual REIT holdings at the start of each year from 1999 to 2014. Between 36 percent and

68 percent of the individual REITs held at the beginning of the year had higher returns than VGSIX over the following year. On average, 51.5 percent of the individual REITs beat the VGSIX in any given year and beating the index one year doesn't predict beating the index the following year. Thus, the evidence is that not even the best portfolio managers with the right incentives can reliably select individual REITs that will beat a diversified portfolio of REITs.

Unlike traded REITs, non-traded REITs offer virtually no secondary-market liquidity before their liquidity event. Returns on non-traded REITs returns should be higher than returns on traded REITs to compensate investors for illiquidity. Also, our benchmark contains more than 100 traded REITs and so is much less volatile than the average REIT. Thus investors in diversified portfolios of traded REITs bear less liquidity and market risk and earn substantially higher returns than investors in non-traded REITs.

Across the 81 non-traded REITs, investors paid \$14.4 billion in up-front fees, the majority of which compensated brokers. If instead of having been used to pay commissions and other offering costs, these up-front fees had been invested in the traded REIT benchmark they would have grown to \$25.3 billion by the liquidity event or latest NAV update when we determine the shortfall for each non-traded REIT. Thus, the high up-front fees explain 56 percent of the total investor shortfall of \$45.5 billion (see table 4).

Conflicts of Interest

Conflicts of interest permeate non-traded REITs. These conflicts of interest include portfolio managers affiliated with the sponsor, transactions with related parties, and governance structures ensuring absolute power and discretion to affiliated parties. Non-traded REITs compensate the affiliated portfolio manager with fees, including asset-based fees and incentive fees. Sponsors effectively determine how much REIT investors pay to the sponsor-owned firms for these services.

Table 5: Analysis of Fees Paid to External, Affiliated Advisors and Managers

Expenses (percent of annual revenue)	Prior Year	Year of Exchange Listing	Subsequent Year	Pre- to Post-Listing Change	t-statistic
Property Operating Costs	25.0%	22.8%	22.9%	-2.2%	-1.026
Management Expenses Paid to Affiliates	4.8%	3.2%	1.6%	-3.2%	-2.252
General & Administrative Expenses	7.3%	9.6%	8.1%	0.8%	0.939
Total Expenses	89.4%	82.2%	80.4%	-9.0%	-1.836

Non-traded REITs have corporate-control and governance structures that concentrate power and completely eliminate channels for investors to effect change or impose discipline on management. Top executives of the sponsors of non-traded REITs frequently own controlling interests in other business entities that serve as the portfolio manager and dealer-manager. By ensuring dispersed ownership across non-institutional investors, and maintaining control of every level of corporate decision-making (executive positions) and oversight (the board of directors), this structure effectively prevents any form of shareholder activism.

Although institutional investment in traded REITs is common, institutional investors almost never own material stakes in non-traded REITs. The absence of large, sophisticated investors ensures non-traded REITs are not subject to the same discipline shown to effectively discipline externally advised and managed traded REITs.

My co-authors and I analyzed Form 10-K filings for each of the 18 non-traded REITs that list their shares on major U.S. exchanges. From inception the 18 non-traded REITs select sponsor-affiliated advisors and portfolio managers, but 13 severed their advisory and management relationship with sponsor-affiliated firms on or before the listing date. This pattern suggests that capital markets view management that is independent of the sponsor and accountable only to the REIT's investors as important.

Institutional investors tend to invest only after non-traded REITs exchange listings.

Among the three instances where institutions invest in non-traded REITs before an exchange listing, the investments took place only after the internalization of advisory and management roles. These patterns are consistent with the view that among non-traded REITs, institutional investors do not function as activist investors capable of controlling conflicts of interest that arise through the use of sponsor-affiliated advisors and managers.

“Among the three instances where institutions invest in non-traded REITs before an exchange listing, the acquisitions took place only after the internalization of advisory and management roles.”

