

Are REOCs a Good Vehicle for Private Equity Real Estate Funds?

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This article presents a comparative analysis of U.S. real estate operating companies' ("REOCs") performances versus U.S. real estate investment trust ("REIT"), direct real estate, and various fund indices over a 20 year period (1996Q1-2016Q4) and over seven years following the Global Financial Crisis (2010Q1-2016Q4). By looking back at the risk/return trade-off yielded by U.S. REOCs, it aims to make sense of the strategy applied by private equity managers who choose to focus on REOCs rather than equity REITs or direct real estate.

Since the early 1990s and the reform of the real estate investment trust ("REIT") regime, the number of listed U.S. equity REITs increased from 58 in 1990 to 184 in 2016, while their market capitalization grew from \$5.5 billion to 960 billion.¹

The phenomenal success of U.S. REITs has somewhat overshadowed the fact they are not the only listed equity instruments available to real estate investors. Parallel to REITs are non-REIT listed property companies ("LPCs") made up of home builders and real estate operating companies ("REOCs").

The emergence of private equity real estate over the last decade has put a new light on REOCs. REOCs can be combined in portfolios managed under the umbrella of private equity funds, and provide easy access to international markets. Prudential Real Estate Investors published in 2002 a report showcasing the

benefits of such investment approach. They write:

Private equity investing in real estate involves investing at the corporate entity level. The structure combines attractive high yield, asset appreciation and low volatility of real estate investing with the potential value creation and characteristics of traditional entity-level private equity investment.

This article presents a comparative analysis of U.S. REOCs' performances versus U.S. REITs, direct real estate and various fund indices over a 20 year period (1996Q1-2016Q4) and over seven years following the Global Financial Crisis (2010Q1-2016Q4).

By looking back at the risk/return trade-off yielded by U.S. REOCs, it aims to make sense of the strategy applied by private equity managers who choose to focus on REOCs rather than equity REITs or direct real estate. How can this strategy create value for investors?

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Past Research and Scope of this Study

There is almost no research available on U.S. REOCs. Unsurprisingly, the bulk of the academic research written on listed real estate deals with REITs. Only a few researchers have explored the differences between REITs and REOCs, and the idiosyncrasies of the latter as an asset class.

For instance, Delcoure and Dickens (2004) show that U.S. REITs and U.S. REOCs have different systematic risk levels even though both invest in real estate related assets. Niskanen and Falkenback (2012) look at European REITs and REOCs. They identify that REITs are significantly more liquid than REOCs, and thus a preferred investment vehicle. They explain that it might be due to restrictions regarding REIT ownership structure. Mulhofer (2013) shows that U.S. REIT returns reflect property income returns but not capital appreciation returns whereas U.S. REOCs show property appreciation dependence. More recently, Glascock et al. (2017) find that U.S. REITs and U.S. REOCs are not comparable enough to be direct substitutes for each other, thereby widening the number of public real estate securities than can be used by investors.

Data

As there is no recognized non-REIT LPC index, the choice of a REOC sample is important as a first step in the analysis. Academic studies customarily focus on REOCs included in the SNL database of U.S. real estate companies. As of December 2016, SNL universe includes 28 REOCs broken down into two sub-groups: Hotel REOCs (9) and other REOCs (19). A list of these two sub-groups is reported in Appendix 1. The right hand column presents the market capitalization weight in percentage of each REOC in its subgroup.

Unless otherwise mentioned, the term REOCs in the analysis thereafter refers to a market capitalization weighted index of all REOCs in SNL universe. The NCREIF Property Index (“NPI National”) is used as a proxy for direct estate. The MSCI U.S. REIT index is used to represent the U.S. equity REIT market. The four U.S. fund indices used in the second part of the analysis are provided by ANREV.

Analysis over Long Period

Over the 20 year period (1996Q1-2016Q4), REITs outperformed REOCs, NPI, and the S&P 500.

