Oklahoma Police Pension & Retirement System

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**Investment Performance Review** 

June 30, 2020



We are proud to announce that ACG has been named a Greenwich Associates Quality Leader recognized as one of the top consultants in the industry. This award is based on a number of factors, and a culmination of extensive nationwide interviews with institutional investors. We are grateful to have been given this honor.

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**Market Overview** 

Global Equity Update 2Q-2020

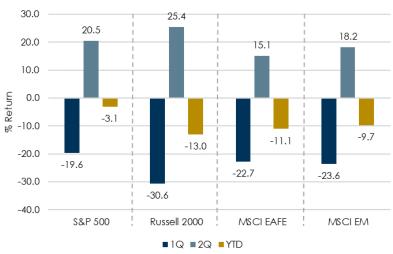
### **Global Long-Only Equity**

Equity markets enjoyed a **bounce back in 2Q** that helped reverse, but not eliminate, the pains from the sharp and swift 1Q sell-off. Worldwide stimulus programs and low interest rates alongside optimism for economies reopening fueled support for public equities. Every sector posted positive 2Q returns throughout the world outside of a very minor headwind from US Small Cap Utilities. Still, market volatility remained elevated as potential COVID resurgences threaten to shut economies, and low visibility into vaccine and treatment options cloud the outlook to getting back to "normal."

US Markets' strength in **2Q was led by Small Caps** while Large Cap peers maintained their lead throughout the world for 2020 year-to-date. US Small Caps advanced 25.4% as measured by the Russell 2000 with nearly 30% of the index gains resulting from Healthcare. Biotech contributed 400 bps to the index return on the hopes of discovering a COVID vaccine and treatments. Meanwhile, the US Large Cap S&P 500 index increased 20.5% in the quarter with roughly 40% of the gain resulting from Technology stocks with five names (Apple, Microsoft, Amazon, Alphabet, and Facebook) making up nearly 700 bps, or 35%, of the quarterly return. Thus, it comes with little surprise Growth continues to have a sizable lead over Value this year with Large Cap Growth and the NASDAQ enjoying positive double-digit year-to-date returns.

International Markets advanced on **gains in both Emerging and Developed Markets**. Emerging Markets posted an 18.2% return measured by the MSCI EM index, followed by International Developed as measured by the MSCI EAFE with a 15.1% return. Currency translation boosted US Dollar denominated returns by roughly 75 bps each for the MSCI EM and EAFE indices.

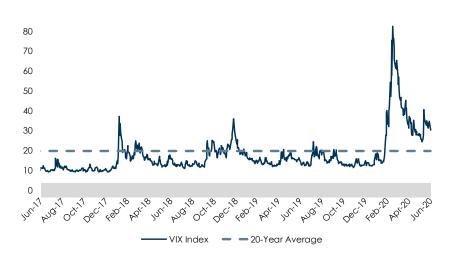
#### Sharp 2Q Worldwide Equity Market Bounce Back



Sources: Bloomberg, ACG Research

### Global Long/Short Equity

#### Market Volatility Measured in Units of VIX



Sources: Bloomberg, ACG Research

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**Volatility** in the market was reduced from the peaks hit in 1Q but **remains well above the 20-year average**. During 2Q the VIX index remained above the 20-year average for the entire quarter, the first time that has happened since 2011. We anticipate this **higher volatility to continue to be the norm** for the foreseeable future as uncertainty continues to dominate in many areas. All else being equal, an increase in market **volatility helps generate opportunities** on both the long and short side so equity long/short managers stand to benefit.

As the equity market enjoyed a strong upward bounce **equity long/short managers** generally **had a good quarter**. Managers were able to participate in much of the upside primarily due to positions they built during 1Q as they **took advantage of the dislocation**. Net exposure is near the historical average while gross exposure is higher than average. This reflects managers wanting to maintain flexibility to participate on the upside but still manage downside volatility.

Style exposure was a major contributor to 2Q performance as momentum/growth again outperformed value. Exposure in Technology is at its highest level in the past ten years and managers with significant exposure to growth sectors performed better than the broad universe. This also increased the level of crowding in the most popular hedge fund names as managers focus on growth.

**Global positioning** continues to be **tilted towards the US** but **Asia exposure increased** in 2Q as managers start to look for new growth opportunities.

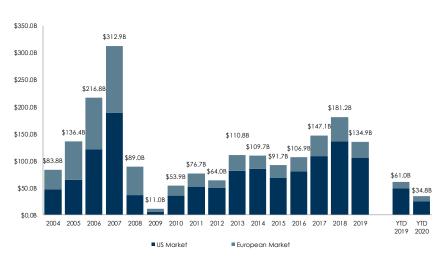
#### **Global Private Equity**

YTD new LBO transaction activity fell 43% versus the same period in 2019. Continued economic weakness is likely to mute private equity transaction volume for several quarters as sponsors focus more time on problems in their existing portfolio and less time on new deals. Buyers and sellers have largely paused to reassess both their market outlook and pricing in a pandemic influenced world. After a period of initial triage, consensus from private equity sponsors has shifted to focus on positioning for recovery. Across the venture and private equity landscape companies are raising cash and cutting burn rates as they try to straddle the line between survival and growth.

While private equity benchmark data is still far from complete, **reports and surveys point to an average 10% - 15% decline in NAV for 1Q** as a baseline. Funds with energy exposure fared much worse with declines of 25% - 50% not uncommon.

After a two-month spring break, the IPO market reemerged with a strong performance in June. With over \$22 billion in combined proceeds raised from 65 companies through June, the US IPO market is about 25% behind its 2019 pace. However, investor demand for new biotech stocks is strong. Two-thirds of the June IPOs came from the biotech sector and the 3Q pipeline looks set for a continued rebound in new issue activity.

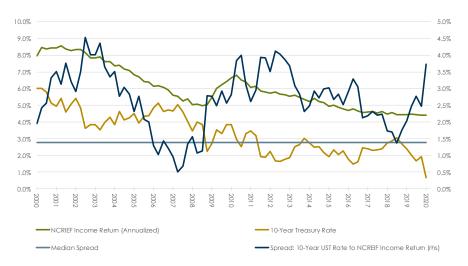
#### **New LBO Loan Volume**



Sources: S&P LCD, ACG Research

#### **Global Real Assets**

#### NCREIF Income Return Spread to Treasuries



Sources: NCREIF, ACG Research

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The first quarter of 2020 ended a ten-year run of positive appreciation for the NPI Index with a -0.39% change in property market values. However, the NPI index still managed to post a small positive total return of 0.71% for the quarter driven by 1.10% property level NOI. Depreciation across NCREIF property sectors was driven by a 3.9% markdown to hotel and a 2.1% markdown to retail assets. Continued strong performance by industrial assets (+2.6% for 1Q) was not enough to overcome weakness in hotel and retail.

NCREIF annualized income returns (a proxy for cap rates) held steady at 4.4%. Occupancy fell marginally from 94.1% to 93.8% as the effects of Covid-19 will take some time to roll through leasing markets. Social and economic conditions combined with an inability to conduct traditional on-site diligence led to a decline in transaction volume, a widening bid-ask spread on properties offered for sale, and uncertainty around valuations. Many open-end funds suspended redemption activity until markets find equilibrium. US REITS rebounded with a +14.0% return in the second quarter but still remain solidly in the red for the year after a dismal 1Q.

The Bloomberg Commodity Index (BCOM) rose 5.1% in 2Q-20, outperforming the BloomBar US Aggregate Bond Index by 2.2%, but underperforming the S&P 500 by 15.5%, and the MSCI ACWI by 14.3%. Nymex oil rebounded after 1Q's selloff with an impressive 91.8% gain but still stands at a negative -35.7% for the year. Of the major commodities, only gold's safe-haven status produced a competitive 13.7% gain for the quarter and 18.2% gain for the year.

#### **Global Traditional Bond Markets**

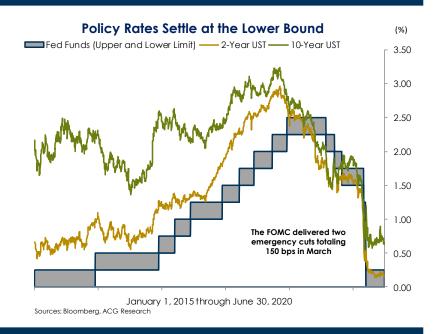
As US Treasuries settled into a new regime of lower yields, more risk-sensitive areas of the market rebounded in 2Q-20 with the help of Federal Reserve action which backstopped the market and put a floor under asset prices. The Federal Reserve broadened and expanded its suite of stimulus actions, which included a reduction in bank capital requirements and the decision to begin purchasing individual corporate bonds. While the credit recovery lagged equities early on, corporate and consumer credit recovered sizeable portions of their March losses. Yield on the 10-year US Treasury was mostly unchanged by the end of the quarter, with a slightly steeper slope on both the 2-10 and 10-30 year portions of the yield curve.

The BloomBar US Agaregate rose 2.9%, aided by the bounce back in high quality IG corporate credit that had been discounted in March. The benchmark's yield-to-worst dropped approximately 30 basis points to 1.3% by the end of the quarter.

In spite of record-setting corporate credit defaults in the month of April, the BloomBar US High Yield index rose 10.2% in 2Q-20. Spreads narrowed during the quarter, from 882 to 626 basis points, but remained well above the 390 basis point pre-crisis level from January.

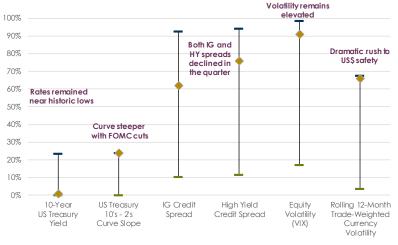
Municipal Bonds outperformed treasuries as municipal/treasury yield ratios fell toward levels closer to long-term averages.

**Unhedged Global** government bonds outperformed US Treasuries. **Emerging Market** bonds saw strong recovery but did not vet fully recover their March losses.



### Global Nontraditional Fixed Income

#### Percentile Rankings of Observations for Past 15-Years



Sources: Bloomberg, ACG Research

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- Trailing 12-Month Minimum - Trailing 12-Month Maximum

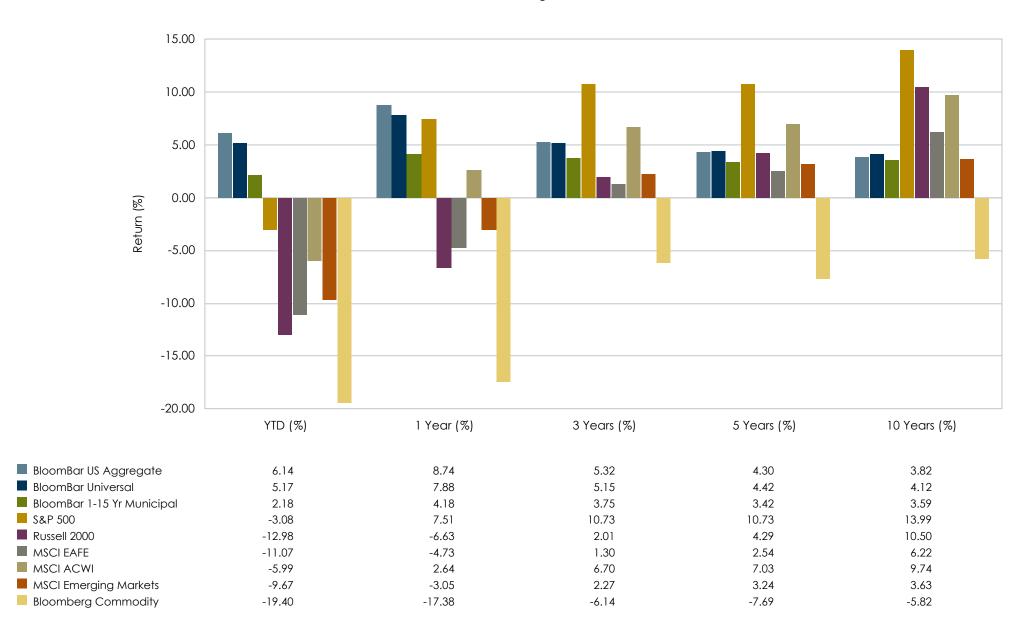
Following disappointing 1Q results, **Liquid Absolute Return** strategies generated gains in 2Q-20 that recovered most of their losses. Most managers in the category continue to lag traditional fixed income benchmarks like the BloomBar US Aggregate and the Bloombar Multiverse on a year-to-date basis despite average returns of 6.4% for the guarter. The reduced duration and higher credit sensitivities that made this category susceptible to the March drawdown produced meaningful gains as the market rebounded. Ongoing market dislocations could continue to create alpha opportunities for managers against a backdrop of significant central bank policy support. We continue to believe the diversification of risk factors within portfolios remains valuable, as this aids in downside protection and reduces key correlations.

Long/Short Credit strategies rebounded in the second quarter, though many have not fully recovered from their first quarter drawdown. The rapid pace of the rebound left little time for bargain hunting managers to pick up assets at discounted prices. Many portfolios added exposure to high quality investment grade credits. While the initial rebound favored traditional credits, securitized managers started to see their portfolios begin to recover in April and May. With the easy rebound money already made, investors are turning their attention to longerterm opportunities in distressed credit.

Private Credit strategies (typically 5- to 10-year fund life) are not immune to the social, economic and market turmoil of the past months. The S&P Leveraged Loan Index (a proxy for high quality senior loan prices) fell from near par to the low 80's in late March before recovering to the mid-90's at the end of 2Q. The Distress Ratio (loans trading below 80) rose to 8.3% of the outstanding amount of all loans at the end of June.

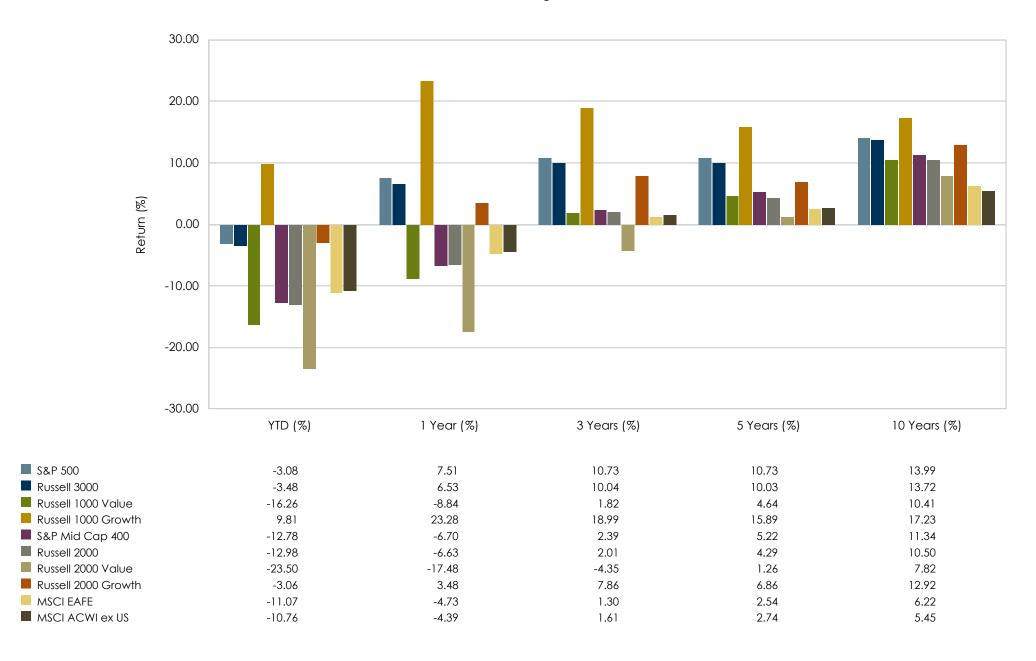
### **Market Environment**

For the Periods Ending June 30, 2020



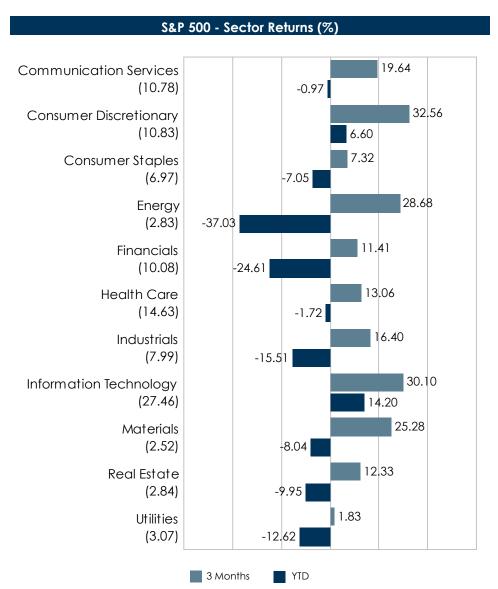
## **Equity Index Returns**

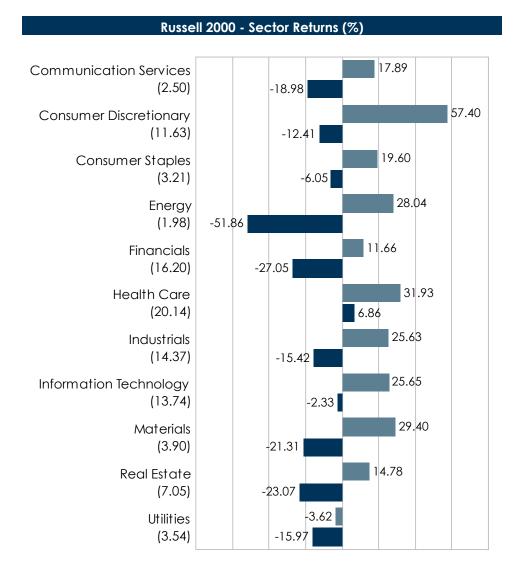
For the Periods Ending June 30, 2020



#### US Markets - Performance Breakdown

For the Periods Ending June 30, 2020



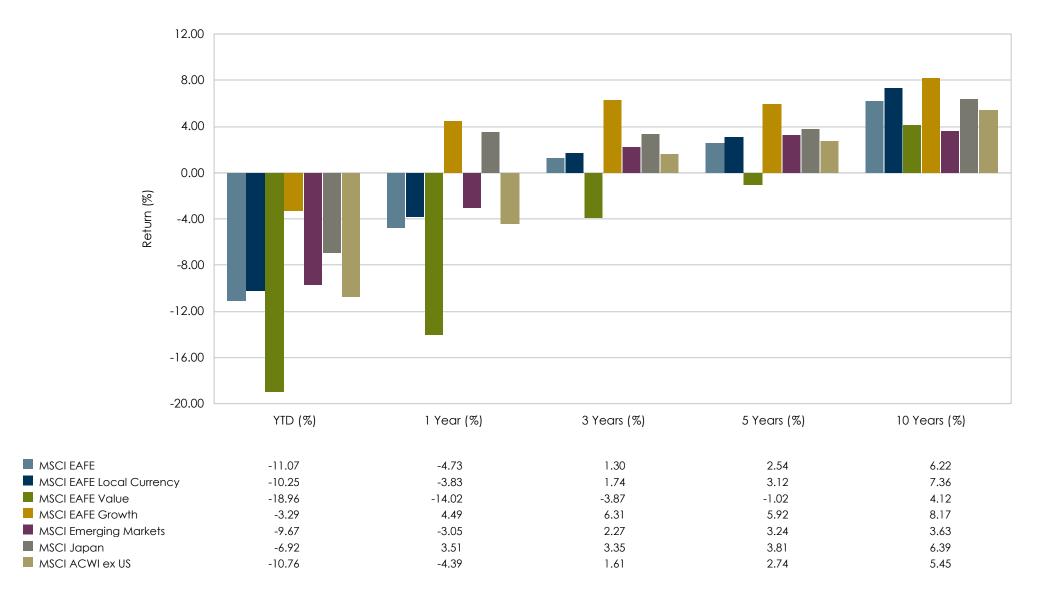


Numbers in parenthesis represent sector weightings of the index. Sector weights may not add to 100% due to rounding or securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

Source: ACG Research, Bloomberg

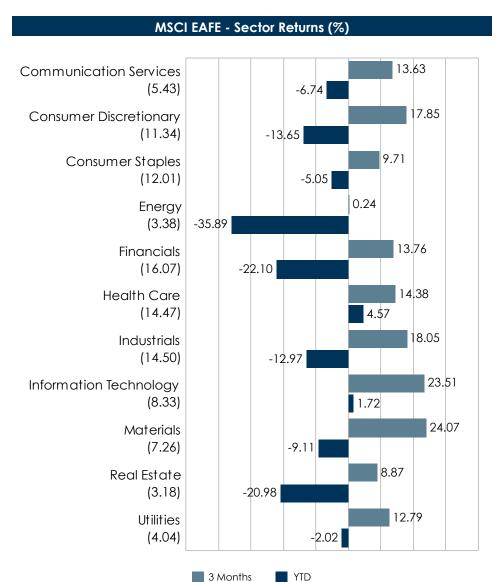
# **Non-US Equity Index Returns**

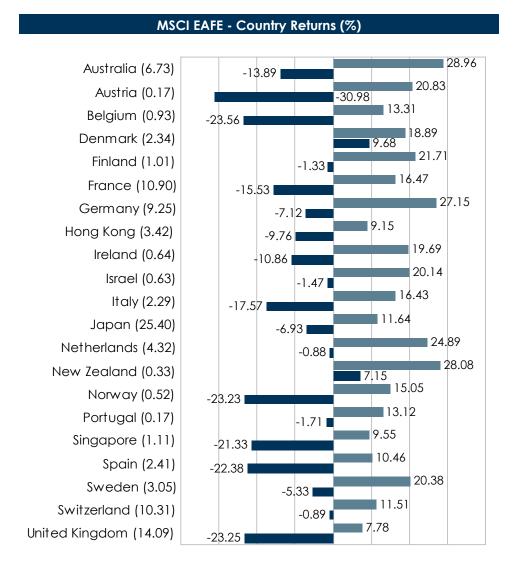
For the Periods Ending June 30, 2020



### Non-US Equity - Performance Breakdown

For the Periods Ending June 30, 2020



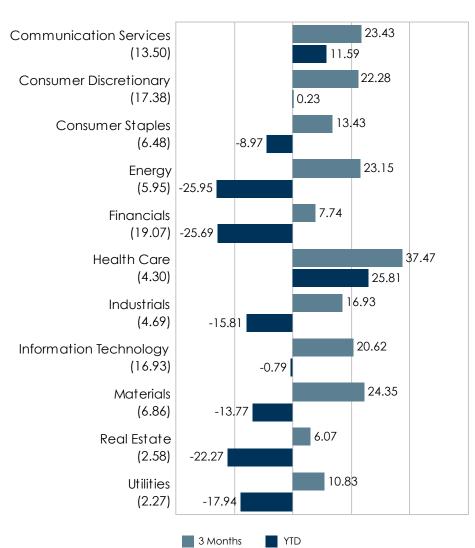


Numbers in parenthesis represent sector or country weights of the index. Sector or country weights may not add to 100% due to rounding.

