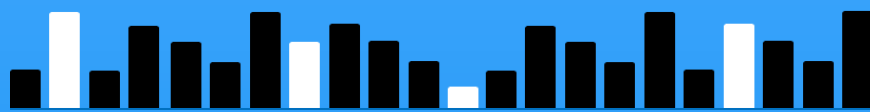


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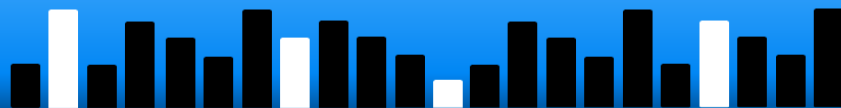


CRE Indexes

Introduction Summary August 2016

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CRE Indexes

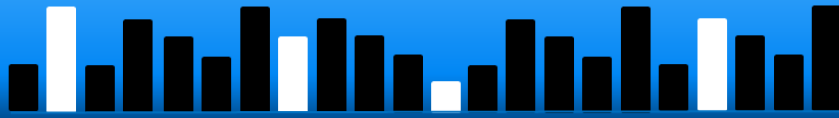
Background

Since the writings of Geltner and Fisher (1994 and 1995) regarding the data compiled by the Russell-NCREIF index beginning in 1978, the debate to construct a definitive real estate index and measure the commercial real estate market has been a constant. Additionally, interest in transactional indexes such as Moody's/RCA and the NPI/TBI have added even more thought and measurement to evaluate the overall performance of commercial real estate, constantly drawing comparisons amongst the numerous indexes at work.

With the advent of the FTSE -NAREIT index, further work has been done to measure commercial real estate through the public equity markets with many great scholars looking to draw comparison between the public and private markets. Notably, the equity market has gravitated to the MSCI index as popularized in an ETF format, with investments in excess of \$30 billion through Vanguard's REIT Index Fund.

Therefore, with these highly regarded Indices as measures of the commercial real estate in place, one would question the need for an additional index, and yet we have seen the emergence of the Pure Property Index, the NASDAQ ETRE indexes, and many others that seek to define the market; as MCSI has stated, "creating a liquid index that represents the performance of a direct real estate index is notoriously difficult."

ADVANCED FUNDAMENTALS



CRE Indexes

Advanced Fundamental CRE Indexes

The Advanced Fundamental CRE Indexes measure real time changes in total returns across various sectors of the commercial real estate market to support hedging, benchmarking, and portfolio allocation strategies for both public and private real estate investors.

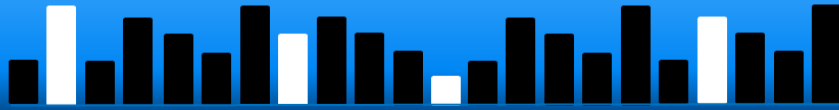
Residential ♦ Office ♦ Retail ♦ Hospitality ♦ Composite

Indexes are priced using real-time public market data that aggregates over \$600 billion in property values, measuring unlevered returns in commodity pricing such as \$/Sqft, \$/Key, and \$/Unit.

In defining the Advanced Fundamentals CRE indexes, the investment strategy was to construct indexes relative to unlevered returns of the NPI using fully transparent and liquid securities from the public equity markets. The mainstay of the methodology was to develop an independent structure that was not reliant on a “solve to” approach or presets.

The AF Indices are based on the premise that if the results were meaningful, the AF indexes would support the NPI in a “highly correlated manner” leading the inherent lag period associated with the NPI appraisal process and incorporating the benefit of the AF real time measurement in timing and liquidity without excessive volatility and outside market influences.

ADVANCED FUNDAMENTALS



CRE Indexes

Structured Products

Funds

Using the Advanced Fundamentals index methodology, investors can realize unlevered NPI based comparable returns typically available through private market real estate, yet with the timing, transparency, and liquidity that public market securities funds offer. Furthermore, investors will be able to control their sector allocation and leverage approach, providing customizable alpha strategies.

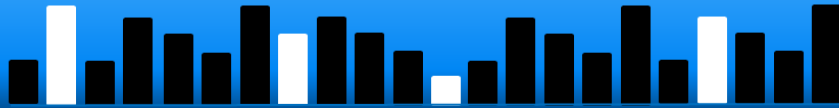
Derivatives

The Advanced Fundamental CRE Indexes will enable the trading of real estate derivatives in the form of swaps, futures, and options.

While most asset classes (equities, fixed income, commodities) have derivatives markets that dwarf the underlying markets, the real estate derivatives market in the United States is almost nonexistent. The reason for this is simply that a true, real-time valuation measurement index to provide the transparency and correlations required for widespread use and adoption did not exist until now.

With the introduction of the Advanced Fundamentals structured products, the real estate derivatives market could quickly grow to a notional value in the trillions of dollars.