Table 2: All asset classes: 1996Q1-2016Q4

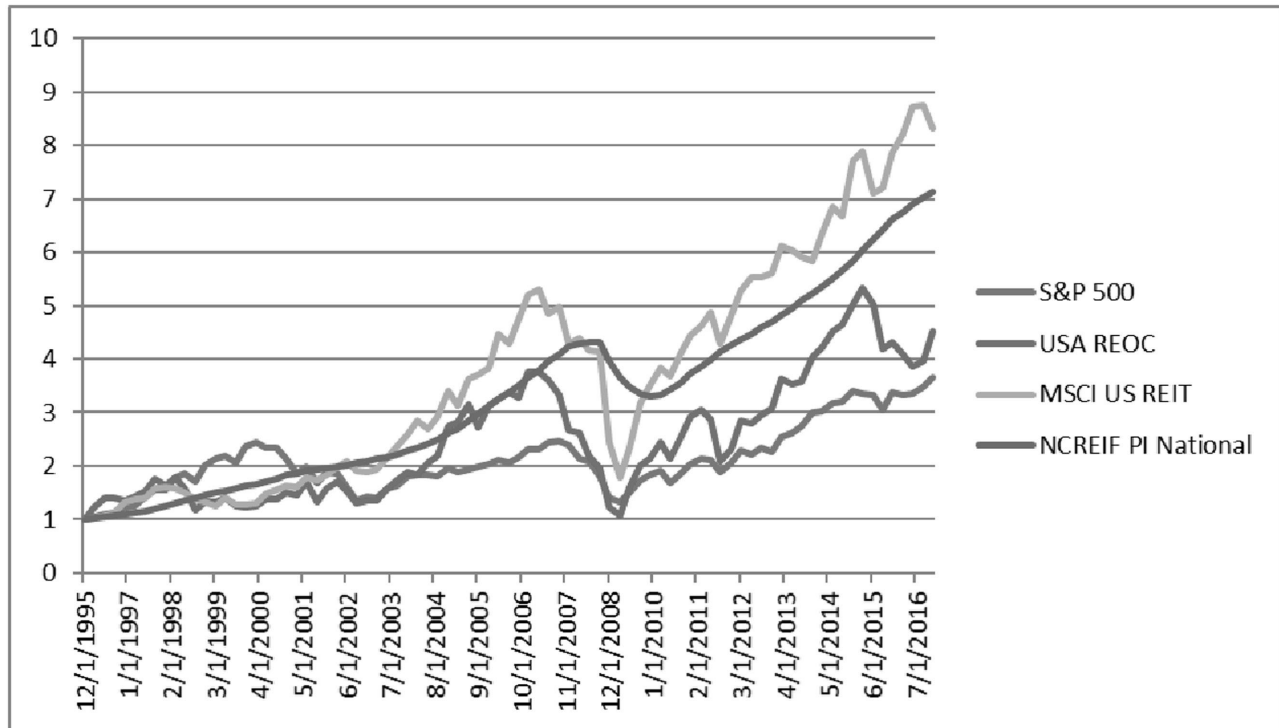
	REOCs*	U.S. REIT MSCI	NPI	S&P500
Average quarterly return	2.6983%	3.1152%	2.3934%	1.8745%
Standard deviation	0.1330	0.1037	0.0226	0.0799
Sharpe ratio	0.0338	0.0835	0.0640	(0.0469)

* based on SNL’s REOC coverage universe over the period. Risk free rate is based on three month TBill.

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In terms of risk/ return trade-off, REITs also outperformed REOCs and direct real estate.

Graph 1: Cumulative Returns (1996Q1-2016Q4)



Over the period, Other REOCs outperformed Hotel REOCs in terms of both absolute returns and Sharpe ratio.