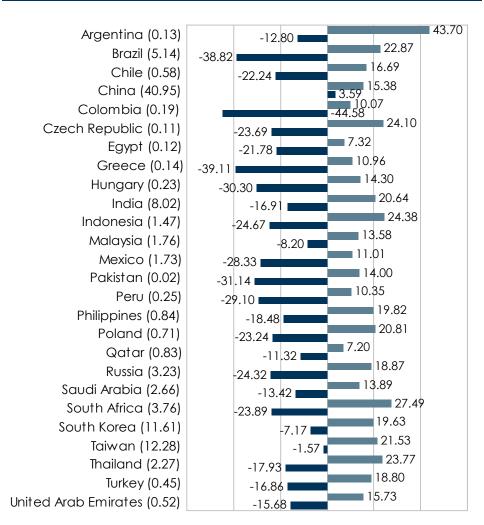
### **Emerging Markets - Performance Breakdown**

For the Periods Ending June 30, 2020





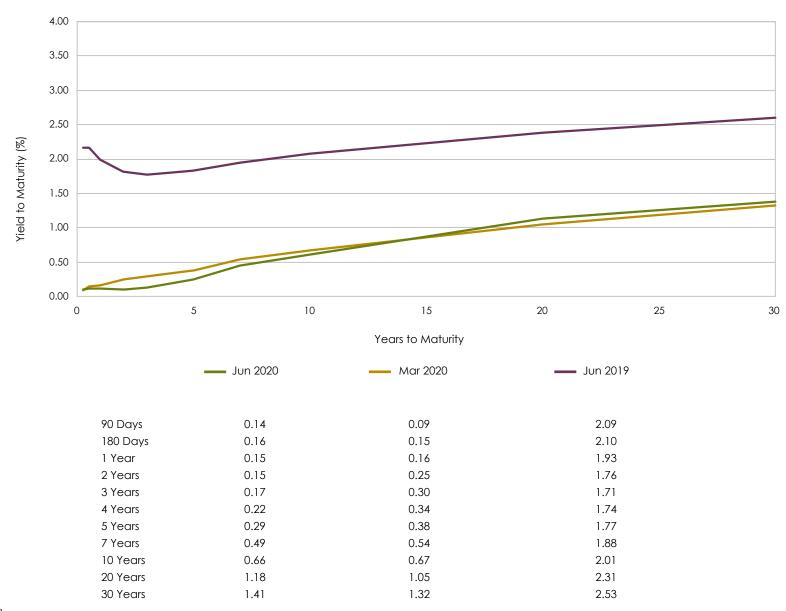
### MSCI Emerging Markets - Country Returns (%)



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

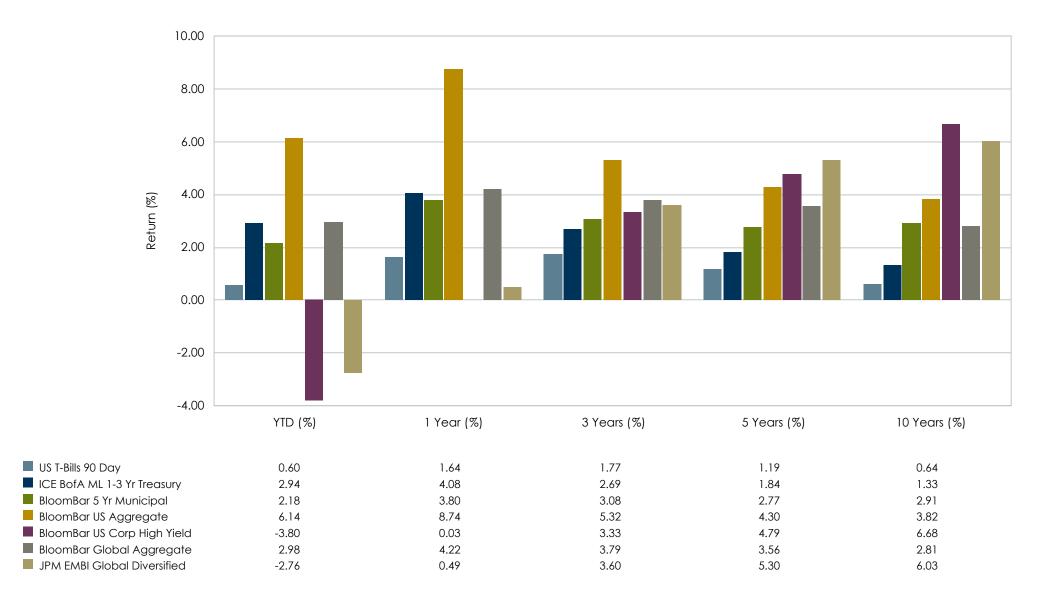
Government Issues - 3 Months to 30 Years Maturity



Source: Bloomberg

### **Fixed Income Index Returns**

For the Periods Ending June 30, 2020



## **US Fixed Income Market Environment**

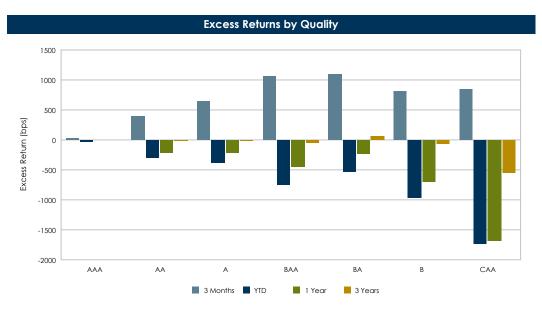
For the Periods Ending June 30, 2020

Nominal Returns By Sector (%)					
	3 Months	YTD	<u>1 Year</u>	3 Years	
US Aggregate	2.90	6.14	8.74	5.33	
US Treasury	0.48	8.71	10.44	5.57	
US Agg: Gov't-Related	3.38	3.87	6.66	4.83	
US Corporate IG	8.98	5.01	9.49	6.32	
MBS	0.67	3.51	5.67	3.98	
CMBS	3.95	5.19	6.83	5.10	
ABS	3.54	3.31	4.67	3.34	
US Corp High Yield	10.19	-3.79	0.05	3.33	

Nominal Returns by Quality (%)					
	3 Months	<u>YTD</u>	1 Year	3 Years	
AAA	0.71	6.56	8.45	4.93	
AA	4.48	6.03	8.77	5.68	
A	6.99	6.40	10.29	6.34	
BAA	11.23	3.01	8.16	6.20	
BA	11.54	0.22	4.75	4.98	
В	8.64	-5.45	-1.40	3.03	
CAA	9.10	-13.32	-11.65	-1.86	

Nominal Returns by Maturity (%)					
	3 Months	<u>YTD</u>	1 Year	3 Years	
1-3 Yr.	0.88	2.68	3.99	2.82	
3-5 Yr.	1.78	4.63	6.53	4.09	
5-7 Yr.	3.68	6.47	8.59	5.12	
7-10 Yr.	5.70	7.96	10.93	6.33	
10+ Yr.	6.23	12.85	18.93	10.37	





Source: Bloomberg

Excess returns are relative to the duration-neutral Treasury.

# **Monthly Index Returns**

For the Periods Ending June 30, 2020

Index Name	3 Months (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
Equity							
S&P 500	20.54	-3.08	7.51	10.73	10.73	12.13	13.99
Russell 1000	21.82	-2.81	7.48	10.64	10.47	12.03	13.97
Russell 1000 Growth	27.84	9.81	23.28	18.99	15.89	16.62	17.23
Russell 1000 Value	14.29	-16.26	-8.84	1.82	4.64	7.11	10.41
Russell 2500	26.56	-11.05	-4.70	4.08	5.41	8.15	11.46
Russell 2000	25.42	-12.98	-6.63	2.01	4.29	7.17	10.50
Russell 2000 Growth	30.58	-3.06	3.48	7.86	6.86	10.03	12.92
Russell 2000 Value	18.91	-23.50	-17.48	-4.35	1.26	3.98	7.82
Wilshire 5000 Cap Wtd	21.94	-3.30	6.78	10.13	10.27	11.78	13.74
MSCI ACWI	19.39	-5.99	2.64	6.70	7.03	8.39	9.74
MSCI ACWI ex US	16.30	-10.76	-4.39	1.61	2.74	4.18	5.45
MSCI EAFE	15.08	-11.07	-4.73	1.30	2.54	4.42	6.22
MSCI EAFE Local Currency	12.80	-10.25	-3.83	1.74	3.12	6.46	7.36
MSCI EAFE Growth	17.10	-3.29	4.49	6.31	5.92	6.89	8.17
MSCI EAFE Value	12.68	-18.96	-14.02	-3.87	-1.02	1.77	4.12
MSCI Emerging Markets	18.18	-9.67	-3.05	2.27	3.24	3.60	3.63
Fixed Income							
ICE BofA ML 1-3 Yr Treasury	0.13	2.94	4.08	2.69	1.84	1.55	1.33
BloomBar 5 Yr Municipal	3.26	2.18	3.80	3.08	2.77	2.76	2.91
BloomBar US Aggregate	2.90	6.14	8.74	5.32	4.30	3.96	3.82
BloomBar Gov't Bond	0.49	8.61	10.34	5.54	4.05	3.51	3.34
BloomBar US Credit	8.22	4.82	9.07	6.14	5.54	5.14	5.24
BloomBar 10 Yr Municipal	2.88	2.47	4.74	4.37	4.16	4.30	4.47
BloomBar US Corp High Yield	10.18	-3.80	0.03	3.33	4.79	4.99	6.68
FTSE World Govt Bond	2.04	4.08	4.60	3.98	3.70	2.21	2.37
BloomBar Global Aggregate	3.32	2.98	4.22	3.79	3.56	2.49	2.81
BloomBar Multiverse	3.68	2.53	3.84	3.72	3.63	2.59	2.96
JPM EMBI Global Diversified	12.26	-2.76	0.49	3.60	5.30	5.48	6.03
Real Assets							
NCREIF Property	0.00	0.71	3.71	5.80	6.98	8.42	9.81
NFI ODCE Net	-1.74	-1.00	1.34	4.73	6.35	8.09	9.78
				0.03	4.06	F 0.4	0.05
FTSE NAREIT US Real Estate	11.82	-18.71	-13.04	0.03	4.06	5.36	9.05
FTSE NAREIT US Real Estate Bloomberg Commodity	11.82 5.08	-18.71 -19.40	-13.04 -17.38	-6.14	-7.69	5.36 -8.11	9.05 -5.82

# **Monthly Index Returns**

For the Periods Ending July 31, 2020

Index Name	1 Month (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
Equity							
S&P 500	5.64	2.38	11.96	12.01	11.49	12.21	13.84
Russell 1000	5.86	2.88	12.03	12.02	11.31	12.11	13.85
Russell 1000 Growth	7.69	18.26	29.84	20.91	16.84	16.99	17.29
Russell 1000 Value	3.95	-12.95	-6.01	2.70	5.36	6.90	10.12
Russell 2500	3.98	-7.51	-1.92	5.08	6.28	7.78	11.14
Russell 2000	2.77	-10.57	-4.59	2.69	5.10	6.56	10.07
Russell 2000 Growth	3.44	0.27	6.00	8.77	7.49	9.41	12.58
Russell 2000 Value	2.06	-21.92	-15.91	-3.90	2.24	3.36	7.30
Wilshire 5000 Cap Wtd	5.66	2.18	11.17	11.47	11.11	11.82	13.60
MSCI ACWI	5.33	-0.98	7.76	7.56	7.96	8.46	9.45
MSCI ACWI ex US	4.50	-6.74	1.11	1.87	3.71	4.20	5.00
MSCI EAFE	2.35	-8.97	-1.24	1.12	2.60	4.00	5.51
MSCI EAFE Local Currency	-1.77	-11.84	-6.21	0.91	2.05	5.56	6.68
MSCI EAFE Growth	4.50	1.07	9.59	7.02	6.35	6.86	7.78
MSCI EAFE Value	0.22	-18.79	-11.86	-4.85	-1.32	0.98	3.09
MSCI Emerging Markets	9.03	-1.52	6.92	3.22	6.54	4.72	3.69
Fixed Income							
ICE BofA ML 1-3 Yr Treasury	0.10	3.05	4.29	2.65	1.85	1.54	1.31
BloomBar Municipal	1.68	3.80	5.36	4.52	4.13	4.49	4.26
BloomBar US Aggregate	1.49	7.72	10.12	5.69	4.47	4.16	3.87
BloomBar Gov't Bond	1.12	9.82	11.70	5.87	4.11	3.69	3.38
BloomBar US Credit	3.08	8.05	11.86	6.96	6.05	5.49	5.36
BloomBar 10 Yr Municipal	1.78	4.30	5.70	4.67	4.37	4.62	4.48
BloomBar US Corp High Yield	4.69	0.71	4.14	4.54	5.88	5.40	6.80
FTSE World Govt Bond	3.63	7.86	8.91	4.59	4.34	2.54	2.36
BloomBar Global Aggregate	3.19	6.27	7.85	4.30	4.16	2.77	2.79
BloomBar Multiverse	3.25	5.87	7.47	4.24	4.26	2.87	2.94
Real Assets							
Bloomberg Commodity	5.71	-14.80	-12.07	-5.09	-4.54	-7.55	-5.91
Cash and Equivalents							
US T-Bills 90 Day	0.02	0.62	1.46	1.74	1.20	0.86	0.64



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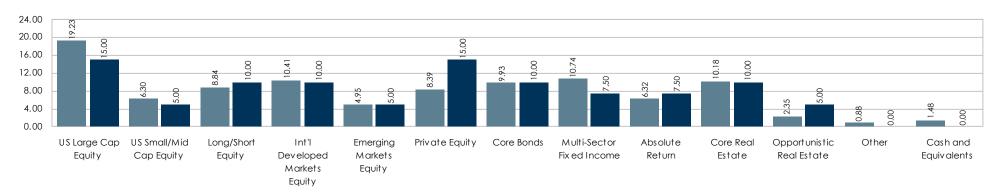
**Total Portfolio Summary** 

# Dollar Reconciliation (\$000s)

For the Periods Ending June 30, 2020

	3 Months	FYTD	5 Years	10 Years
Beginning Market Value	2,396,967	2,606,162	2,255,992	1,555,626
Net Additions	-11,464	-63,158	-280,806	-488,481
Return on Investment	216,123	58,622	626,440	1,534,481
Ending Market Value	2,601,626	2,601,626	2,601,626	2,601,626

For the Period Ending June 30, 2020



■ Actual Allocation ■ Target Allocation

	Market Value (\$000s)	Actual Allocation (%)	Target Allocation (%)	Over/Under Target (%)	Range Min-Max (%)
Total Portfolio	2,601,626	100.00	100.00		
Equity	1,512,292	58.13	60.00	-1.87	50.00 - 70.00
US Large Cap Equity	500,201	19.23	15.00	4.23	10.00 - 20.00
US Small/Mid Cap Equity	163,934	6.30	5.00	1.30	0.00 - 15.00
Long/Short Equity	230,114	8.84	10.00	-1.16	5.00 - 15.00
Int'l Developed Markets Equity	270,955	10.41	10.00	0.41	5.00 - 15.00
Emerging Markets Equity	128,732	4.95	5.00	-0.05	0.00 - 10.00
Private Equity	218,357	8.39	15.00	-6.61	5.00 - 20.00
Fixed Income	702,057	26.99	25.00	1.99	15.00 - 35.00
Core Bonds	258,369	9.93	10.00	-0.07	5.00 - 15.00
Multi-Sector Fixed Income	279,289	10.74	7.50	3.24	2.50 - 12.50
Absolute Return	164,398	6.32	7.50	-1.18	2.50 - 12.50
Real Assets	348,702	13.40	15.00	-1.60	10.00 - 20.00
Core Real Estate	264,803	10.18	10.00	0.18	5.00 - 15.00
Opportunistic Real Estate	61,096	2.35	5.00	-2.65	0.00 - 10.00
Other	22,804	0.88	0.00	0.88	
Cash and Equivalents	38,575	1.48	0.00	1.48	

For the Periods Ending June 30, 2020



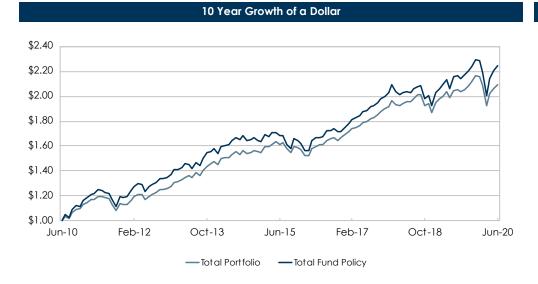
The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending June 30, 2020



	Total	Total	
	Portfolio	Fund Policy	
Return (%)	7.67	8.42	
Standard Deviation (%)	7.00	8.71	
Sharpe Ratio	1.01	0.90	

	Benchmark Relative Statistics	
Beta	0.78	
Up Capture (%)	80.83	
Down Capture (%)	75.79	



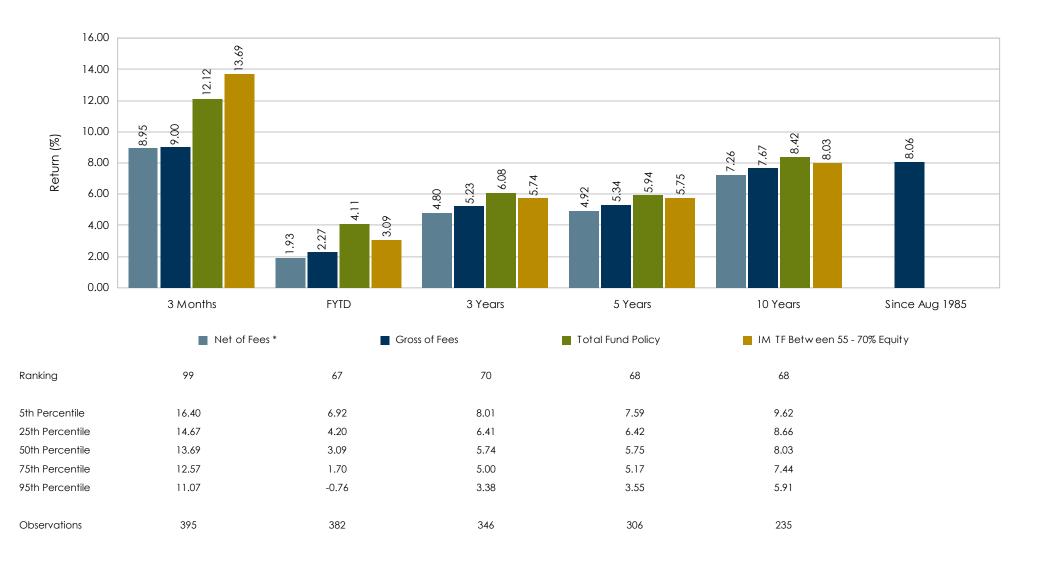
#### 10 Year Return Analysis

10 Year Portfolio Statistics

	Total Portfolio	Total Fund Policy
Number of Months	120	120
Highest Monthly Return (%)	5.31	7.47
Lowest Monthly Return (%)	-7.75	-8.44
Number of Positive Months	85	80
Number of Negative Months	35	40
% of Positive Months	70.83	66.67

**Total Portfolio** 

For the Periods Ending June 30, 2020

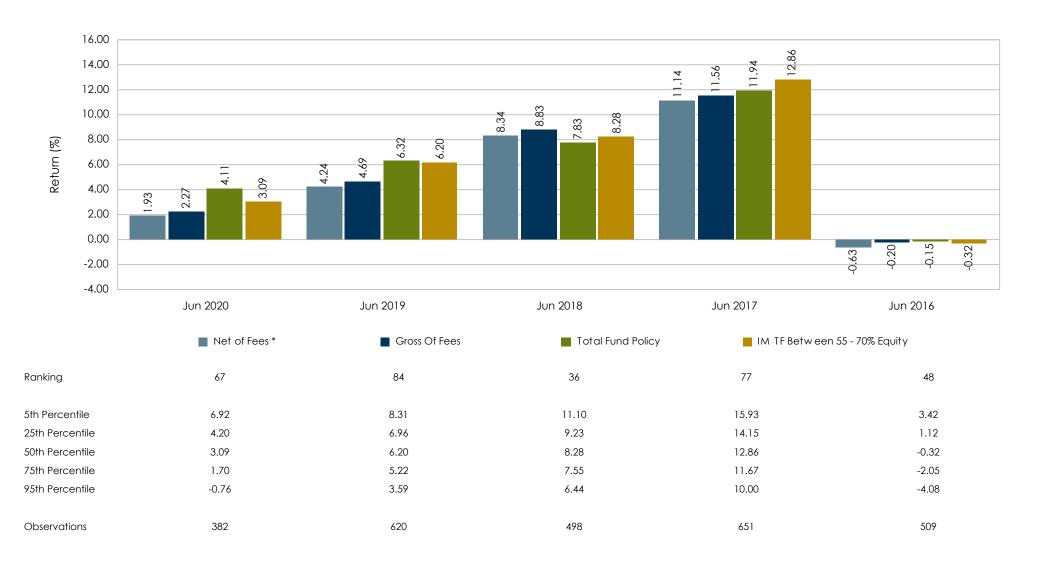


The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

<sup>\*</sup> Performance is calculated using net of fee returns.
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**Total Portfolio** 

For the One Year Periods Ending June



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.

