Oklahoma Police Pension & Retirement System

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Investment Performance Review

December 31, 2017

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Global Long-Only Equity

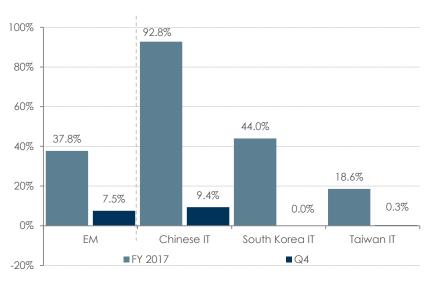
Global equity markets ended 4Q-17 much like they began the year with strong positive returns for most markets. Overall, the period can be summarized as "much of the same" from what occurred earlier in 2017. In particular, Growth stocks tended to outpace Value stocks as the outlook for economic growth and expansion continued to carry the market.

Although somewhat decelerated, **International Developed and Emerging Market indices continued to show growth** in the most recent quarter. Information Technology, a key driver of full-year results, continued to contribute, albeit at a more muted level. In particular, Asian technology names, most notably in China and South Korea, grew at a more subdued pace following outsized gains earlier in the year.

On the domestic side, Large Cap indices exhibited **positive performance from all sectors in 4Q-17** with the IT, Financials, and Consumer Discretionary sectors being top contributors. After a strong 2017, most major **US Large Cap indices** ended the year **near all-time highs**. Valuations continued to be elevated as price movements outpaced earnings growth.

Domestic Small Caps advanced again in the quarter as Federal tax reform came to fruition. The reform is expected to have an outsized benefit to smaller companies as revenues tend to be largely generated within the US and fewer opportunities exist for tax sheltering and engineering. The outlook for these changes from Washington boosted stocks throughout the year, but it was momentum and Biotechs that led the rally for Small Caps in 2017 and contributed to the divide between growth and value.

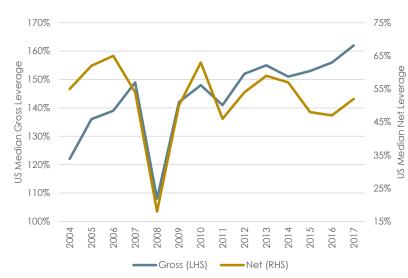
Asian Tech Slows in 4Q After Strong 2017



Sources: Bloomberg, ACG Research

Global Long/Short Equity

US Equity Long/Short Leverage at Year-End



Sources: Morgan Stanley Prime Brokerage, ACG Research

Market **volatility** continues to be at **historical lows**. As measured by VIX, volatility dropped to another all-time low in November. Since 1990 VIX has had only 61 days of single digit readings, and 52 of those days have been in 2017. This muted volatility is not expected to persist, but in the meantime investors show little caution as the market continues to hit new highs.

Managers are excited about the equity opportunity set as the end of 2017 saw the US gross exposure rise to the highest year-end level on record. This trend also pushed net exposure up above the historical average. This is a reversal of the shift out of US into Europe that occurred earlier in 2017, partially driven by the market's positive reaction to US income tax changes. Investors anticipate improved corporate profitability and economic growth (as indicated by the Bloomberg Economic Surprise index which hit a peak level since 1997).

Long term growth opportunities continue **in Europe** (despite the temporary shift noted above). Eurozone consumer confidence remains high and we anticipate this to remain an area of opportunity for the foreseeable future.

M&A activity, which had stalled somewhat as companies waited to see how the tax changes played out, **has now increased**. This is a positive indicator for event driven managers who have been eagerly anticipating this opportunity.

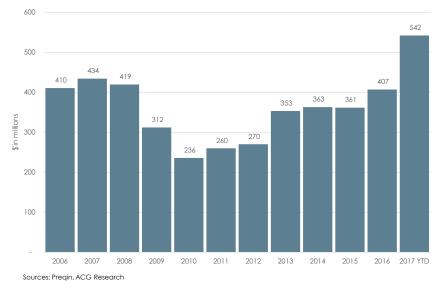
Global Private Equity

Much like public market valuations, prices remain high for new deals in private markets. The **median acquisition price for a private equity-backed company purchased through 3Q-2017 was 10.6x EBITDA**. This is up from 10.0x EBITDA in 2016, and higher than the transaction multiples of 2007, the end of the last buyout boom. Although purchase price multiples are a full turn higher than 2007, the composition of the price is much different today. The average buyout in 2007 was financed with 69% debt compared to the 55% debt used in buyouts completed through September 2017.

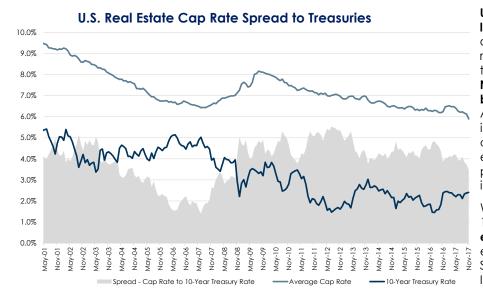
Late 2017 produced historic tax reform legislation. New **limitations on the deductibility** of interest expenses are likely to reduce available leverage for weak and cyclical companies. It appears that private equity industry participants escaped relatively unscathed. An often targeted provision allowing for general partners' carried interest to be taxed at long-term capital gains rates remained unchanged except for the extension of the required holding period from one to three years.

Strong investor appetite for private equity funds led to continued fundraising success for the industry in 2017. Through October, private equity vehicles closed in 2017 raised \$406 billion, surpassing the \$403 billion raised by funds closed in all of 2016. Fund managers are also raising larger vehicles; the average size of vehicles closed in 2017 was \$542 million, significantly higher than the previous peak of \$434 million for funds closed in 2007.

Average Size of Private Equity Funds Closed



Global Real Assets



Sources: Bloomberg, Real Capital Analytics, ACG Research

US real estate assets continue to benefit from a solid economic outlook and generally low new supply. Occupancy rates hover at or above peak levels from prior cycles and landlords are aggressively pushing rental rates upward. Another year of positive returns pushed cap rates to the lowest point in 20 years. The 10-year treasury ended the year yielding 2.41%, a mere 4 basis points lower (bps) than where it started. Through November of 2017, real estate cap rates fell 58 bps to end at 5.89%. The spread between the 10-year yield and cap rates tightened by 54 bps over the same period. As we enter the ninth calendar year of the real estate recovery and expansion, investors look for signs that the cycle is near its end. For now, a benign capital markets outlook plus a balanced supply and demand position provide no signs of an imminent end to this cycle. However, investors should be leery of late cycle behavior as market participants sometimes stretch their underwriting assumptions and forward projections in a reach for outsized returns that may no longer be available.

While positive, the Bloomberg Commodity Index (BCOM) generated an unimpressive 1.7% during 2017. However, there are many signs that point to an attractive return environment for commodities in 2018. First, the Energy and Livestock complexes ended the year in backwardation, indicating markets that are under-supplied. Second, Industrial Metals, highly sensitive to global GDP growth, should benefit if the IMF's 2018 projection of 3.7% is achieved. Lastly, a mean reversion in public market volatility could be a tailwind for precious metals in 2018.

Global Traditional Bond Markets

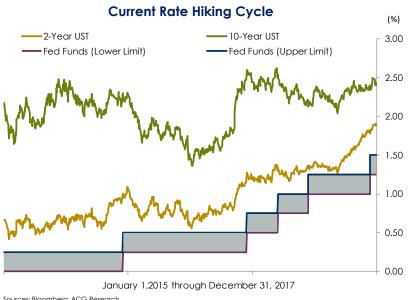
Having undershot their own expectations in 2015 and 2016, the Federal Reserve achieved its projected path of normalization for the year. The 25 bps hike in mid-December was welltelegraphed and completely expected by market participants. Along with escalating levels of balance sheet reduction, the "dots plot" continues to project three more quarterpoint hikes in 2018. The **US Treasury market adjusted meaningfully** throughout 4Q-17. Even as the passage of tax reform helped to push longer-term rates moderately higher in the final weeks of the year, the domestic yield curve continued to flatten overall as two-year rates continued their steady advance. An inflation surprise to the upside, resulting in more restrictive central bank policy, remains a tail risk that could prompt a shift in asset prices.

The **BloomBar Aggregate** dropped off its prior pace, but ended positive for the quarter. IG corporate issues continued to lead as credit spreads ended the year at post-crisis tights.

High Yield provided investors with excess return, even as negative price moves consumed more than two-thirds of coupon income. Spreads contracted more than 65 bps tighter throughout 2017, and careful security selection is warranted with sub-6.0% yields overall.

Municipal Bonds experienced technical volatility due to evolving tax proposals. Potentially at-risk issuers raced to market with supply, and managers repositioned to take advantage. Total returns were ultimately positive, and yields remain attractive on a tax-adjusted basis.

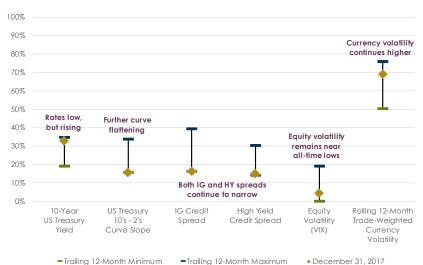
Unhedged Global government bonds outperformed domestic counterparts as the US dollar's decline aided returns. Outcomes in **Emerging Markets** remained particularly solid.



Sources: Bloomberg, ACG Research

Global Nontraditional Fixed Income

Percentile Rankings of Observations for Past 15-Years



Sources: Bloomberg, ACG Research

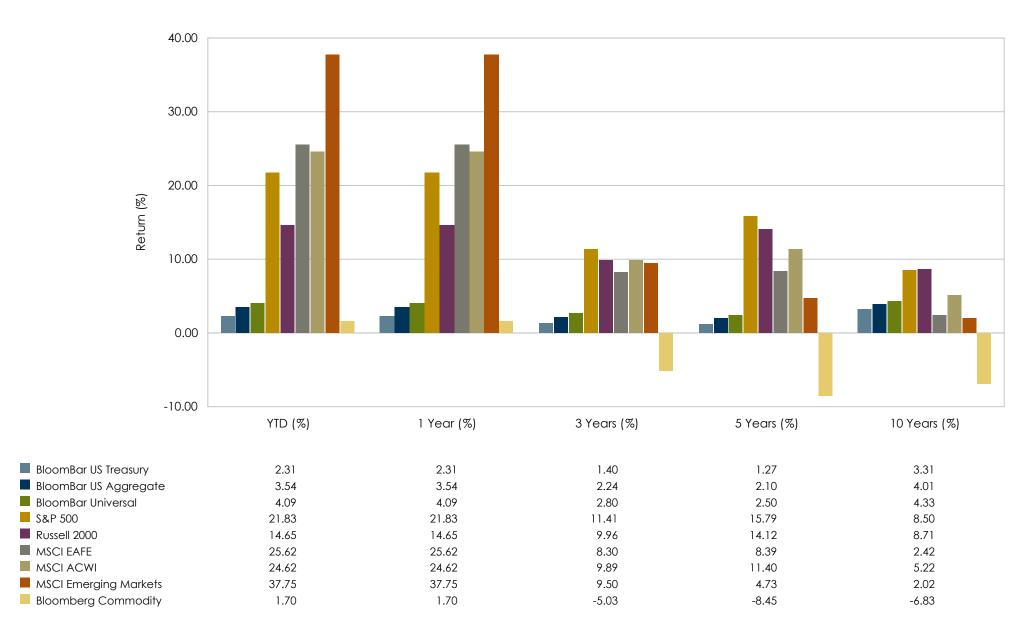
Liquid Absolute Return strategies produced mixed results in 4Q-17, but collectively outperformed traditional bond benchmarks. The diversification of risk factors within portfolios remains valuable, as this aids in downside protection and reduces key correlations. Full-year 2017 returns were comfortably within the commonly referenced 90-Day T-Bills +3% to +6% objective. The potential for enhanced volatility in rates, spreads, and currency should provide **opportunities** for tactical managers with a wide range of implementation options.

Alternative investment managers earn their keep when beta-driven investment opportunities become scarce. As investors contemplate limited beta opportunities in the maturing credit cycle, idiosyncratic alpha generation will be key. Coanizant of the risks of extended valuations, absolute return managers have communicated a willingness to remain invested, on the long side, but with attention to asset quality. While idiosyncratic opportunities have so far been limited by market buoyancy, we expect absolute return managers will find increasing opportunities in challenged sectors of the market if valuations stretch higher.

Private Credit strategies (typically 5-10-year terms) offer the opportunity to earn both a credit spread and an illiquidity premium versus publicly traded fixed income strategies. Fundraising in the sector remains strong with Pregin reporting 25 private debt funds held a final close on \$20 billion of commitments in 3Q. Continuing the theme of traditional banks leaving non-core business lines, direct lending strategies enjoyed the greatest fundraising success. Of note, borrowers will find high leverage debt capital less attractive from an after-tax perspective due to the 30% cap on interest deductibility contained in the new tax rules. In this environment, high leverage lenders are likely to feel the squeeze from a reduction in borrower demand.

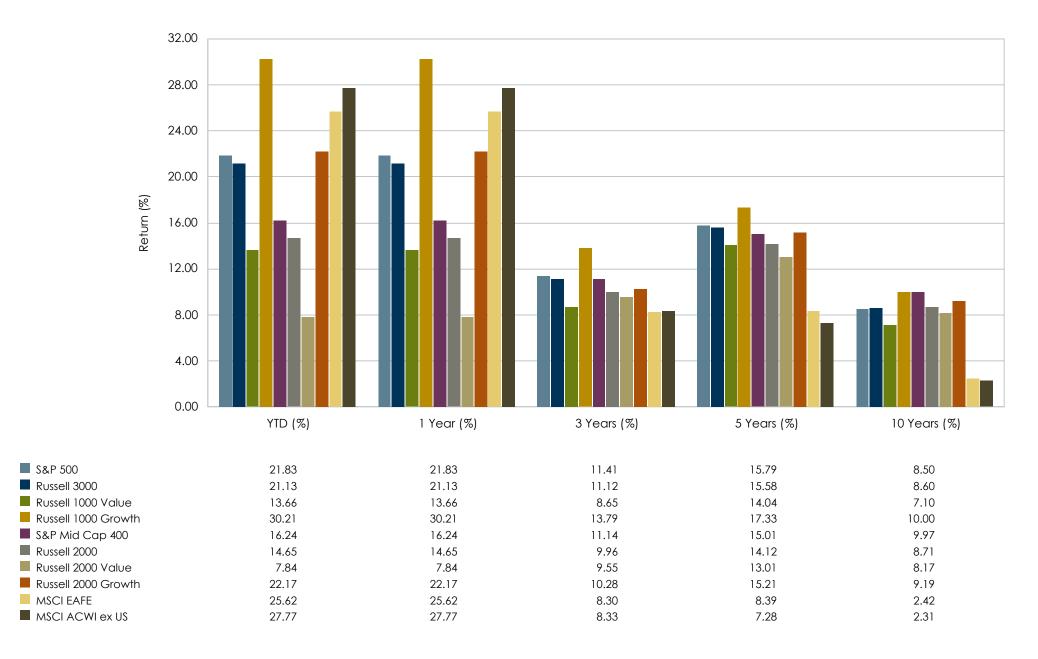
Market Environment

For the Periods Ending December 31, 2017



Equity Index Returns

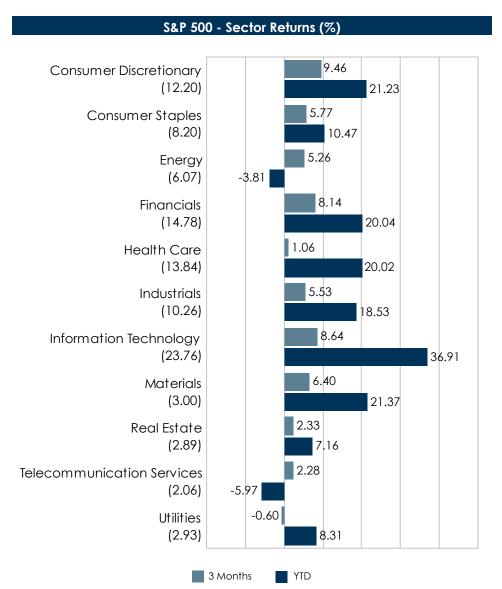
For the Periods Ending December 31, 2017

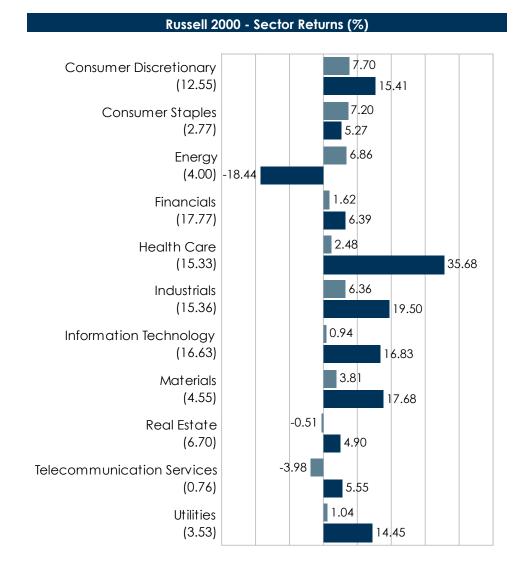


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US Markets - Performance Breakdown

For the Periods Ending December 31, 2017



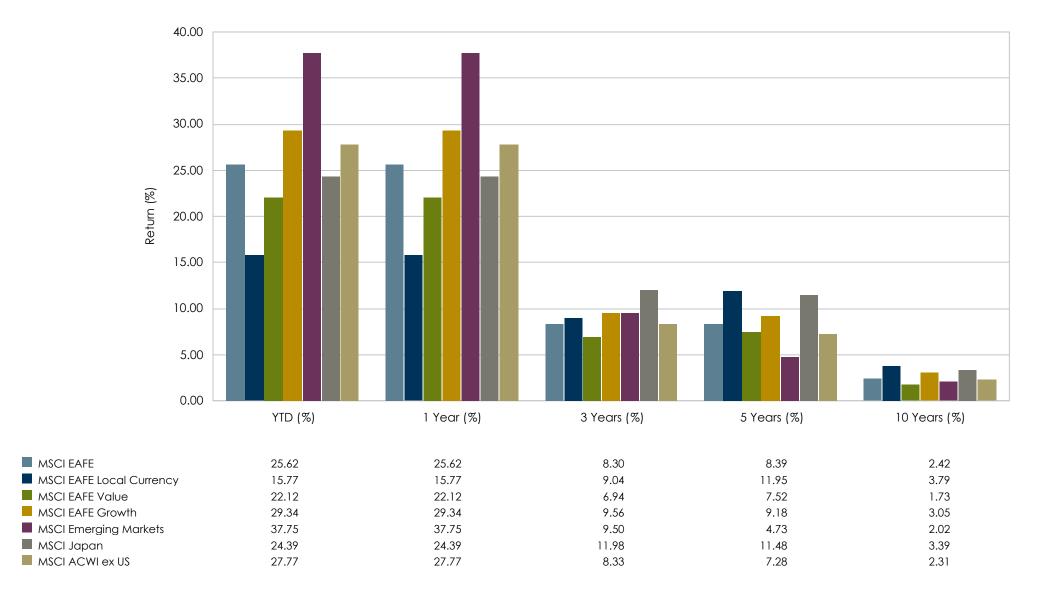


Numbers in parenthesis represent sector weightings of the index. Sector weights may not add to 100% due to rounding or securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

Source: ACG Research, Bloomberg

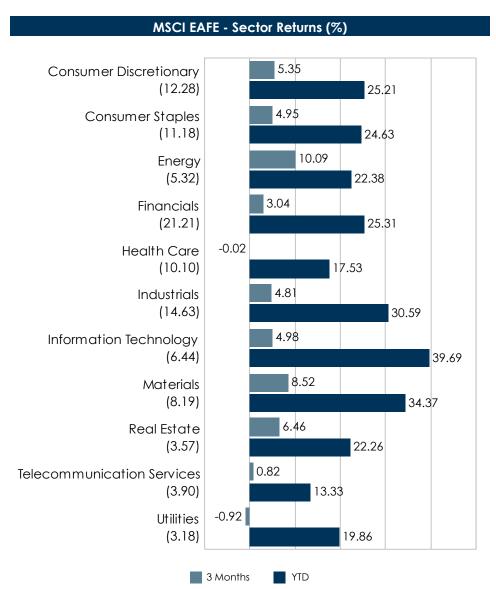
Non-US Equity Index Returns

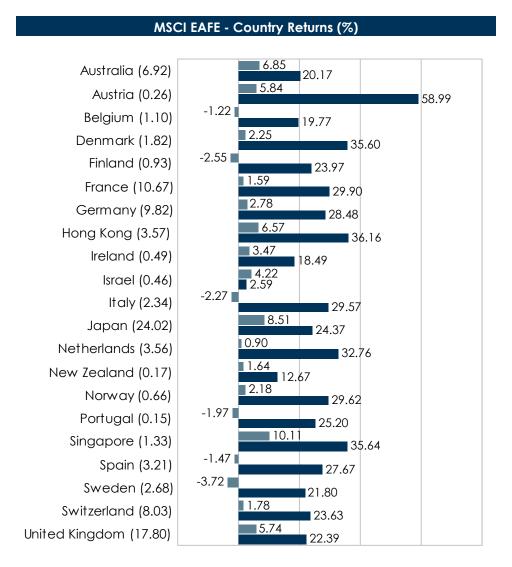
For the Periods Ending December 31, 2017



Non-US Equity - Performance Breakdown

For the Periods Ending December 31, 2017

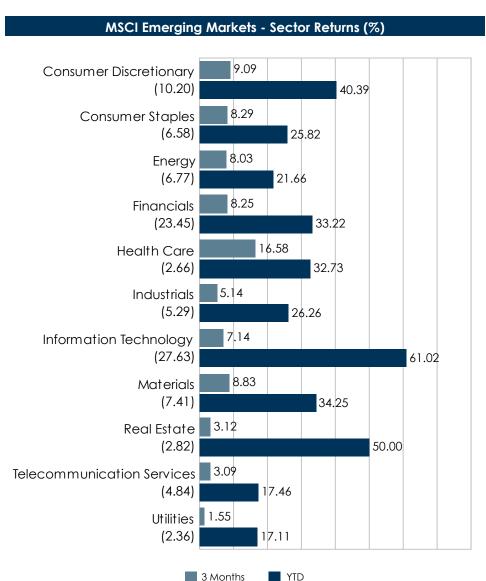




Numbers in parenthesis represent sector or country weights of the index. Sector or country weights may not add to 100% due to rounding.