ADVANCED FUNDAMENTALS



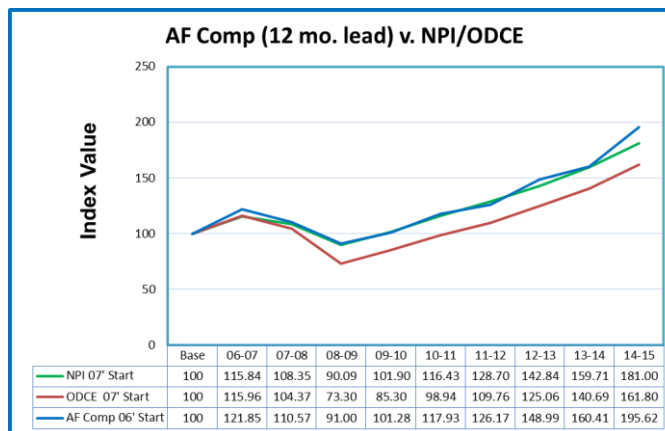
CRE Indexes

Index Correlations

Annualized Return											
Year	AF Res	NCREIF Res	AF Hosp	NCREIF Hosp	AF Office	NCREIF Office	AF Retail	NCREIF Retail	AF Comp	NPI	ODCE
2006	28.7%	14.6%	36.9%	23.6%	24.1%	19.1%	11.7%	13.3%	21.9%	16.6%	16.3%
2007	-12.1%	11.4%	-0.5%	18.1%	-7.5%	20.5%	-11.5%	13.5%	-9.3%	15.8%	16.0%
2008	-8.0%	-7.3%	-27.5%	-9.4%	-17.6%	-7.3%	-20.0%	-4.1%	-17.7%	-6.5%	-10.0%
2009	13.9%	-17.5%	17.6%	-20.4%	8.0%	-19.1%	10.0%	-10.9%	11.3%	-16.9%	-29.8%
2010	24.5%	18.2%	26.7%	9.0%	11.6%	11.7%	11.8%	12.6%	16.4%	13.1%	16.4%
2011	12.3%	15.5%	-2.7%	11.8%	-2.0%	13.8%	12.7%	13.8%	7.0%	14.3%	16.0%
2012	13.9%	11.2%	15.6%	8.3%	14.6%	9.5%	24.2%	11.6%	18.1%	10.5%	10.9%
2013	1.2%	10.4%	15.3%	7.7%	5.7%	9.9%	10.7%	12.9%	7.7%	11.0%	13.9%
2014	24.0%	10.3%	21.8%	11.1%	16.6%	11.5%	23.6%	13.1%	21.9%	11.8%	12.5%
2015	11.9%	12.0%	-6.9%	13.2%	7.7%	12.5%	11.1%	15.3%	8.4%	13.3%	15.0%
Correlation		0.308		0.301		0.275		0.382		0.302	0.262
Leading Correlation		0.792		0.905		0.912		0.943		0.943	0.931

Index Return											
Year	AF Res	NCREIF Res	AF Hosp	NCREIF Hosp	AF Office	NCREIF Office	AF Retail	NCREIF Retail	AF Comp	NPI	ODCE
Base	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
2006	128.71	114.63	136.95	123.57	124.06	119.15	111.74	113.35	121.85	116.59	116.32
2007	113.17	127.65	136.24	145.94	114.71	143.59	98.90	128.66	110.57	135.05	134.89
2008	104.12	118.33	98.80	132.29	94.47	133.12	79.10	123.36	91.00	126.33	121.40
2009	118.54	97.62	116.17	105.30	102.05	107.70	87.00	109.85	101.28	105.03	85.27
2010	147.54	115.39	147.16	114.73	113.85	120.34	97.24	123.72	117.93	118.80	99.22
2011	165.71	133.22	143.19	128.26	111.57	136.90	109.59	140.75	126.17	135.74	115.08
2012	188.82	148.20	165.47	138.84	127.86	149.89	136.13	157.08	148.99	150.06	127.68
2013	191.13	163.63	190.75	149.52	135.21	164.67	150.72	177.28	160.41	166.54	145.48
2014	237.02	180.48	232.28	166.05	157.70	183.60	186.34	200.56	195.62	186.21	163.65
2015	265.28	202.11	216.36	188.00	169.80	206.56	207.04	231.19	211.98	211.02	188.21
Correlation		0.941		0.804		0.894		0.966		0.947	0.869
Leading Correlation		0.985		0.966		0.965		0.970		0.993	0.976

- Leading Correlation= 12 month lead period: ie. 2006 AF Composite vs 2007 NCREIF returns
- NPI= NCREIF Property Index
- ODCE = NCREIF Fund Index- Open End Diversified Core



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