<sup>\*</sup> Performance is calculated using net of fee returns.
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For the Periods Ending June 30, 2020

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	YTD (%)	Rank	FYTD (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Total Portfolio * (06/05) 1	2,601,626	100.00	8.95		-3.21		1.93		4.80		4.92		7.26
Total Portfolio (08/85)			9.00	99	-3.06	49	2.27	67	5.23	70	5.34	68	7.67
Total Fund Policy <sup>2</sup>			12.12		-2.11		4.11		6.08		5.94		8.42
IM TF Between 55 - 70% Equity			13.69		-3.13		3.09		5.74		5.75		8.03
Equity (01/98)	1,512,292	58.13	14.28		-4.91		2.75		6.45		6.63		9.59
MSCI ACWI			19.39		-5.99		2.64		6.70		7.03		9.74
US Large Cap Equity	500,201	19.23											
Northern Trust Russell 1000 Index (08/98) <sup>3</sup>	500,201	19.23	21.82	28	-2.82	38	7.47	33	10.64	36	10.48	34	13.97
Russell 1000			21.82		-2.81		7.48		10.64		10.47		13.97
eA US Large Cap Core Equity			20.18		-4.12		5.30		9.74		9.70		13.60
US Small/Mid Cap Equity	163,934	6.30											
Boston Partners (01/98)	74,055	2.85	23.33	19 / 33	-24.59	91 / 80	-16.69	82 / 57	-4.02	88 / 63	1.27	81 / 63	9.04
Russell 2500 Value			20.60		-21.18		-15.50		-2.60		1.85		8.81
eA US Mid Cap Value Equity			19.96		-18.10		-10.52		0.03		3.59		10.40
eA US Small Cap Value Equity			20.93		-21.75		-15.71		-3.14		1.85		9.33
Silvercrest (02/14)	89,879	3.45	43.57	11	4.48	44	10.82	39	12.24	53	11.96	31	
Russell 2000 Growth			30.58		-3.06		3.48		7.86		6.86		12.92
eA US Small Cap Growth Equity			33.25		1.81		6.61		12.58		10.09		14.98
Long/Short Equity	230,114	8.84											
K2 Mauna Kea LLC * (04/20)	144,054	5.54	14.96										
MSCI ACWI			19.39		-5.99		2.64		6.70		7.03		9.74
HFRI FOF: Strategic			11.04		-2.15		0.51		2.06		1.44		3.07

FYTD: Fiscal year ending June.

<sup>\*</sup> Net of fee return data.

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For the Periods Ending June 30, 2020

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	YTD (%)	Rank	FYTD (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Grosvenor Long/Short Equity (11/03)	86,060	3.31	7.20		-1.91		3.41		4.94		3.96		6.13
MSCI ACWI			19.39		-5.99		2.64		6.70		7.03		9.74
HFRI FOF: Strategic			11.04		-2.15		0.51		2.06		1.44		3.07
International Developed Market	270,955	10.41											
Mondrian International (05/04)	122,217	4.70	8.93	99	-19.79	79	-13.20	75	-2.42	55	0.02	55	4.96
MSCI EAFE Value			12.68		-18.96		-14.02		-3.87		-1.02		4.12
eA EAFE All Cap Value Equity			14.27		-16.29		-9.72		-2.24		0.38		6.03
Barings Focused EAFE Plus Equity (03/12)	148,738	5.72	14.87	69	-7.37	29	-0.21	32	3.11	34	4.81	24	
MSCI EAFE NetDiv			14.88		-11.34		-5.13		0.81		2.05		5.73
eA EAFE All Cap Equity			16.38		-10.23		-3.35		1.66		3.01		7.15
Emerging Markets Equity	128,732	4.95											
Wasatch Emerging Markets (09/12)	42,193	1.62	33.24	3	3.78	5	18.28	2	9.27	5	6.02	20	
MSCI EM SC			27.24		-12.64		-8.47		-2.62		-1.06		2.09
eA Global Emerging Mkts Equity			19.39		-10.23		-3.95		1.83		3.31		4.51
AB EM Strategic Core Equity Fund (11/16)	86,540	3.33	15.13	88	-8.93	37	-3.48	47	-0.59	75			
MSCI Emerging Markets			18.18		-9.67		-3.05		2.27		3.24		3.63
eA Global Emerging Mkts Equity			19.39		-10.23		-3.95		1.83		3.31		4.51
Private Equity (07/03)	218,357	8.39	-6.11		-3.99		1.19		9.17		7.79		10.50
Fixed Income (01/98)	702,057	26.99	5.10		1.70		3.80		3.98		3.35		4.36
BloomBar Universal			3.81		5.17		7.88		5.15		4.42		4.12
Core Bonds	258,369	9.93											
Agincourt Core Fixed Income (10/99)	258,369	9.93	4.54	49	7.10	23	9.88	21	6.05	17	4.94	24	4.46
BloomBar US Aggregate			2.90		6.14		8.74		5.32		4.30		3.82
eA US Core Fixed Income			4.47		6.28		9.06		5.61		4.68		4.36

For the Periods Ending June 30, 2020

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	YTD (%)	Rank	FYTD (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Multi Sector Fixed Income	279,289	10.74											
Multi Sector Fixed Income													
Oaktree Global Credit Fund (02/98)	133,698	5.14	10.93		-5.94		-4.21		1.00		3.04		5.60
Custom Blended Index ⁴			10.57		-4.52		-1.44		0.65		1.50		2.42
Loomis Sayles (06/08)	85,485	3.29	6.93	59	4.02	18	5.18	29	4.57	30	4.57	32	3.67
FTSE World Govt Bond			2.04		4.08		4.60		3.98		3.70		2.37
eA All Global Fixed Income			7.92		0.75		3.00		3.60		3.81		4.08
Private Credit (10/16)	60,106	2.31	0.69		2.86		6.86		8.22				
Absolute Return	164,398	6.32											
PAAMCO (10/02)	86,527	3.33	4.02		-4.43		-2.70		0.42		0.14		3.07
BloomBar US Aggregate			2.90		6.14		8.74		5.32		4.30		3.82
HFRI FOF: Conservative			5.66		-1.94		-0.39		1.93		1.48		2.56
Wellington Global Total Return (12/16)	77,871	2.99	0.75	96	1.26	28	2.20	54	4.69	14			
US T-Bills 90 Day + 4%			1.01		2.59		5.69		5.83		5.24		4.66
eA Global Unconstrained Fixed Income			6.62		-0.23		2.36		2.63		3.12		3.31
Real Assets (01/98)	348,702	13.40	-2.50		-1.75		0.22		3.80		4.30		5.61
Real Assets Blended Index <sup>5</sup>			0.50		-7.16		-4.89		1.22		0.58		4.98
Core Real Estate	264,803	10.18											
JP Morgan Strategic Property (12/07)	150,762	5.79	-2.02		-0.49		2.23		5.14		6.86		10.62
NFI ODCE Net			-1.74		-1.00		1.34		4.73		6.35		9.78
NCREIF Property			0.00		0.71		3.71		5.80		6.98		9.81
Blackstone Property Partners (01/15)	114,040	4.38	-3.98		-1.05		1.67		7.12		11.10		
NFI ODCE Net			-1.74		-1.00		1.34		4.73		6.35		9.78
NCREIF Property			0.00		0.71		3.71		5.80		6.98		9.81

For the Periods Ending June 30, 2020

	Market Value (\$000s)	Actual Allocation (%)	3 Months (%)	Rank	YTD (%)	Rank	FYTD (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
Opportunistic Real Estate	61,096	2.35											
Private Real Estate (08/11)	56,175	2.16	-3.38		-0.47		4.79		8.32		9.73		
Private Real Estate Direct													
Columbus Square (01/98)	4,921	0.19	0.95		1.47		3.05		5.20		7.64		10.39
NCREIF Prop	perty		0.00		0.71		3.71		5.80		6.98		9.81
NFI ODCE	Net		-1.74		-1.00		1.34		4.73		6.35		9.78
Other	22,804	0.88											
Mount Lucas Peak Partners (01/98)	22,804	0.88	1.19	-1	13.89		-13.92		-7.33		-4.76		-1.39
CS Hedge - Global Me	acro		4.62		-3.85		-1.07		3.22		1.84		3.89
Cash and Equivalents	38,575	1.48											

#### Notes:

<sup>&</sup>lt;sup>1</sup> Total Fund Policy Index history available in appendix.

<sup>&</sup>lt;sup>2</sup> Total Fund Policy: Effective September 2019, the index consists of 60.0% MSCI ACWI, 25.0% BloomBar Universal, 15.0% NFI ODCE Net.

<sup>&</sup>lt;sup>3</sup> 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.

<sup>&</sup>lt;sup>4</sup> Custom Blended Index: Effective November 2018, the index consists of 50.0% ICE BofA ML Global HY Const, 50.0% CSFB Leveraged Loan.

<sup>&</sup>lt;sup>5</sup> 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 June 30, 2020

#### **Account Description**

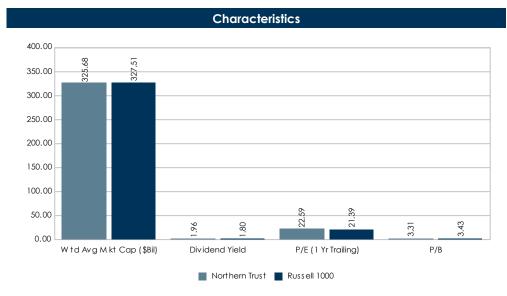
- Strategy US Large Cap Core
- Vehicle Non-Mutual Commingled
- Benchmark Russell 1000
- Performance Inception Date August 1998
- Fees 1 bps

#### **Performance Goals**

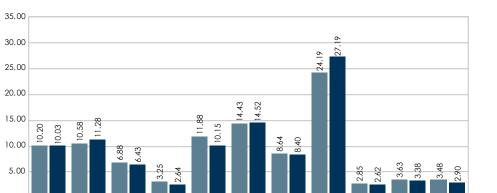
- Mirror the risk/return profile of the Russell 1000.
- Over rolling three year periods, rank above the median in the eA US Large Cap Core Equity universe.

# Dollar Growth Summary (\$000s)

	3 Months	FYTD
Beginning Market Value	410,631	465,476
Net Additions	-10	-58
Return on Investment	89,580	34,782
Ending Market Value	500.201	500.201



**Sector Allocation** 



Care

Northern Trust Russell 1000

Cons

Staples

Disc

Services

Energy Financials Health Industrials Info Tech Materials

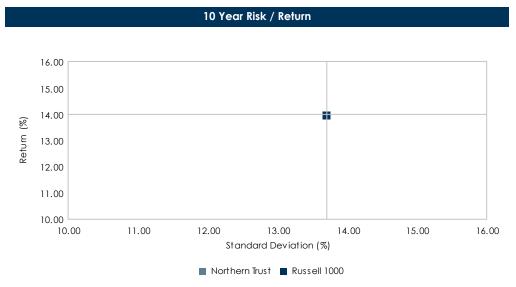
Estate

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 June 30, 2020



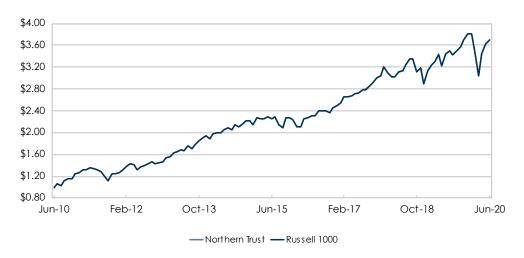
### Northern Trust Russell 1000 Return (%) 13.97 13.97 Standard Deviation (%) 13.70 13.71 Sharpe Ratio 0.98 0.98

Benchmark Relative Statistics	
1.00	
100.00	
0.01	
0.04	
58.33	
99.98	
99.95	
	1.00 100.00 0.01 0.04 58.33 99.98

10 Year Return Analysis

10 Year Portfolio Statistics

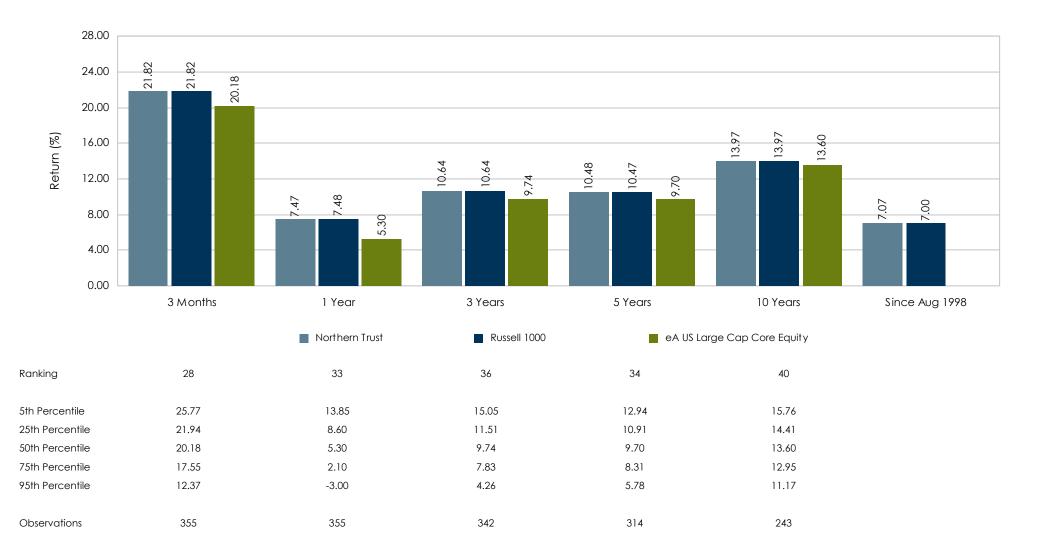
### 10 Year Growth of a Dollar



	Northern Trust	Russell 1000
Number of Months	120	120
Highest Monthly Return (%)	13.21	13.21
Lowest Monthly Return (%)	-13.21	-13.21
Number of Positive Months	87	87
Number of Negative Months	33	33
% of Positive Months	72.50	72.50

### Northern Trust Russell 1000 Index

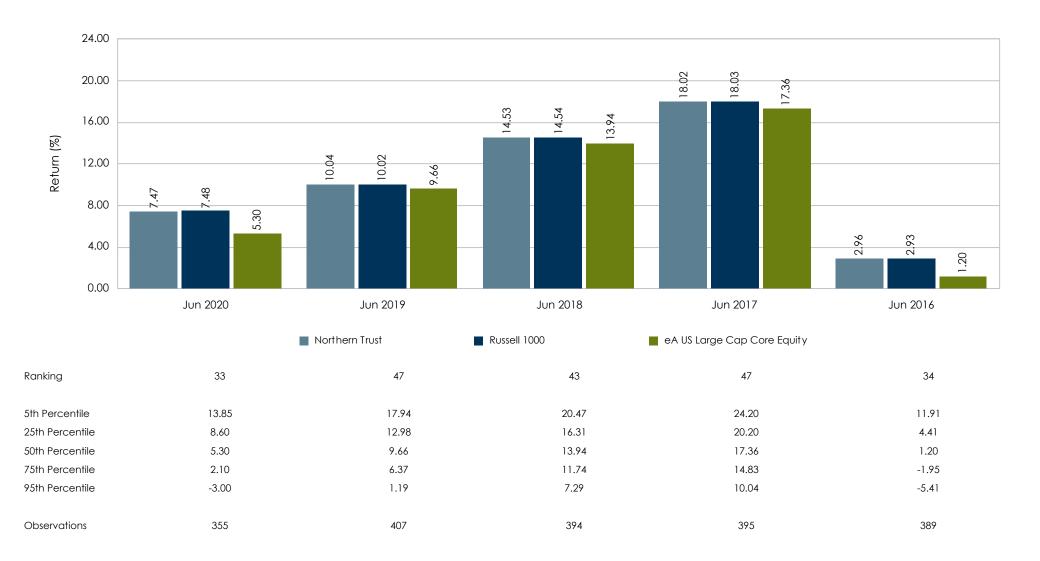
For the Periods Ending June 30, 2020



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 June



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 June 30, 2020

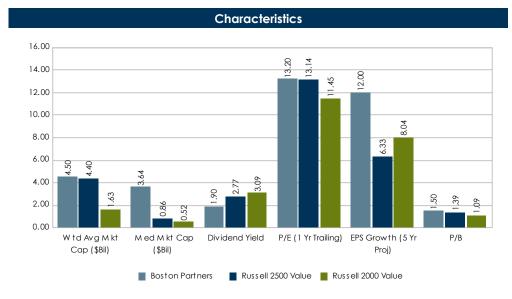
### **Account Description**

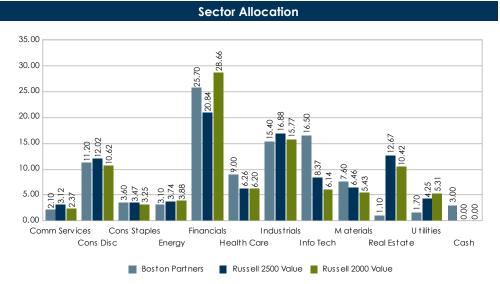
- Strategy US Small/Mid Cap Value
- Vehicle Separately Managed Account
- Benchmarks Russell 2500 Value and Russell 2000 Value
- Performance Inception Date January 1998
- Fees 60 bps base fee with annual performance fee

### **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.

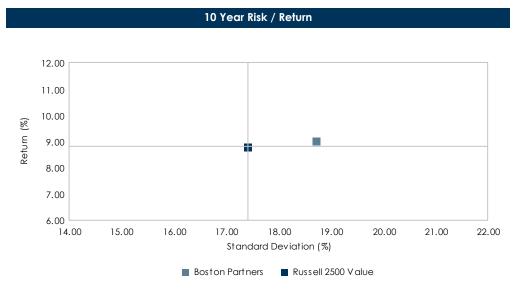
### **Dollar Growth Summary (\$000s)** 3 Months **FYTD Beginning Market Value** 51,029 88,741 Net Additions 9,925 -2,943Return on Investment 13,101 -11,743 330 1,549 Income Gain/Loss 12.771 -13,291 **Ending Market Value** 74,055 74,055





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 June 30, 2020

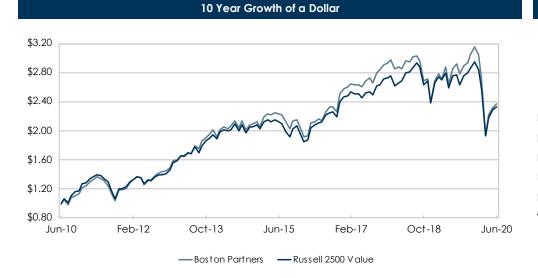


	Boston Partners	Russell 2500 Value
Return (%)	9.04	8.81
Standard Deviation (%)	18.73	17.41
Sharpe Ratio	0.45	0.47

Benchmark Relative Statistics		
Date	10/	
Beta	1.06	
R Squared (%)	96.98	
Alpha (%)	-0.11	
Tracking Error (%)	3.41	
Batting Average (%)	53.33	
Up Capture (%)	104.11	
Down Capture (%)	102.81	