Emerging Markets - Performance Breakdown

For the Periods Ending December 31, 2017



Brazil (6.81) 24.47 7.33 Chile (1.25) 43.56 7.61 China (29.67) **■** 54.33 0.80 Colombia (0.41) 16.29 7.75 Czech Republic (0.18) 38.92 -2.11 Egypt (0.11) 5.21 13.56 Greece (0.33) 7.07 Hungary (0.33) 39.95 11.82 India (8.77) 38.76 8.28 Indonesia (2.24) 24.80 7.85 Malaysia (2.36) 25.05 -8.02 Mexico (2.93) 16.26 -5.23 Pakistan (0.08) -23.84 7.27 Peru (0.38) 38.40 Philippines (1.13) 25.18 5.78 Poland (1.33) **■** 55.30 4.64 Qatar (0.56) -11.52 **■** 4.46 6.12 Russia (3.33) 121.46 South Africa (7.12) 36.87 11.64 South Korea (15.39) 4.02 Taiwan (11.27) 28.50 9.47 Thailand (2.28) 34.92

Turkey (1.07)

United Arab Emirates (0.65)

4.36

2.93

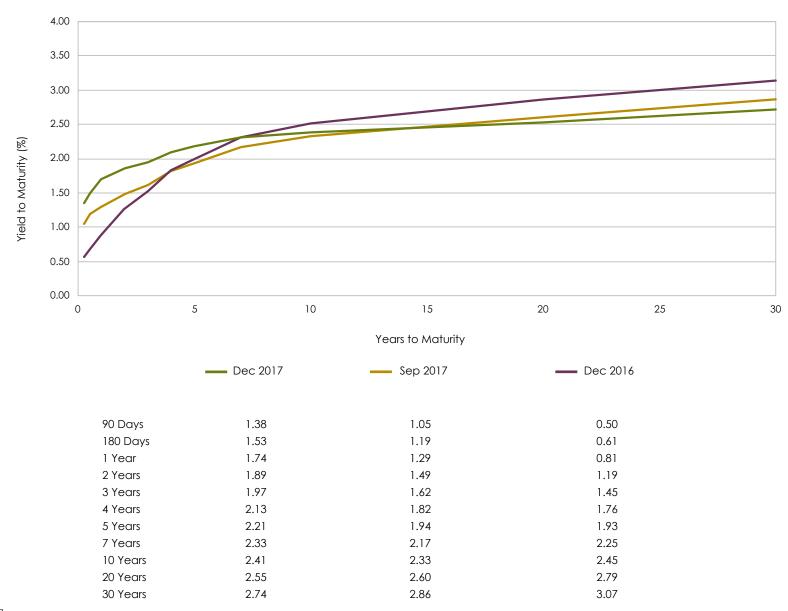
39.09

MSCI Emerging Markets - Country Returns (%)

Numbers in parenthesis represent sector or country weights of the index. Sector or country weights may not add to 100% due to rounding.

Interest Rate Term Structure

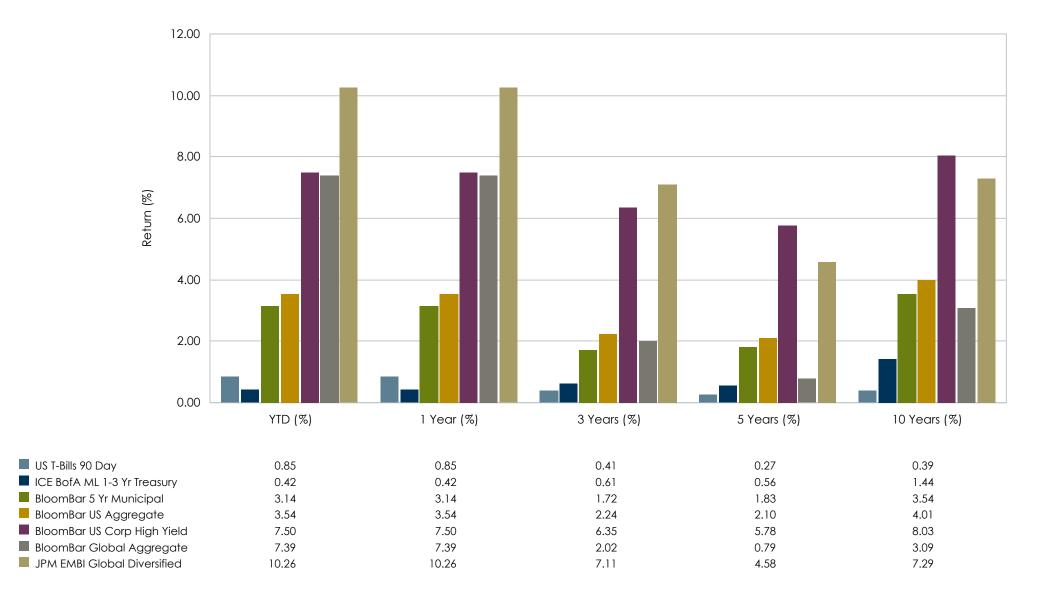
Government Issues - 3 Months to 30 Years Maturity



Source: Bloomberg

Fixed Income Index Returns

For the Periods Ending December 31, 2017



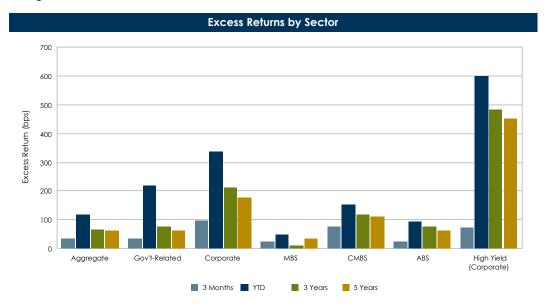
US Fixed Income Market Environment

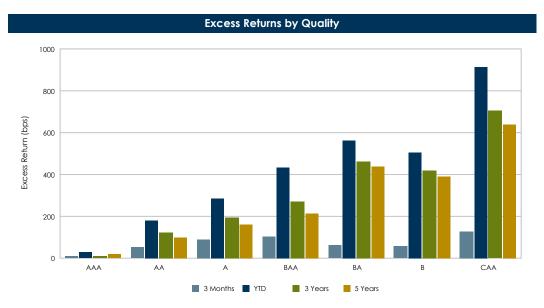
For the Periods Ending December 31, 2017

Nominal Returns By Sector (%)						
	3 Months	YTD	3 Years	<u>5 Years</u>		
US Aggregate	0.39	3.55	2.25	2.14		
US Treasury	0.05	2.30	1.39	1.26		
US Agg: Gov't-Related	0.30	4.17	2.15	1.94		
US Corporate IG	1.16	6.43	3.90	3.49		
MBS	0.16	2.49	1.89	2.04		
CMBS	0.35	3.35	2.54	2.34		
ABS	-0.01	1.56	1.60	1.37		
US Corp High Yield	0.46	7.50	6.36	5.78		

Nominal Returns by Quality (%)							
	3 Months	YTD	3 Years	<u> 5 Years</u>			
AAA	0.09	2.42	1.64	1.61			
AA	0.61	4.25	2.78	2.45			
Α	1.14	5.97	3.70	3.31			
BAA	1.23	7.45	4.08	3.65			
BA	0.39	7.31	6.20	5.80			
В	0.37	6.50	5.53	5.05			
CAA	1.02	10.39	8.46	7.50			

Nominal Returns by Maturity (%)							
	3 Months	<u>YTD</u>	3 Years	<u> 5 Years</u>			
1-3 Yr.	-0.20	0.86	0.95	0.82			
3-5 Yr.	-0.36	1.77	1.78	1.46			
5-7 Yr.	-0.11	2.58	1.92	1.58			
7-10 Yr.	0.30	3.51	2.32	2.03			
10+ Yr.	2.83	10.47	4.46	4.02			





Source: Bloomberg

Excess returns are relative to the duration-neutral Treasury.

Monthly Index Returns

For the Periods Ending December 31, 2017

Index Name	3 Months (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
Equity							
S&P 500	6.64	21.83	21.83	11.41	15.79	13.76	8.50
Russell 1000	6.59	21.69	21.69	11.23	15.71	13.66	8.59
Russell 1000 Growth	7.86	30.21	30.21	13.79	17.33	14.81	10.00
Russell 1000 Value	5.33	13.66	13.66	8.65	14.04	12.46	7.10
Russell 2500	5.24	16.81	16.81	10.07	14.33	12.25	9.22
Russell 2000	3.34	14.65	14.65	9.96	14.12	11.62	8.71
Russell 2000 Growth	4.59	22.17	22.17	10.28	15.21	12.34	9.19
Russell 2000 Value	2.05	7.84	7.84	9.55	13.01	10.84	8.17
Wilshire 5000 Cap Wtd	6.39	20.99	20.99	11.36	15.67	13.50	8.64
MSCI ACWI	5.84	24.62	24.62	9.89	11.40	9.32	5.22
MSCI ACWI ex US	5.06	27.77	27.77	8.33	7.28	5.41	2.31
MSCI EAFE	4.27	25.62	25.62	8.30	8.39	6.53	2.42
MSCI EAFE Local Currency	3.71	15.77	15.77	9.04	11.95	9.01	3.79
MSCI EAFE Growth	5.27	29.34	29.34	9.56	9.18	6.99	3.05
MSCI EAFE Value	3.28	22.12	22.12	6.94	7.52	6.00	1.73
MSCI Emerging Markets	7.50	37.75	37.75	9.50	4.73	2.92	2.02
Fixed Income							
ICE BofA ML 1-3 Yr Treasury	-0.25	0.42	0.42	0.61	0.56	0.69	1.44
BloomBar 5 Yr Municipal	-0.70	3.14	3.14	1.72	1.83	2.70	3.54
BloomBar US Aggregate	0.39	3.54	3.54	2.24	2.10	3.20	4.01
BloomBar Gov't Bond	0.05	2.30	2.30	1.40	1.28	2.45	3.23
BloomBar US Credit	1.05	6.18	6.18	3.63	3.24	4.81	5.42
BloomBar 10 Yr Municipal	0.52	5.83	5.83	3.13	3.13	4.76	4.86
BloomBar US Corp High Yield	0.47	7.50	7.50	6.35	5.78	7.04	8.03
Citigroup World Govt Bond	1.04	7.49	7.49	1.74	0.12	1.21	2.67
BloomBar Global Aggregate	1.08	7.39	7.39	2.02	0.79	1.97	3.09
BloomBar Multiverse	1.06	7.69	7.69	2.31	1.03	2.20	3.29
JPM EMBI Global Diversified	1.16	10.26	10.26	7.11	4.58	6.72	7.29
Real Assets							
NCREIF Property	1.80	6.98	6.98	9.39	10.19	10.81	6.08
NFI ODCE Net	1.85	6.66	6.66	9.42	10.51	11.03	4.07
FTSE NAREIT US Real Estate	1.51	5.23	5.23	5.62	9.46	10.48	7.44
Bloomberg Commodity	4.71	1.70	1.70	-5.03	-8.45	-8.15	-6.83
Cash and Equivalents							
US T-Bills 90 Day	0.28	0.85	0.85	0.41	0.27	0.22	0.39

Monthly Index Returns

For the Periods Ending January 31, 2018

Index Name	1 Month (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
Equity							
S&P 500	5.73	5.73	26.41	14.66	15.91	14.28	9.78
Russell 1000	5.49	5.49	25.84	14.28	15.72	14.15	9.85
Russell 1000 Growth	7.08	7.08	34.89	17.01	17.95	15.53	11.65
Russell 1000 Value	3.87	3.87	17.22	11.54	13.47	12.71	7.95
Russell 2500	3.05	3.05	18.73	11.95	13.51	12.51	10.24
Russell 2000	2.61	2.61	17.18	12.12	13.33	12.07	9.76
Russell 2000 Growth	3.90	3.90	24.90	12.56	14.62	13.05	10.67
Russell 2000 Value	1.23	1.23	9.95	11.56	11.98	11.03	8.76
Wilshire 5000 Cap Wtd	5.25	5.25	25.12	14.34	15.64	13.99	9.88
MSCI ACWI	5.66	5.66	28.15	12.51	11.61	9.94	6.71
MSCI ACWI ex US	5.58	5.58	30.27	10.36	7.59	6.08	3.92
MSCI EAFE	5.02	5.02	28.20	9.90	8.33	6.92	3.93
MSCI EAFE Local Currency	1.21	1.21	17.05	8.40	10.93	8.95	5.12
MSCI EAFE Growth	4.64	4.64	30.93	10.78	9.17	7.63	4.52
MSCI EAFE Value	5.41	5.41	25.62	8.93	7.42	6.13	3.27
MSCI Emerging Markets	8.34	8.34	41.49	12.24	6.13	4.51	4.22
Fixed Income							
ICE BofA ML 1-3 Yr Treasury	-0.28	-0.28	0.01	0.35	0.50	0.62	1.24
BloomBar Municipal	-1.18	-1.18	3.52	1.97	2.69	4.55	4.20
BloomBar US Aggregate	-1.15	-1.15	2.15	1.14	2.01	3.02	3.71
BloomBar Gov't Bond	-1.33	-1.33	0.70	0.12	1.16	2.26	2.85
BloomBar US Credit	-0.93	-0.93	4.84	2.35	3.22	4.64	5.19
BloomBar 10 Yr Municipal	-1.53	-1.53	3.45	1.92	2.77	4.60	4.49
BloomBar US Corp High Yield	0.60	0.60	6.60	6.33	5.62	6.80	8.24
Citigroup World Govt Bond	1.64	1.64	8.16	2.39	0.70	1.45	2.46
BloomBar Global Aggregate	1.19	1.19	7.46	2.48	1.22	2.12	2.93
BloomBar Multiverse	1.23	1.23	7.72	2.80	1.44	2.35	3.15
Real Assets							
Bloomberg Commodity	1.99	1.99	3.58	-3.32	-8.52	-8.02	-7.03
Cash and Equivalents							
US T-Bills 90 Day	0.12	0.12	0.93	0.45	0.29	0.24	0.36

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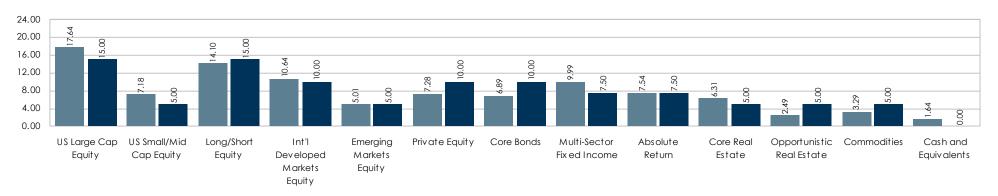
Total Portfolio Summary

Dollar Reconciliation (\$000s)

For the Periods Ending December 31, 2017

	3 Months	FYTD	1 Year	5 Years
Beginning Market Value	2,443,294	2,389,563	2,264,618	1,860,376
Net Additions	-14,459	-33,112	-54,194	-244,060
Return on Investment	79,386	151,772	297,798	891,906
Ending Market Value	2,508,222	2,508,222	2,508,222	2,508,222

For the Period Ending December 31, 2017



■ Actual Allocation ■ Target Allocation

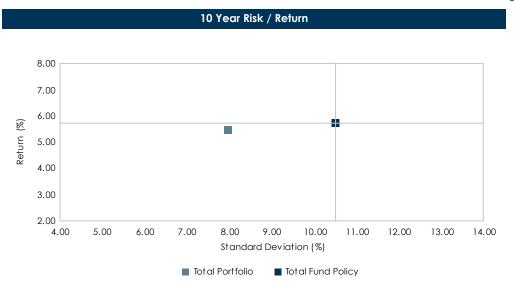
	Market Value (\$000s)	Actual Allocation (%)	Target Allocation (%)	Over/Under Target (%)	Range Min-Max (%)
Total Portfolio	2,508,222	100.00	100.00		
Equity	1,551,392	61.85	60.00	1.85	50.00 - 70.00
US Large Cap Equity	442,458	17.64	15.00	2.64	10.00 - 20.00
US Small/Mid Cap Equity	180,089	7.18	5.00	2.18	0.00 - 15.00
Long/Short Equity	353,598	14.10	15.00	-0.90	10.00 - 20.00
Int'l Developed Markets Equity	266,959	10.64	10.00	0.64	5.00 - 15.00
Emerging Markets Equity	125,682	5.01	5.00	0.01	0.00 - 10.00
Private Equity	182,606	7.28	10.00	-2.72	5.00 - 15.00
Fixed Income	612,431	24.42	25.00	-0.58	15.00 - 35.00
Core Bonds	172,704	6.89	10.00	-3.11	7.50 - 20.00
Multi-Sector Fixed Income	250,695	9.99	7.50	2.49	5.00 - 10.00
Absolute Return	189,031	7.54	7.50	0.04	5.00 - 10.00
Real Assets	303,251	12.09	15.00	-2.91	0.00 - 20.00
Core Real Estate	158,236	6.31	5.00	1.31	0.00 - 10.00
Opportunistic Real Estate	62,373	2.49	5.00	-2.51	0.00 - 10.00
Commodities	82,642	3.29	5.00	-1.71	0.00 - 10.00
Cash and Equivalents	41,148	1.64	0.00	1.64	

For the Periods Ending December 31, 2017



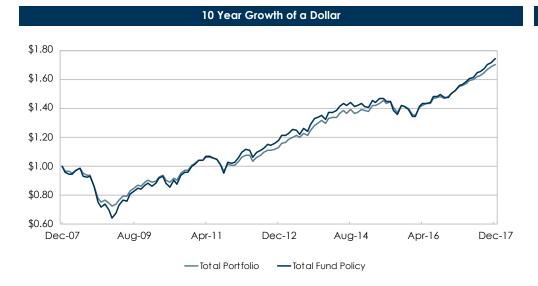
The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending December 31, 2017



	Total	Total
	Portfolio	Fund Policy
Return (%)	5.46	5.70
Standard Deviation (%)	7.97	10.50
Sharpe Ratio	0.65	0.52

	Benchmark Relative Statistics	
Beta	0.73	
Up Capture (%)	76.44	
Down Capture (%)	73.08	



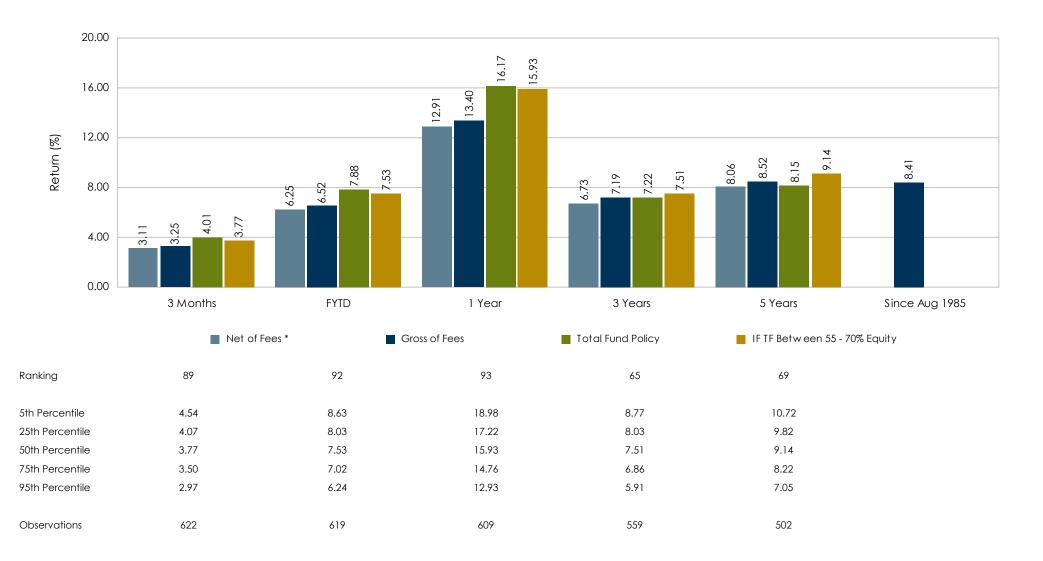
10 Year Return Analysis

10 Year Portfolio Statistics

	Total Portfolio	Total Fund Policy
Number of Months	120	120
Highest Monthly Return (%)	5.31	7.47
Lowest Monthly Return (%)	-9.92	-12.85
Number of Positive Months	80	75
Number of Negative Months	40	45
% of Positive Months	66.67	62.50

Total Portfolio

For the Periods Ending December 31, 2017

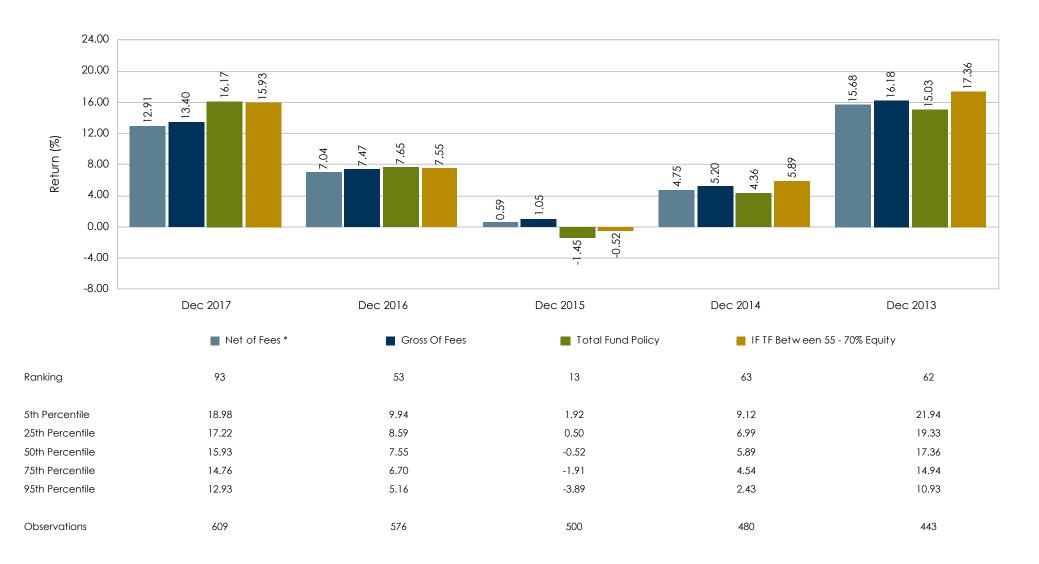


The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

^{*} Performance is calculated using net of fee returns.
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Total Portfolio

For the One Year Periods Ending December



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

^{*} Performance is calculated using net of fee returns.
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For the Periods Ending December 31, 2017

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	FYTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Total Portfolio * (06/05) ¹	2,508,222	100.00	3.11		6.25		12.91		6.73		8.06		5.12
Total Portfolio (08/85)			3.25	89	6.52	92	13.40	93	7.19	65	8.52	69	5.46
Total Fund Policy ²			4.01		7.88		16.17		7.22		8.15		5.70
IF TF Between 55 - 70% Equity			3.77		7.53		15.93		7.51		9.14		6.06
Equity (01/98)	1,551,392	61.85	4.23		9.02		18.72		9.33		11.12		6.11
MSCI ACWI			5.84		11.46		24.62		9.89		11.40		5.22
US Large Cap Equity	442,458	17.64											
Northern Trust Russell 1000 Index (08/98) ³	442,458	17.64	6.58	57	11.36	55	21.68	54	11.23	40	15.72	45	8.61
Russell 1000			6.59		11.36		21.69		11.23		15.71		8.59
eA US Large Cap Core Equity			6.80		11.55		21.97		10.87		15.57		8.84
US Small/Mid Cap Equity	180,089	7.18											
Boston Partners (01/98)	92,102	3.67	4.95	72 / 23	9.04	55 / 51	13.78	68 / 29	11.44	27 / 34	14.53	63 / 51	11.03
Russell 2500 Value			4.25		8.25		10.36		9.30		13.27		8.82
eA US Mid Cap Value Equity			5.45		9.37		15.06		10.02		15.21		9.80
eA US Small Cap Value Equity			3.61		9.09		11.05		10.35		14.55		10.14
Cortina (02/14)	87,988	3.51	0.96	98	4.05	99	15.32	92	10.61	59			
Russell 2000 Growth			4.59		11.09		22.17		10.28		15.21		9.19
eA US Small Cap Growth Equity			4.92		11.31		24.72		11.42		15.82		9.63
Long/Short Equity	353,598	14.10											
Grosvenor Long/Short Equity (11/03)	353,598	14.10	2.37		5.59		12.05		5.15		7.61		3.50
MSCI ACWI			5.84		11.46		24.62		9.89		11.40		5.22
HFRI FOF: Strategic			2.54		5.38		11.27		3.42		4.73		1.08

FYTD: Fiscal year ending June.

^{*} Net of fee return data.