Table 3: Hotel REOCs vs. Other REOCs (1996Q1-2016Q4)

	Hotel REOC*	Other REOC*
Average quarterly return	2.5428%	2.7027%
Standard deviation	0.1385	0.1351
Sharpe ratio	0.0212	0.0336

* based on Hotel REOC and Other REOC coverage universe in SNL database as of December 2016.

The 28 REOCs are then broken down into two subgroups based on market capitalization (as of December 2016):

- Large REOCs with a market capitalization larger than \$500 million, and

- Small REOCs with a market capitalization smaller than \$500 million.

As shown in Table 4, large REOCs' returns massively outperformed small REOCs. By the

same token, small REOCs' Sharpe ratio is negative and close to zero.

The second column extends the analysis for all U.S. REOCs once CBRE and Jones Lang Lasalle are taken out of the sample (26.8 percent and 13.44 percent of the other REOC

universe market capitalization respectively as of December 2016). In spite of a slight decrease in returns, the findings remain the same: large REOCs outperformed small REOCs, both as far as average quarterly returns and Sharpe ratio.

Table 4: Large REOCs vs. Small REOCs (1996Q1-2016Q4)

	Large cap REOC*	U.S. REOC ex CBRE, JLL	Small cap REOC**
Average quarterly return	2.7569%	2.6186%	2.0169%
Standard deviation	0.1352	0.1262	0.1628
Sharpe ratio	0.0375	0.0293	(0.0143)

* REOCs in SNL database with a market cap > \$500 Mln as of December 2016 (20 stocks).

** REOCs in SNL database with a market cap < \$500 Mln as of December 2016 (8 stocks).

Analysis Since the Global Financial Crisis

The study is then conducted over a seven year period post GFC (2010Q1-2016Q4).

Since 2010, REITs and REOCs have registered very similar returns, and outperformed direct estate (NPI) as well as the S&P 500.

Table 5: All Asset Classes (2010Q1-2016Q4)

	REOCs*	U.S. REIT MSCI	NPI	S&P500
Average quarterly return	3.3356%	3.3482%	2.8074%	2.6940%
Standard deviation	0.1123	0.0668	0.0075	0.0631
Sharpe ratio	0.2884	0.4865	3.5997	0.4114

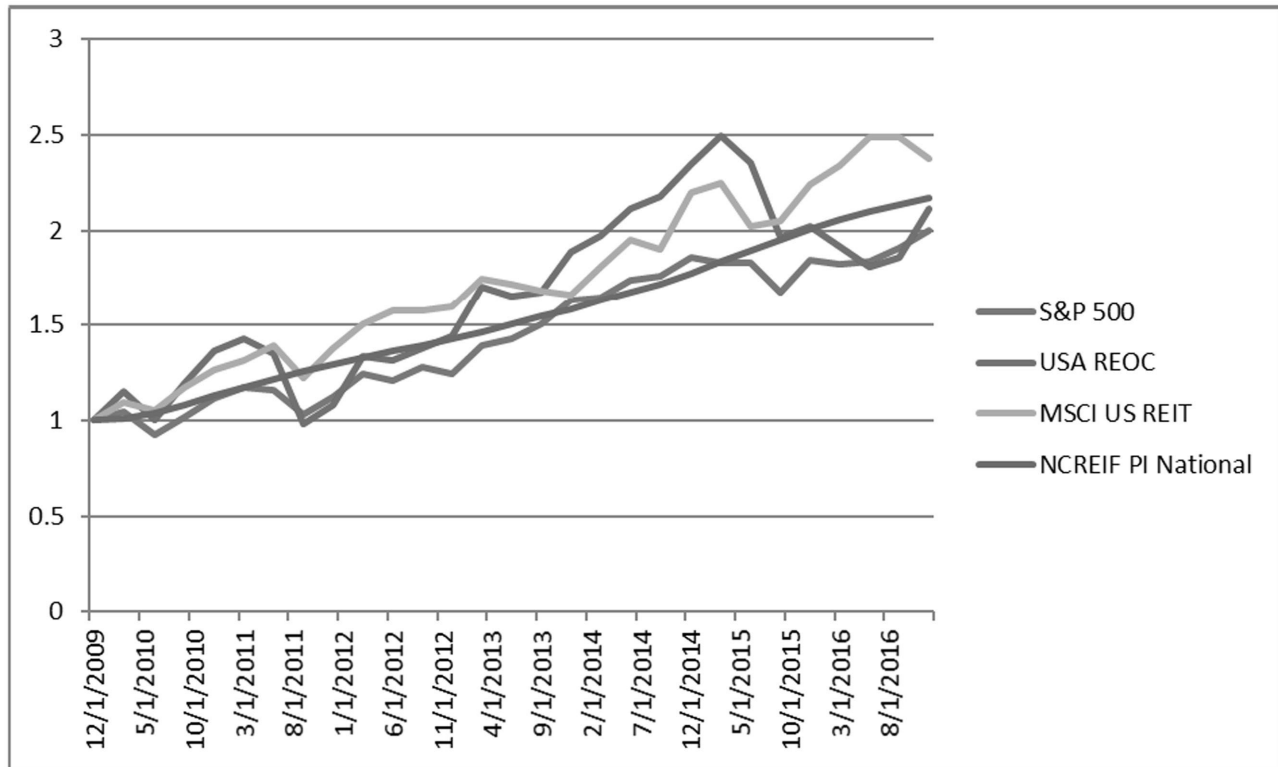
* based on SNL's REOC coverage universe as of December 2016.