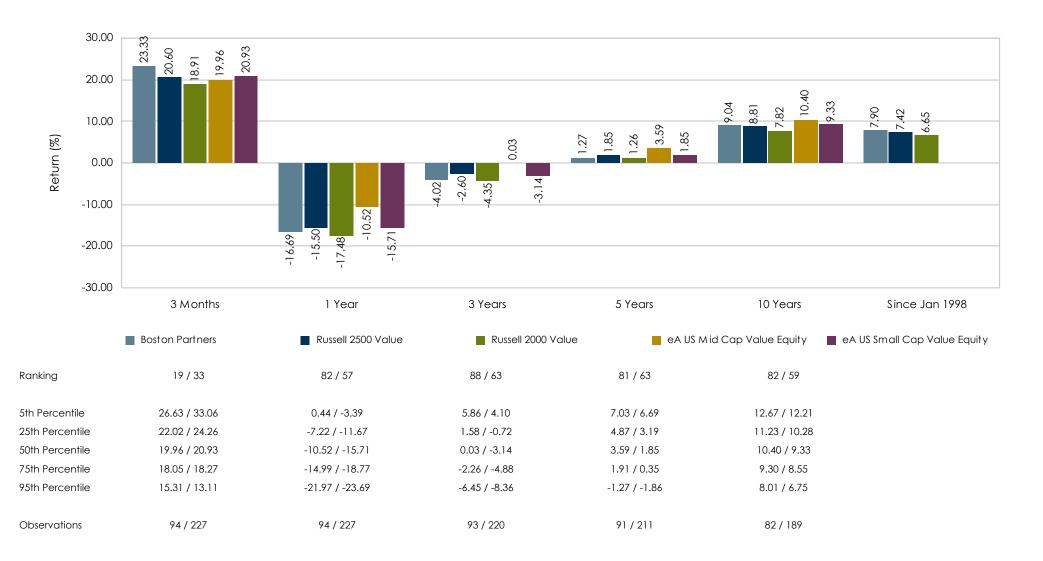
**10 Year Return Analysis** 

10 Year Portfolio Statistics



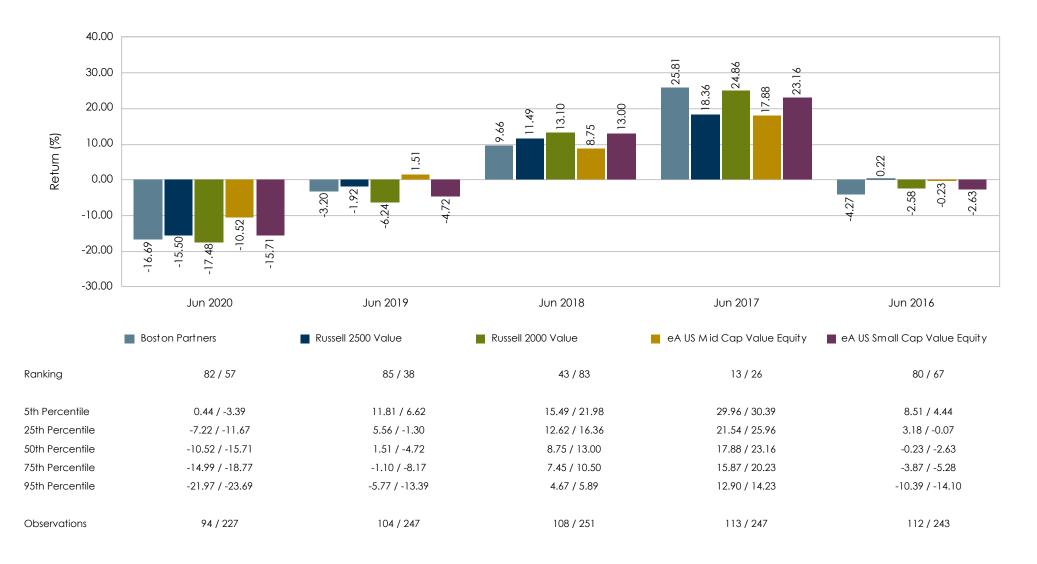
	Boston Partners	Russell 2500 Value
Number of Months	120	120
Highest Monthly Return (%)	14.97	13.92
Lowest Monthly Return (%)	-28.24	-24.93
Number of Positive Months	79	80
Number of Negative Months	41	40
% of Positive Months	65.83	66.67

For the Periods Ending June 30, 2020



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 June



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.

### **Silvercrest**

For the Periods Ending June 30, 2020

### **Account Description**

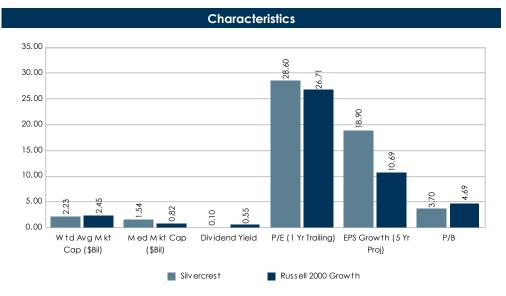
- Strategy US Small/Mid Cap Growth
- Vehicle Separately Managed Account
- Benchmark Russell 2000 Growth
- Performance Inception Date February 2014
- Fees First \$25M at 100 bps, next \$25M at 90 bps, balance at 80 bps

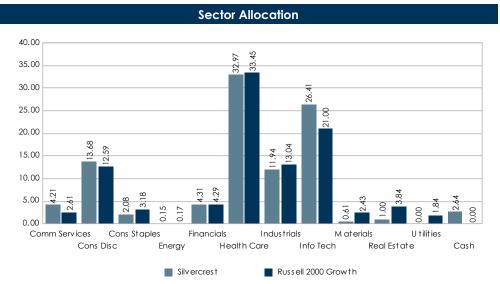
### **Performance Goals**

- 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)

	3 Months	FYTD
Beginning Market Value	62,718	95,035
Net Additions	-144	-13,161
Return on Investment	27,305	8,005
Income	25	142
Gain/Loss	27,280	7,863
Ending Market Value	89,879	89,879

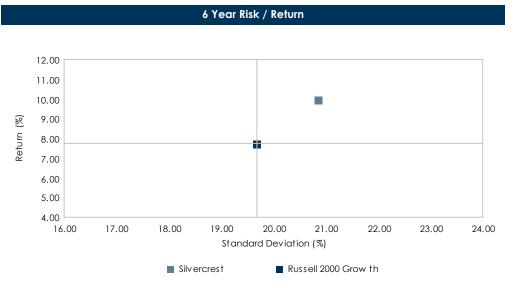




Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

### **Silvercrest**

For the Periods Ending June 30, 2020



	Silvercrest	Russell 2000 Growth
Return (%)	9.98	7.75
Standard Deviation (%)	20.86	19.68
Sharpe Ratio	0.43	0.35

Benchmark Relative Statistics	
1.01	
1.01	
91.24	
2.19	
6.18	
58.33	
102.57	
95.27	
	1.01 91.24 2.19 6.18 58.33 102.57

**6 Year Return Analysis** 

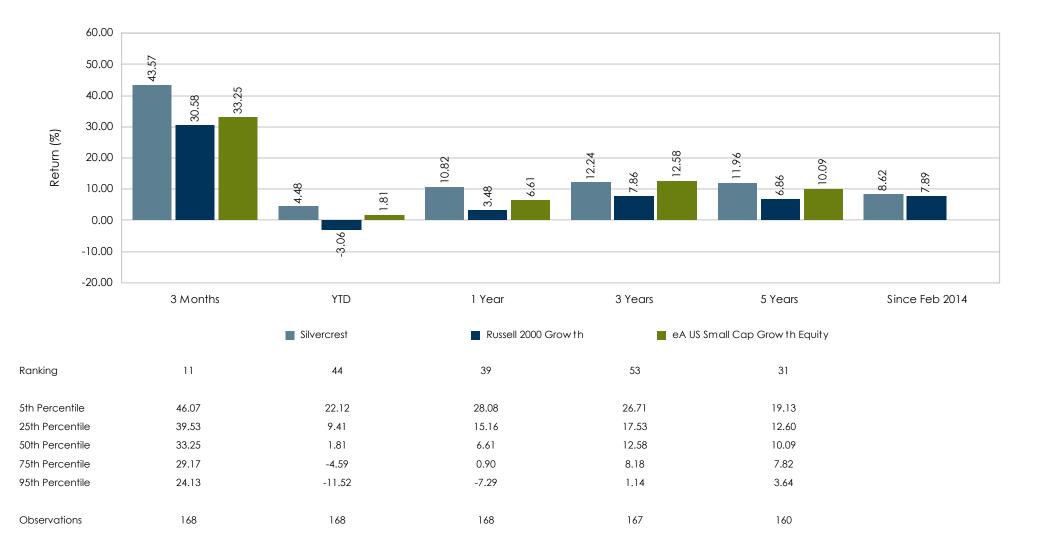
**6 Year Portfolio Statistics** 



	Silvercrest	Russell 2000 Growth
Number of Months	72	72
Highest Monthly Return (%)	19.44	14.89
Lowest Monthly Return (%)	-21.44	-19.10
Number of Positive Months	48	48
Number of Negative Months	24	24
% of Positive Months	66.67	66.67

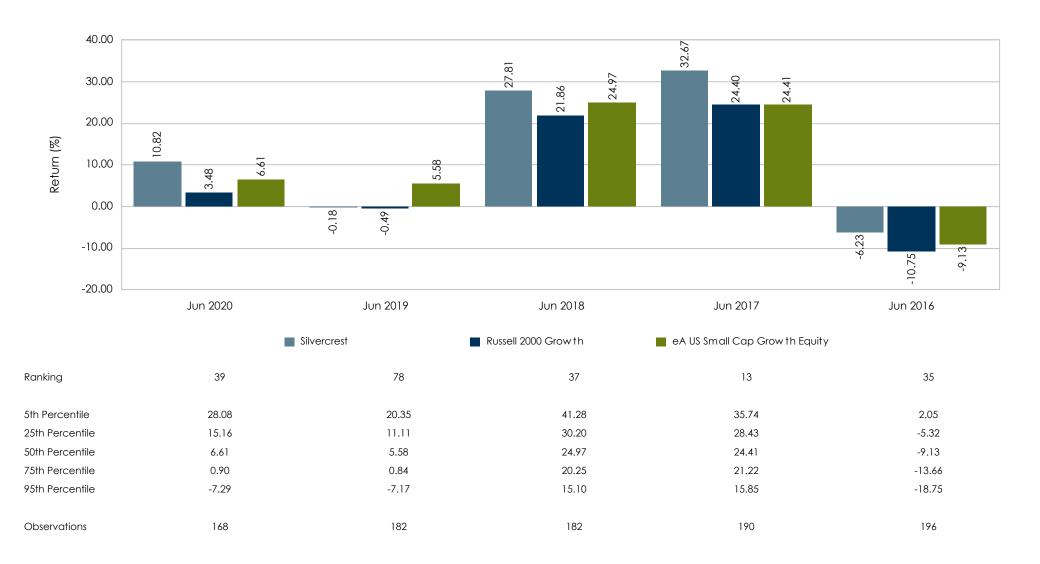
Silvercrest





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.

**Silvercrest**For the One Year Periods Ending June



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.

### **K2 Mauna Kea LLC**

For the Periods Ending June 30, 2020

### **Account Description**

- **Strategy** Long/Short Equity
- Benchmarks MSCI ACWI and HFRI FOF: Strategic
- Performance Inception Date April 2020
- Vehicle Non-Mutual Commingled
- **Fees** 20 bps

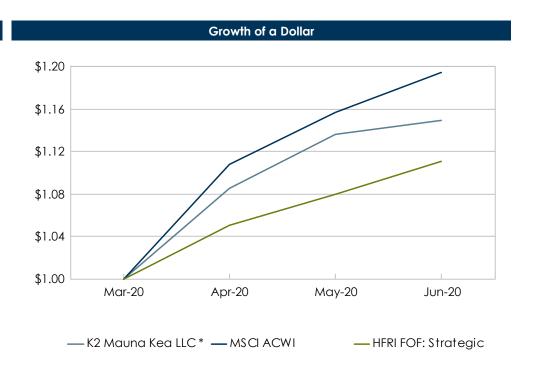
### **Performance Goals**

 Perform similar to the broad Global Equity Markets as measured by the MSCI ACWI index.

Exhibit annualized volatility of approximately two-thirds or less than that of the MSCI ACWI Index as measured by standard deviation.

Exhibit low relative beta and correlation to the MSCI ACWI Index.

Net Dollar Growth Summary (\$000s)		
	3 Months	FYTD
Beginning Market Value	0	0
Net Additions	128,001	128,001
Return on Investment	16,053	16,053
Ending Market Value	144,054	144,054



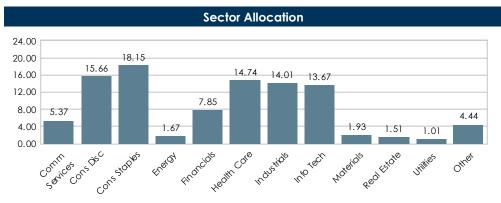
<sup>\*</sup> Performance is calculated using net of fee returns.

### **K2 Mauna Kea LLC**

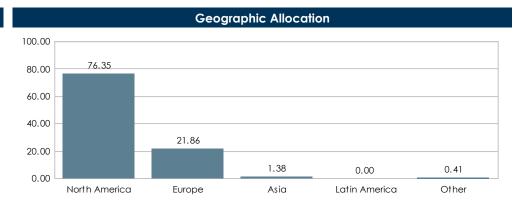
For the Periods Ending June 30, 2020

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
Total	144,054	100.00
AKO Partners	21,423	14.87
Southpoint Qualified Fund	20,558	14.27
Tremblant Partners	18,443	12.80
Engaged Capital Flagship Fund	18,408	12.78
Suvretta Partners	16,510	11.46
Starboard Value and Opportunity Fund	16,029	11.13
Jet Capital Concentrated Fund	13,792	9.57
Trian Partners	13,622	9.46
Redmile Capital Fund	5,270	3.66



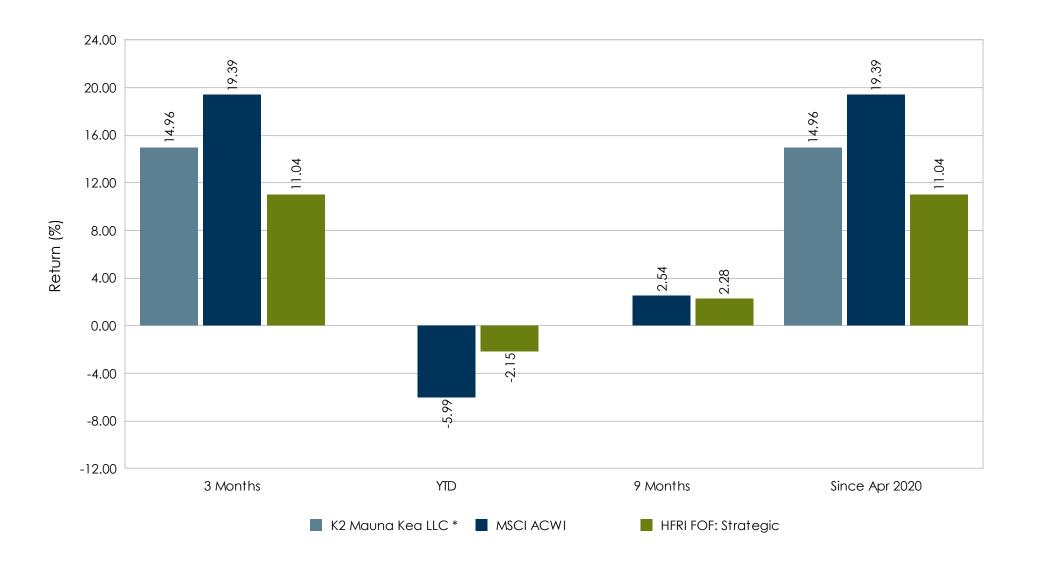


Net Dollar Growth Summary (\$000s)		
	3 Months	FYTD
Beginning Market Value	0	0
Net Additions	128,001	128,001
Return on Investment	16,053	16,053
Ending Market Value	144,054	144,054



**K2 Mauna Kea LLC** 

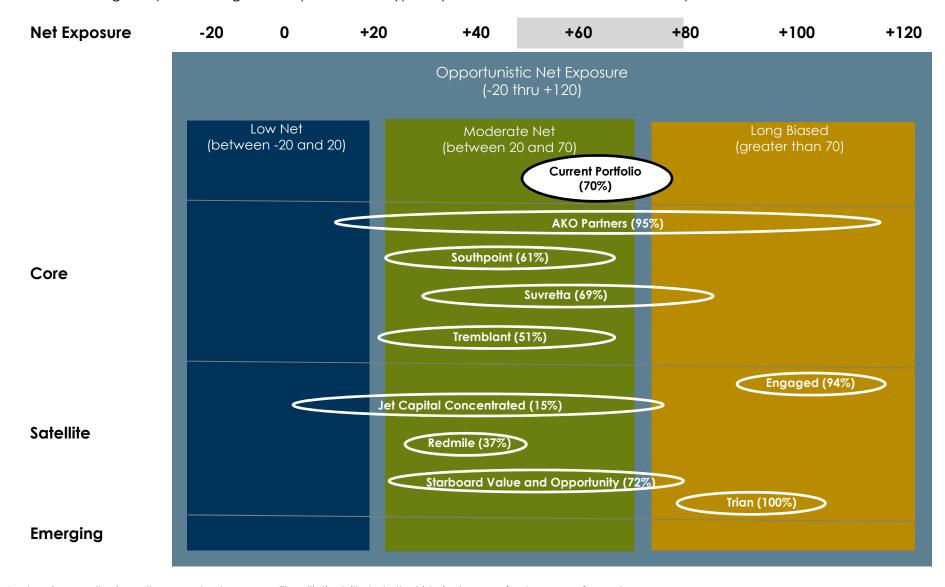
For the Periods Ending June 30, 2020



<sup>\*</sup> Performance is calculated using net of fee returns. © 2020 Asset Consulting Group All Rights Reserved

### Oklahoma Police Pension & Retirement System

When investing in the equity long/short asset class ACG recommends a portfolio that targets 2/3rds of the risk of the global equity market. The target exposure range of the portfolio will typically be between 50% and 80% net exposure.



Numbers in parenthesis are the current net exposure. The ellipticals illustrate the historical range of net exposure for each manager.

Core: typically fund is diversified by sector and /or region; Satellite: typically fund is concentrated and/or focused by sector/region or strategy; Emerging: typically fund has a short track record or small dollar amount.

**Net Exposure** equals Long Positions minus Short Positions. **Gross Exposure** equals Long Positions plus Short Positions.

When investing in the equity long/short asset class ACG recommends a portfolio of multiple managers that is **considers the following guidelines** in constructing a diversified portfolio.

Parameter	Guidelines/ Target Ranges	Current Weights
Number of Funds	Minimum 8, Maximum 20	9
Allocation per Fund	Minimum 5%, Maximum 20%	Within target range
Total Allocation per Type of Fund <sup>1</sup>	Core 40 to 80% Satellite 20 to 60% Emerging 0 to 20%	Core 53% Satellite 47% Emerging 0%
Diversification	Diversify by region, sector, market cap, idea generation	Diversified by region, sector, market cap, idea generation

Core: typically fund is diversified by sector and /or region; Satellite: typically fund is concentrated and/or focused by sector/region or strategy; Emerging: typically fund has a short track record or small dollar amount

**Net Exposure** equals long positions minus short positions. **Gross Exposure** equals long positions plus short positions.

Below is a summary of underlying fund terms.