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For the Periods Ending December 31, 2017

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	FYTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
International Developed Market	266,959	10.64											
Mondrian International (05/04)	143,575	5.72	3.36	75	9.14	56	22.31	68	7.30	78	8.52	63	2.46
M\$CI EAFE			4.27		9.97		25.62		8.30		8.39		2.42
eA EAFE All Cap Value Equity			4.43		9.27		24.93		9.25		9.41		3.87
Baring Focused International (03/12)	123,385	4.92	5.36	20	10.93	47	29.46	24	11.78	18	8.57	79	
MSCI EAFE			4.27		9.97		25.62		8.30		8.39		2.42
eA EAFE All Cap Equity			4.29		10.74		27.21		9.58		9.66		3.61
Emerging Markets Equity	125,682	5.01											
Wasatch Emerging Markets (09/12)	38,720	1.54	7.64	35	15.52	52	39.06	40	7.42	87	4.58	77	
MSCI EM SC			9.29		15.61		34.22		8.75		5.72		3.08
eA Global Emerging Mkts Equity			7.25		15.56		37.29		10.19		5.96		3.22
AB EM Strategic Core Equity Fund (11/16)	86,962	3.47	3.40	98	10.26	94	31.96	80					
MSCI Emerging Markets			7.50		16.15		37.75		9.50		4.73		2.02
eA Global Emerging Mkts Equity			7.25		15.56		37.29		10.19		5.96		3.22
Private Equity (07/03)	182,606	7.28	3.28		6.43		9.65		9.85		9.84		8.24
Fixed Income (01/98)	612,431	24.42	1.06		2.37		5.84		2.81		3.47		4.31
BloomBar Universal			0.41		1.42		4.09		2.80		2.50		4.33
Core Bonds	172,704	6.89											
Agincourt Core Fixed Income (10/99)	172,704	6.89	0.66	21	1.64	27	4.23	37	2.77	42	2.57	45	4.50
BloomBar US Aggregate			0.39		1.24		3.54		2.24		2.10		4.01
eA US Core Fixed Income			0.52		1.45		4.06		2.67		2.52		4.65

For the Periods Ending December 31, 2017

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	FYTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Multi Sector Fixed Income	250,695	9.99											
Multi Sector Fixed Income													
Oaktree Capital Management (02/98)	123,392	4.92	0.82		2.70		7.26		6.13		5.95		7.13
BloomBar US Aggregate			0.39		1.24		3.54		2.24		2.10		4.01
Loomis Sayles (06/08)	98,389	3.92	1.25	41	3.85	34	10.13	35	3.09	53	1.14	71	
Citigroup World Govt Bond			1.04		2.87		7.49		1.74		0.12		2.67
eA All Global Fixed Income			1.09		3.11		8.36		3.15		2.65		4.23
Private Credit (10/16)	28,914	1.15	3.44		7.47		12.77						
Absolute Return	189,031	7.54											
PAAMCO (10/02)	128,212	5.11	1.13		1.52		4.59		1.31		4.42		2.37
BloomBar US Aggregate			0.39		1.24		3.54		2.24		2.10		4.01
HFRI FOF: Conservative			1.05		2.39		4.02		2.08		3.39		0.92
Wellington Global Total Return (12/16)	60,819	2.42	1.58	21	1.70	76	1.81	95					
LIBOR 3 Month			0.34		0.66		1.20		0.73		0.54		0.72
eA Global Unconstrained Fixed Income			1.00		2.83		6.99		2.98		2.43		3.46
Real Assets (01/98)	303,251	12.09	3.16		4.73		6.68		6.33		7.59		3.72
Real Assets Blended Index ⁴			2.79		4.78		5.04		2.23		3.40		0.67
Core Real Estate	158,236	6.31											
JP Morgan Strategic Property (12/07)	119,488	4.76	1.80		3.55		7.20		10.21		11.52		5.62
NFI ODCE Net			1.85		3.52		6.66		9.42		10.51		4.07
NCREIF Property			1.80		3.53		6.98		9.39		10.19		6.08
Blackstone Property Partners (01/15)	38,748	1.54	2.91		5.18		10.54		14.33				
NFI ODCE Net			1.85		3.52		6.66		9.42		10.51		4.07
NCREIF Property			1.80		3.53		6.98		9.39		10.19		6.08

For the Periods Ending December 31, 2017

	Market Value (\$000s)	Actual Allocation (%)	3 Months	Rank	FYTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Opportunistic Real Estate	62,373	2.49	. ,										
Private Real Estate (08/11)	57,848	2.31	3.89		3.70		10.16		12.20		11.42		
Private Real Estate Direct													
Columbus Square (01/98)	4,525	0.18	-0.28		1.64		8.78		9.06		8.38		11.53
NCREIF Property			1.80		3.53		6.98		9.39		10.19		6.08
NFI ODCE Net			1.85		3.52		6.66		9.42		10.51		4.07
Commodities	82,642	3.29											
Mount Lucas Peak Partners (01/98)	30,460	1.21	4.53		3.55		-1.50		1.00		8.49		3.48
CS Hedge - Global Macro			1.88		3.74		2.14		1.96		2.66		4.60
Gresham Tap Fund (08/14)	52,182	2.08	6.14	1	10.33		4.61		-4.81				
Bloomberg Commodity			4.71		7.35		1.70		-5.03		-8.45		-6.83
Cash and Equivalents	41,148	1.64											

Notes:

¹ Total Fund Policy Index history available in appendix.

² Total Fund Policy: Effective April 2016, the index consists of 60.0% MSCI ACWI, 25.0% BloomBar Universal, 10.0% NFI ODCE Net, 5.0% Bloomberg Commodity.

³ Performance data prior to October 31, 2014 is reflective of the Mellon Capital Passive Index fund. Due to contributions and withdrawals in this account, the returns may differ from the performance of the fund.

⁴ Real Assets Blended Index: Effective January 2016, the index consists of 67.0% NFI ODCE Net, 33.0% Bloomberg Commodity.

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Equity Manager Performance

Northern Trust Russell 1000 Index

For the Periods Ending December 31, 2017

Account Description

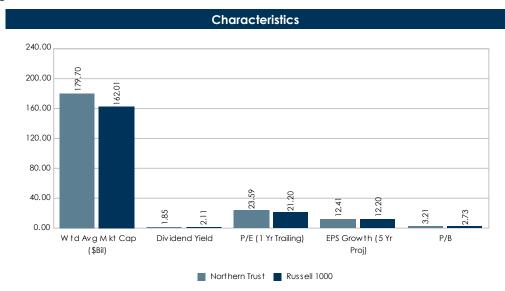
- Strategy US Large Cap Core
- Vehicle Non-Mutual Commingled
- Benchmark Russell 1000
- Performance Inception Date August 1998
- Fees 1 bps

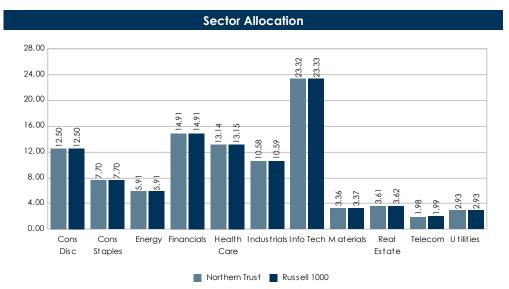
Performance Goals

- Mirror the risk/return profile of the Russell 1000.
- Over rolling three year periods, rank above the median in the eA US Large Cap Core Equity universe.

Dollar Growth Summary (\$000s)

	FYTD	1 Year
Beginning Market Value	412,054	377,132
Net Additions	-15,040	-15,040
Return on Investment	45,444	80,366
Endina Market Value	442.458	442.458



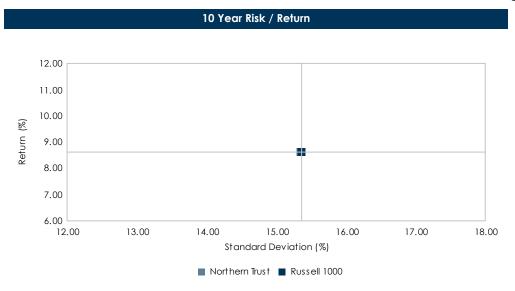


Characteristic and allocation charts represents data of the EB Daily Valued Large Cap Stock Index Fund (Non-Mutual Commingled).

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

Northern Trust Russell 1000 Index

For the Periods Ending December 31, 2017



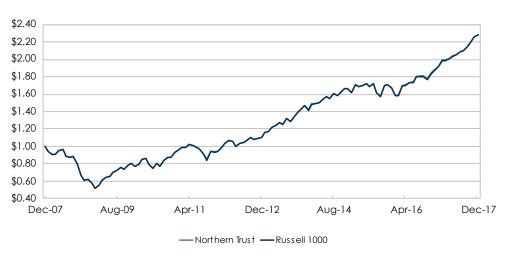
Northern Trust Russell 1000 Return (%) 8.61 8.59 Standard Deviation (%) 15.35 15.36 Sharpe Ratio 0.54 0.54

Benchmark Relative Statistics						
Beta	1.00					
R Squared (%)	100.00					
Alpha (%)	0.02					
Tracking Error (%)	0.05					
Batting Average (%)	64.17					
Up Capture (%)	99.99					
Down Capture (%)	99.93					

10 Year Return Analysis

10 Year Portfolio Statistics

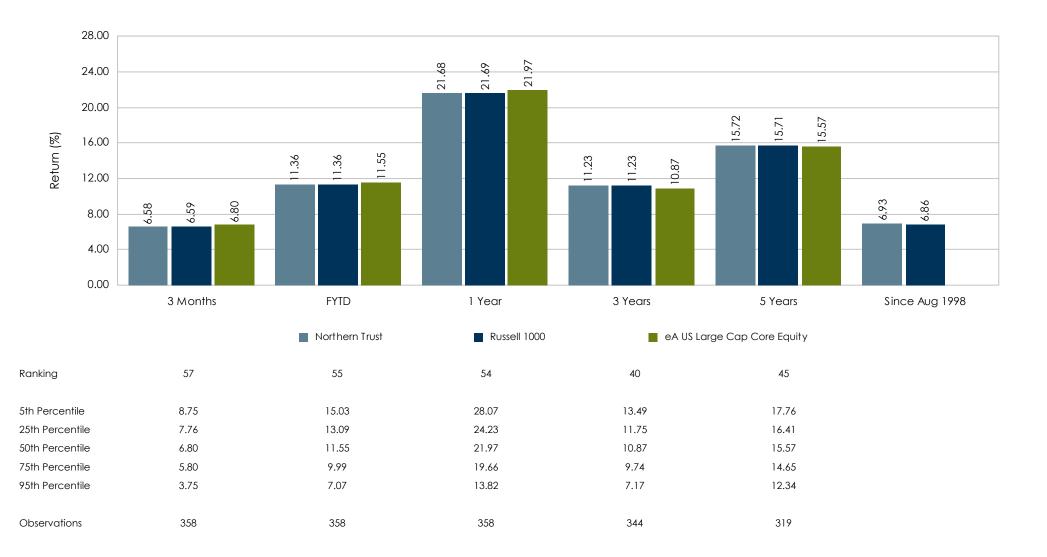
10 Year Growth of a Dollar



	Northern Trust	Russell 1000
	100	100
Number of Months	120	120
Highest Monthly Return (%)	11.20	11.21
Lowest Monthly Return (%)	-17.49	-17.46
Number of Positive Months	81	81
Number of Negative Months	39	39
% of Positive Months	67.50	67.50

Northern Trust Russell 1000 Index

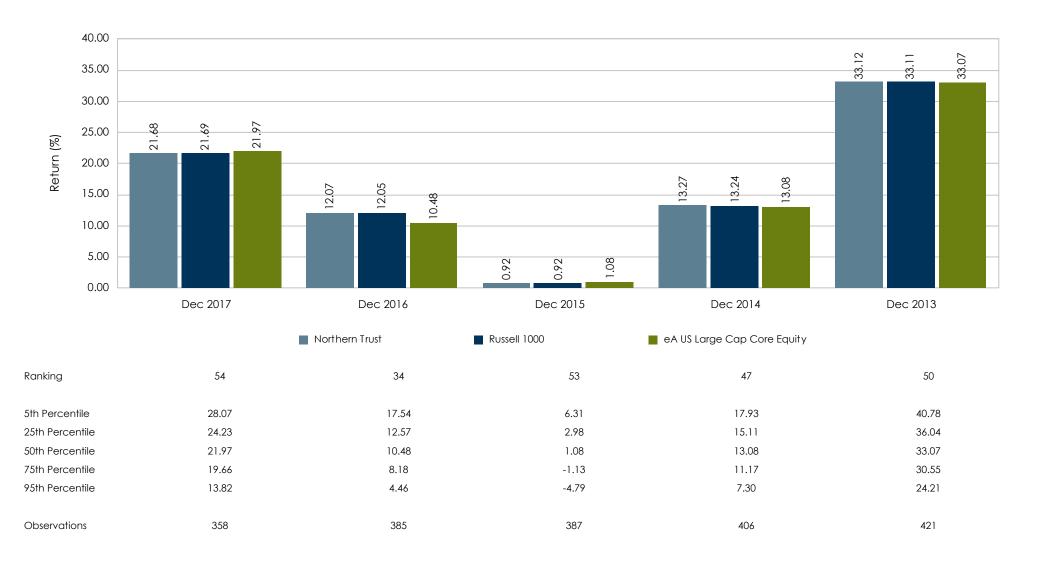
For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

Northern Trust Russell 1000 Index

For the One Year Periods Ending December



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending December 31, 2017

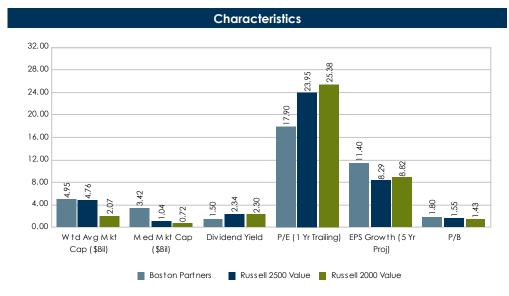
Account Description

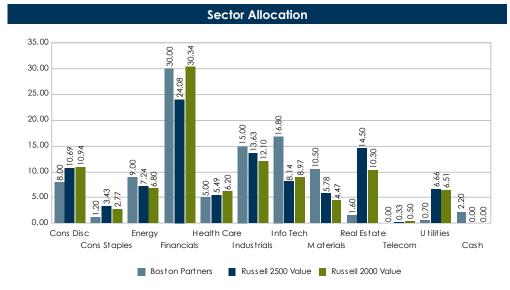
- Strategy US Small/Mid Cap Value
- Vehicle Separately Managed Account
- Benchmarks Russell 2500 Value and Russell 2000 Value
- Performance Inception Date January 1998
- Fees 60 bps base fee with annual performance fee

Performance Goals

- Outperform the Russell 2500 Value and Russell 2000 Value.
- Over rolling three year periods, rank above the median in the eA US Mid Cap Value Equity universe.

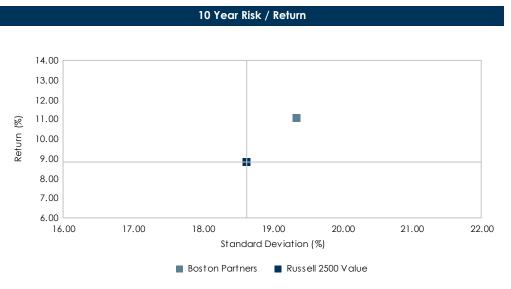
Dollar Growth Summary (\$000s) FYTD 1 Year **Beginning Market Value** 106,133 110,411 Net Additions -25,297 -25,623 Return on Investment 6,988 11,592 740 1.838 Income Gain/Loss 6,248 9,753 **Ending Market Value** 92,102 92,102





Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

For the Periods Ending December 31, 2017



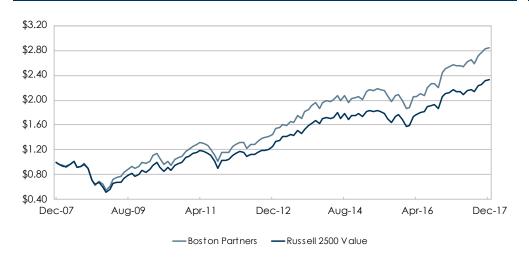
Boston Russell Partners 2500 Valu

10 Year Portfolio Statistics

	Partners	2500 Value
Return (%)	11.03	8.82
Standard Deviation (%)	19.35	18.63
Sharpe Ratio	0.56	0.46

Benchmark Relative Statistics		
Beta	1.02	
R Squared (%)	96.01	
Alpha (%)	2.00	
Tracking Error (%)	3.88	
Batting Average (%)	55.00	
Up Capture (%)	105.11	
Down Capture (%)	96.94	

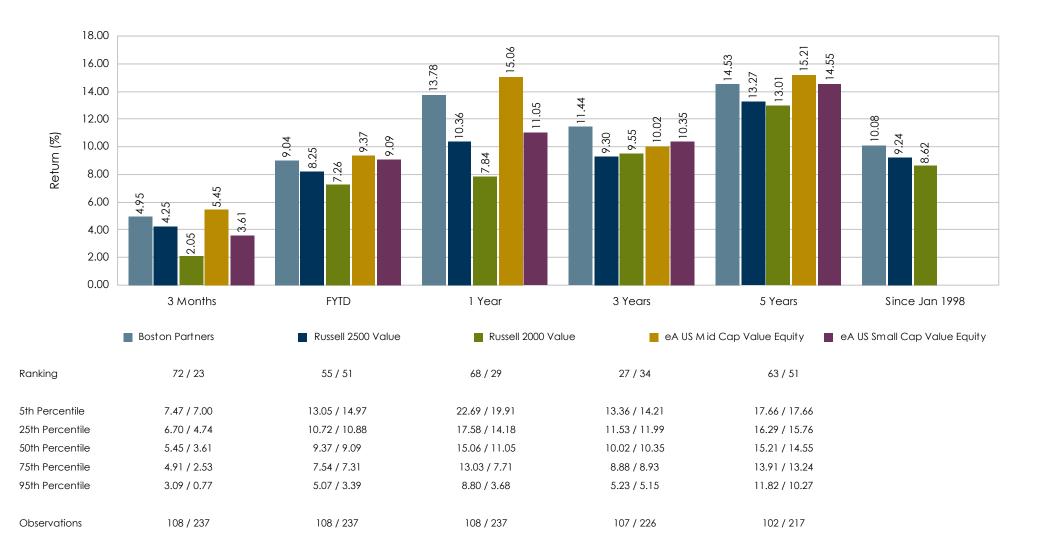
10 Year Growth of a Dollar



10 Year Return Analysis

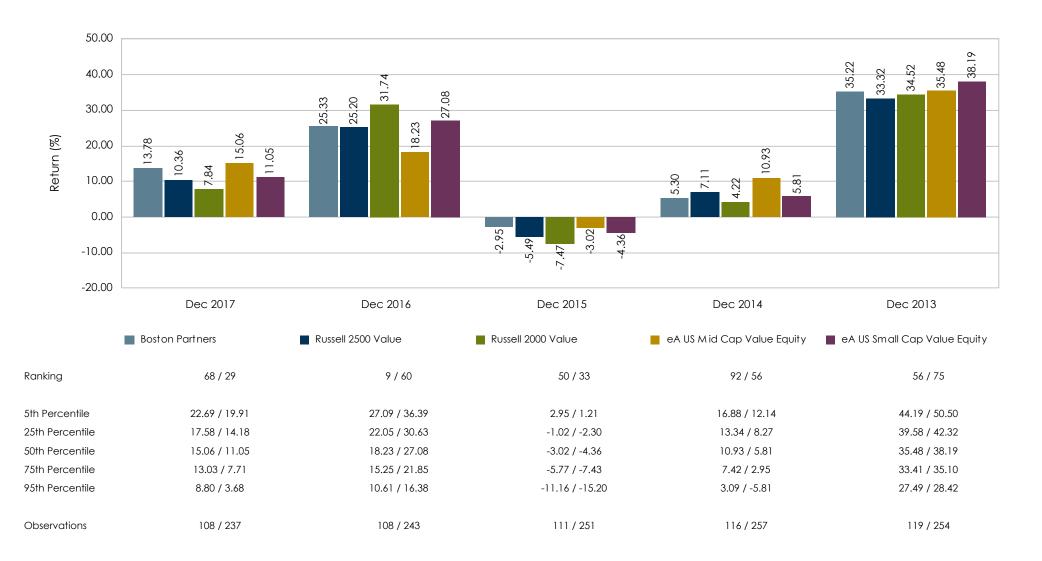
	Boston Partners	Russell 2500 Value
Number of Months	120	120
Highest Monthly Return (%)	19.35	15.95
Lowest Monthly Return (%)	-22.79	-20.65
Number of Positive Months	78	76
Number of Negative Months	42	44
% of Positive Months	65.00	63.33

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the One Year Periods Ending December



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

Cortina

For the Periods Ending December 31, 2017

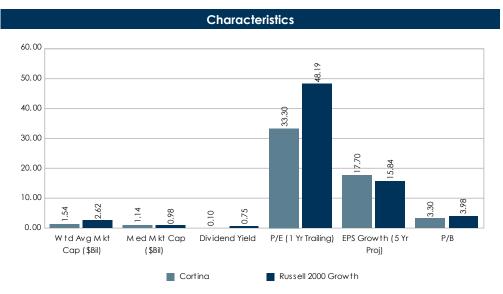
Account Description

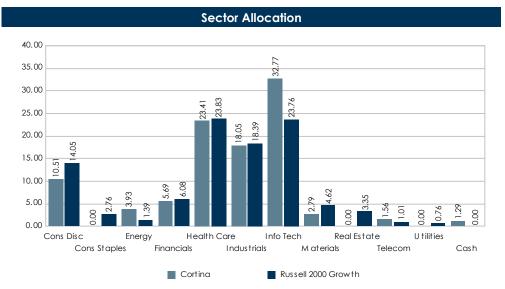
- Strategy US Small/Mid Cap Growth
- Vehicle Separately Managed Account
- Benchmark Russell 2000 Growth
- Performance Inception Date February 2014
- Fees First \$25M at 100 bps, next \$25M at 90 bps, balance at 80 bps

Performance Goals

- Outperform the Russell 2000 Growth.
- Over rolling three year periods, rank above median in the eA US Small Cap Growth Equity universe.