Operating expenses decline by an average of 9.0 percent of revenues around the exchange listing, and the decline is statistically significant at standard levels. The overall patterns are consistent with the view that, on average, payments to affiliates before the exchange listing exceed the cost structure required to efficiently operate the REIT. Some combination of the liquid secondary markets, institutional ownership, and reduced influence of sponsor-affiliated service providers forces reduced expenses (see table 5).

Discussion

Open-end funds from established mutual fund companies such as the Vanguard REIT Index (VGSIX), Nuveen Real Estate Securities (FREAX), and Fidelity Real Estate Investment Portfolio (FRESX)

provide investors with professional management with established track records, access to a wide variety of real estate markets, transparent pricing, large portfolios, and ready liquidity.

In addition, closed-end real estate funds such as Cohen & Steers Quality Income Realty (RQI), CBRE Clarion Global Real Estate Income (IGR), and Nuveen Real Estate Income Fund (JRS) typically own shares of traded REITs. REIT exchange-traded funds (ETFs) include Vanguard REIT ETF (VNQ), iShares' Dow Jones US Real Estate ETF (IYR), and iShares Cohen & Steers Realty ETF (ICF).

Rather than investing in real estate mutual funds or ETFs, retail investors can purchase shares issued by individual traded REITs. REITs tend to be less diversified than real estate mutual funds and ETFs, but they can be used for targeted exposure to particular geographic regions or asset classes within the broader real estate market.

Non-traded REITs underperform traded REITs by approximately 6.8 percent annually. Investors have lost \$45.5 billion investing in 81 non-traded REITs that have had liquidity events or updated their NAVs by January 30, 2015, rather than investing in low-cost, liquid, traded REITs. Approximately 56 percent of the underperformance is due to the up-front fees that primarily compensate salesmen. Non-traded REITs' operating performance predictably suffers from high fees paid by the sponsor in related-party transactions. The wealth transfer from investors to sponsors and their salesforce only survives because of the lack of price discovery. If there was an active market for

non-traded REIT shares, transaction prices would quickly reflect wasteful offering costs and inefficient management, making it impossible for brokers and investment advisors to continue to sell non-traded REITs.

Many retail investors add real estate exposure to their portfolios despite already having a leveraged and undiversified real estate investment in their own homes. What, if any, additional real estate exposure is suitable for investors depends on the extent to which alternative real estate investments are plagued by high costs, risks, and illiquidity.

Institutional investors' allocations and published literature provide useful guidelines on the level of appropriate real estate exposure for the typical investor. Pennachi and Rastad (2011) find that federal, state, and local government pension funds allocated an average of 3.1 percent to 6.5 percent of their total portfolios to U.S. real estate from 2000 to 2009. I have observed investors' portfolios with more than 50 percent invested in non-traded REITs as a result of

brokers and investment advisors' recommendations.

Brokers and investment advisors may have a good-faith basis for recommending that a client make a focused real estate investment, but they cannot justify a recommendation to purchase a non-traded REIT. Clients' interests clearly are better served by investments in low-cost, liquid mutual funds, closed-end funds, ETFs, and individual REITs managed by individuals with the expertise and incentives to construct diversified portfolios of the best real estate investments. ●

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Endnotes

1. See <http://www.dol.gov/ebsa/regs/conflictsofinterest.html>.

2. Code of Ethics and Standards of Professional Conduct, 2014, CFA Institute, www.cfapubs.org/doi/pdf/10.2469/ccb.v2014.n6.1 and *Rules of Conduct*, CFP Board, <https://www.cfp.net/for-cfp-professionals/professional-standards-enforcement/standards-of-professional-conduct/rules-of-conduct>.
3. See www.investor.lpl/events.cfm at 39:30 of 1:21:42.
4. The terms "full cycle" and "liquidity event," used in other direct participation programs as well, have more marketing than economic significance. Many non-traded REITs fail completely and they surely have gone full cycle, just to a different outcome. Nothing in the underlying exposures makes "full cycle" or "liquidity event" necessary or even meaningful concepts.

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