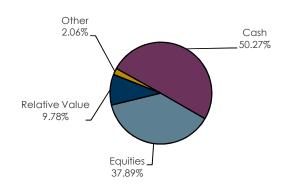
Manager	Lockup	Post-Lock Liquidity	Management Fee	Incentive Fee	Redemption Penalty	Side Pocket
AKO	None	Quarterly	1.50%	17.50%	NA	None
Engaged	None	Quarterly w/ 25% investor level gate	1.75%	20% over 90% of the R2000	NA	None
Jet	One Year Soft	Monthly	1.50%	15%	3% in year one	None
Redmile	Two Year	Quarterly w/ 25% investor level gate	1.00%	20%	NA	None
Southpoint	None	Quarterly w/ 25% investor level gate	1.50%	20%	NA	None
Starboard	None	Quarterly	2.00%	20%	NA	None
Suvretta	One Year Soft	Quarterly	1.50%	20%	3% in year one	None
Tremblant	None	Quarterly	1.00%	20%	NA	None
Trian	None	Quarterly	2.00%	20%	NA	None

<sup>\*5%</sup> redemption penalty incurred if redeemed prior to anniv ersary date of any year

For the Periods Ending June 30, 2020

### **Strategy Allocation**

Market Value: \$86,059,701



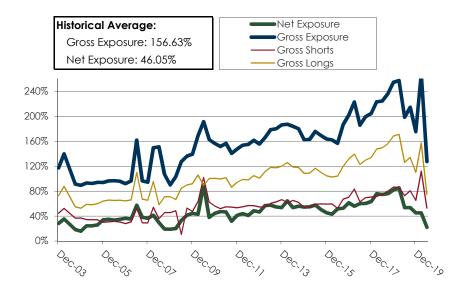
### Strategy

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

### **Exposure**

Net Exposure: 21.9%Gross Exposure: 127.3%

### 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.

For the Periods Ending June 30, 2020

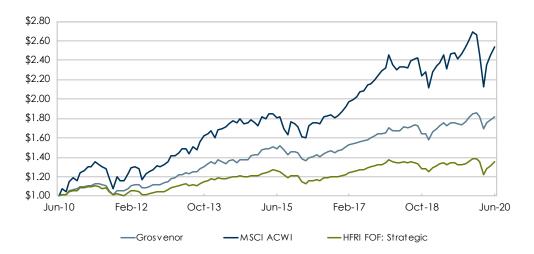


### **HFRI FOF:** Grosvenor MSCI ACWI Strategic 9.74 3.07 Return (%) 6.13 14.02 Standard Deviation (%) 6.67 6.26 **Sharpe Ratio** 0.83 0.65 0.40

10 Year Portfolio Statistics

Benchmark Relative Statistics				
0.41	0.97			
75.51	82.58			
1.94	3.10			
8.86	2.79			
45.83	65.83			
43.76	123.30			
42.51	86.44			
	0.41 75.51 1.94 8.86 45.83 43.76			

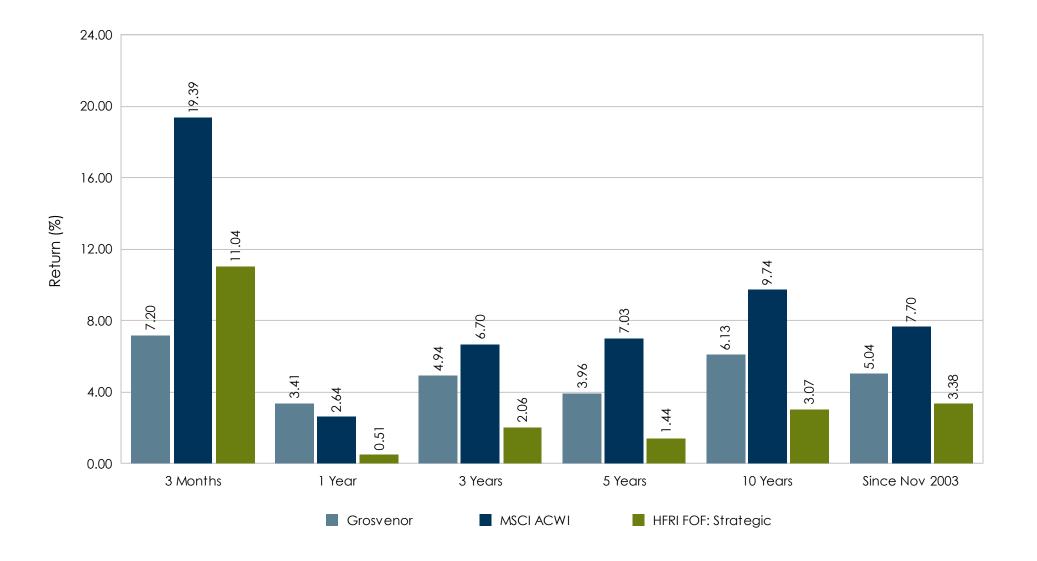
### 10 Year Growth of a Dollar



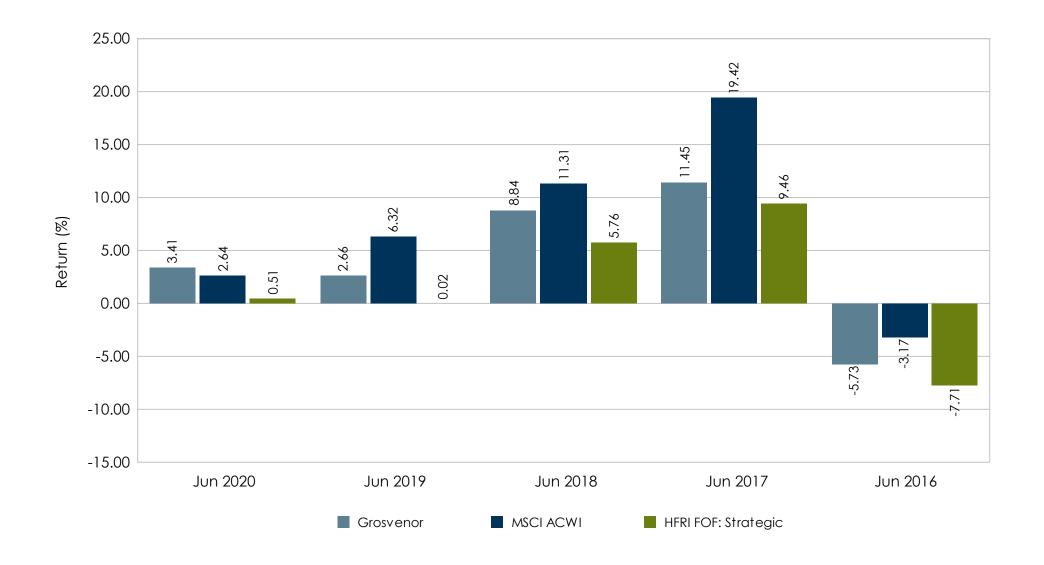
### 10 Year Return Analysis

	Grosvenor	MSCI ACWI	HFRI FOF: Strategic
Number of Months	120	120	120
Highest Monthly Return (%)	5.18	10.76	5.04
Lowest Monthly Return (%)	-6.74	-13.44	-9.70
Number of Positive Months	80	78	73
Number of Negative Months	40	42	47
% of Positive Months	66.67	65.00	60.83

For the Periods Ending June 30, 2020



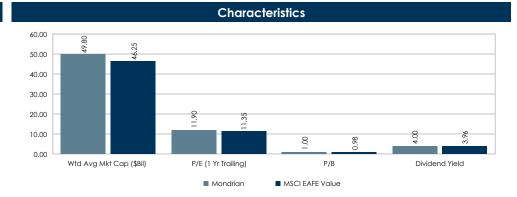
For the One Year Periods Ending June



For the Periods Ending June 30, 2020

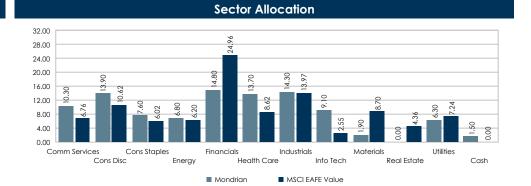
### **Account Description**

- Strategy Int'l Developed Markets Equity
- Vehicle Limited Partnership
- Benchmark 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



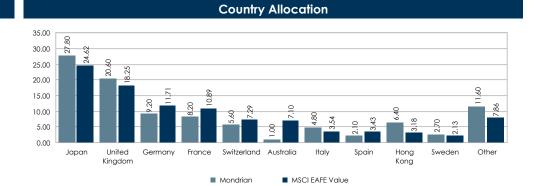
### **Performance Goals**

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



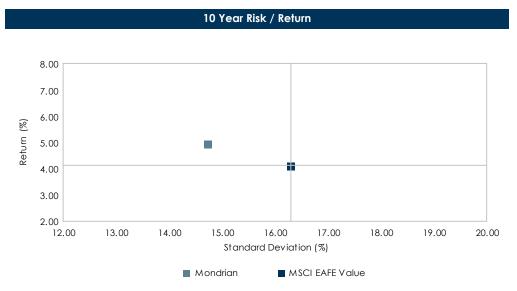
### **Dollar Growth Summary (\$000s)**

	3 Months	FYTD
Beginning Market Value	112,201	140,801
Net Additions	0	0
Return on Investment	10,016	-18,584
Ending Market Value	122,217	122,217



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

For the Periods Ending June 30, 2020



### Mondrian MSCI EAFE Value Return (%) 4.96 4.12 Standard Deviation (%) 14.73 16.30 Sharpe Ratio 0.30 0.22

Benchmark Relative Statistics			
0.88			
93.85			
1.24			
4.18			
51.67			
87.35			
86.54			
	0.88 93.85 1.24 4.18 51.67 87.35		

10 Year Portfolio Statistics

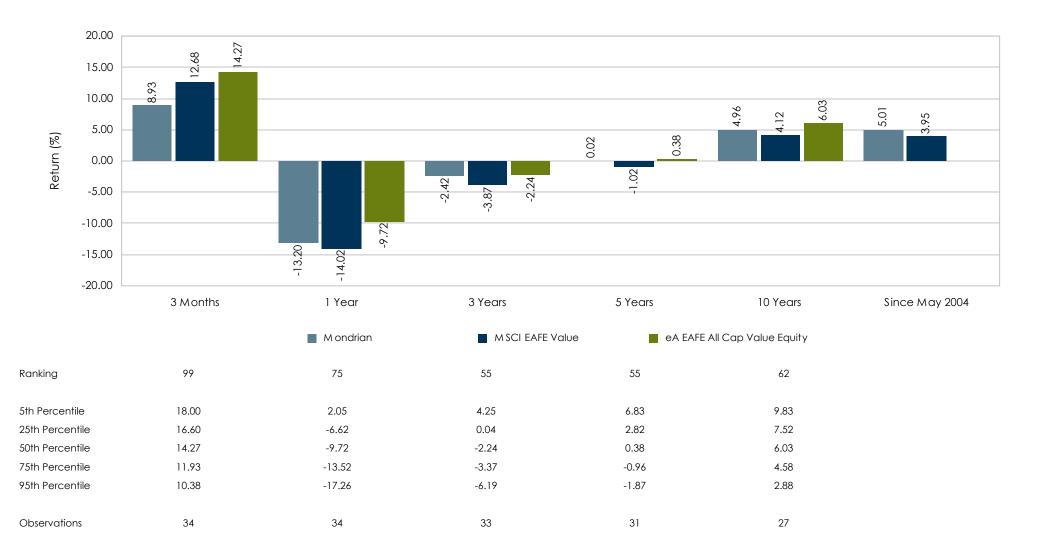
### 10 Year Growth of a Dollar



### 10 Year Return Analysis

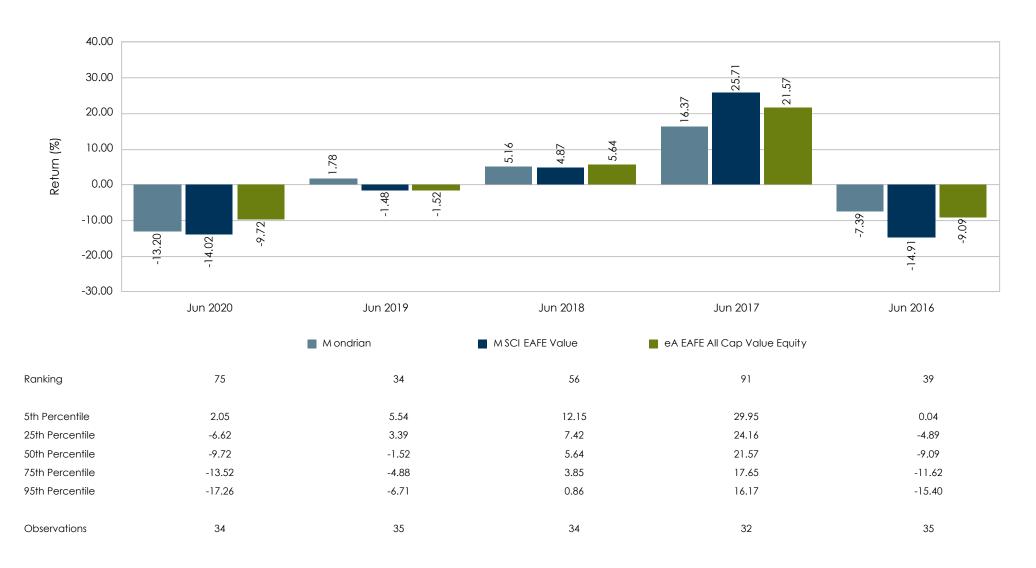
	Mondrian	MSCI EAFE Value
Number of Months	120	120
Highest Monthly Return (%)	9.30	10.70
Lowest Monthly Return (%)	-16.55	-17.61
Number of Positive Months	69	67
Number of Negative Months	51	53
% of Positive Months	57.50	55.83

For the Periods Ending June 30, 2020



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 June



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 June 30, 2020

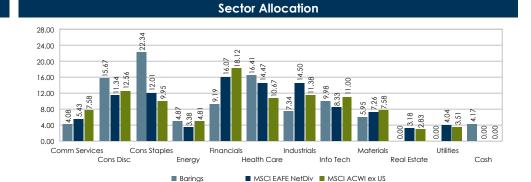
### **Account Description**

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

### Performance Goals

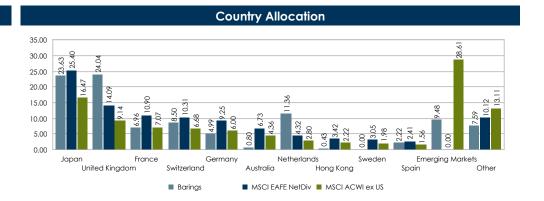
- Outperform the MSCI EAFE NetDiv and MSCI ACWI ex US.
- Over rolling three year periods, rank above the median in the eA EAFE All Cap Equity universe.

# Characteristics 100.00 80.00 40.00 Wtd Avg Mkt Cap (\$Bil) P/B P/E (1 Yr Trailing) Dividend Yield Barings MSCI EAFE NetDiv MSCI ACWI ex US



## 3 Months FYTD Beginning Market Value 129,602 120,844 Net Additions -131 29,365 Return on Investment 19,267 -1,471 Ending Market Value 148,738 148,738

**Dollar Growth Summary (\$000s)** 



Characteristic and allocation charts represents data of the Baring Focused Int'l Equity (Non-Mutual Commingled).
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For the Periods Ending June 30, 2020

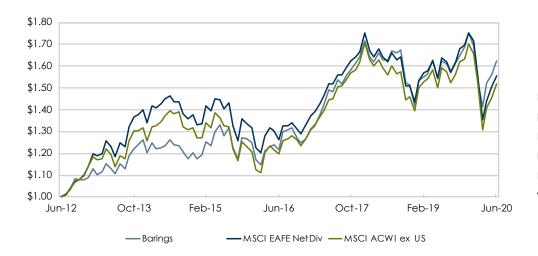


### **MSCI MSCI Barings EAFE NetDiv ACWI ex US** 6.24 5.67 Return (%) 5.38 13.09 Standard Deviation (%) 12.56 13.31 **Sharpe Ratio** 0.44 0.38 0.35

8 Year Portfolio Statistics

Benchmark Relative Statistics				
Beta	0.91	0.88		
R Squared (%)	89.35	86.47		
Alpha (%)	1.07	1.48		
Tracking Error (%)	4.28	4.90		
Batting Average (%)	55.21	51.04		
Up Capture (%)	97.15	91.26		
Down Capture (%)	94.32	87.18		

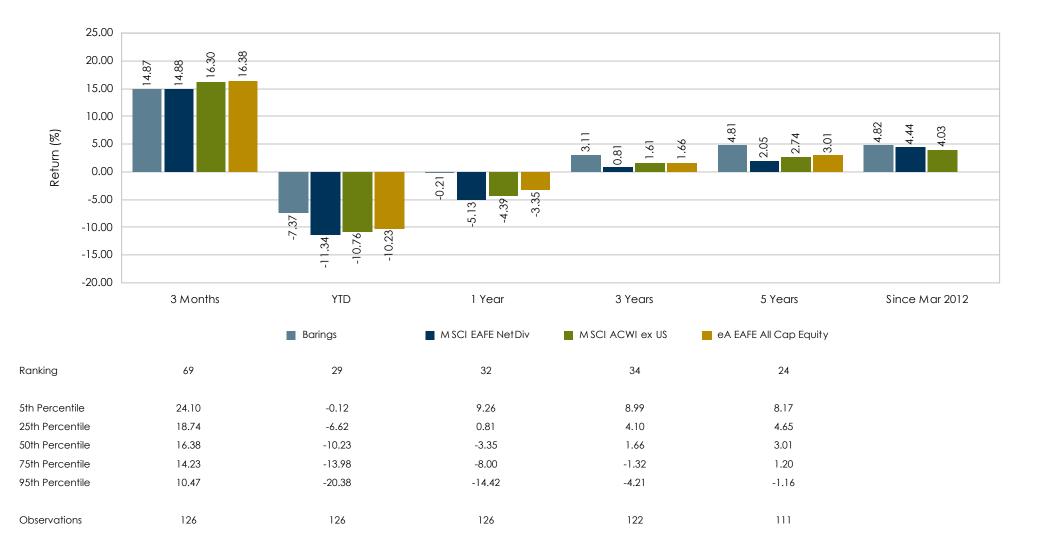
### 8 Year Growth of a Dollar



8	rear	Keturn	Analysis

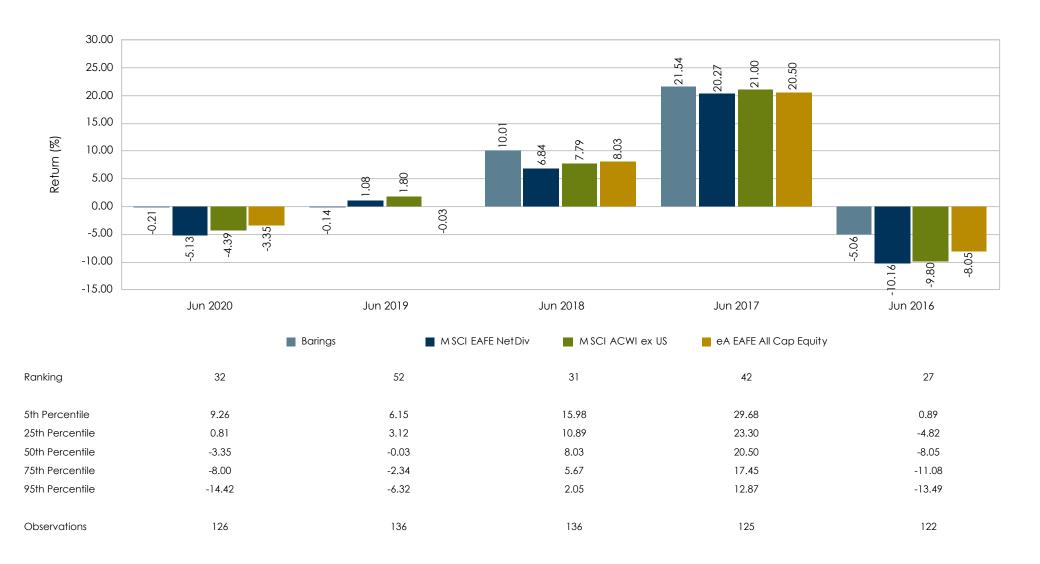
	Barings	MSCI EAFE NetDiv	MSCI ACWI ex US
Number of Months	96	96	96
Highest Monthly Return (%)	8.31	7.82	8.21
Lowest Monthly Return (%)	-9.15	-13.35	-14.40
Number of Positive Months	56	56	59
Number of Negative Months	40	40	37
% of Positive Months	58.33	58.33	61.46

For the Periods Ending June 30, 2020



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 June

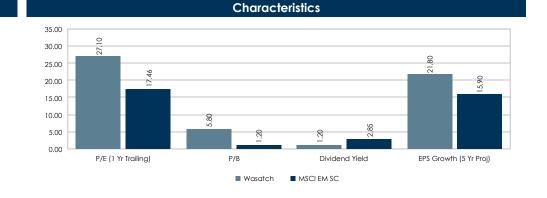


The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

For the Periods Ending June 30, 2020

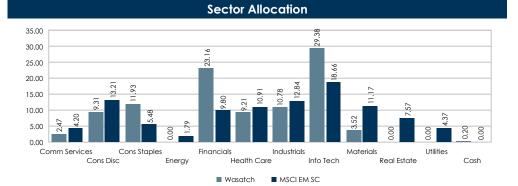
### **Account Description**

- Strategy Emerging Markets Equity
- Vehicle Non-Mutual Commingled
- Benchmark MSCI EM SC
- Performance Inception Date September 2012
- **Fees** 135 bps

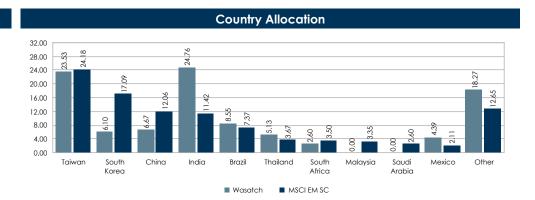


### **Performance Goals**

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

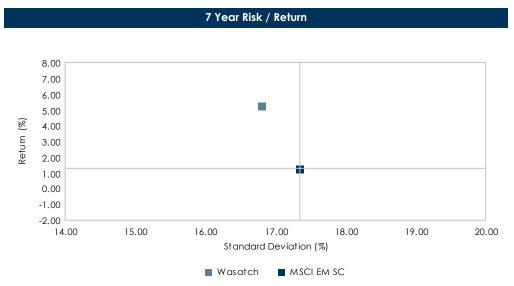


# Dollar Growth Summary (\$000s) 3 Months FYTD Beginning Market Value 31,775 36,169 Net Additions -132 -530 Return on Investment 10,549 6,553 Ending Market Value 42,193 42,193



For the Periods Ending June 30, 2020

**Sharpe Ratio** 



	Wasatch	MSCI EM SC
Return (%)	5.28	1.28
Standard Deviation (%)	16.81	17.34

Benchmark Relative Statistics				
0.87				
80.79				
4.23				
7.70				
50.00				
102.78				
86.94				
	0.87 80.79 4.23 7.70 50.00 102.78			