Dollar Growth Summary (\$000s) FYTD 1 Year **Beginning Market Value** 76,976 84,927 Net Additions -371 -731 Return on Investment 3,432 11,744 47 81 Income Gain/Loss 3,385 11.663 **Ending Market Value** 87,988 87,988

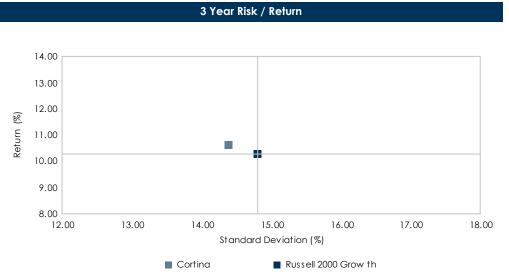




Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

Cortina

For the Periods Ending December 31, 2017

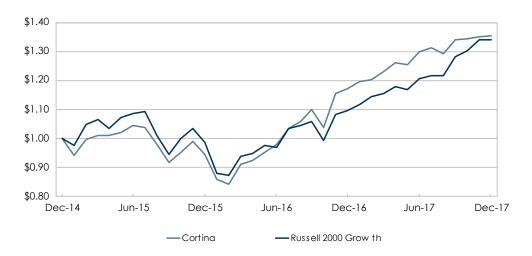


Return (%) 10.61 10.28 Standard Deviation (%) 14.39 14.80 Sharpe Ratio 0.71 0.67

Benchmark Relative Statistics		
0.90		
86.58		
1.28		
5.46		
61.11		
93.29		
90.68		

3 Year Portfolio Statistics

3 Year Growth of a Dollar

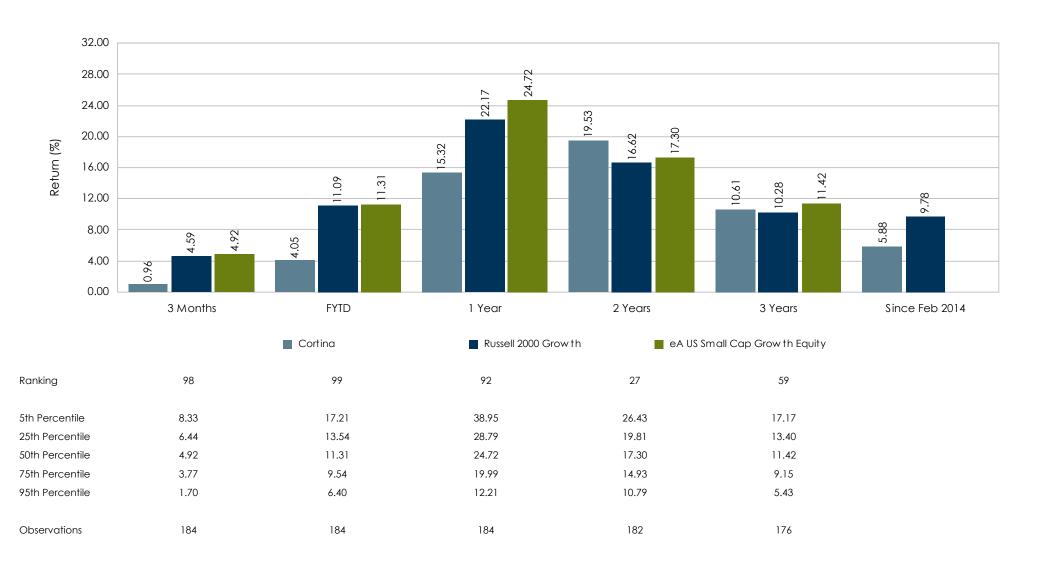


3 Year Return Analysis

	Cortina	Russell 2000 Growth
Number of Months	36	36
Highest Monthly Return (%)	11.26	8.95
Lowest Monthly Return (%)	-9.33	-10.83
Number of Positive Months	25	25
Number of Negative Months	11	11
% of Positive Months	69.44	69.44

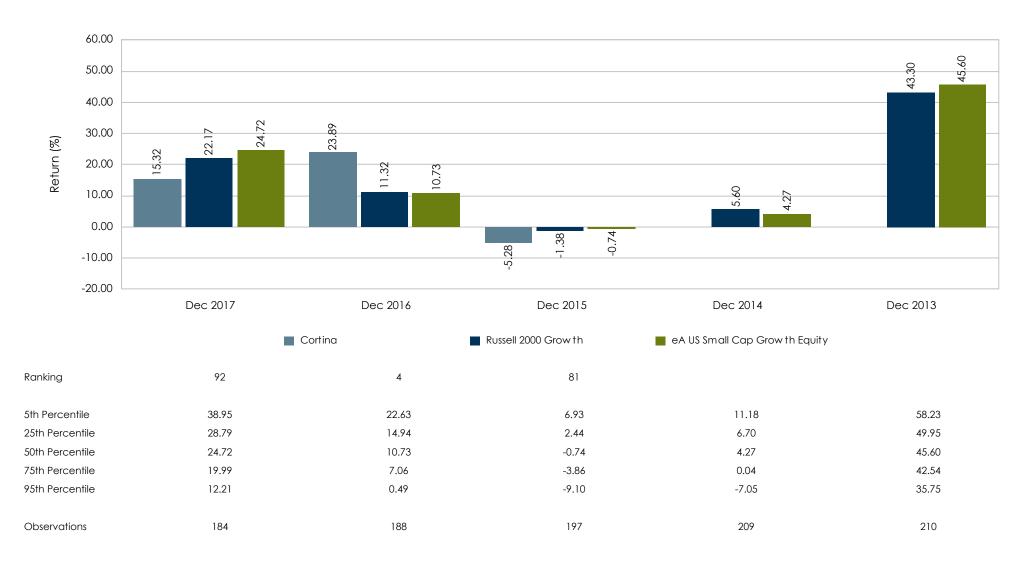
Cortina

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

CortinaFor the One Year Periods Ending December

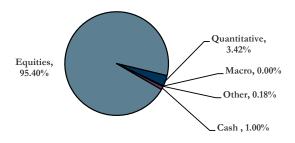


The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending December 31, 2017

Strategy Allocation

Market Value: \$353,598,088



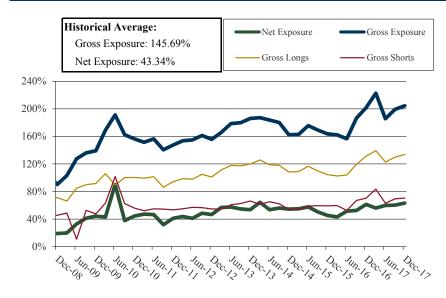
Strategy

- Equity Long/Short Hedge Fund of Funds
- Performance Inception Date: November 2003

Exposure

Net Exposure: 63.27%Gross Exposure: 204.42%

Historical Net & Gross Exposure



Performance Goals

- Meet or exceed the return of the MSCI All Country World, over extended time periods (5 to 10 years).
- The volatility (standard deviation) of the portfolio should be less than two-thirds the volatility of the MSCI All Country World.
- The Beta of the portfolio relative to the MSCI All Country World Index should be < 0.7.

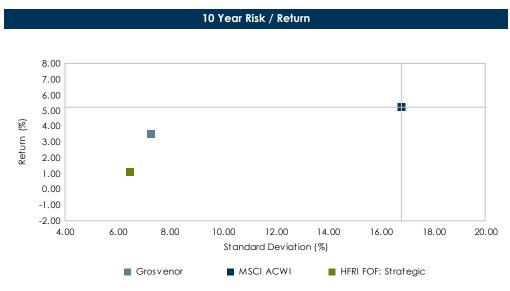
Characteristics provided by manager are the weighted average of GLSEF and GLSEF-B data.

For the Periods Ending December 31, 2017

Return (%)

Sharpe Ratio

Standard Deviation (%)



Grosvenor MSCI ACWI Strategic 3.50 5.22 1.08

16.80

0.29

6.47

0.12

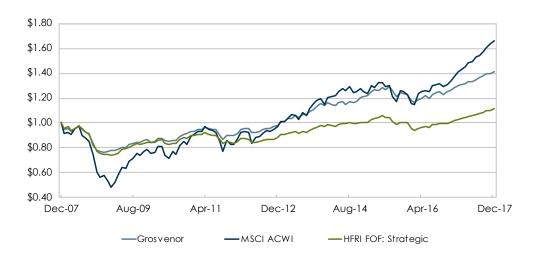
Benchmark Relative Statistics		
Beta	0.34	1.02
R Squared (%)	61.58	82.81
Alpha (%)	1.51	2.43
Tracking Error (%)	11.98	3.01
Batting Average (%)	48.33	64.17
Up Capture (%)	37.41	122.29
Down Capture (%)	40.99	93.05

10 Year Portfolio Statistics

7.26

0.44

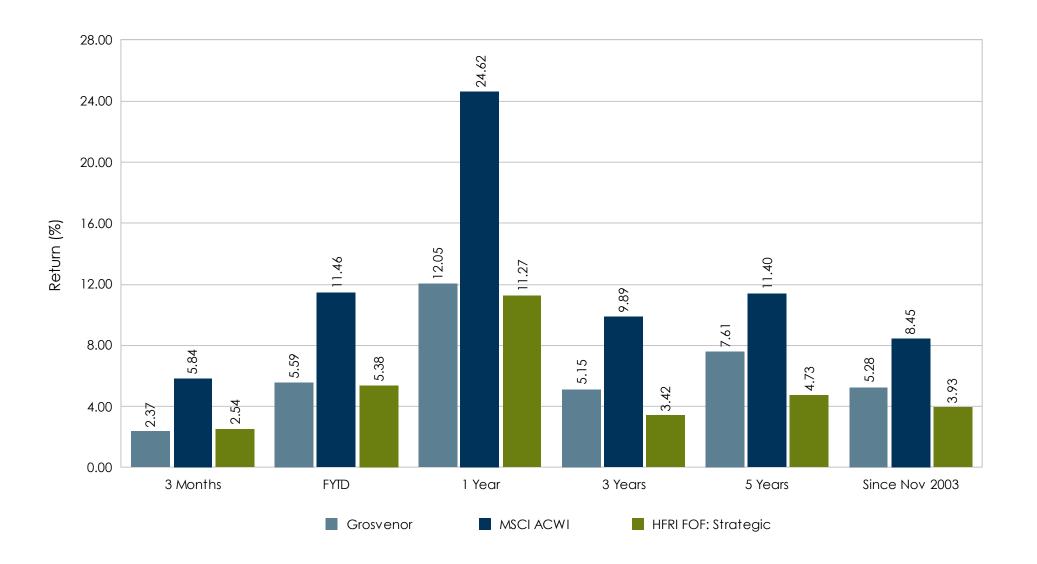
10 Year Growth of a Dollar



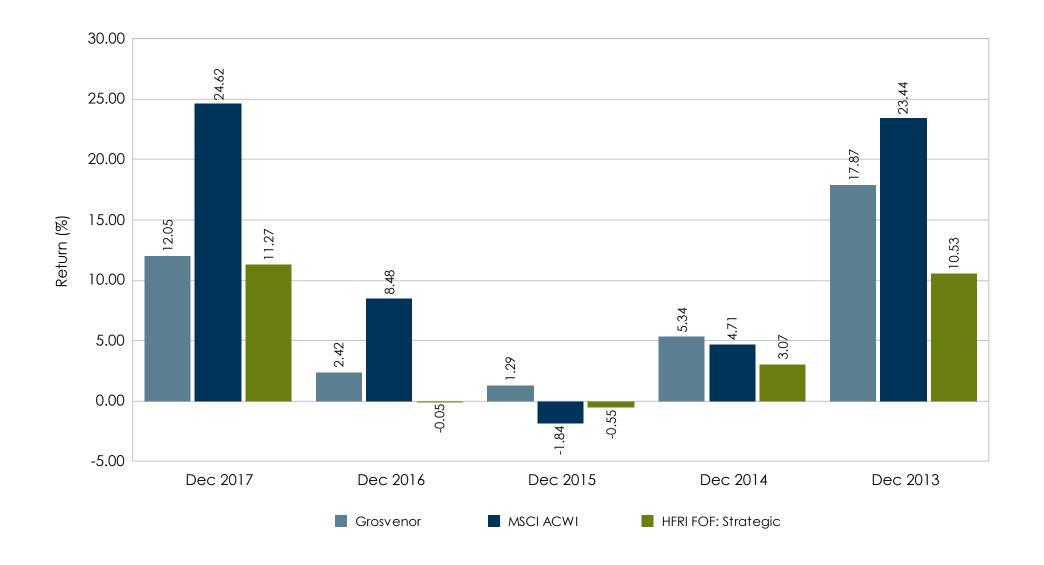
10 Year Return Analysis

	Grosvenor	MSCI ACWI	HFRI FOF: Strategic
Number of Months	120	120	120
Highest Monthly Return (%)	4.12	11.90	4.25
Lowest Monthly Return (%)	-10.06	-19.79	-7.66
Number of Positive Months	79	73	72
Number of Negative Months	41	47	48
% of Positive Months	65.83	60.83	60.00

For the Periods Ending December 31, 2017



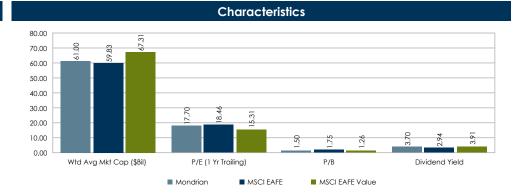
For the One Year Periods Ending December



For the Periods Ending December 31, 2017

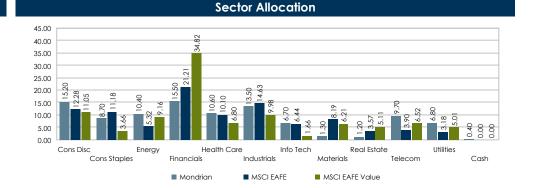
Account Description

- Strategy Int'l Developed Markets Equity
- Vehicle Limited Partnership
- Benchmarks MSCI EAFE and MSCI EAFE Value
- Performance Inception Date May 2004
- Fees 70 bps on the first \$20 million, 50 bps on the next \$30 million, 40 bps on the next \$50 million, 30 bps thereafter



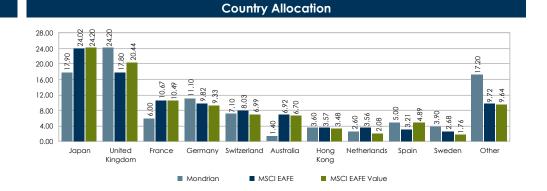
Performance Goals

- Outperform the MSCI EAFE and MSCI EAFE Value.
- Over rolling three year periods, rank above the median in the eA EAFE All Cap
 Value Equity universe.



Dollar Growth Summary (\$000s)

	FYTD	1 Year
Beginning Market Value	131,552	117,387
Net Additions	0	0
Return on Investment	12,023	26,188
Ending Market Value	143,575	143,575



Characteristic and allocation charts represents data of the Mondrian International Equity Fund, LP (Limited Partnership).

For the Periods Ending December 31, 2017



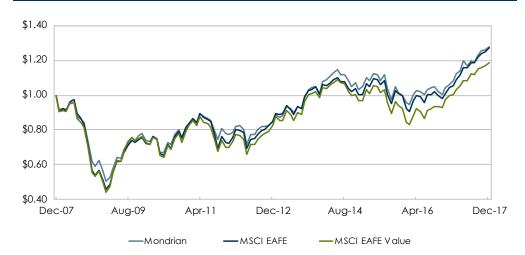
MSCI Mondrian MSCI EAFE EAFE Value

	Ronchmark Polative Statis	lia.	
Sharpe Ratio	0.13	0.12	0.07
Standard Deviation (%)	16.61	18.52	19.69
Return (%)	2.46	2.42	1.73

10 Year Portfolio Statistics

Benchmark Relative Statistics		
Beta	0.88	0.82
R Squared (%)	95.29	94.30
Alpha (%)	0.20	0.81
Tracking Error (%)	4.28	5.33
Batting Average (%)	48.33	51.67
Up Capture (%)	89.73	81.54
Down Capture (%)	92.60	84.88

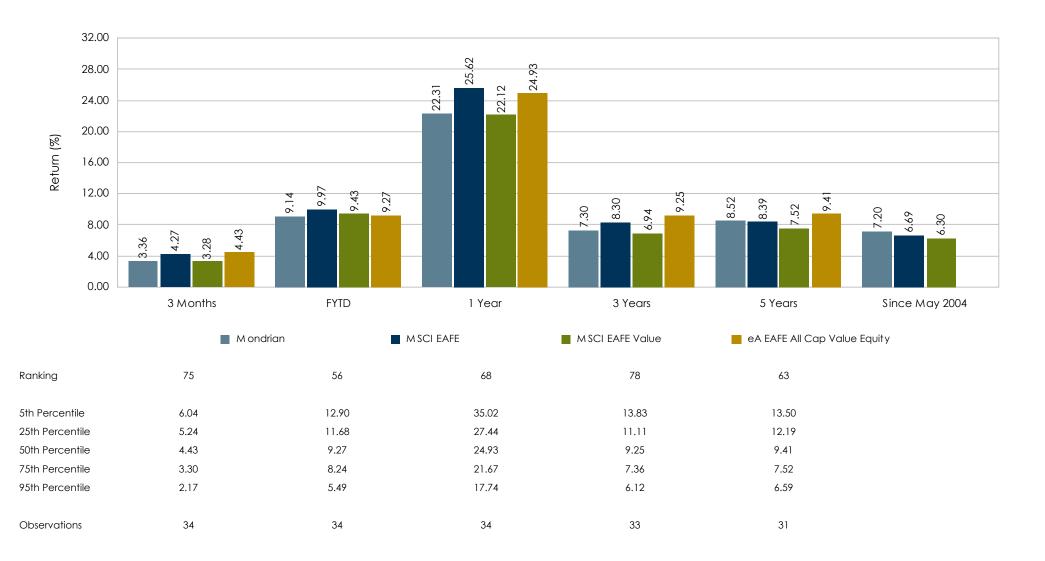
10 Year Growth of a Dollar



10 Year Return Analysis

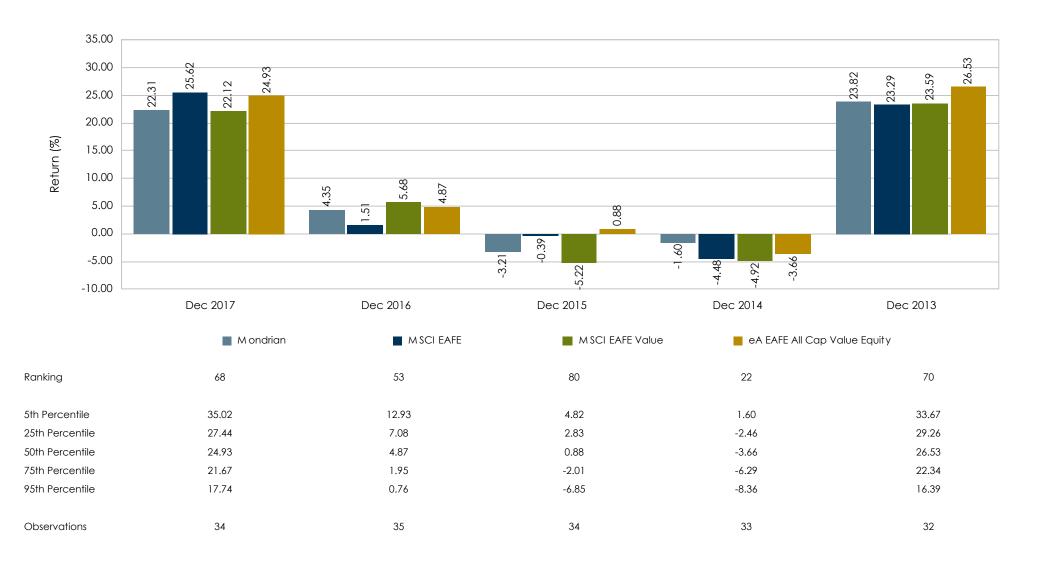
	Mondrian	MSCI EAF	MSCI E EAFE Value
Number of Months	120	120	120
Highest Monthly Return (%)	11.12	12.96	17.46
Lowest Monthly Return (%)	-15.52	-20.17	-20.56
Number of Positive Months	65	64	64
Number of Negative Months	55	56	56
% of Positive Months	54.17	53.33	53.33

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the One Year Periods Ending December

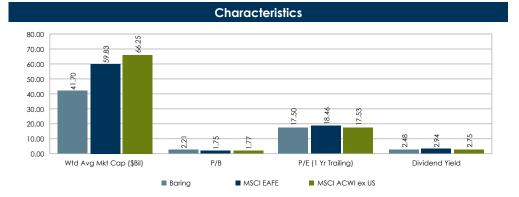


The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending December 31, 2017

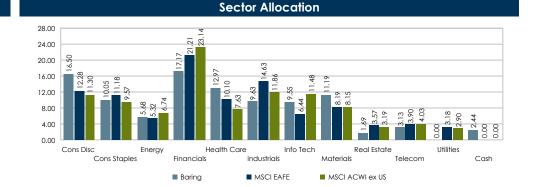
Account Description

- Strategy Int'l Developed Markets Equity
- Vehicle Non-Mutual Commingled
- Benchmarks MSCI EAFE and MSCI ACWI ex US
- Performance Inception Date March 2012
- Fees 40 bps base feel plus performance based fee

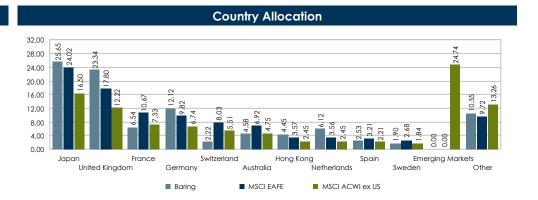


Performance Goals

- Outperform the MSCI EAFE and MSCI ACWI ex US.
- Over rolling three year periods, rank above the median in the eA EAFE All Cap Equity universe.



Dollar Growth Summary (\$000s) FYTD 1 Year Beginning Market Value 112,010 96,150 Net Additions -806 -1,002 Return on Investment 12,181 28,237 Ending Market Value 123,385 123,385



Characteristic and allocation charts represents data of the Baring Focused International Equity Fund (Non-Mutual Commingled).