However, due to direct real estate indices' inherent low volatility, the NPI dominates all other asset classes as measured by Sharpe ratios. REOCs are noticeably the most risky

among the four asset classes (i.e. REIT, REOC, direct real estate, equity), offering the less attractive risk/ return trade-off over the period.

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Graph 2: Cumulative Returns (2010Q1-2016Q4)



Four fund indices² are added to the analysis: U.S. funds, U.S. core funds, U.S. non-core funds, and U.S. open end funds.

Table 6: U.S. fund indices 2010Q1-2016Q4

	U.S. funds	U.S. core	U.S. non-core	U.S. open end
Average quarterly return	3.1428%	3.0240%	3.4804%	3.1309%
Standard deviation	0.0105	0.0098	0.0136	0.0105
Sharpe ratio	2.9280	2.9935	2.4870	2.8942

REOCs returns outperformed all U.S. fund indices, except U.S. non-core. However, they are dominated by real estate fund indices when based on Sharpe ratio. Among the four

fund indices, core funds deliver the best risk/return trade-off thanks to low volatility, whereas non-core funds' quarterly returns dominate the other three fund indices.

Optimal Investment Strategy

The previous analysis helps assess the relevance of private equity real estate funds investing in non-REIT listed real estate.

First, there is no definitive conclusion as far as REOCs' outperformance over REITs. From the two time periods in this study, we can only infer that performances depend on the period under study. Noticeably, investors who bet on REOCs following the GFC enjoyed very similar absolute returns to those who invested in equity REITs only.

Second, the underperformance of small REOCs over large REOCs gives a hint about how private equity can play a role in the REOC realm. Underperforming stocks with zero to negative excess returns are not attractive to investors. Hence, small REOC owners have no incentive to go public, but instead should aim to remain private until their companies reach a size large enough to be considered as large capitalization stocks by the market (a threshold of \$500 million market capitalization is applied here).

Hence, in accordance with the private equity industry's original model focused on corporate entities, private equity real estate fund managers can identify and accompany smaller REOCs, help them grow with equity capital, and ultimately choose to list them as exit strategy. The market pattern identified in this study over the last 20 years supports this strategy.

As devised by Prudential Real Estate Investors (2002), private equity can indeed provide a good investment vehicle for REOCs, thereby enabling investors to reap the benefits of both real estate and entity level private equity investment.