7 Year Return Analysis

7 Year Portfolio Statistics

0.27

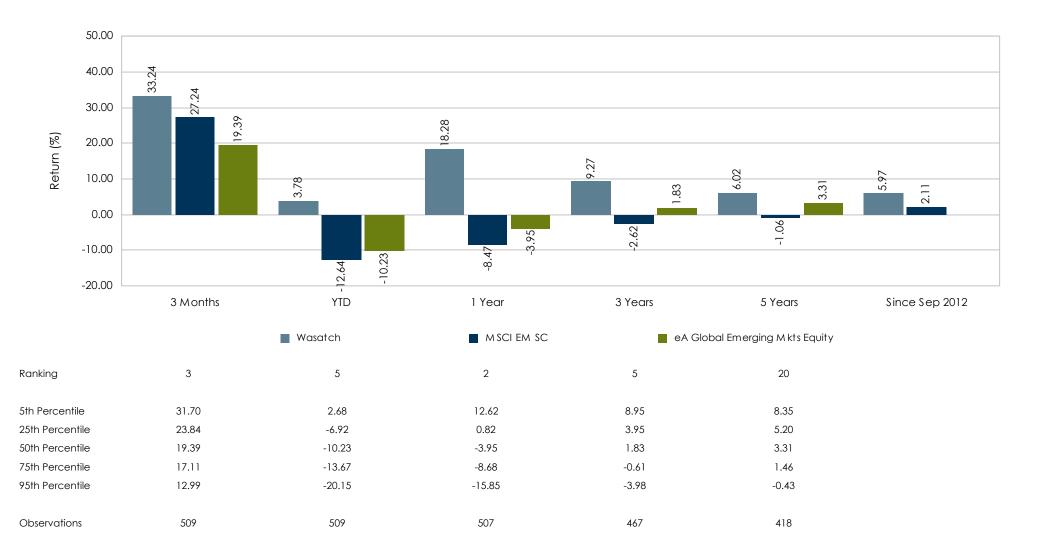
0.03



7 Year Growth of a Dollar

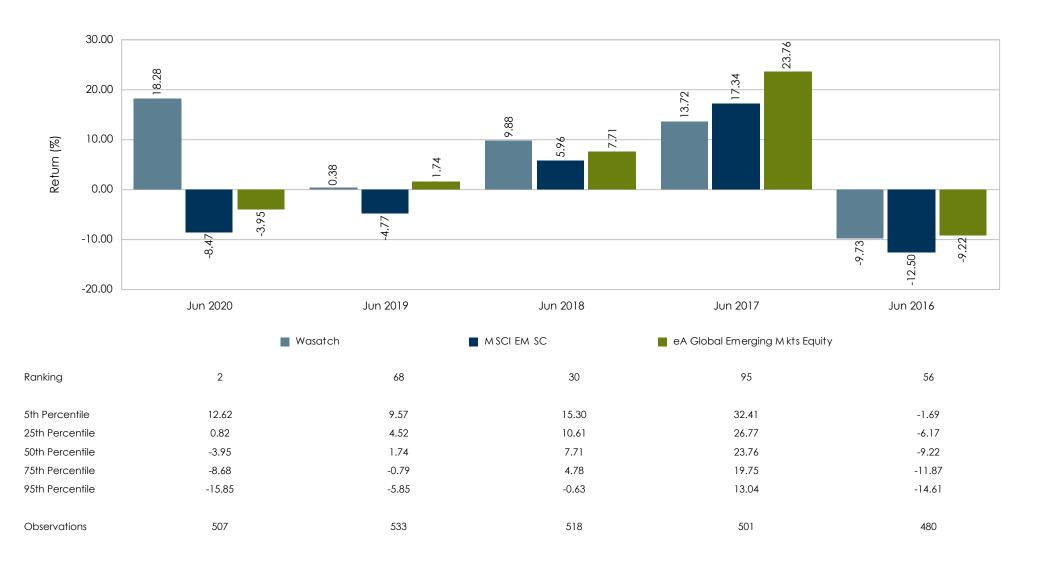
	Wasatch	MSCI EM SC
Number of Months	84	84
Highest Monthly Return (%)	12.22	13.97
Lowest Monthly Return (%)	-20.86	-23.07
Number of Positive Months	48	49
Number of Negative Months	36	35
% of Positive Months	57.14	58.33

For the Periods Ending June 30, 2020



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 June



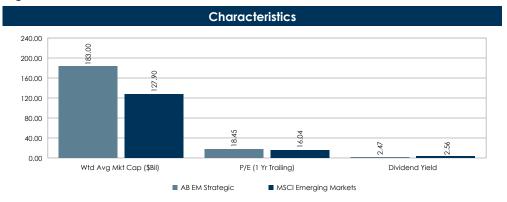
The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

### AB EM Strategic Core Equity Fund

For the Periods Ending June 30, 2020

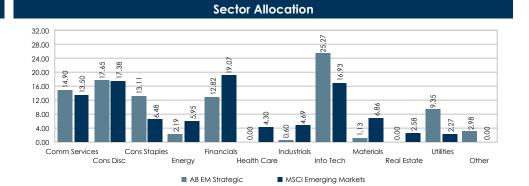
### **Account Description**

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



### **Performance Goals**

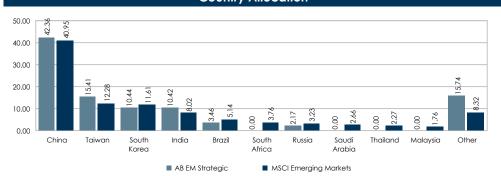
- Outperform the MSCI Emerging Markets.
- Over rolling three year periods, rank above the median in the eA Global Emerging Mkts Equity universe.



### **Dollar Growth Summary (\$000s)**

	3 Months	FYTD
Beginning Market Value	75,167	80,267
Net Additions	0	10,000
Return on Investment	11,372	-3,727
Ending Market Value	86.540	86.540

### **Country Allocation**



### AB EM Strategic Core Equity Fund

For the Periods Ending June 30, 2020



	AB EM Strategic	MSCI Emerging Markets
Return (%)	-0.59	2.27
Standard Deviation (%)	16.02	18.53
Sharpe Ratio	-0.14	0.03

Benchmark Relative Statistics		
Beta	0.84	
R Squared (%)	95.13	
Alpha (%)	-2.61	
Tracking Error (%)	4.58	
Batting Average (%)	38.89	
Up Capture (%)	71.77	
Down Capture (%)	88.95	

3 Year Portfolio Statistics

### 3 Year Growth of a Dollar

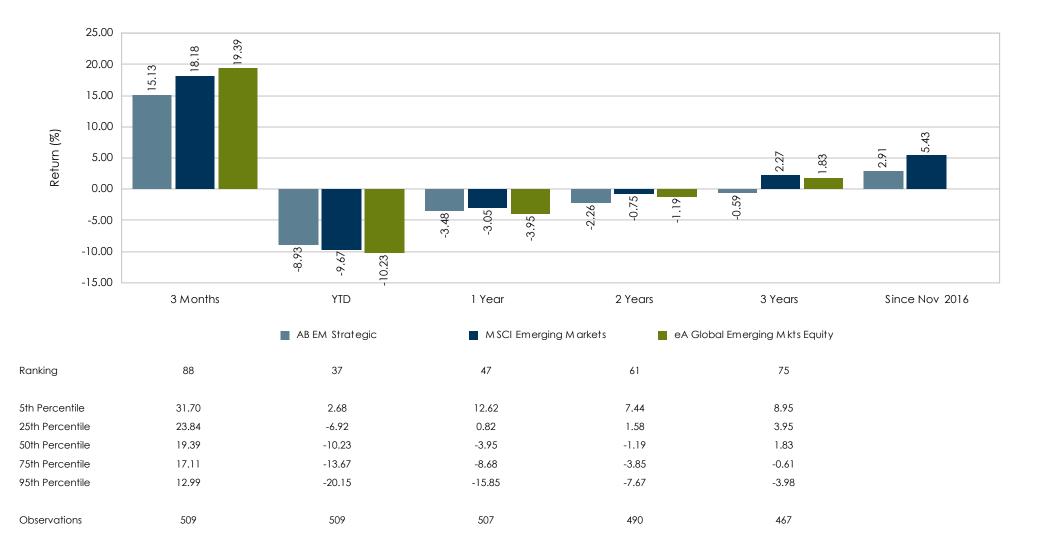


### 3 Year Return Analysis

	AB EM Strategic	MSCI Emerging Markets
Number of Months	36	36
Highest Monthly Return (%)	7.70	9.18
Lowest Monthly Return (%)	-14.60	-15.38
Number of Positive Months	20	19
Number of Negative Months	16	17
% of Positive Months	55.56	52.78

### **AB EM Strategic Core Equity Fund**

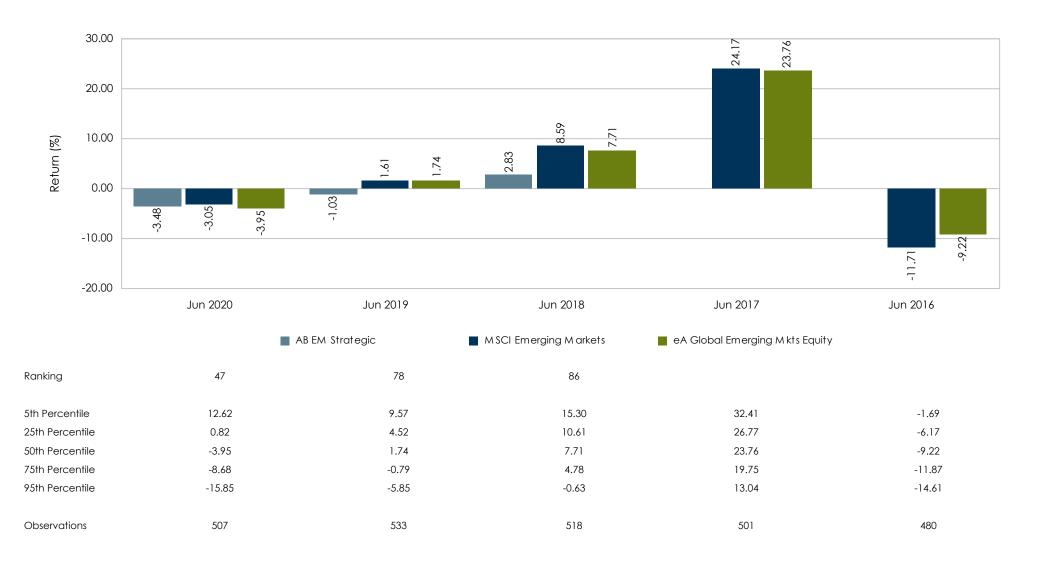
For the Periods Ending June 30, 2020



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 One Year Periods Ending June



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 - Active Funds**

For the Period Ending June 30, 2020

### Summary of Cash Flows for 6 Months

Cash Outflows	Cash Inflows	Net Cash Flows
-17,498,631	23,068,188	5,569,557

Summary of Portfolio Inception to Date (Category totals include active and closed funds)

	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Total	Feb-98	860,700,000	609,150,049	276,077,795	679,517,910	218,356,871	897,874,781	1.47x
Buyout	Apr-99	278,200,000	208,456,159	84,394,155	263,152,908	61,905,589	325,058,497	1.56x
Levine Leichtman	Feb-03	10,000,000	10,612,096	-	18,254,382	63,864	18,318,246	1.73x
Thompson Street C.P. II	Dec-06	10,000,000	10,020,777	655,026	19,113,247	2,055,418	21,168,665	2.11x
Arsenal Capital Partners II	Dec-06	15,000,000	15,032,366	668,860	36,302,596	129,257	36,431,853	2.42x
Sun Capital Partners V	May-07	12,500,000	12,500,000	871,025	11,605,950	2,494,815	14,100,765	1.13x
Calera Capital Fund IV	Apr-08	10,000,000	8,835,037	2,727,541	13,709,533	-	13,709,533	1.55x
Levine Leichtman IV	Sep-08	10,000,000	9,284,222	1,065,574	15,390,212	844,163	16,234,375	1.75x
Thompson Street Capital III	Oct-11	7,500,000	7,662,950	449,665	7,632,084	3,994,701	11,626,785	1.52x
Arsenal Capital Partners III	Apr-12	7,500,000	7,649,536	1,268,332	14,464,035	1,821,622	16,285,657	2.13x
Apollo Investment Fund VIII	Feb-14	7,500,000	7,709,275	1,037,815	4,155,085	5,047,991	9,203,076	1.19x
Francisco Partners Fund IV	Apr-15	8,000,000	7,796,000	204,000	6,756,104	9,698,652	16,454,756	2.11x
CenterOak Equity Fund I	Dec-15	7,500,000	6,430,424	1,657,398	2,082,465	6,582,298	8,664,763	1.35x
Thompson Street Capital Partners IV	Jan-16	7,500,000	7,244,370	936,721	1,562,736	8,540,723	10,103,459	1.39x
Leonard Green Equity Investors VII	May-17	7,500,000	6,382,304	1,184,813	67,117	7,136,199	7,203,316	1.13x
Francisco Partners Fund V	Jul-18	10,000,000	5,200,000	4,800,000	-	5,632,850	5,632,850	1.08x
Thompson Street Capital V	Aug-18	12,700,000	4,786,497	7,913,503	-	4,282,844	4,282,844	0.89x
Apollo Investment Fund IX	Mar-19	13,000,000	3,506,146	9,753,655	328,458	2,780,419	3,108,877	0.89x
Leonard Green Jade	Apr-20	10,000,000	799,773	9,200,227	-	799,773	799,773	1.00x
Francisco Partners VI		20,000,000	-	20,000,000	-	-	-	-
Francisco Partners Agility II		5,000,000	-	5,000,000	-	-	-	-
Leonard Green VIII		15,000,000	-	15,000,000	-	-	-	-

# **Private Equity - Active Funds**

For the Period Ending June 30, 2020

Summary of Portfolio Inception to Date (Category totals include active and closed funds)

	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Distressed	Feb-98	203,500,000	130,137,742	73,299,475	167,556,098	20,314,811	187,870,909	1.44x
Oaktree Opportunities Fund V	Jun-04	4,000,000	4,000,000	-	6,608,433	1,700	6,610,133	1.65x
Oaktree Opportunities Fund VI	Aug-05	4,000,000	4,000,000	-	6,326,002	254	6,326,256	1.58x
Oaktree Opportunities VII A	Mar-07	7,500,000	7,500,000	-	10,299,308	53,819	10,353,127	1.38x
Oaktree Opportunities VII B	Jun-08	7,500,000	6,750,000	375,000	11,680,007	16,657	11,696,664	1.73x
Siguler Guff Dist Opp III	Sep-08	15,000,000	14,550,000	450,000	21,257,958	2,163,384	23,421,342	1.61x
Oaktree Opportunities VIII	Dec-09	7,500,000	7,500,000	-	10,687,675	157,623	10,845,298	1.45x
Oaktree Opportunities IX	Mar-13	7,500,000	7,500,000	-	3,592,158	4,304,119	7,896,277	1.05x
Oaktree European Dislocation Fund	Nov-13	7,500,000	4,293,000	750,000	4,570,399	212,565	4,782,964	1.11x
Oaktree Opportunities Fund X	Jul-15	7,500,000	6,975,000	1,275,000	1,667,949	6,477,645	8,145,594	1.17x
Apollo EPF III	Jan-18	10,000,000	6,501,326	5,949,475	2,767,988	4,502,083	7,270,071	1.12x
Oaktree Opportunities Fund Xb	Jun-18	7,500,000	3,000,000	4,500,000	-	2,424,962	2,424,962	0.81x
CarVal Credit Value Fund V	Jul-20	30,000,000	-	30,000,000	-	-	-	-
Oaktree Opportunities XI		30,000,000	-	30,000,000	-	-	-	-
Emerging Markets Focused	Mar-12	7,500,000	8,007,381	1,022,792	5,357,617	4,163,000	9,520,617	1.19x
Actis EM IV	Mar-12	7,500,000	8,007,381	1,022,792	5,357,617	4,163,000	9,520,617	1.19x
Mezzanine	Mar-99	49,500,000	51,446,479	4,726,007	73,027,535	1,218,585	74,246,120	1.44x
TCW Mezzanine Fund V	Mar-08	10,000,000	7,507,009	2,492,991	10,456,648	357,220	10,813,868	1.44x
Newstone Capital Partners II	Dec-10	7,500,000	10,036,257	311,940	11,597,087	861,365	12,458,452	1.24x
Other	Feb-13	71,500,000	33,604,591	40,986,058	9,633,161	23,549,818	33,182,979	0.99x
EnCap Energy Fund IX	Feb-13	6,500,000	7,370,706	365,709	5,132,653	2,080,861	7,213,514	0.98x
EnCap Energy Fund X	Apr-15	7,500,000	6,882,626	1,113,612	1,464,202	4,332,390	5,796,592	0.84x
ArcLight Energy Partners VI	Aug-15	7,500,000	7,807,282	1,050,714	3,036,306	4,716,316	7,752,622	0.99x
EnCap Energy Fund XI	Jul-17	10,000,000	3,014,907	6,985,093	-	1,777,661	1,777,661	0.59x
North Sky Clean Growth V	Sep-19	25,000,000	7,562,500	17,437,500	-	10,018,863	10,018,863	1.32x
ArcLight Energy Partners Fund VII, L.P	Feb-20	15,000,000	966,570	14,033,430	-	623,727	623,727	0.65x
Secondary Fund of Funds	Dec-05	20,000,000	21,226,531	-	28,224,981	1,352,491	29,577,472	1.39x
Lexington VI	Dec-05	20,000,000	21,226,531	-	28,224,981	1,352,491	29,577,472	1.39x

# **Private Equity - Active Funds**

For the Period Ending June 30, 2020

Summary of Portfolio Inception to Date (Category totals include active and closed funds)

	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	230,500,000	156,271,166	71,649,308	132,565,610	105,852,577	238,418,187	1.53x
Accel Europe	May-01	10,000,000	10,000,000	-	12,403,731	803,693	13,207,424	1.32x
Knightsbridge Fund VI	Dec-04	12,000,000	10,960,000	1,040,000	12,624,368	5,287,020	17,911,388	1.63x
Firstmark I (Pequot, Firstmark IV)	Nov-05	5,000,000	4,950,000	50,000	22,878,645	9,356,187	32,234,832	6.51x
Weathergage Venture Capital	Mar-07	7,500,000	6,862,500	637,500	10,275,343	4,088,665	14,364,008	2.09x
Warburg Pincus	Oct-07	15,000,000	15,000,000	-	22,821,483	2,007,115	24,828,598	1.66x
Weathergage Venture Cap II	Apr-11	7,500,000	6,975,000	525,000	5,994,146	10,121,264	16,115,410	2.31x
Firstmark II (Firstmark V)	Aug-11	5,000,000	5,022,365	-	1,593,159	10,005,754	11,598,913	2.31x
Warburg Pincus XI	Nov-12	7,500,000	7,500,000	-	7,654,500	3,781,311	11,435,811	1.52x
Firstmark Capital Fund III	Feb-14	5,000,000	4,900,000	100,000	141,977	9,602,729	9,744,706	1.99x
Firstmark Capital Opportunity Fund I	Jun-14	5,000,000	5,150,000	111,808	1,688,476	6,186,570	7,875,046	1.53x
Warburg Pincus XII	Dec-15	10,000,000	9,605,000	395,000	1,170,230	10,473,494	11,643,724	1.21x
Weathergage Venture Capital IV	Dec-16	10,000,000	7,200,000	2,800,000	-	9,307,530	9,307,530	1.29x
FirstMark Capital Fund IV	Apr-17	7,500,000	5,100,000	2,400,000	-	5,623,442	5,623,442	1.10x
FirstMark Capital Opportunity Fund II	Jan-18	7,500,000	7,500,000	-	274,865	8,656,278	8,931,143	1.19x
Warburg Pincus Global Growth	Mar-19	40,000,000	9,160,000	30,840,000	-	8,543,316	8,543,316	0.93x
TA XIII	Dec-19	10,000,000	1,500,000	8,500,000	-	1,258,209	1,258,209	0.84x
FirstMark Capital Opportunity Fund III	Jun-20	12,500,000	750,000	11,750,000	-	750,000	750,000	1.00x
FirstMark Capital Fund V	Jul-20	12,500,000	-	12,500,000	-	-	-	-



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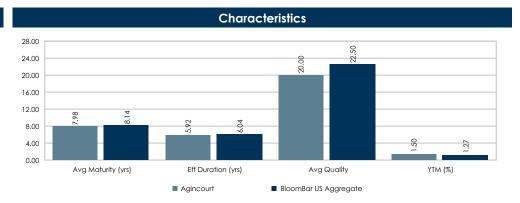


Fixed Income Manager Performance

For the Periods Ending June 30, 2020

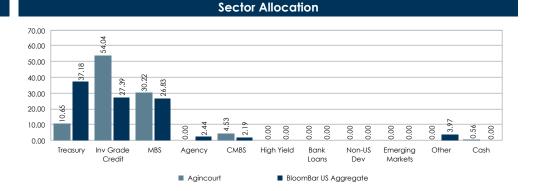
### **Account Description**

- 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

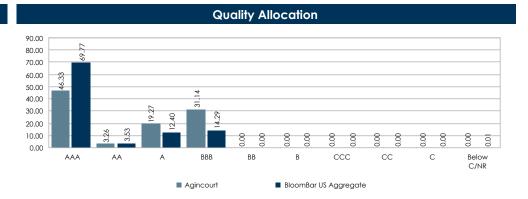


### **Performance Goals**

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

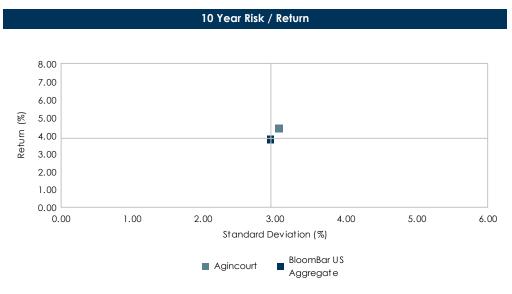


### **Dollar Growth Summary (\$000s)** 3 Months **FYTD Beginning Market Value** 247.237 220,459 Net Additions -90 14,637 11,223 23,274 Return on Investment 1,898 8,066 Income 9,324 15,208 Gain/Loss 258,369 **Ending Market Value** 258,369