For the Periods Ending December 31, 2017

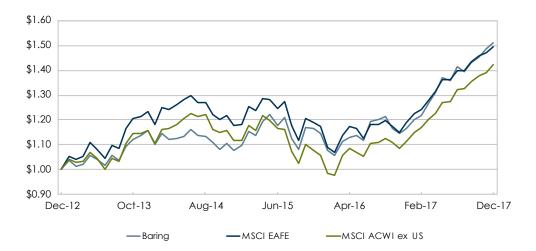


MSCI Baring MSCI EAFE ACWI ex US 8.57 7.28 Return (%) 8.39 11.69 11.51 Standard Deviation (%) 11.07 **Sharpe Ratio** 0.75 0.70 0.61

5 Year Portfolio Statistics

0.89	0.88
89.03	83.64
1.03	2.10
3.87	4.69
53.33	50.00
96.73	92.17
94.86	82.24
	3.87 53.33 96.73

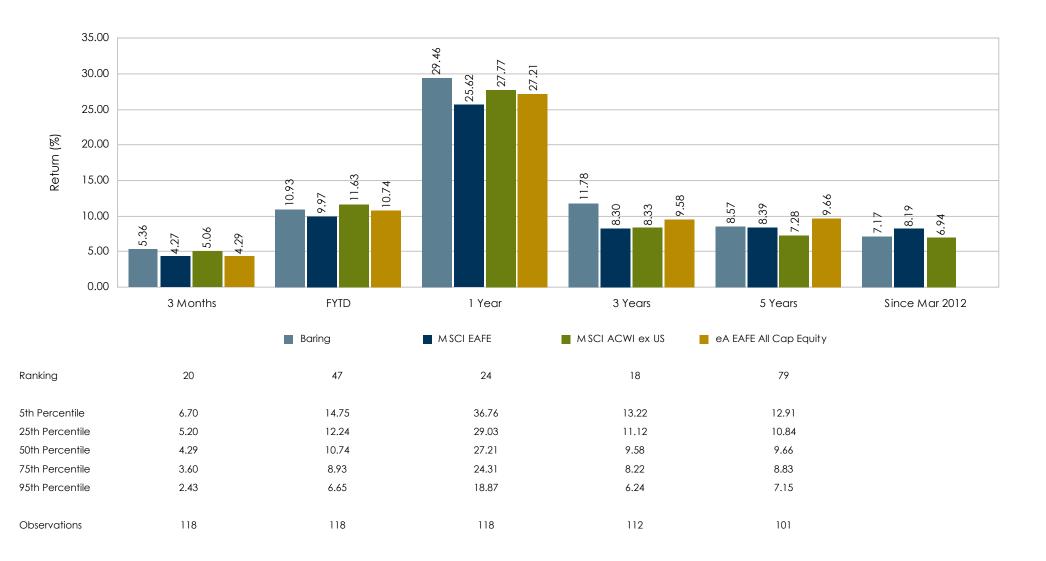
5 Year Growth of a Dollar



5 Year Return Analysis

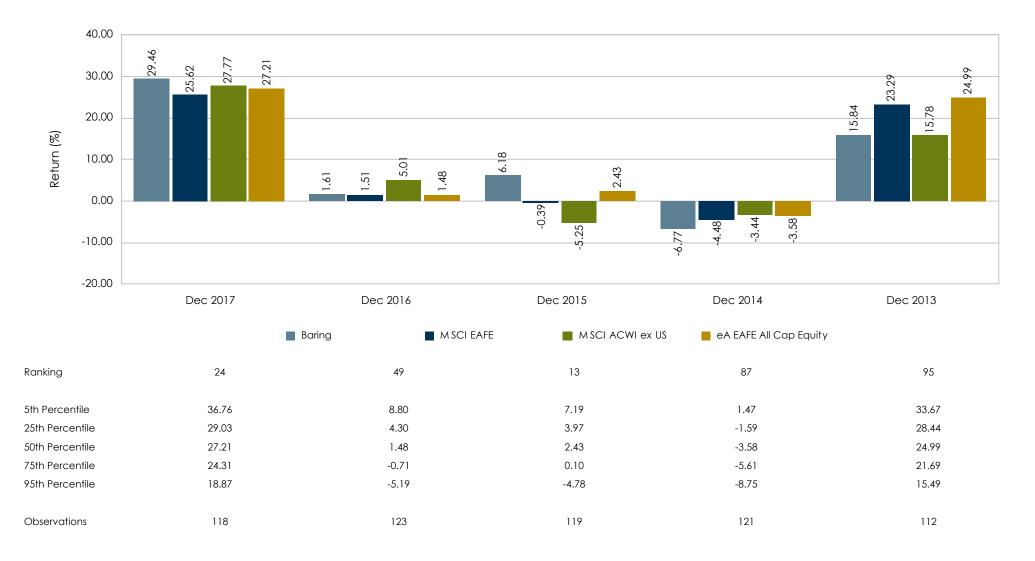
	Baring	MSCI EAF	MSCI E ACWI ex US
Number of Months	60	60	60
Highest Monthly Return (%)	8.27	7.82	8.21
Lowest Monthly Return (%)	-7.13	-7.35	-7.63
Number of Positive Months	36	34	36
Number of Negative Months	24	26	24
% of Positive Months	60.00	56.67	60.00

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the One Year Periods Ending December



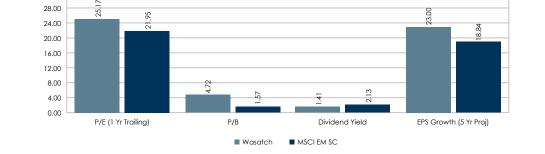
The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending December 31, 2017

32.00

Account Description

- Strategy Emerging Markets Equity
- Vehicle Non-Mutual Commingled
- Benchmark MSCI EM SC
- Performance Inception Date September 2012
- **Fees** 150 bps

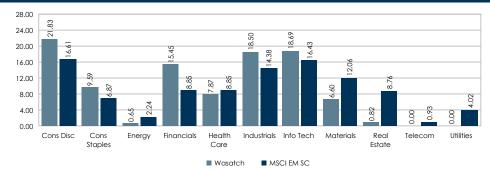


Characteristics

Performance Goals

- Outperform the MSCI EM SC over a market cycle.
- Rank above median in the eA Global Emerging Mkts Equity universe over a market cycle.

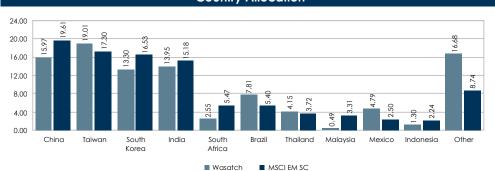
Sector Allocation



Dollar Growth Summary (\$000s)

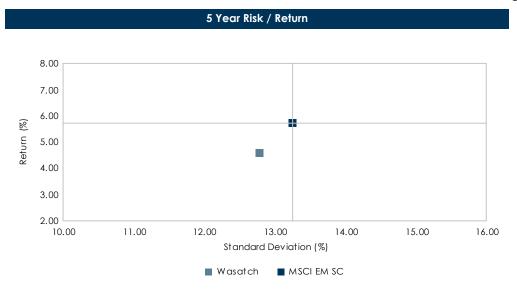
	FYTD	1 Year
Beginning Market Value	33,773	28,272
Net Additions	-276	-514
Return on Investment	5,223	10,963
Ending Market Value	38,720	38,720

Country Allocation



Characteristic and allocation charts represents data of the Wasatch Emerging Markets Small Cap CIT (Non-Mutual Commingled).

For the Periods Ending December 31, 2017

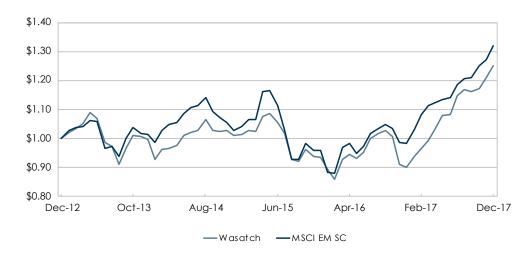


5 Year Portfolio Statistics

	Wasatch	MSCI EM SC
Return (%)	4.58	5.72
Standard Deviation (%)	12.78	13.25
Sharpe Ratio	0.34	0.42

	Benchmark Relative Statistics	
Beta	0.85	
R Squared (%)	77.56	
Alpha (%)	-0.18	
Tracking Error (%)	6.38	
Batting Average (%)	43.33	
Up Capture (%)	92.66	
Down Capture (%)	98.92	

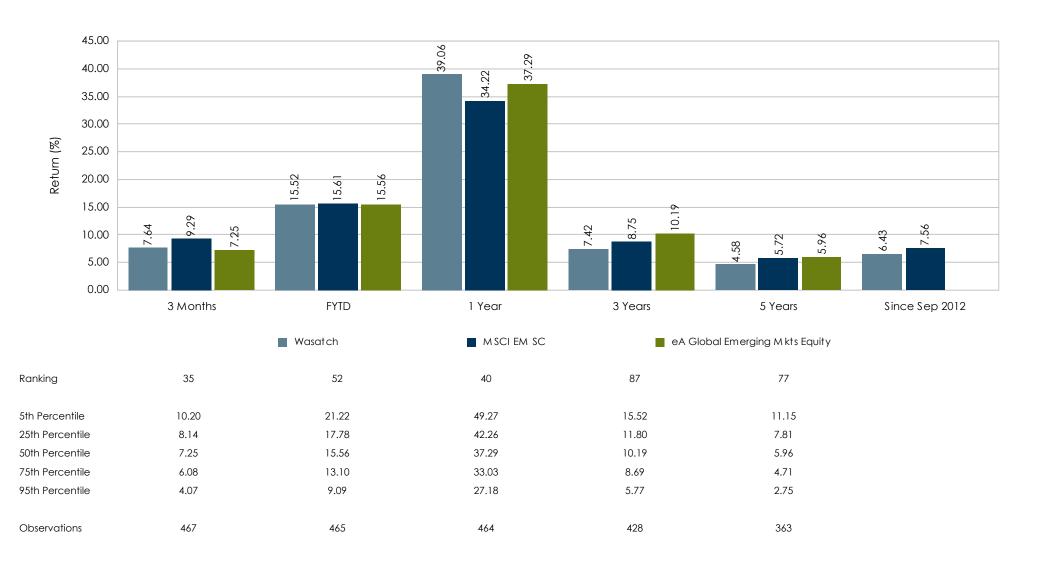
5 Year Growth of a Dollar



5 Year Return Analysis

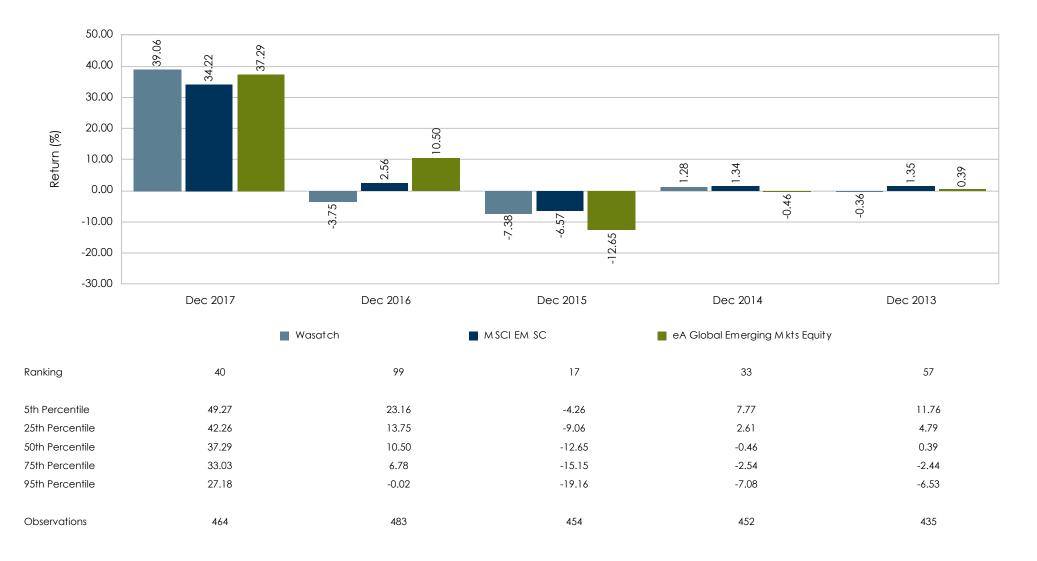
	Wasatch	MSCI EM SC
Number of Months	60	60
Highest Monthly Return (%)	8.10	10.01
Lowest Monthly Return (%)	-9.57	-9.60
Number of Positive Months	36	39
Number of Negative Months	24	21
% of Positive Months	60.00	65.00

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the One Year Periods Ending December



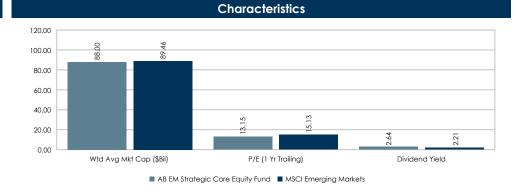
The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

AB EM Strategic Core Equity Fund

For the Periods Ending December 31, 2017

Account Description

- Strategy Emerging Markets Equity
- Vehicle Non-Mutual Commingled
- Benchmark MSCI Emerging Markets
- Performance Inception Date November 2016
- **Fees** 65 bps (preferred fee)



Performance Goals

- Outperform the MSCI Emerging Markets.
- Over rolling three year periods, rank above the median in the eA Global Emerging Mkts Equity universe.



■ AB EM Strategic Core Equity Fund ■ MSCI Emerging Markets

Dollar Growth Summary (\$000s)

	FYTD	1 Year
Beginning Market Value	78,872	65,901
Net Additions	0	0
Return on Investment	8,089	21,060
Ending Market Value	86,962	86,962

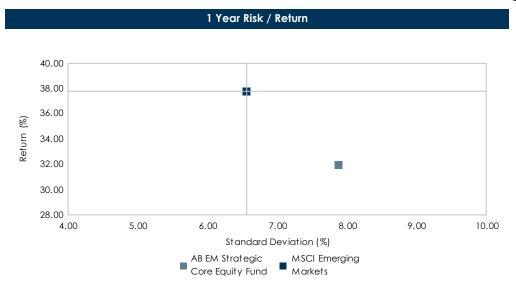
Country Allocation



■ AB EM Strategic Core Equity Fund ■ MSCI Emerging Markets

AB EM Strategic Core Equity Fund

For the Periods Ending December 31, 2017



	AB EM Strategic Core	MSCI Emerging Markets
Return (%)	31.96	37.75
Standard Deviation (%)	7.87	6.56
Sharpe Ratio	3.96	5.64

	Benchmark Relative Statistics				
Beta	1.06				
R Squared (%)	77.57				
Alpha (%)	-6.02				
Tracking Error (%)	3.75				
Batting Average (%)	33.33				
Up Capture (%)	86.94				
Down Capture (%)	262.76				

1 Year Return Analysis

1 Year Portfolio Statistics

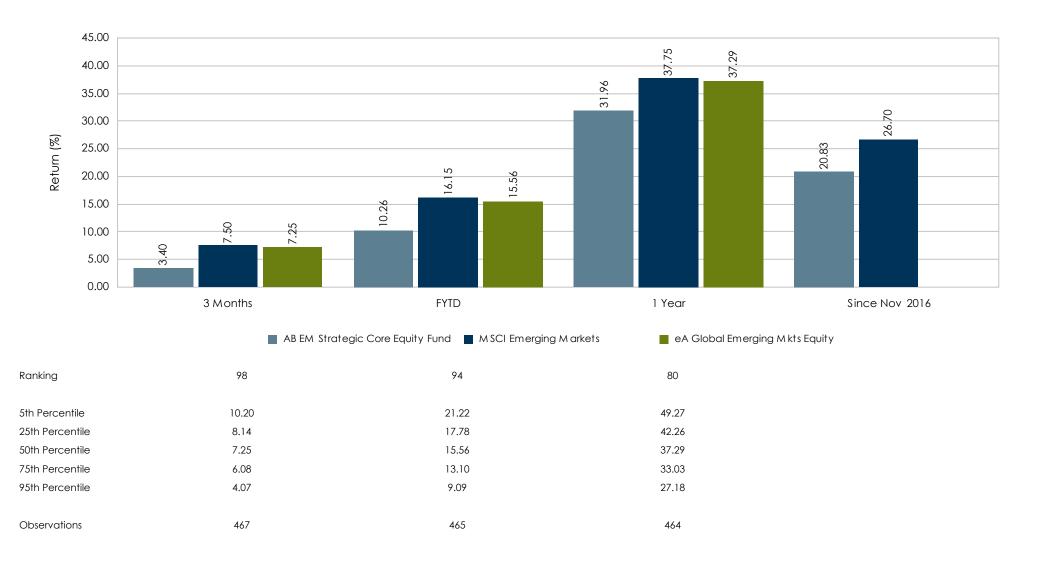


1 Year Growth of a Dollar

	AB EM Strategic	MSCI Emerging
	Core	Markets
Number of Months	12	12
Highest Monthly Return (%)	7.41	6.04
Lowest Monthly Return (%)	-1.06	-0.37
Number of Positive Months	10	11
Number of Negative Months	2	1
% of Positive Months	83.33	91.67

AB EM Strategic Core Equity Fund

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

Private Equity

For the Period Ending December 31, 2017

Summary of Cash Flows for 6 Months

Co	ash Outflows	Cash Inflows	Net Cash Flows
-1	17,586,018	23,870,889	6,284,871

Summary of Portfolio Inception to Date

sommary of Formone meetings to Bale	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Total	Feb-98	623,000,000	516,425,741	129,622,197	579,199,099	182,605,964	761,805,063	1.48x
Buyout	Apr-99	215,500,000	181,360,979	49,168,250	225,339,119	54,812,883	280,152,002	1.54x
Marathon IV	Apr-99	7,000,000	7,462,426	-	10,188,872	-	10,188,872	1.37x
Hicks, Muse	Oct-01	15,000,000	16,211,210	-	28,272,306	-	28,272,306	1.74x
Calera Capital (Fremont III)	Jan-02	10,000,000	10,998,419	271,104	10,210,986	84,290	10,295,276	0.94x
Arsenal Capital Partners	Jan-03	15,000,000	16,154,576	-	28,622,510	-	28,622,510	1.77x
Levine Leichtman	Jan-03	10,000,000	10,612,096	439,719	18,233,443	109,115	18,342,558	1.73x
Marathon Fund Limited Partnership V	Dec-04	10,000,000	10,557,584	-	19,631,139	-	19,631,139	1.86x
Arsenal Capital Partners II	Sep-06	15,000,000	14,898,996	668,860	25,056,057	6,452,859	31,508,916	2.11x
Thompson Street C.P. II	Dec-06	10,000,000	10,579,171	970,164	18,526,048	2,372,312	20,898,360	1.98x
Sun Capital Partners V	Apr-07	12,500,000	12,638,656	2,132,039	8,486,360	7,880,412	16,366,772	1.29x
HM Capital Sector Performance Fund	May-07	15,000,000	15,604,226	647,720	14,690,140	-	14,690,140	0.94x
Calera Capital Fund IV	Jan-08	10,000,000	8,750,484	1,249,516	12,569,574	1,261,685	13,831,259	1.58x
Levine Leichtman IV	Aug-08	10,000,000	9,233,896	1,092,138	13,464,498	3,605,010	17,069,508	1.85x
Thompson Street Capital III	Aug-11	7,500,000	7,386,691	113,309	7,152,961	4,355,897	11,508,858	1.56x
Arsenal Capital Partners III	Apr-12	7,500,000	7,914,948	1,809,271	8,378,985	5,548,632	13,927,617	1.76x
Apollo Investment Fund VIII	Oct-13	7,500,000	6,197,009	2,331,762	1,724,663	5,982,031	7,706,694	1.24x
Francisco Partners Fund IV	Nov-14	8,000,000	6,556,000	1,444,000	-	7,785,881	7,785,881	1.19x
CenterOak Equity Fund I	Aug-15	7,500,000	2,598,297	4,901,703	27,338	2,059,857	2,087,195	0.80x
Thompson Street Capital Partners IV	Jan-16	7,500,000	4,979,836	2,601,479	81,315	5,347,902	5,429,217	1.09x
Leonard Green Equity Investors VII	Feb-16	7,500,000	2,026,458	5,495,466	21,924	1,967,000	1,988,924	0.98x
Apollo Investment Fund IX	May-17	13,000,000	-	13,000,000	-	_	-	-
Francisco Partners Fund V	Sep-17	10,000,000	-	10,000,000	-	-	-	-
	·							

Private Equity

For the Period Ending December 31, 2017

Summary of Portfolio Inception to Date

	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value t
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
istressed	Feb-98	143,500,000	117,394,534	26,564,456	156,877,487	17,614,158	174,491,645	1.49x
Oaktree Opportunities Fund II	Feb-98	3,000,000	3,000,000	-	4,525,923	-	4,525,923	1.51x
Oaktree Opportunities Fund III	Sep-99	5,000,000	5,000,000	-	7,534,416	1,859	7,536,275	1.51x
Oaktree Opportunities Fund IV	Dec-01	10,000,000	10,000,000	-	16,802,931	1,797	16,804,728	1.68x
Siguler Guff Dist Opp I	Jan-03	20,000,000	19,568,416	-	30,991,330	-	30,991,330	1.58x
Oaktree Opportunities Fund V	Jun-04	4,000,000	4,000,000	-	6,485,537	70,983	6,556,520	1.64x
Oaktree Opportunities Fund VI	Aug-05	4,000,000	4,000,000	-	6,317,103	247	6,317,350	1.58x
Siguler Guff Dist Opp II	Sep-05	20,000,000	20,006,044	-	27,775,531	660,695	28,436,226	1.42x
Oaktree Opportunities VII A	Mar-07	7,500,000	7,554,219	-	9,687,042	693,589	10,380,631	1.37x
Oaktree Opportunities VII B	May-08	7,500,000	6,750,000	750,000	11,155,789	530,408	11,686,197	1.73x
Siguler Guff Dist Opp III	Aug-08	15,000,000	14,480,311	600,000	19,868,760	3,073,388	22,942,148	1.58x
Oaktree Opportunities VIII	Nov-09	7,500,000	6,750,000	750,000	8,555,639	1,310,736	9,866,375	1.46x
Oaktree Opportunities IX	Jun-12	7,500,000	7,500,000	-	2,388,312	5,790,894	8,179,206	1.09x
Oaktree European Dislocation Fund	Oct-13	7,500,000	4,285,544	3,214,456	4,039,174	829,390	4,868,564	1.14x
Oaktree Opportunities Fund X	Mar-15	7,500,000	4,500,000	3,750,000	750,000	4,650,172	5,400,172	1.20x
Oaktree Opportunities Fund Xb	Jun-15	7,500,000	-	7,500,000	-	-	-	-
Apollo EPF III	Jan-18	10,000,000	-	10,000,000	-	-	-	-
nerging Markets Focused	Jan-12	7,500,000	5,895,216	2,121,067	980,182	5,533,000	6,513,182	1.10x
Actis EM IV	Jan-12	7,500,000	5,895,216	2,121,067	980,182	5,533,000	6,513,182	1.10x
zzanine	Mar-99	49,500,000	49,713,588	5,435,280	68,017,157	3,420,731	71,437,888	1.44x
TCW Crescent II	Mar-99	7,000,000	6,726,192	-	9,793,612	-	9,793,612	1.46x
TCW Crescent Mezzanine Partner III	Jul-01	10,000,000	10,188,852	200,324	20,545,737	321,127	20,866,864	2.05x
TCW Crescent IV	Jun-06	10,000,000	9,873,180	1,921,076	11,064,296	90,382	11,154,678	1.13x
Newstone Capital Partners	Oct-06	5,000,000	5,697,863	116,709	7,070,952	17,664	7,088,616	1.24x
TCW Mezzanine Fund V	Jan-08	10,000,000	7,336,349	2,663,651	9,470,804	1,136,143	10,606,947	1.45x
Newstone Capital Partners II	Jan-10	7,500,000	9,891,152	533,520	10,071,756	1,855,415	11,927,171	1.21x
ner	Jan-13	31,500,000	18,610,446	14,324,496	6,212,207	14,754,458	20,966,665	1.13x
EnCap Energy Fund IX	Jan-13	6,500,000	6,794,230	379,681	3,537,115	5,118,782	8,655,897	1.27x
EnCap Energy Fund X	Mar-15	7,500,000	4,956,521	3,109,627	1,385,346	4,076,701	5,462,047	1.10x
ArcLight Energy Partners VI	Mar-15	7,500,000	6,503,961	1,190,922	1,289,746	5,255,724	6,545,470	1.01x
EnCap Energy Fund XI	Dec-16	10,000,000	355,734	9,644,266	-	303,251	303,251	0.85x
condary Fund of Funds	Dec-05	20,000,000	21,439,062	326,939	26,071,278	3,126,197	29,197,475	1.36x
Lexington VI	Dec-05	20,000,000	21,439,062	326,939	26,071,278	3,126,197	29,197,475	1.36x

Private Equity

For the Period Ending December 31, 2017

Summary of Portfolio Inception to Date

	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Venture Capital	Jul-99	155,500,000	122,011,916	31,681,709	95,701,669	83,344,537	179,046,206	1.47x
Weiss, Peck & Greer V, LLC	Jul-99	7,000,000	6,932,406	67,594	4,507,097	-	4,507,097	0.65x
Firstmark Venture Partners II (Pequot)	Feb-00	1,000,000	955,000	-	322,553	-	322,553	0.34x
Lightspeed Venture Partners VI (WPG)	Oct-00	12,000,000	11,010,270	989,730	10,396,934	127,012	10,523,946	0.96x
Midtown Fund III (Firstmark III,Pequot)	Oct-00	15,000,000	14,738,625	-	12,141,249	-	12,141,249	0.82x
Venture Lending & Leasing Fund	May-01	6,000,000	4,500,000	-	5,595,215	-	5,595,215	1.24x
Accel Europe	Jun-01	10,000,000	10,000,000	-	11,679,577	1,862,953	13,542,530	1.35x
Knightsbridge Fund VI	Dec-04	12,000,000	11,232,000	768,000	8,372,368	7,154,241	15,526,609	1.38x
Firstmark I (Pequot, Firstmark IV)	Nov-05	5,000,000	4,950,000	50,000	13,247,395	20,129,654	33,377,049	6.74x
Weathergage Venture Capital	Mar-07	7,500,000	6,862,500	637,500	6,969,343	6,355,903	13,325,246	1.94x
Warburg Pincus	Sep-07	15,000,000	15,000,000	-	15,641,118	7,005,251	22,646,369	1.51x
Weathergage Venture Cap II	Mar-11	7,500,000	6,900,000	600,000	1,978,928	9,733,789	11,712,717	1.70x
Firstmark II (Firstmark V)	Jul-11	5,000,000	4,822,365	177,635	497,531	7,143,054	7,640,585	1.58x
Warburg Pincus XI	Oct-12	7,500,000	7,338,750	161,250	3,691,886	6,630,940	10,322,826	1.41x
Firstmark Capital Fund III	Oct-13	5,000,000	4,200,000	800,000	141,977	4,921,406	5,063,383	1.21x
Firstmark Capital Opportunity Fund I	May-14	5,000,000	5,000,000	-	441,498	5,089,437	5,530,935	1.11x
Warburg Pincus XII	Dec-15	10,000,000	4,845,000	5,155,000	77,000	4,797,179	4,874,179	1.01x
FirstMark Capital Fund IV	May-16	7,500,000	825,000	6,675,000	-	738,363	738,363	0.89x
Weathergage Venture Capital IV	Dec-16	10,000,000	1,900,000	8,100,000	-	1,655,355	1,655,355	0.87x
FirstMark Capital Opportunity Fund II	Jan-18	7,500,000	-	7,500,000	-	-	-	-

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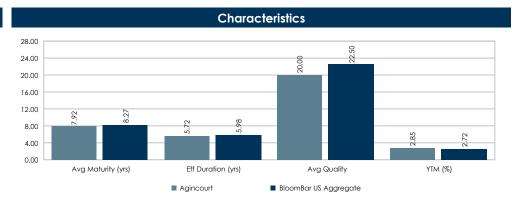
Fixed Income Manager Performance

Agincourt Core Fixed Income

For the Periods Ending December 31, 2017

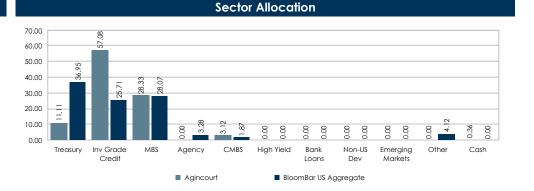
Account Description

- Strategy Core Bonds
- Vehicle Separately Managed Account
- Benchmark BloomBar US Aggregate
- Performance Inception Date October 1999
- **Fees** 25 bps on the first \$25 million, 20 bps on the next \$75 million, 15 bps on the next \$50 million, and 10 bps on the next \$50 million

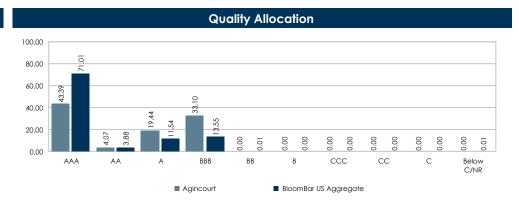


Performance Goals

- Outperform the BloomBar US Aggregate.
- Over rolling three year periods, rank above the median in the eA US Core
 Fixed Income universe.