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APPENDIX 1: LIST OF REOCs IN SNL UNIVERSE AS OF DECEMBER 2016

Table A: Hotel REOCs

Trading Symbol	Company	Exchange	Country	Industry	Weight (%)
CHH	Choice Hotels International	NYSE	USA	REIT & Property Company	4.1058
STAY	Extended Stay America Inc.	NYSE	USA	REIT & Property Company	4.2489
HLT	Hilton Worldwide Holdings Inc	NYSE	USA	REIT & Property Company	34.0748
H	Hyatt Hotels Corp.	NYSE	USA	REIT & Property Company	1.7875
LQ	La Quinta Holdings	NYSE	USA	REIT & Property Company	1.8133
MAR	Marriott International Inc.	NASDAQ	USA	REIT & Property Company	40.8816
MHGC	Morgans Hotel Group	NASDAQ	USA	REIT & Property Company	0.1070
RLH	Red Lion Hotels Corp.	NYSE	USA	REIT & Property Company	0.2664
WYN	Wyndham Worldwide Corp.	NYSE	USA	REIT & Property Company	10.8026

SNL U.S. REOC Hotel: Includes all publicly traded (NYSE, NYSE MKT, NASDAQ, OTC) Hotel focused Real Estate Operating Companies in SNL's coverage universe.

Table B: Other REOCs

Trading Symbol	Company	Exchange	City	ST	Industry	Weight (%)
AIII	ACRE Realty Investors Inc.	NYSE MKT	New York	NY	REIT & Property Company	0.0688
ALEX	Alexander & Baldwin Inc.	NYSE	Honolulu	HI	REIT & Property Company	6.1522
ARL	American Realty Investors Inc.	NYSE	Dallas	TX	REIT & Property Company	0.3172
BKD	Brookdale Senior Living Inc.	NYSE	Brentwood	TN	REIT & Property Company	6.9516
CBG	CBRE Group Inc.	NYSE	Los Angeles	CA	REIT & Property Company	26.8001
CTO	Consolidated-Tomoka Land Co.	NYSE MKT	Daytona Beach	FL	REIT & Property Company	0.8786
HHC	Howard Hughes Corp.	NYSE	Dallas	TX	REIT & Property Company	13.1943
IOT	Income Opportunity Realty	NYSE MKT	Dallas	TX	REIT & Property Company	0.1000
JLL	Jones Lang LaSalle Inc.	NYSE	Chicago	IL	REIT & Property Company	13.4463
KW	Kennedy-Wilson Holdings Inc.	NYSE	Beverly Hills	CA	REIT & Property Company	7.1703
LMRK	Landmark Infrastructure Ptnrs	NASDAQ	El Segundo	CA	REIT & Property Company	0.9441
MMI	Marcus & Millichap Inc.	NYSE	Calabasas	CA	REIT & Property Company	2.7175

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Trading Symbol	Company	Exchange	City	ST	Industry	Weight (%)
	Marcus Corp.	NYSE	Milwaukee	WI	REIT & Property Company	1.5194
NHC	National HealthCare Corp.	NYSE MKT	Murfreesboro	TN	REIT & Property Company	3.0481
RMAX	RE/MAX Holdings Inc.	NYSE	Denver	CO	REIT & Property Company	2.3094
RLGY	Realogy Holdings Corp.	NYSE	Madison	NJ	REIT & Property Company	10.0584
JOE	St. Joe Co.	NYSE	Water-Sound	FL	REIT & Property Company	3.9469
TCI	Transcontinental Realty	NYSE	Dallas	TX	REIT & Property Company	0.3213
VLTC	Voltari Corp.	NASDAQ	New York	NY	REIT & Property Company	0.0555

SNL U.S. REOC Other: Includes all publicly traded (NYSE, NYSE MKT, NASDAQ, OTC) non-Hotel focused Real Estate Operating Companies in SNL's coverage universe.

NOTES:

¹Source: NAREIT.

²Source: ANREV.