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

For the Periods Ending June 30, 2020



# 10 Year Portfolio Statistics

		BloomBar US
	Agincourt	Aggregate
Return (%)	4.46	3.82
Standard Deviation (%)	3.06	2.94
Sharpe Ratio	1.27	1.11

Benchmark Relative Statistics			
Beta	1.01		
R Squared (%)	95.12		
Alpha (%)	0.56		
Tracking Error (%)	0.68		
Batting Average (%)	65.00		
Up Capture (%)	110.06		
Down Capture (%)	98.48		

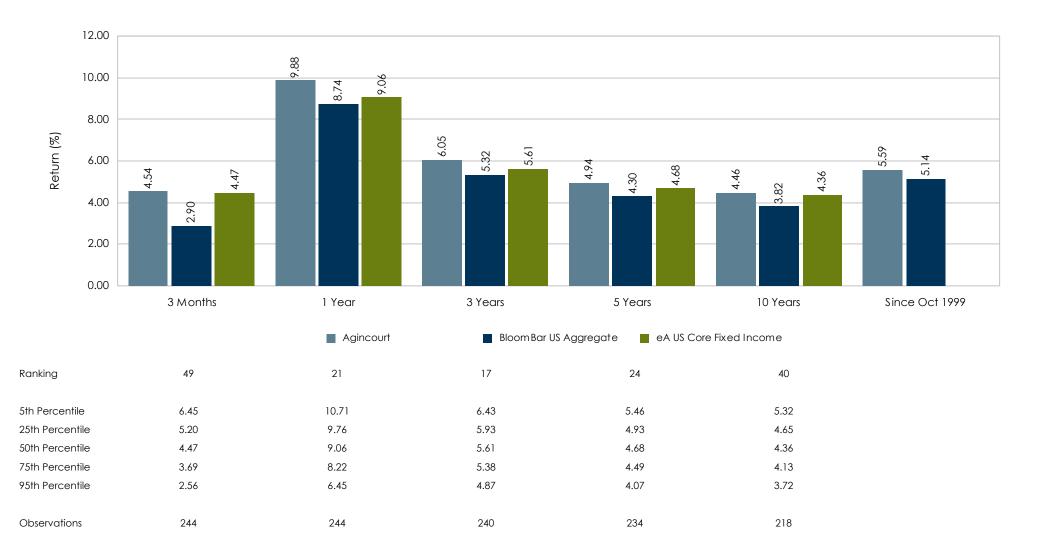
### 10 Year Growth of a Dollar



### 10 Year Return Analysis

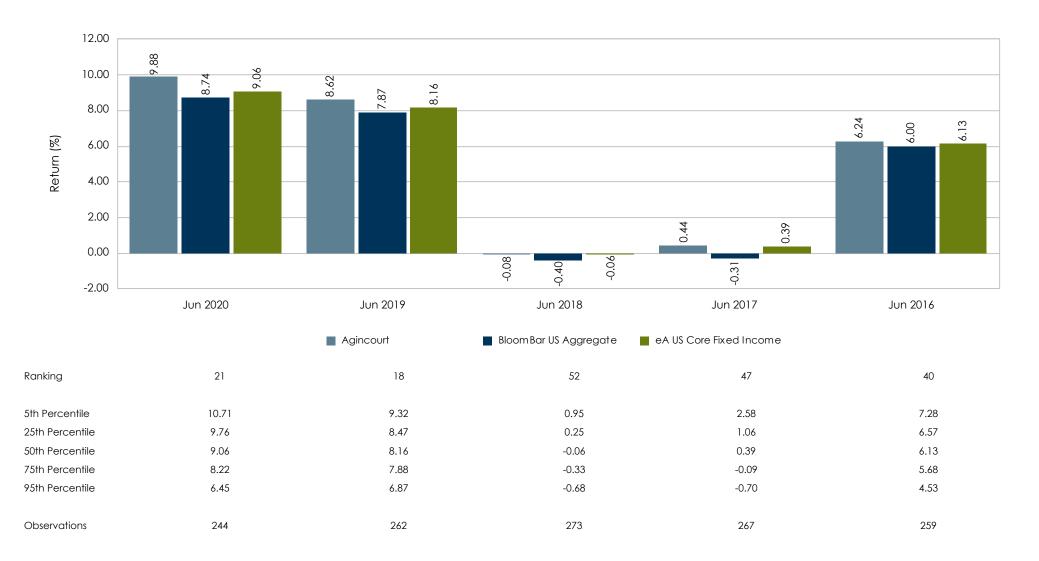
	Agincourt	BloomBar US Aggregate
Number of Months	120	120
Highest Monthly Return (%)	2.71	2.59
Lowest Monthly Return (%)	-2.37	-2.37
Number of Positive Months	79	78
Number of Negative Months	41	42
% of Positive Months	65.83	65.00

For the Periods Ending June 30, 2020



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 June



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 June 30, 2020

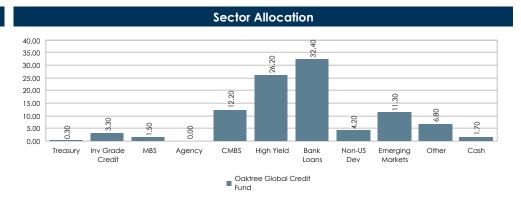
### **Account Description**

- Strategy Multi-Sector Fixed Income
- Vehicle Limited Partnership
- Benchmark Custom Blended Index
- **Performance Inception Date** February 1998
- **Fees** 50 bps plus operating expenses

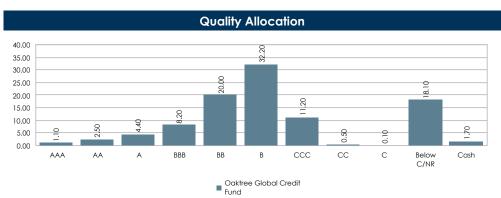


### **Performance Goals**

Outperform the Custom Blended Index.



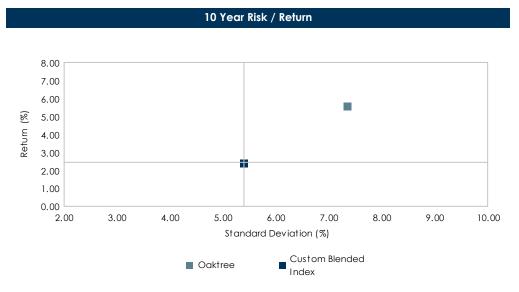
Dollar Growth Summary (\$000s)				
	3 Months	FYTD		
Beginning Market Value	111,015	129,151		
Net Additions	9,819	9,232		
Return on Investment	12,865	-4,684		
Ending Market Value	133,698	133,698		



Characteristic and allocation charts represents the composite data of the Oaktree Capital Management, L.P.\Global Credit.

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

For the Periods Ending June 30, 2020



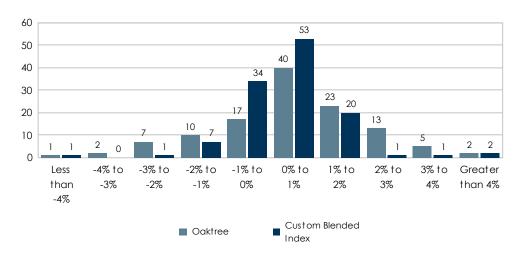
	Oaktree	Custom Blended Index
Return (%)	5.60	2.42
Standard Deviation (%)	7.36	5.39
Sharpe Ratio	0.68	0.34

Benchmark Relative Statistics				
Beta	0.92			
R Squared (%)	45.62			
Alpha (%)	3.44			
Tracking Error (%)	5.44			
Batting Average (%)	60.83			
Up Capture (%)	121.75			
Down Capture (%)	57.60			

10 Year Return Analysis

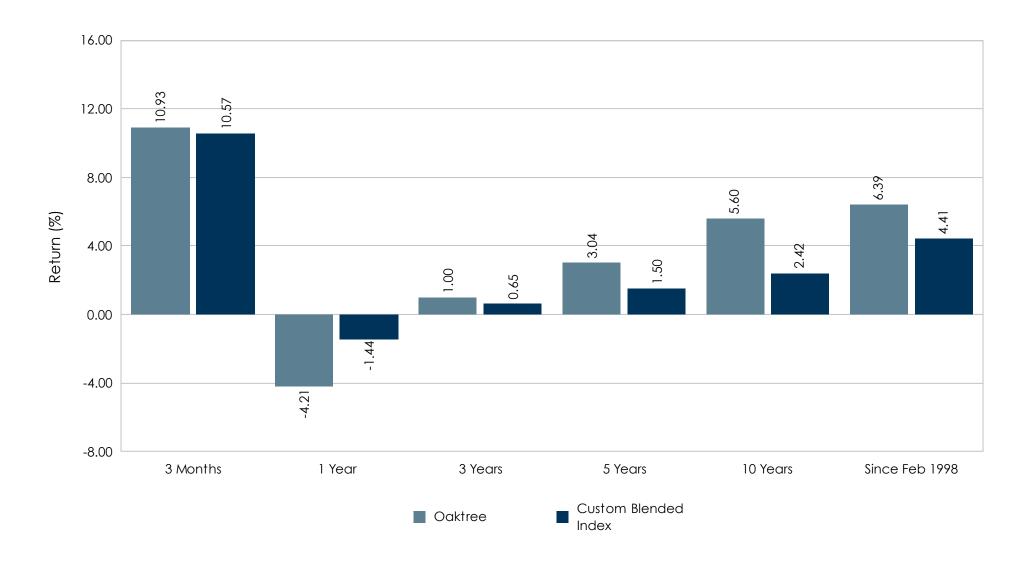
10 Year Portfolio Statistics



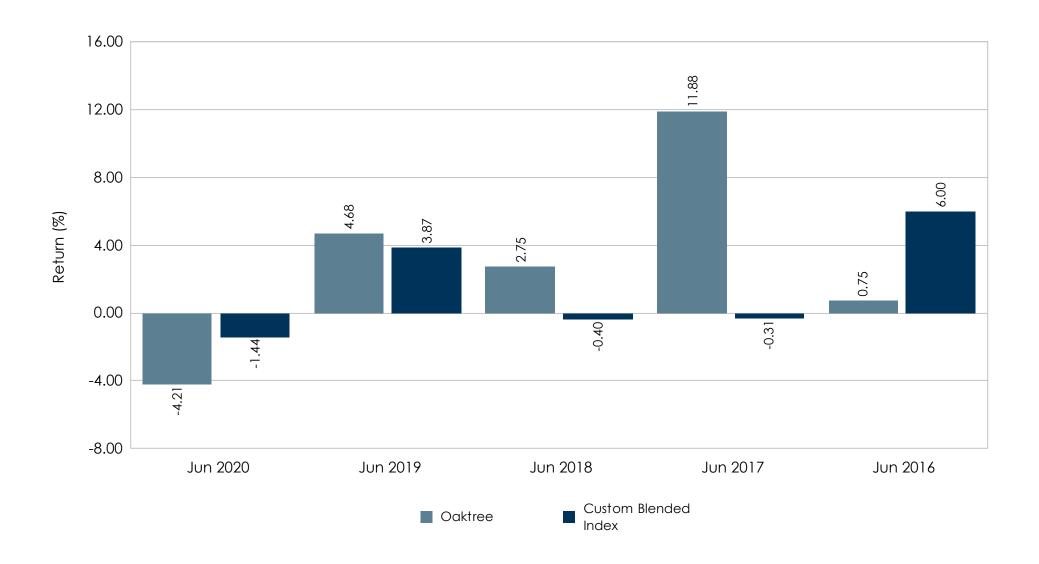


	Oaktree	Custom Blended Index
Number of Months	120	120
Highest Monthly Return (%)	5.85	4.42
Lowest Monthly Return (%)	-14.98	-12.62
Number of Positive Months	83	77
Number of Negative Months	37	43
% of Positive Months	69.17	64.17

For the Periods Ending June 30, 2020



For the One Year Periods Ending June

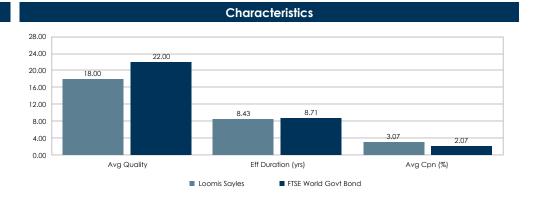


# **Loomis Sayles**

For the Periods Ending June 30, 2020

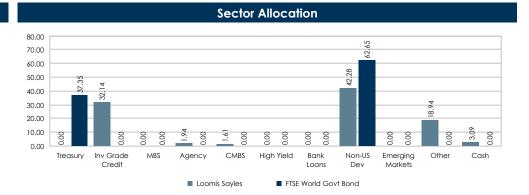
### **Account Description**

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

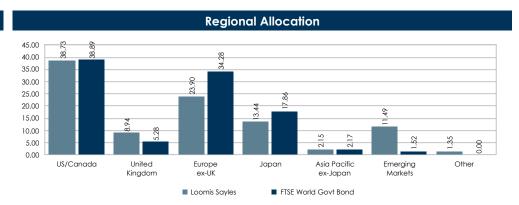


### **Performance Goals**

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



# Dollar Growth Summary (\$000s) 3 Months FYTD Beginning Market Value 80,011 81,552 Net Additions -70 -279 Return on Investment 5,543 4,211 Ending Market Value 85,485 85,485

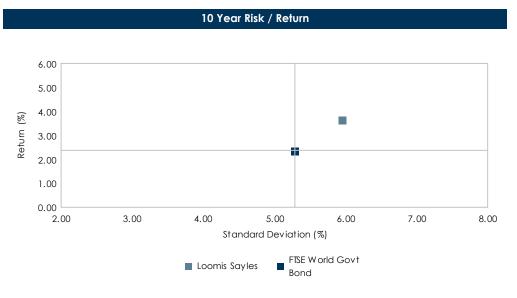


 $Characteristic \ and \ allocation \ charts \ represents \ data \ of \ the \ Loom is \ World \ Bond \ NH \ Trust \ (Non-Mutual \ Commingled).$ 

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

# **Loomis Sayles**

For the Periods Ending June 30, 2020



	Loomis Sayles	FTSE World Govt Bond
Return (%)	3.67	2.37
Standard Deviation (%)	5.96	5.28
Sharpe Ratio	0.52	0.34

Benchmark Relative Statistics				
Beta	1.03			
R Squared (%)	82.66			
Alpha (%)	1.25			
Tracking Error (%)	2.49			
Batting Average (%)	62.50			
Up Capture (%)	117.61			
Down Capture (%)	101.36			

**10 Year Return Analysis** 

10 Year Portfolio Statistics

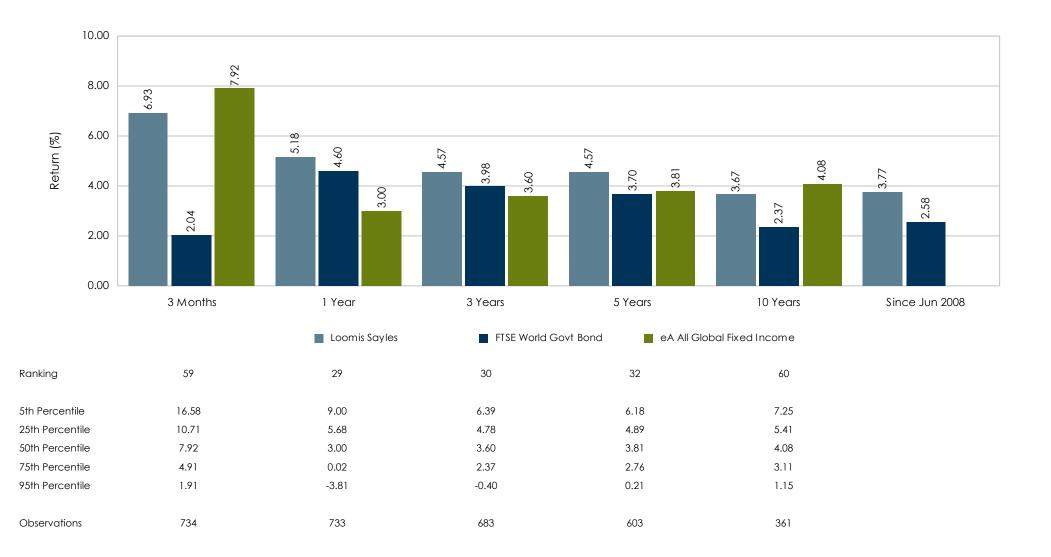
### 10 Year Growth of a Dollar



	Loomis Sayles	FTSE World Gov <del>l</del> Bond
Number of Months	120	120
Highest Monthly Return (%)	4.20	3.69
Lowest Monthly Return (%)	-4.95	-4.78
Number of Positive Months	73	66
Number of Negative Months	47	54
% of Positive Months	60.83	55.00

**Loomis Sayles** 

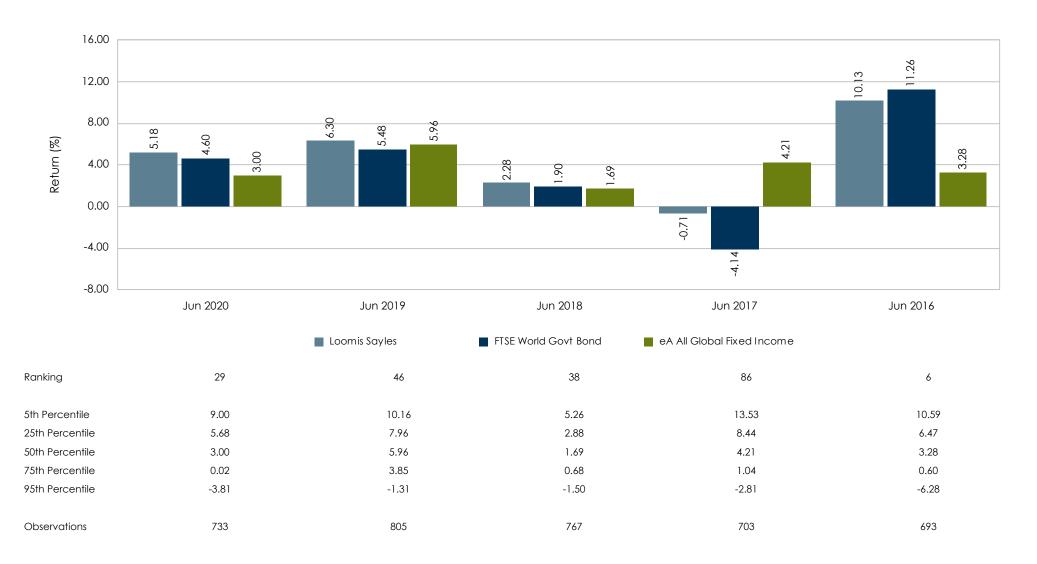
For the Periods Ending June 30, 2020



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 June



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 - Active Funds**

For the Period Ending June 30, 2020

# Summary of Cash Flows for 6 Months

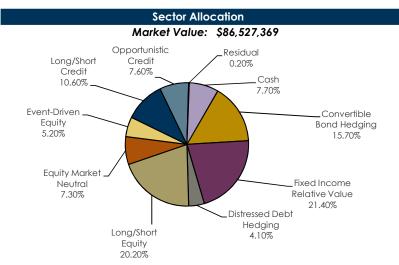
Cash Outflows	Cash Inflows	Net Cash Flows
-18,997,422	11,017,864	-7,979,558

# Summary of Portfolio Inception to Date (Category totals include active and closed funds)

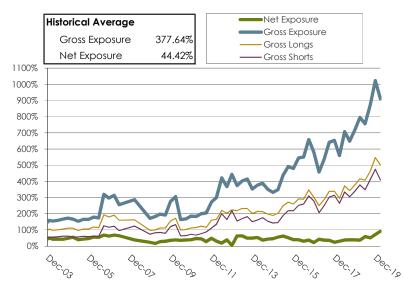
	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Total	Sep-16	115,000,000	90,066,417	41,514,613	39,876,377	60,106,025	99,982,402	1.11x
Mezzanine	Jan-17	20,000,000	19,966,417	1,493,437	7,233,452	16,662,552	23,896,004	1.20x
Newstone Capital Partners III	Jan-17	20,000,000	19,966,417	1,493,437	7,233,452	16,662,552	23,896,004	1.20x
Other	Sep-16	95,000,000	70,100,000	40,021,176	32,642,925	43,443,473	76,086,398	1.09x
LBC Credit Partners Fund IV	Sep-16	40,000,000	36,000,000	12,826,227	14,661,754	25,748,347	40,410,101	1.12x
Apollo Accord II	Oct-18	11,400,000	10,500,000	900,000	11,686,222	-	11,686,222	1.11x
Apollo Accord III	Oct-19	18,600,000	18,600,000	6,294,949	6,294,949	12,695,126	18,990,075	1.02x
Apollo Accord Fund III B	May-20	25,000,000	5,000,000	20,000,000	-	5,000,000	5,000,000	1.00x

### **PAAMCO**

For the Periods Ending June 30, 2020



# Historical Net & Gross Exposure



### 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%

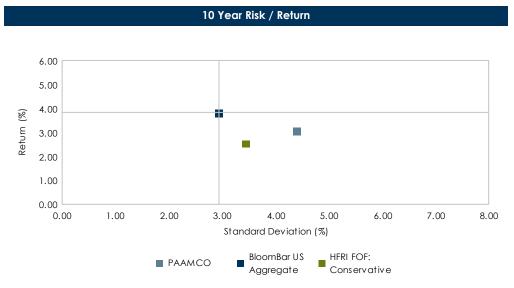
### **Exposure**

Net Exposure: 78.10%Gross Exposure: 845.10%

Characteristic data provided by manager.