Dollar Growth Summary (\$000s) FYTD 1 Year **Beginning Market Value** 165,989 170.040 Net Additions -131 -293 Return on Investment 2,796 7,008 3,251 6,563 Income -455 Gain/Loss 445 **Ending Market Value** 172,704 172,704

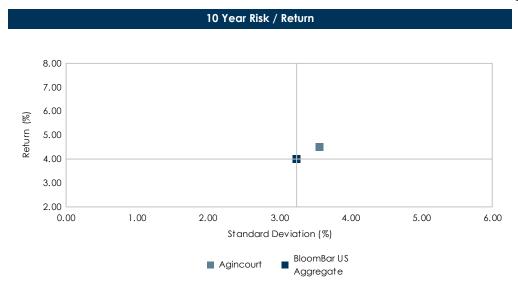


The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

Agincourt Core Fixed Income

For the Periods Ending December 31, 2017

Sharpe Ratio



Agincourt BloomBar US Aggregate Return (%) 4.50 4.01 Standard Deviation (%) 3.56 3.24

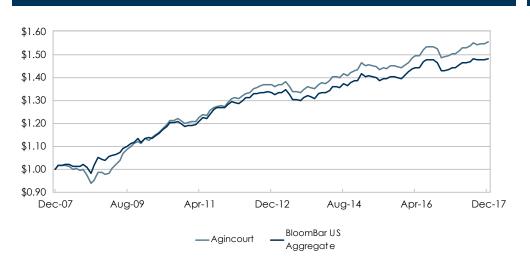
Benchmark Relative Statistics						
Beta	0.99					
R Squared (%)	81.45					
Alpha (%)	0.52					
Tracking Error (%)	1.53					
Batting Average (%)	61.67					
Up Capture (%)	108.28					
Down Capture (%)	101.02					

10 Year Return Analysis

10 Year Portfolio Statistics

1.19

1.15

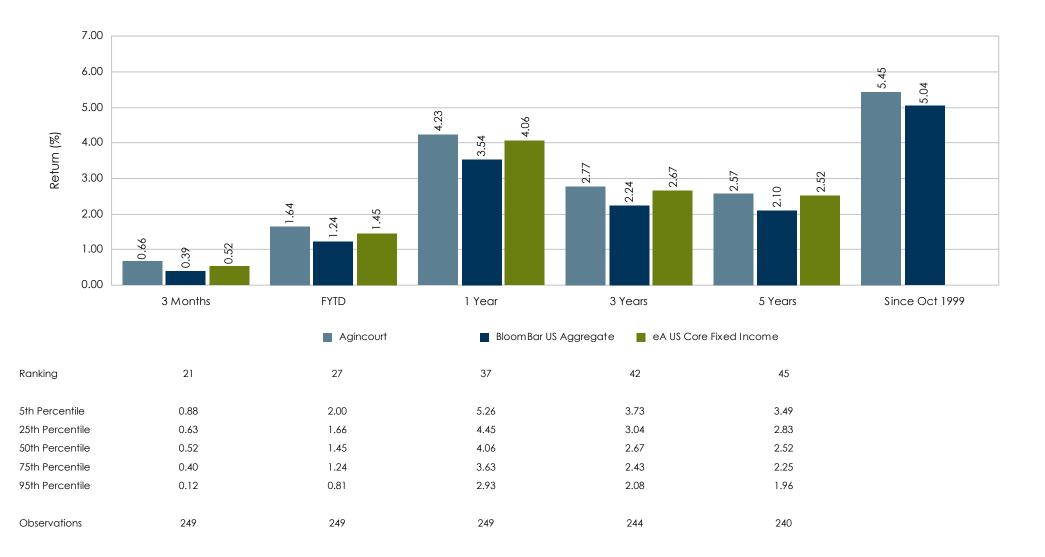


10 Year Growth of a Dollar

	Agincourt	BloomBar US Aggregate
Number of Months	120	120
Highest Monthly Return (%)	3.80	3.73
Lowest Monthly Return (%)	-3.54	-2.37
Number of Positive Months	79	79
Number of Negative Months	41	41
% of Positive Months	65.83	65.83

Agincourt Core Fixed Income

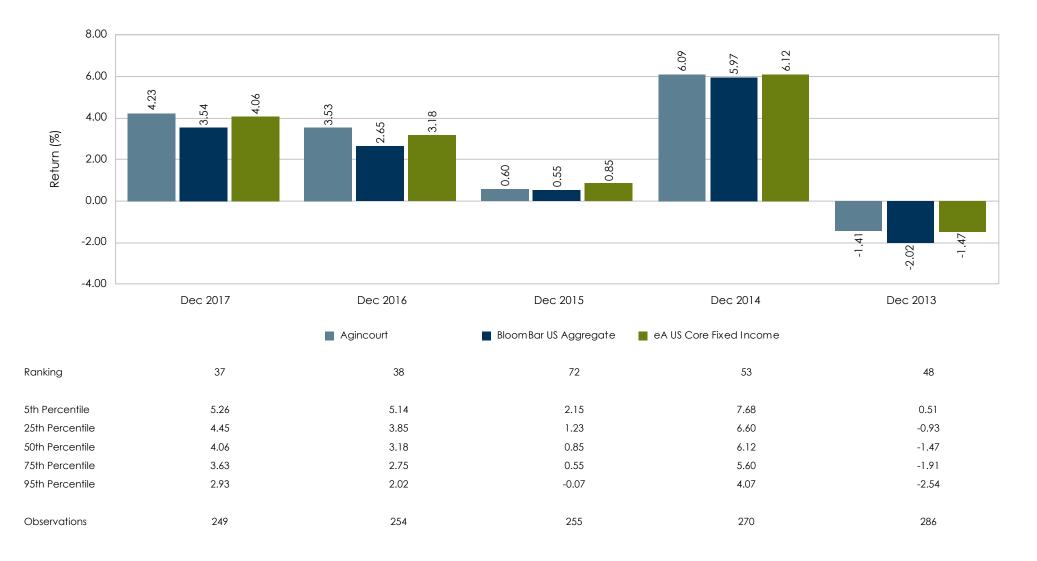
For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

Agincourt Core Fixed Income

For the One Year Periods Ending December



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending December 31, 2017

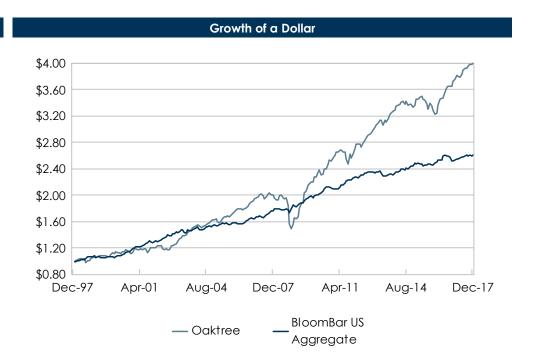
Account Description

- Strategy Multi-Sector Fixed Income
- Vehicle Non-Mutual Commingled
- Benchmark BloomBar US Aggregate
- **Performance Inception Date** February 1998
- Fees 50 bps

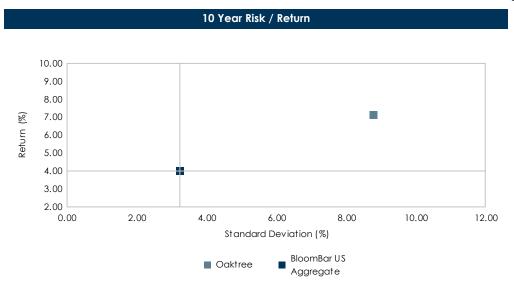
Performance Goals

- Outperform the BloomBar US Aggregate.
- Each underlying strategy should outperform its relevant benchmark.

Dollar Growth Summary (\$000s)			
	FYTD	1 Year	
Beginning Market Value	120,555	115,739	
Net Additions	-419	-746	
Return on Investment	3,256	8,400	
Endina Market Value	123,392	123.392	



For the Periods Ending December 31, 2017



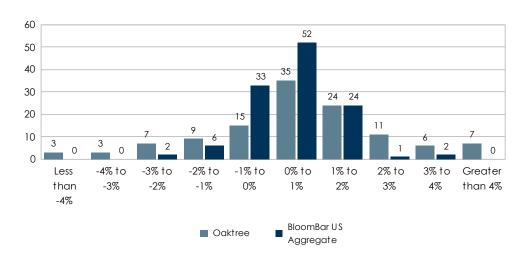
BloomBar US Oaktree Aggregate

10 Year Portfolio Statistics

	Oaktree	Aggregate
Return (%)	7.13	4.01
Standard Deviation (%)	8.78	3.24
Sharpe Ratio	0.78	1.15

Benchmark Relative Statistics		
0.69		
6.57		
4.62		
8.54		
58.33		
130.50		
55.26		
	0.69 6.57 4.62 8.54 58.33 130.50	

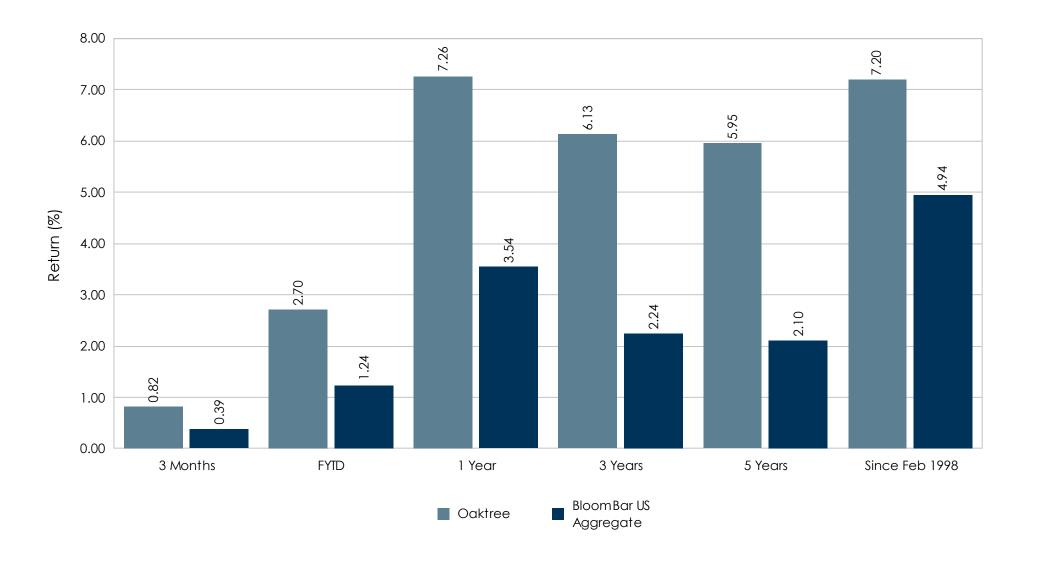
10 Year Return Histogram



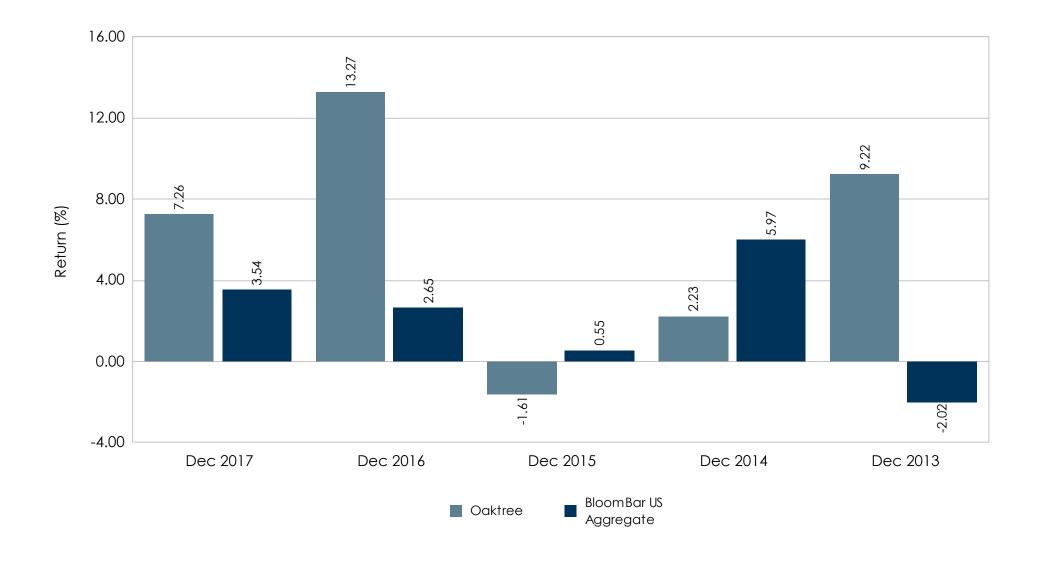
10 Year Return Analysis

	Oaktree	BloomBar US Aggregate
Number of Months	120	120
Highest Monthly Return (%)	7.58	3.73
Lowest Monthly Return (%)	-14.86	-2.37
Number of Positive Months	83	79
Number of Negative Months	37	41
% of Positive Months	69.17	65.83

For the Periods Ending December 31, 2017



For the One Year Periods Ending December

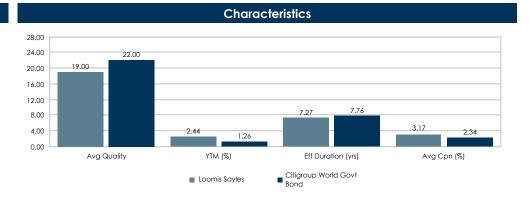


Loomis Sayles

For the Periods Ending December 31, 2017

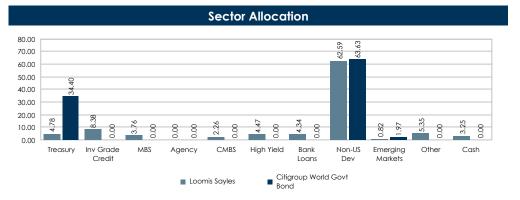
Account Description

- Strategy Multi-Sector Fixed Income
- Vehicle Non-Mutual Commingled
- Benchmark Citigroup World Govt Bond
- Performance Inception Date June 2008
- Fees First \$75M at 35 bps, balance at 25 bps

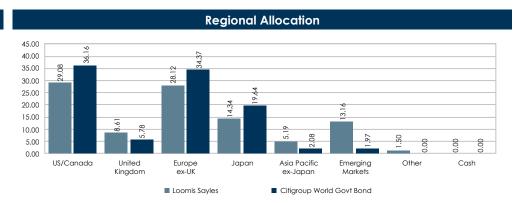


Performance Goals

- Outperform the Citigroup World Govt Bond.
- Over rolling three year periods, rank above the median in the eA All Global Fixed Income universe.



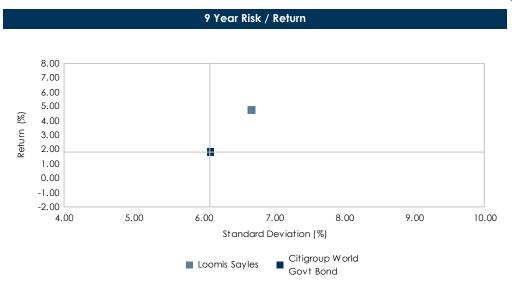
PYTD 1 Year Beginning Market Value 94,897 89,634 Net Additions -157 -308 Return on Investment 3,649 9,063 Ending Market Value 98,389 98,389



Characteristic and allocation charts represents data of the Loomis World Bond NH Trust (Non-Mutual Commingled). The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

Loomis Sayles

For the Periods Ending December 31, 2017

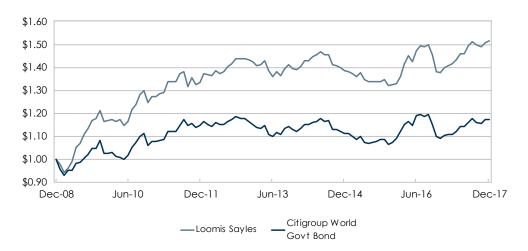


	Loomis Sayles	Citigroup World Govt Bond
Return (%)	4.74	1.79
Standard Deviation (%)	6.67	6.09
Sharpe Ratio	0.69	0.27

Benchmark Relative Statistics		
Beta	1.00	
R Squared (%)	83.47	
Alpha (%)	2.94	
Tracking Error (%)	2.71	
Batting Average (%)	68.52	
Up Capture (%)	126.32	
Down Capture (%)	90.66	
Down Capture (%)	90.66	

9 Year Portfolio Statistics



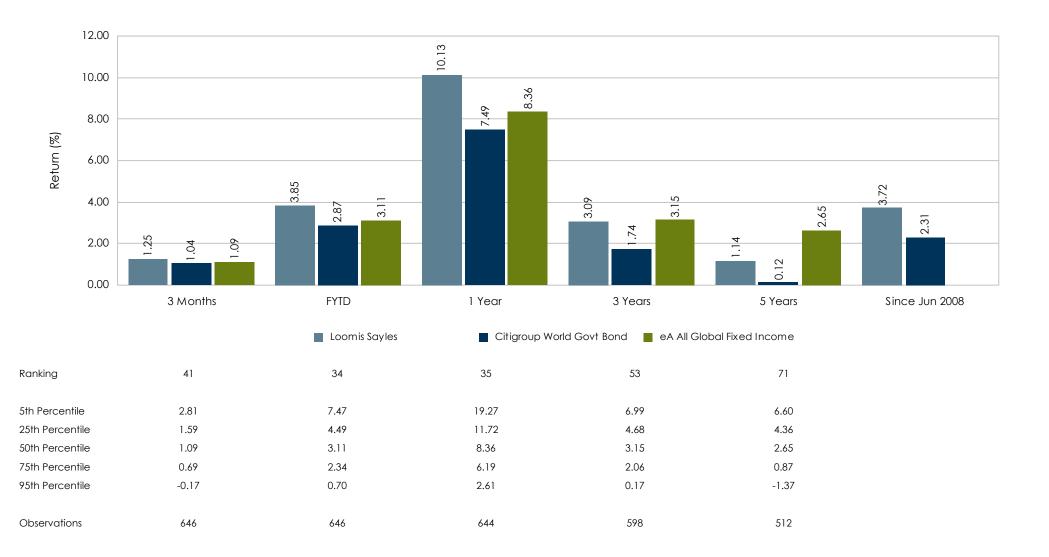


9 Year Return Analysis

	Loomis Sayles	Citigroup World Govt Bond
Number of Months	108	108
Highest Monthly Return (%)	6.12	3.69
Lowest Monthly Return (%)	-4.95	-5.03
Number of Positive Months	69	62
Number of Negative Months	39	46
% of Positive Months	63.89	57.41

Loomis Sayles

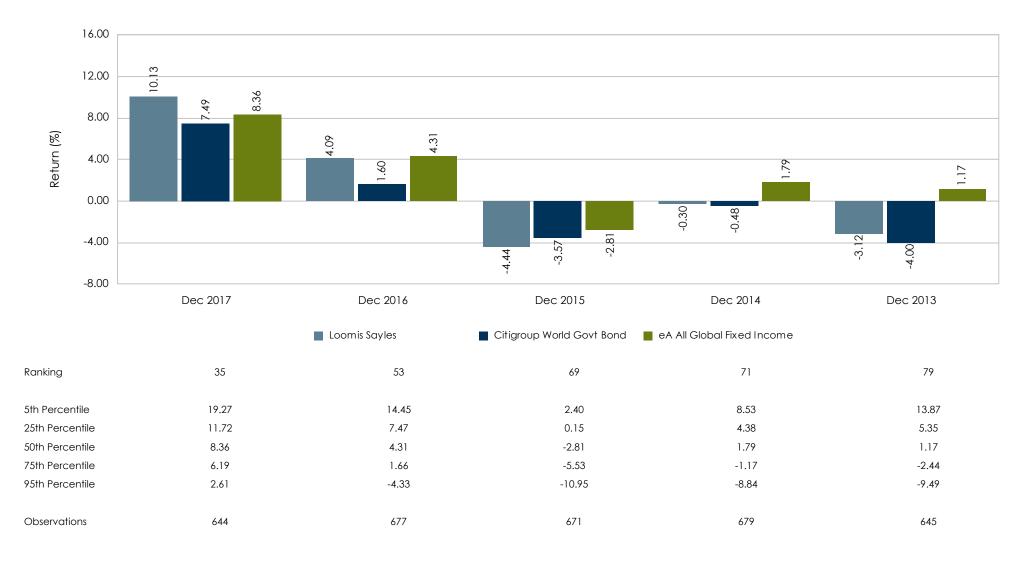
For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

Loomis Sayles

For the One Year Periods Ending December



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

Private Credit

For the Period Ending December 31, 2017

Summary of Cash Flows for 6 Months

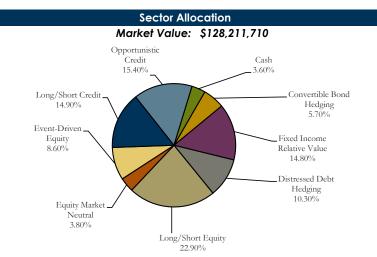
Cash Outflows	Cash Inflows	Net Cash Flows
-10,197,689	1,632,006	-8,565,683

Summary of Portfolio Inception to Date

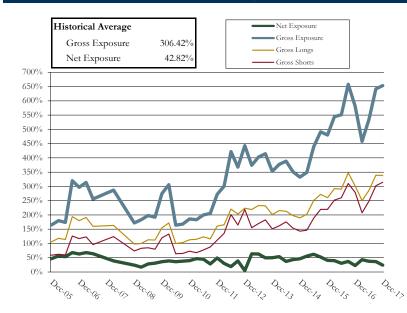
	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Total	Sep-16	60,000,000	28,882,292	31,717,946	2,112,868	28,914,057	31,026,925	1.07x
Mezzanine	Jan-17	20,000,000	12,882,292	7,142,008	888,084	13,093,788	13,981,872	1.09x
Newstone Capital Partners III	Jan-17	20,000,000	12,882,292	7,142,008	888,084	13,093,788	13,981,872	1.09x
Other	Sep-16	40,000,000	16,000,000	24,575,938	1,224,784	15,820,269	17,045,053	1.07x
LBC Credit Partners Fund IV	Sep-16	40,000,000	16,000,000	24,575,938	1,224,784	15,820,269	17,045,053	1.07x

PAAMCO

For the Periods Ending December 31, 2017



Historical Net & Gross Exposure



Characteristic data provided by manager.

Strategy

- Low Volatility Hedge Fund of Funds
- Performance Inception Date: October 2002
- Redemption: Quarterly with 60 days written notice

Objectives and Constraints

- Target annualized return: 10-12%
- Target annualized standard deviation: approximate the standard deviation of the Barclays Capital Aggregate
- Maximum number of managers: 55
- Allocation to any manager: not to exceed 5% at cost or 7% at market value
- Allocation to Convertible Bond Hedging: 20-40%
- Allocation to Sovereign Debt & Mortgage Hedging: 0-10%
- Allocation to Credit Hedging & Distressed Debt Hedging: 0-25%
- Allocation to Merger Arbitrage: 0-20%
- Allocation to Equity Market Neutral & Long/Short Equity: 20-45%
- Allocation to Short Biased: 0-5%
- Allocation to Cash: 0-5%

Exposure

■ Net Exposure: 24.10%

■ Gross Exposure: 653.10%

PAAMCO

For the Periods Ending December 31, 2017

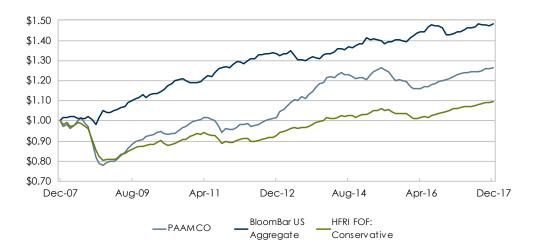


BloomBar US HFRI FOF: Conservative **PAAMCO** Aggregate 2.37 4.01 0.92 Return (%) 3.24 Standard Deviation (%) 5.78 4.14 **Sharpe Ratio** 0.36 1.15 0.16

10 Year Portfolio Statistics

Benchmark Relative Statistics			
Beta	-0.04	1.31	
R Squared (%)	0.04	88.09	
Alpha (%)	2.70	1.21	
Tracking Error (%)	6.68	2.37	
Batting Average (%)	58.33	62.50	
Up Capture (%)	33.10	139.45	
Down Capture (%)	-6.81	112.06	

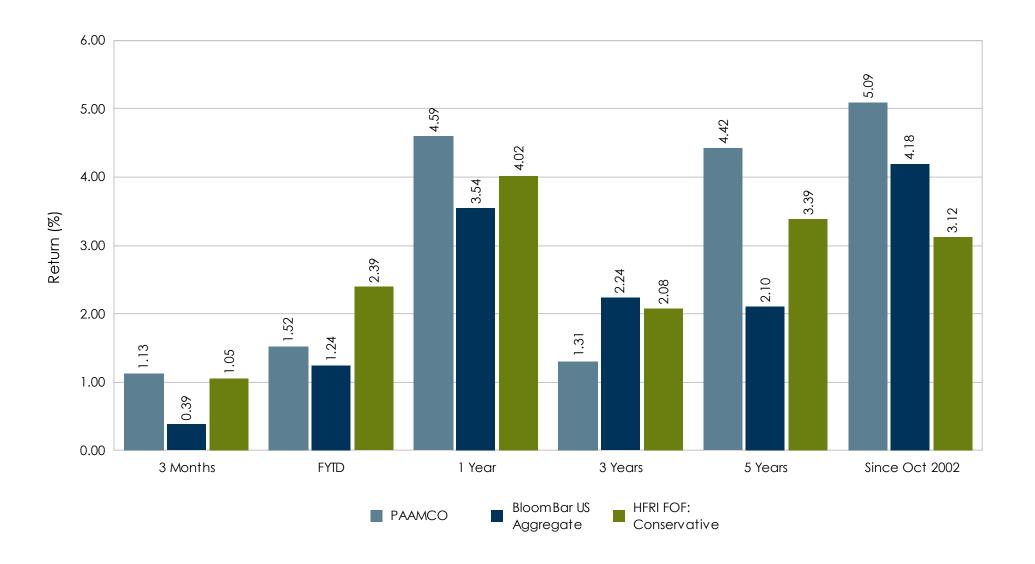
10 Year Growth of a Dollar



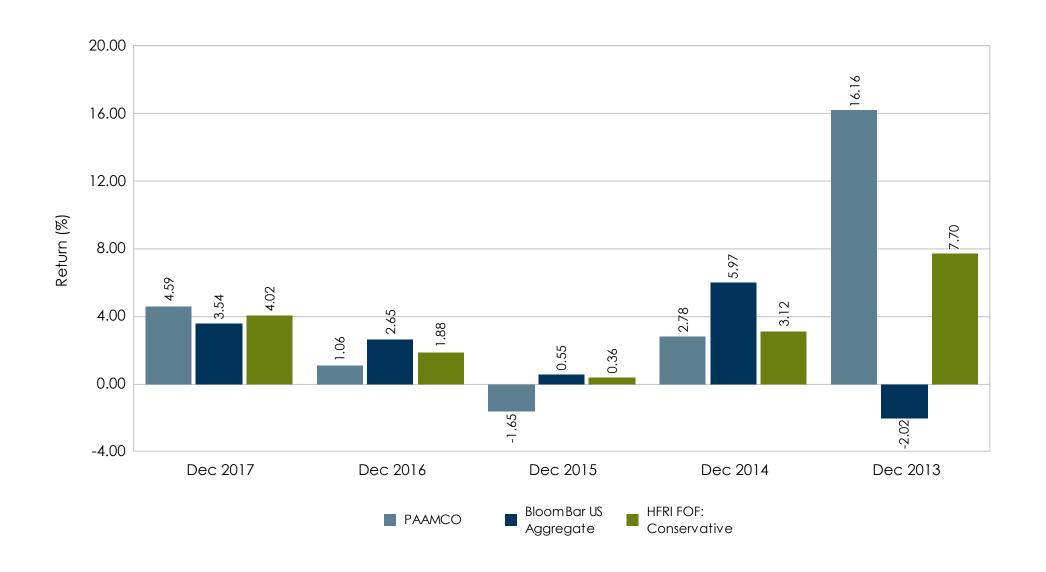
10 Year Return Analysis

	PAAMCO	BloomBar US Aggregate	HFRI FOF: Conservative
Number of Months	120	120	120
Highest Monthly Return (%)	2.84	3.73	2.42
Lowest Monthly Return (%)	-9.06	-2.37	-5.91
Number of Positive Months	81	79	81
Number of Negative Months	39	41	39
% of Positive Months	67.50	65.83	67.50

PAAMCOFor the Periods Ending December 31, 2017



PAAMCOFor the One Year Periods Ending December

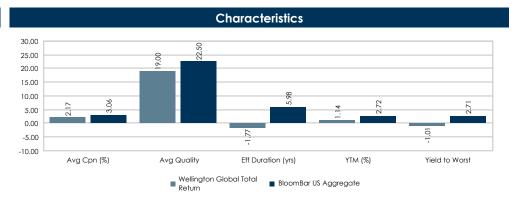


Wellington Global Total Return

For the Periods Ending December 31, 2017

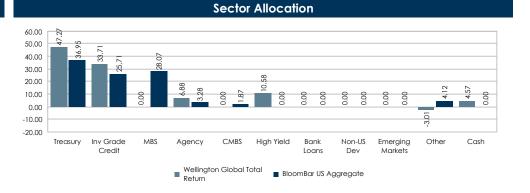
Account Description

- Strategy Absolute Return
- Vehicle Non-Mutual Commingled
- Benchmark BloomBar US Aggregate
- Performance Inception Date December 2016
- Fees 25 bps, plus 20% of excess return beyond cash + 1%

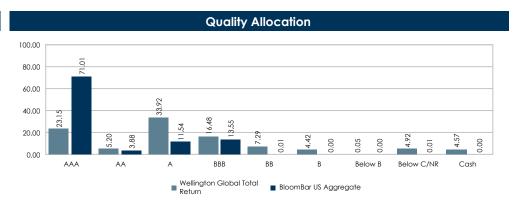


Performance Goals

- Outperform the LIBOR 3 Month.
- Over rolling three year periods, rank above the median in the eA Global Unconstrained Fixed Income universe.



Dollar Growth Summary (\$000s) FYTD 1 Year Beginning Market Value 59,877 59,862 Net Additions -75 -125 Return on Investment 1,017 1,082 Ending Market Value 60,819 60,819



The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

Wellington Global Total Return

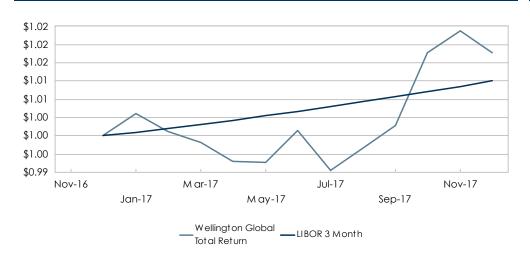
For the Periods Ending December 31, 2017



	Wellington Global Total Return	LIBOR 3 Month
Return (%)	1.81	1.20
Standard Deviation (%)	2.35	0.05
Sharpe Ratio	0.43	8.11

1 Year Portfolio Statistics

1 Year Growth of a Dollar

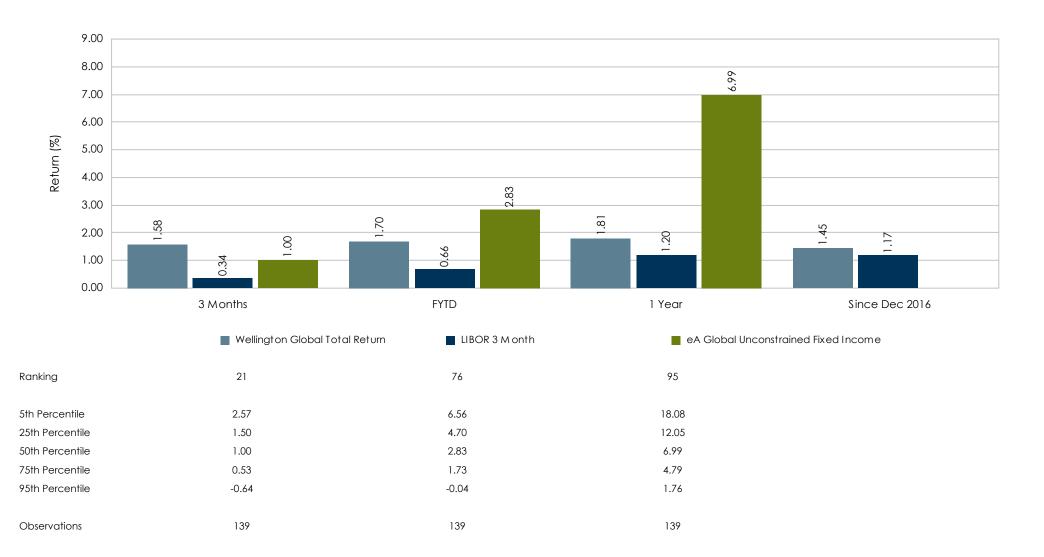


1 Year Return Analysis

	Wellington Global Total Return	LIBOR 3 Month
Number of Months	12	12
Highest Monthly Return (%)	1.60	0.12
Lowest Monthly Return (%)	-0.87	0.08
Number of Positive Months	6	12
Number of Negative Months	6	0
% of Positive Months	50.00	100.00

Wellington Global Total Return

For the Periods Ending December 31, 2017



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

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Real Assets Manager Performance

JP Morgan Strategic Property

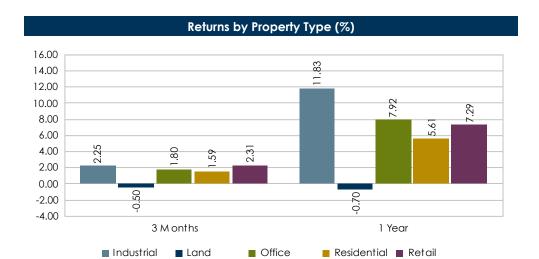
For the Periods Ending December 31, 2017

Account Description

- **Strategy** Core Real Estate
- Vehicle Non-Mutual Commingled
- Benchmarks NFI ODCE Net and NCREIF Property
- Performance Inception Date December 2007
- Fees First \$100M at 92 bps, next \$150M at 85 bps, next \$250M at 80 bps, balance at 75 bps

Performance Goals

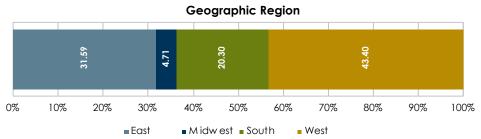
Outperform the NFI ODCE Net.





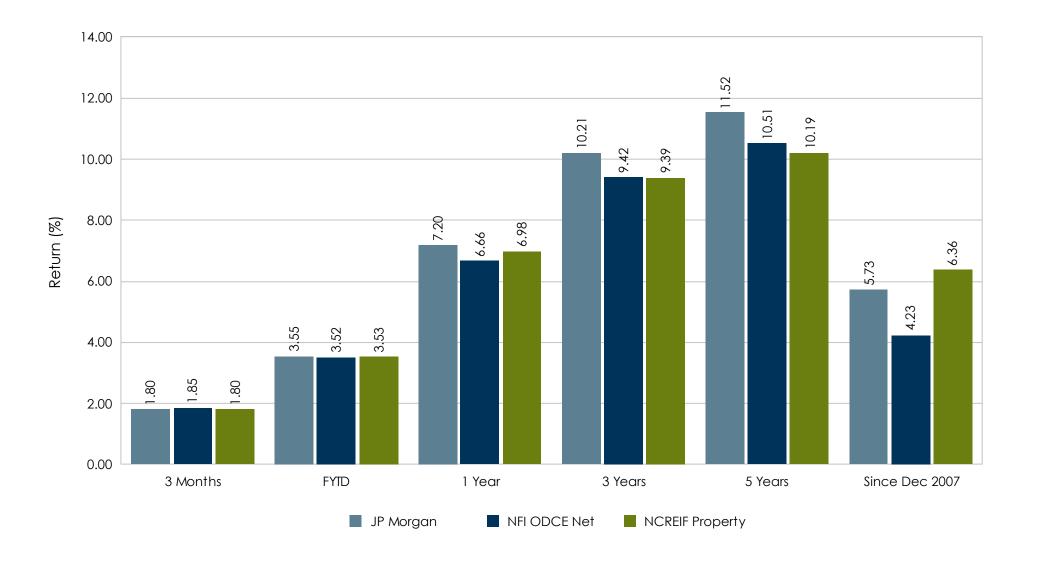
Fund Information	
Gross Market Value	\$41,595,058,850
■ Net Market Value	\$31,894,808,440
Cash Balance of Fund	\$1,910,337,718
# of Properties	160
# of Participants	426





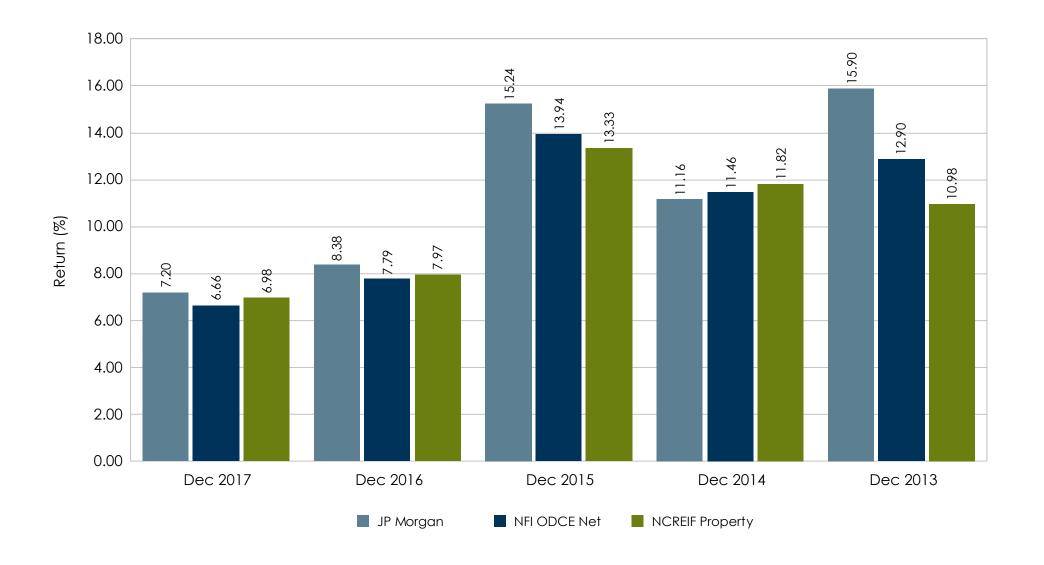
JP Morgan Strategic Property

For the Periods Ending December 31, 2017



JP Morgan Strategic Property

For the One Year Periods Ending December



Blackstone Property Partners

For the Periods Ending December 31, 2017

Account Description

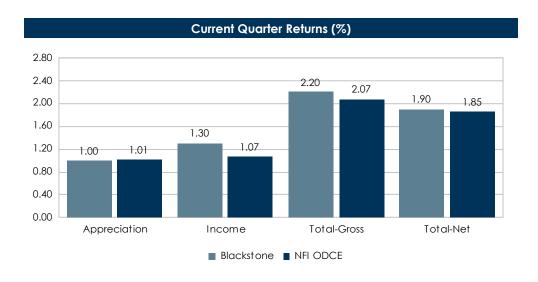
- **Strategy** Core Real Estate
- Vehicle Limited Partnership
- Benchmarks NFI ODCE Net and NCREIF Property
- Performance Inception Date January 2015

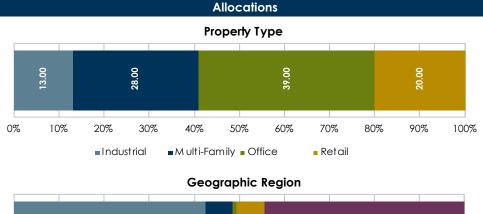
	Account Information	
Endina Market Value		\$38,748,249

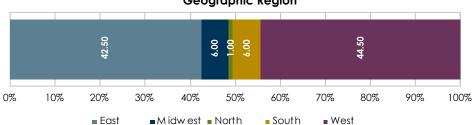
Fund Inforn	nation
Net Market Value	\$7,000,000,000
# of Properties	24

Performance Goals

Outperform the NFI ODCE Net and NCREIF Property.

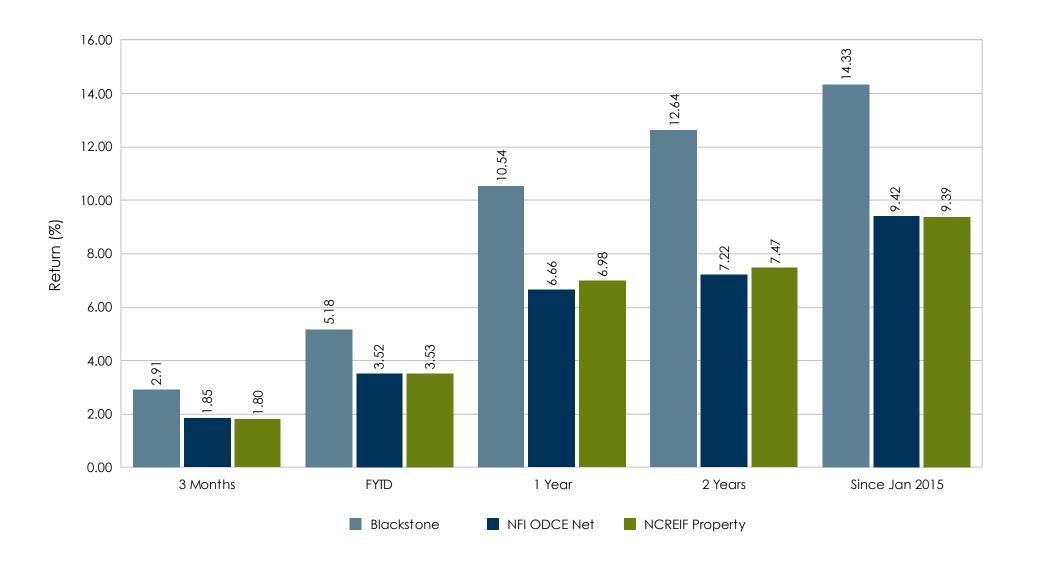






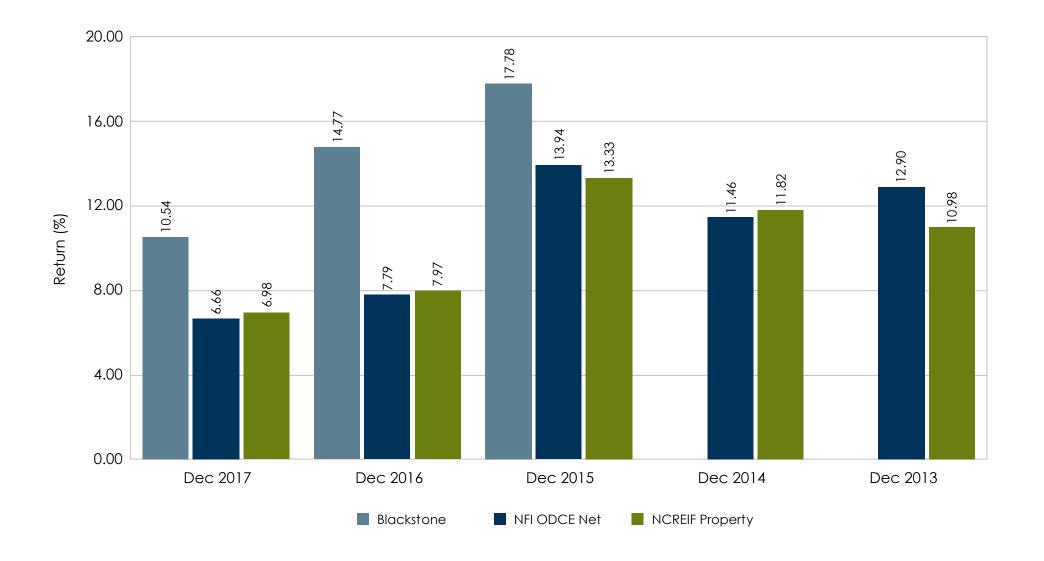
Blackstone Property Partners

For the Periods Ending December 31, 2017



Blackstone Property Partners

For the One Year Periods Ending December



Private Real Estate

For the Period Ending December 31, 2017

Summary of Cash Flows for 6 Months

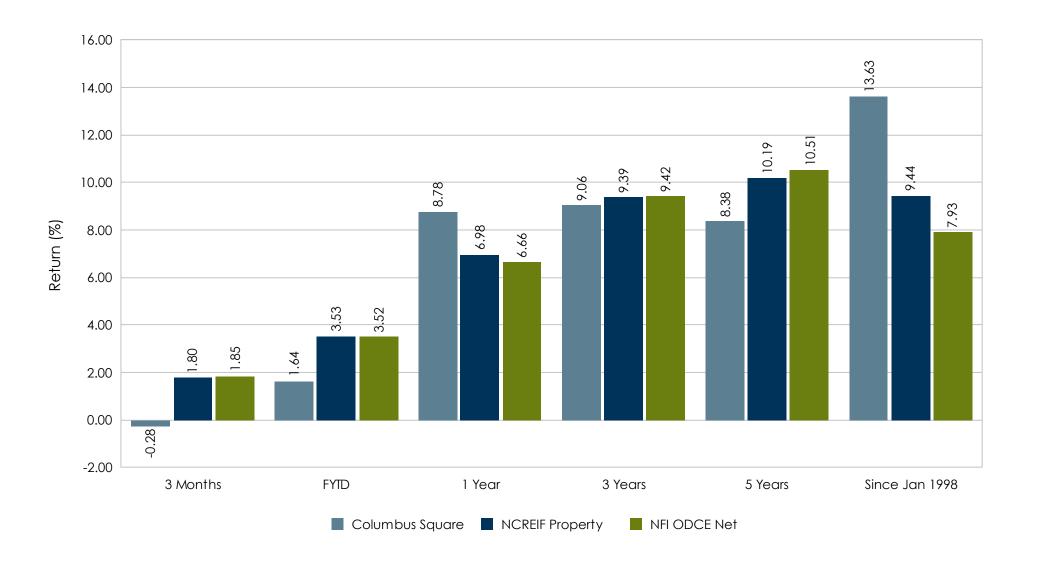
Cash Outflows	Cash Inflows	Net Cash Flows
-7,121,815	7,604,376	482,561

Summary of Portfolio Inception to Date

	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Total	Jul-11	92,500,000	77,916,843	23,656,451	43,946,773	57,848,164	101,794,937	1.31x
Real Estate	Jul-11	92,500,000	77,916,843	23,656,451	43,946,773	57,848,164	101,794,937	1.31x
Siguler Guff Dist. Real Estate Opp.	Jul-11	10,000,000	8,608,587	1,650,773	7,690,931	6,931,463	14,622,394	1.70x
TA Associates Realty X	Nov-12	20,000,000	20,000,000	-	15,339,014	13,662,127	29,001,141	1.45x
Cerberus Real Estate Fund III	May-13	20,000,000	25,185,319	3,552,375	16,806,989	16,137,716	32,944,705	1.31x
Hall Capital Fund III	Feb-14	7,500,000	6,959,483	540,517	1,812,591	5,736,530	7,549,121	1.08x
Siguler Guff Dist. Real Estate Opp. II	Nov-14	10,000,000	8,037,577	1,962,423	1,555,435	7,984,941	9,540,376	1.19x
Cerberus Institutional Real Estate Partners 4	Jun-16	15,000,000	6,319,253	8,756,987	741,813	4,588,763	5,330,576	0.84x
Siguler Guff Dist. Real Estate Opp. II B	May-17	10,000,000	2,806,624	7,193,376	-	2,806,624	2,806,624	1.00x

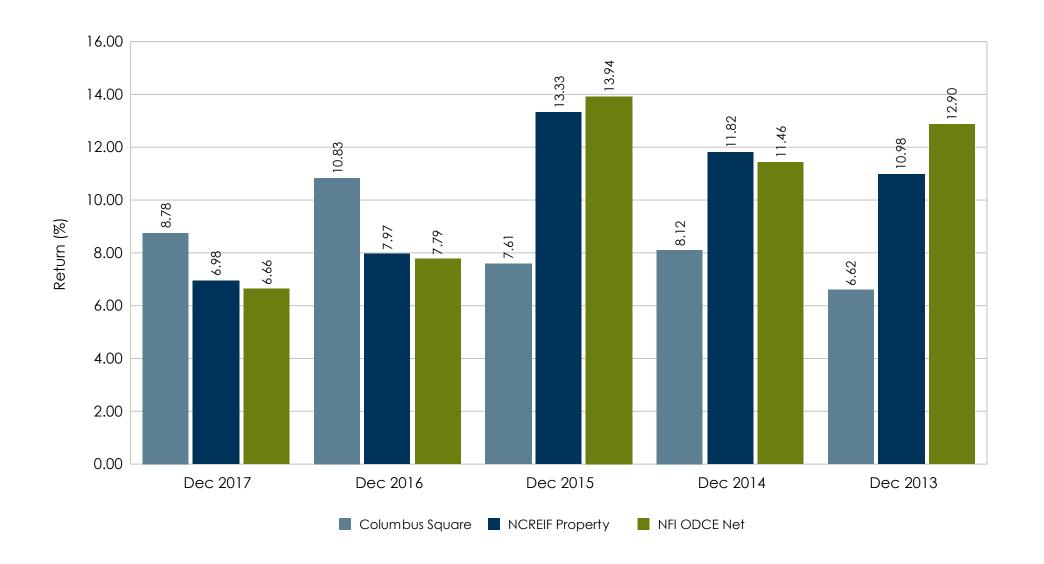
Columbus Square

For the Periods Ending December 31, 2017



Columbus Square

For the One Year Periods Ending December



Mount Lucas Peak Partners

For the Periods Ending December 31, 2017

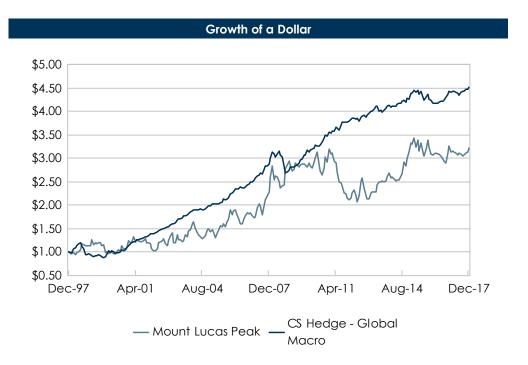
Account Description

Performance Goals

• Outperform the CS Hedge - Global Macro.

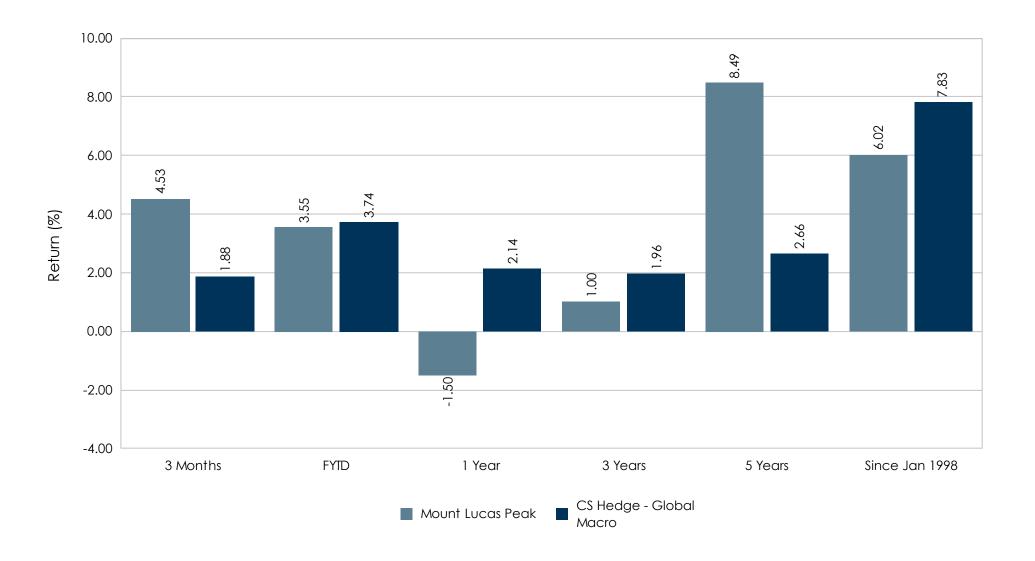
- **Strategy** Commodities
- Vehicle Non-Mutual Commingled
- Benchmark CS Hedge Global Macro
- Performance Inception Date January 1998
- Fees 100 bps and an annual incentive fee

Dollar Gro	owth Summary (\$000s)	
	FYTD	1 Year
Beginning Market Value	29,564	31,236
Net Additions	-148	-298
Return on Investment	1,045	-477
Ending Market Value	30,460	30.460



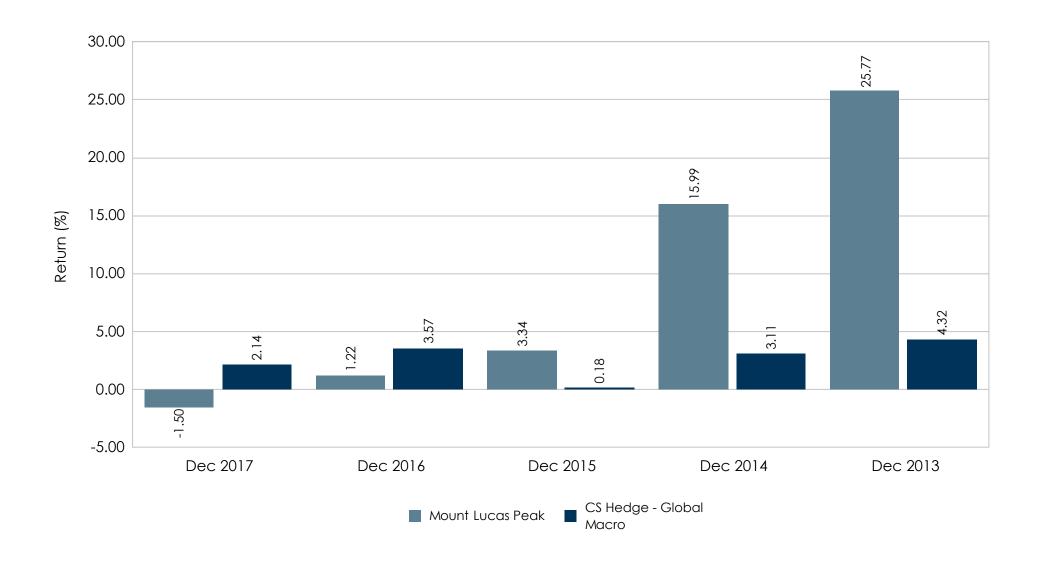
Mount Lucas Peak Partners

For the Periods Ending December 31, 2017



Mount Lucas Peak Partners

For the One Year Periods Ending December



Gresham Tap Fund

For the Periods Ending December 31, 2017

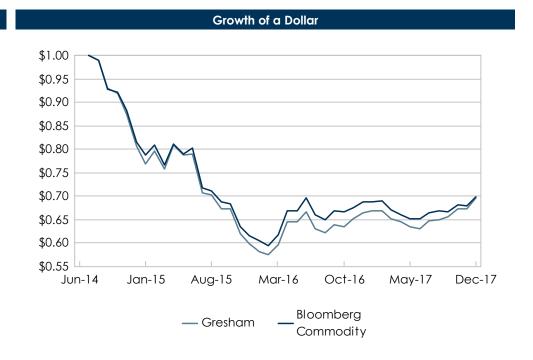
Account Description

Performance Goals

• Outperform the Bloomberg Commodity over a complete market cycle.

- **Strategy** Commodities
- Vehicle Non-Mutual Commingled
- **Benchmark** Bloomberg Commodity
- Performance Inception Date August 2014
- **Fees** 75 bps

Dollar Growth Summary (\$000s)						
	FYTD	1 Year				
Beginning Market Value	47,297	49,881				
Net Additions	0	0				
Return on Investment	4,884	2,300				
Ending Market Value	52.182	52,182				



Gresham TAP Fund

Attribution Analysis and Bloomberg Commodity Comparison

For the Periods Ending December 31, 2017

		Portfolio W	eights (%)	QTD R	OI (%)	ROI	DIFF	YTD R	OI (%)	ROI	DIFF
		<u>TAP</u>	<u>Bloomberg</u>	<u>TAP</u>	<u>Bloomberg</u>	<u>Abs</u>	Est. Wgtd	<u>TAP</u>	<u>Bloomberg</u>	<u>Abs</u>	Est. Wgtd
Total Gross Return		100.00	100.00	6.11	4.39	-	1.73	4.70	0.75		3.95
AGRICULTURE		13.06	21.39	-3.69	-4.05	0.37	0.79	-10.48	-10.91	0.42	1.05
	Corn	3.17	6.74	-4.73	-4.88	0.15	0.36	-12.43	-12.91	0.48	0.58
	Soybean	4.08	5.24	-2.81	-2.89	0.08	0.09	-8.32	-8.99	0.67	-0.01
	Wheat (CBOT)	1.92	3.11	-8.21	-8.46	0.25	0.17	-13.28	-13.35	0.06	0.19
	Wheat (KC)	0.49	1.08	-7.20	-7.19	-0.01	0.08	-15.87	-15.73	-0.14	0.11
	Wheat (MGE)	0.18		-3.24		-3.24	-0.02	11.47		11.47	0.01
	Soybean Meal	2.18	2.74	-1.23	-1.54	0.31	0.05	-4.62	-5.70	1.08	0.03
	Soybean Oil	1.04	2.48	0.03	0.28	-0.25	0.07	-7.55	-7.90	0.36	0.15
ENERGY		35.54	30.44	11.98	8.60	3.38	1.31	0.37	-5.21	5.59	1.80
	Crude Oil	9.83	7.34	15.65	15.64	0.01	0.21	3.79	4.11	-0.31	0.00
	Brent Crude	10.34	8.50	18.45	18.87	-0.42	0.28	11.81	13.17	-1.36	-0.03
	Heating Oil	2.94	4.23	14.18	13.57	0.61	-0.06	12.73	13.93	-1.19	-0.15
	Gas Oil	4.01		12.22		12.22	0.29	17.16		17.16	0.47
	Natural Gas	3.87	6.54	-10.66	-12.06	1.39	0.52	-35.07	-36.98	1.91	1.20
	Unleaded Gas (RBOB)	4.55	3.82	13.52	13.34	0.18	0.08	7.31	1.82	5.49	0.31
INDUSTRIAL METALS	· · ·	20.76	20.87	9.22	10.38	-1.16	-0.21	28.31	28.13	0.18	0.22
	Aluminum	5.68	5.63	7.05	7.27	-0.21	0.01	30.92	29.94	0.97	0.27
	Copper (LME)	7.54		11.33		11.33	0.49	29.13		29.13	1.81
	Copper (NY)	2.04	9.13	10.99	10.96	0.03	-0.45	28.19	27.95	0.24	-1.57
	Nickel	1.60	2.94	20.81	20.96	-0.15	-0.22	24.43	24.40	0.03	-0.27
	Zinc	2.69	3.17	5.61	5.64	-0.04	-0.01	28.76	28.49	0.27	-0.24
	Lead	1.20		0.03		0.03	-0.05	21.79		21.79	0.21
LIVESTOCK		10.15	6.09	1.87	2.99	-1.12	-0.19	13.07	5.36	7.71	0.59
	Live Cattle	6.31	3.91	1.94	0.62	1.32	-0.02	14.02	8.11	5.91	0.29
	Lean Hogs	1.99	2.18	8.21	7.52	0.70	0.01	7.73	1.82	5.91	0.03
	Feeder Cattle	1.84		-4.06		-4.06	-0.17	19.34		19.34	0.27
PRECIOUS METALS		15.29	15.53	2.28	1.73	0.55	0.08	11.52		1.62	-0.07
	Gold Silver	11.15 2.70	11.57	1.55 2.25	1.56 2.24	-0.01	0.00	11.82 4.71		0.09	-0.26
	Silver Platinum	0.67	3.96	2.25	2.24	0.01 2.03	0.03 -0.02	1.97	4.79	-0.08 1.97	-0.12 0.02
	Palladium	0.87		14.41		14.41	0.07	58.31		58.31	0.02
FOODS & FIBERS	Talladiom	5.20	5.68	3.67	4.85	-1.17	-0.06	-13.20	-15.60	2.41	0.27
	Cotton	1.54	1.43	15.17	14.53	0.63	0.00	15.42		3.94	0.05
	Sugar	1.46	2.30	6.61	7.52	-0.91	-0.04	-25.62		0.47	0.19
	White Sugar	0.18		9.55		9.55	0.01	-20.91		-20.91	-0.06
	Coffee	1.24	1.95	-3.99	-4.01	0.01	0.08	-16.71	-16.81	0.10	0.24
	Coffee (Robusta)	0.15		-10.87		-10.87	-0.03	-18.69		-18.69	-0.05
Darkar rayar dala al las casa	Cocoa	0.63		-6.97		-6.97	-0.08	-12.63		-12.63	-0.10

Data provided by manager.

⁻A composite weighted return is shown for Wheat, Crude Oil, Heating Oil and Copper. Wheat (KC), Brent Crude, Gas Oil, Copper (NY) and Cocoa were added to TAP's portfolio in the middle of January 2008. Wheat (MGE) was added to TAP's portfolio in the middle of January 2010.

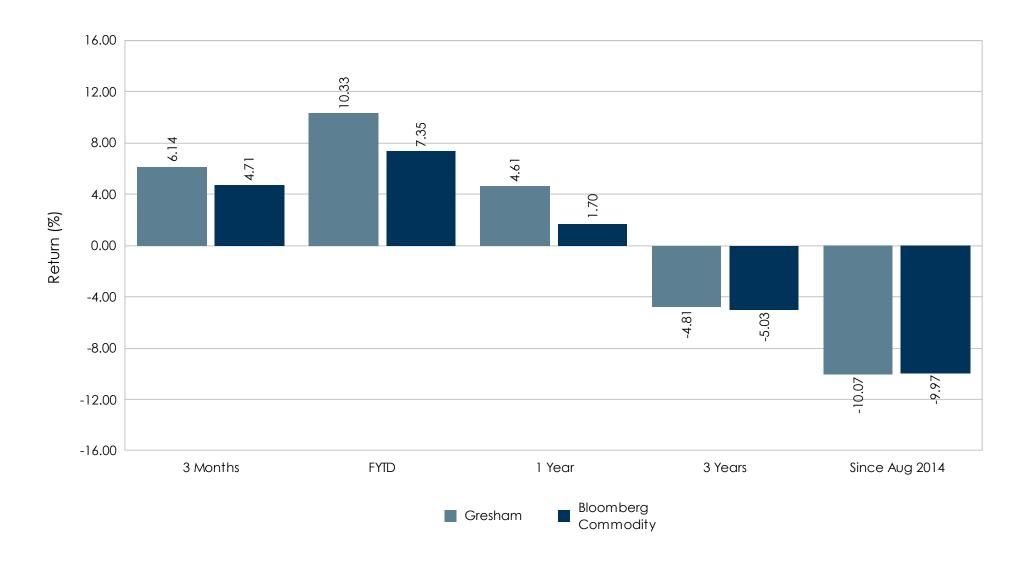
⁻MTD ROI % and YTD ROI% columns show TAP and Bloomberg individual commodity returns.

^{-&#}x27;Abs' is the absolute difference in ROI between TAP and Bloomberg for each commodity. 'Est. Wgtd' is the portfolio effect (TAP's return x TAP's period avg. wgt. - Bloomberg's return x Bloomberg's period avg. wgt.). 'Average Weights' is calculated using month-end weights.

⁻All returns are estimates. Total Gross Return is gross of fees and includes cash returns. All indicated TAP returns are net of commissions and gross of management fees.

Gresham Tap Fund

For the Periods Ending December 31, 2017



Appendix

Definitions of Statistical Measures

Alpha - the annualized difference between the manager's actual return and the managers's expected return given its relative risk vs. the benchmark (which is represented by beta, a measure that tracks volatility to an index).

Batting Average - a measure used to quantify a manager's ability to meet or beat a benchmark. A manager who outperforms the benchmark 20 out of a possible 40 times has a batting average of 50.

Beta - measures the portfolio's sensitivity of returns to market movements represented by the primary benchmark.

Down Capture - demonstrates the ratio of the portfolio's average returns relative to the benchmark in periods in which the benchmark had a negative return. For instance, a down-capture of 96% indicates that, on average, the portfolio is down 96% when the benchmark is down 100%. Lower portfolio down-capture is preferred.

R Squared - the amount of the manager's return that can be explained by the benchmark. A R Squared of 100 indicates a perfect correlation, while a R Squared of 0 indicates no correlation at all.

Sharpe Ratio - a measure of return per unit of risk. Higher sharpe ratios are preferred while negative ratios are generally meaningless and cannot be used for comparison purposes.

Standard Deviation - a measure of the portfolio's volatility. A large standard deviation relative to the benchmark represents volatile portfolio returns.

Tracking Error - a measure that reports the difference between the return of a manager that is received and that of a benchmark that the manager is attempting to track.

Up Capture - demonstrates the ratio of the portfolio's average returns relative to the benchmark in periods in which the benchmark had a positive return. For instance, an up-capture of 96% indicates that, on average, the portfolio is up 96% when the benchmark is up 100%. Higher portfolio up-capture is preferred.

Quality Rating Scale

Moody's Rating	S&P Rating	Prior to 1Q09	Beginning 1Q09	Beginning 3Q11	Moody's Rating	S&P Rating	Prior to 1Q09	Beginning 1Q09	Beginning 3Q11
TSY	TSY	10	26	24	Ba2	ВВ	6	13	13
AGY	AGY	10	25	24	Ва	ВВ		13	13
Aaa	AAA	10	24	24	MIG4		6	13	13
Aal	AA+	9.3	23	23	ВаЗ	BB-	5.7	12	12
Aa2	AA		22	22	В1	B+	5.3	11	11
Aa	AA	9	22	22	B2	В	5	10	10
MIG1		9	22	22	В	В		10	10
Aa3	AA-	8.7	21	21	В3	B-	4.7	9	9
A1	A+	8.3	20	20	Caal	CCC+	4.3	8	8
A-1			20	20	Caa2	CCC	4	7	7
A2	Α	8	19	19	Caa	CCC		7	7
Α	Α		19	19	Caa3	CCC-	3.7	6	6
MIG2		8	19	19	Ca	CC	3	5	5
A3	A-		18	18	С	С	2	4	4
Baal	BBB+	7.7	17	17		DDD	1	3	3
Baa2	BBB	7.3	16	16		DD		2	2
Baa	BBB	7	16	16		D		1	1
MIG3			16	16	NR	NR	N/A	-1	-1
Baa3	BBB-	7	15	15	NA	NA	N/A		
Bal	BB+	6.7	14	14	N/A	N/A			

Historical Benchmark Composition

Total Fund Policy

10/31/1990	The index consists of 55.0% Russell 3000, 35.0% BloomBar US Aggregate, 10.0% MSCI EAFE.
06/30/2007	The index consists of 55.0% Russell 3000, 35.0% BloomBar Universal, 10.0% MSCI EAFE.
11/30/2007	The index consists of 55.0% Russell 3000, 10.0% MSCI EAFE, 30.0% BloomBar Universal, 5.0% NFI ODCE Net.
08/31/2012	The index consists of 65.0% MSCI ACWI, 30.0% BloomBar Universal, 5.0% NFI ODCE Net.
08/31/2014	The index consists of 60.0% MSCI ACWI, 30.0% BloomBar Universal, 5.0% NFI ODCE Net, 5.0% Bloomberg Commodity.
04/30/2016	The index consists of 60.0% MSCI ACWI, 25.0% BloomBar Universal, 10.0% NFI ODCE Net, 5.0% Bloomberg Commodity.

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