# **PAAMCO**

For the Periods Ending June 30, 2020

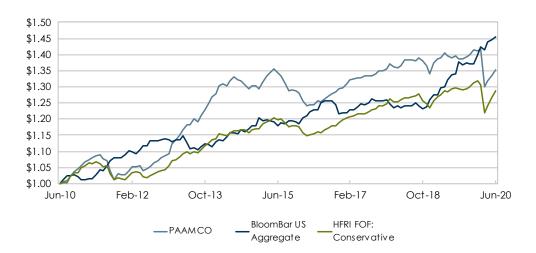


	PAAMCO	BloomBar US Aggregate	HFRI FOF: Conservative
Return (%)	3.07	3.82	2.56
Standard Deviation (%)	4.40	2.94	3.44
Sharpe Ratio	0.57	1.11	0.58

10 Year Portfolio Statistics

Benchmark Relative Statistics					
-0.17	1.17				
1.33	83.69				
3.84	0.09				
5.56	1.87				
60.00	55.00				
38.98	115.05				
-28.16	109.66				
	-0.17 1.33 3.84 5.56 60.00 38.98				

### 10 Year Growth of a Dollar

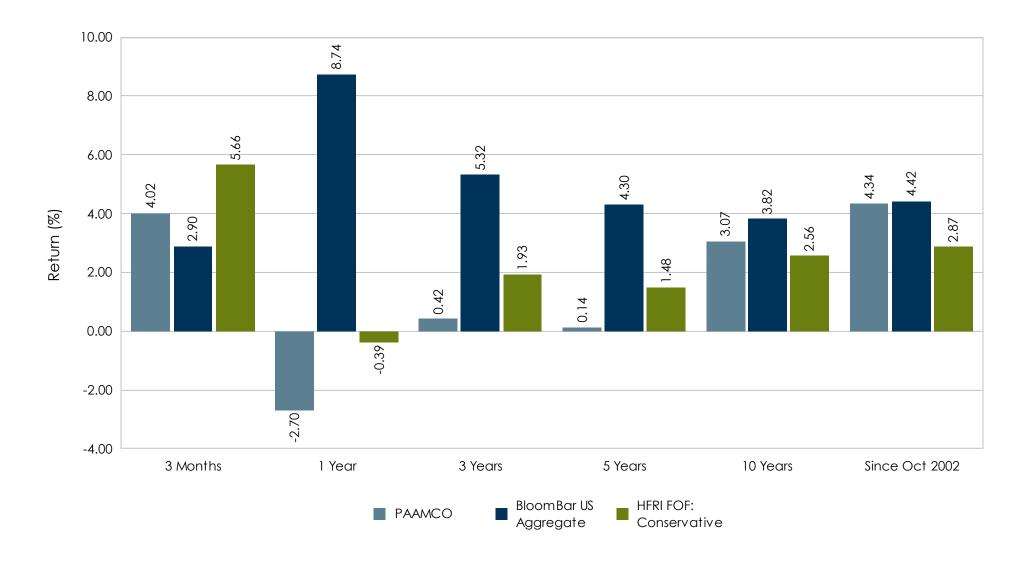


### 10 Year Return Analysis

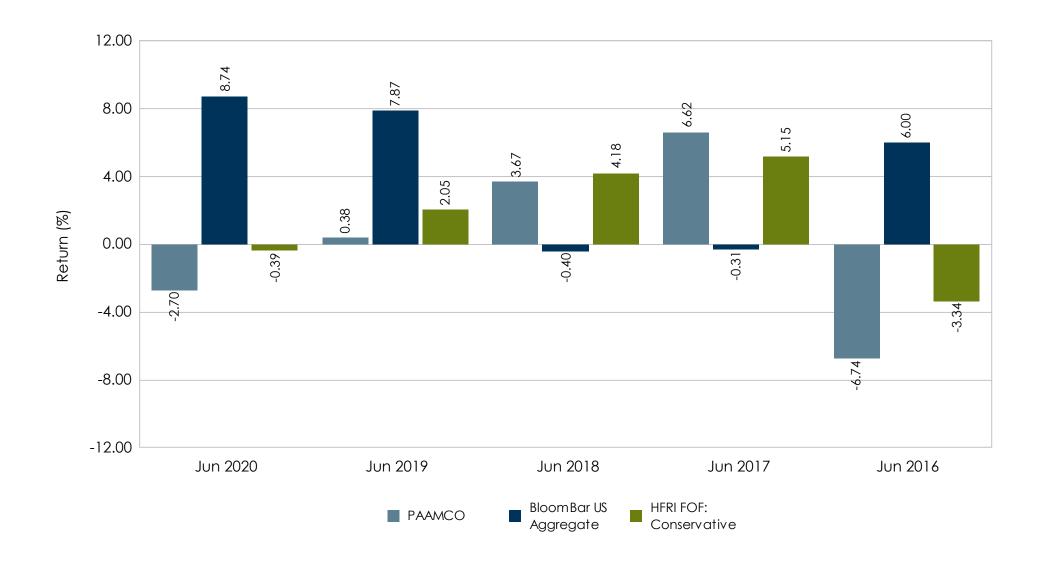
	PAAMCO	BloomBar US Aggregate	HFRI FOF: Conservative
Number of Months	120	120	120
Highest Monthly Return (%)	2.84	2.59	2.08
Lowest Monthly Return (%)	-8.32	-2.37	-6.78
Number of Positive Months	80	78	85
Number of Negative Months	40	42	35
% of Positive Months	66.67	65.00	70.83

PAAMCO

For the Periods Ending June 30, 2020



**PAAMCO**For the One Year Periods Ending June



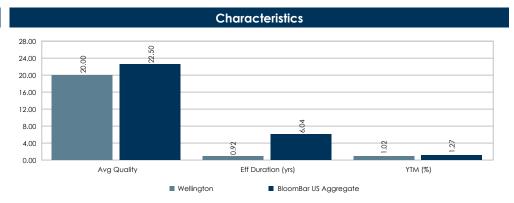
For the Periods Ending June 30, 2020

### **Account Description**

- Strategy Absolute Return
- Vehicle Non-Mutual Commingled
- Benchmarks US T-Bills 90 Day + 4% and BloomBar US Aggregate
- Performance Inception Date December 2016
- Fees 25 bps, plus 20% of excess return beyond cash + 1%

# Performance Goals

- Outperform the US T-Bills 90 Day + 4%.
- Over rolling three year periods, rank above the median in the eA Global Unconstrained Fixed Income universe.



### **Sector Allocation** 70.00 60.00 50.00 40.00 30.00 20.00 10.00 0.00 Treasury Inv Grade CMBS High Yield Bank Non-US Emerging Credit Loans Dev Markets ■ Wellington ■ BloomBar US Aggregate

# Dollar Growth Summary (\$000s) 3 Months FYTD Beginning Market Value 77,340 66,411 Net Additions -48 9,818 Return on Investment 579 1,642 Ending Market Value 77,871 77,871



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

For the Periods Ending June 30, 2020

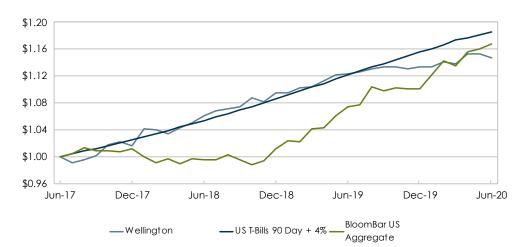


### **US T-Bills BloomBar US** Wellington 90 Day + 4% Aggregate 4.69 5.83 5.32 Return (%) 2.35 0.22 3.27 Standard Deviation (%) **Sharpe Ratio** 1.30 19.08 1.13

3 Year Portfolio Statistics

Benchmark Relative Statistics					
Beta	0.00	-0.09			
R Squared (%)	0.00	1.43			
Alpha (%)	4.70	5.19			
Tracking Error (%)	2.36	4.25			
Batting Average (%)	44.44	44.44			
Up Capture (%)	80.49	29.17			
Down Capture (%)		-119.60			

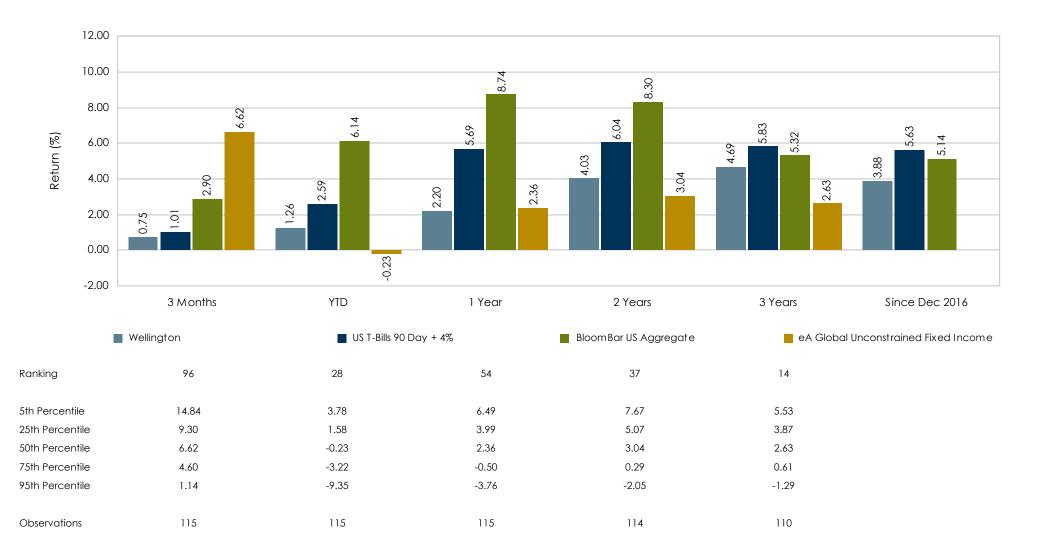
### 3 Year Growth of a Dollar



### 3 Year Return Analysis

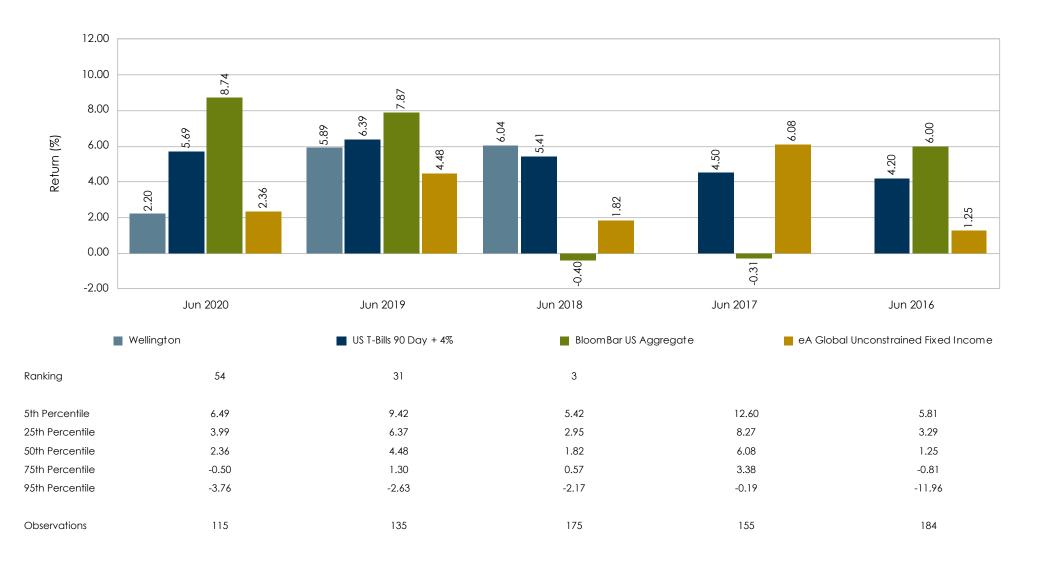
	Wellington	US T-Bills 90 Day + 4%	BloomBar US Aggregate
Number of Months	36	36	36
Highest Monthly Return (%)	2.45	0.62	2.59
Lowest Monthly Return (%)	-0.87	0.33	-1.15
Number of Positive Months	26	36	23
Number of Negative Months	10	0	13
% of Positive Months	72.22	100.00	63.89

For the Periods Ending June 30, 2020



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 June



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.



Real Assets Manager Performance

# JP Morgan Strategic Property

For the Periods Ending June 30, 2020

Ending Market Value

### **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 80 bps, next \$250M at 70 bps, balance at 50 bps

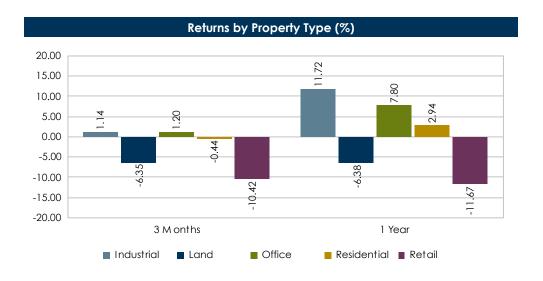
### **Performance Goals**

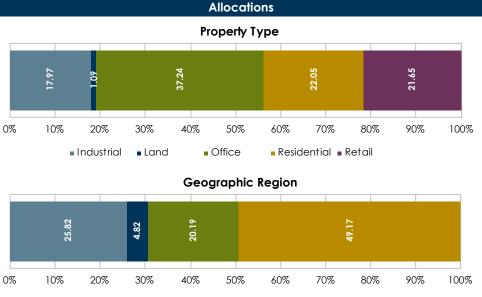
Outperform the NFI ODCE Net.



**Account Information** 

# of Properties# of Participants370





■ Midwest ■ South

West

East

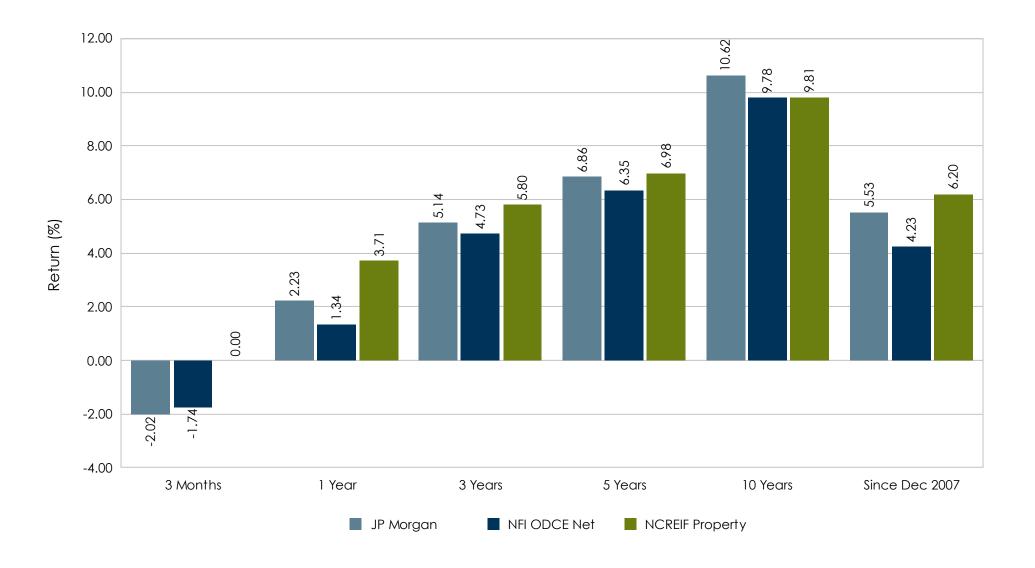
Characteristic and allocation charts represents data of the Strategic Property Fund FIV1 (Comminged Pension Fund Trust Fund) (Non-Mutual Commingled).

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\$150,762,476

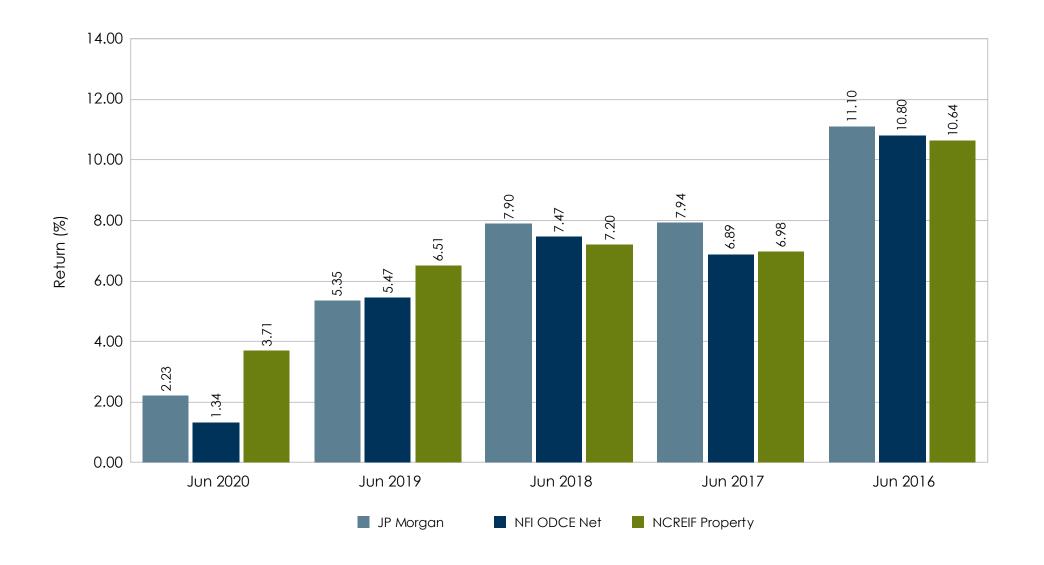
# JP Morgan Strategic Property

For the Periods Ending June 30, 2020



# JP Morgan Strategic Property

For the One Year Periods Ending June



# **Blackstone Property Partners**

For the Periods Ending June 30, 2020

### **Account Description**

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

# ■ Ending Market Value \$114,040,118 Fund Information

**Account Information** 

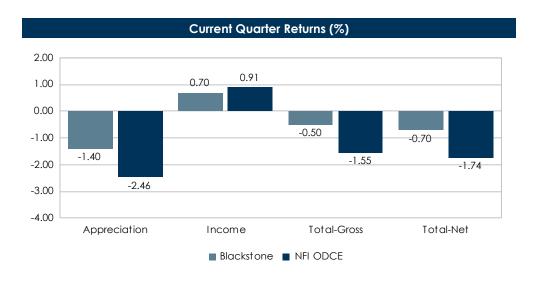
■ Net Market Value \$11,000,000,000

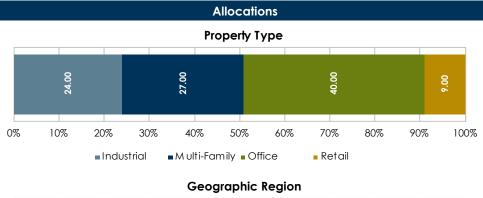
# of Properties

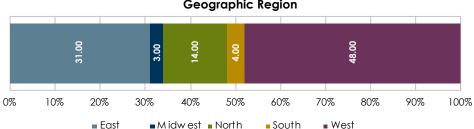
41

### **Performance Goals**

Outperform the NFI ODCE Net and NCREIF Property.

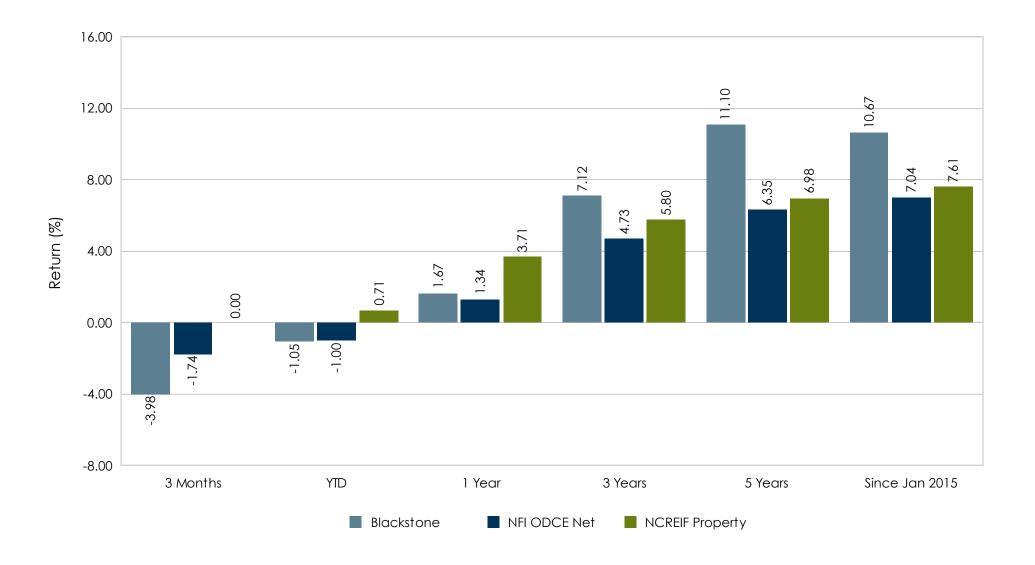






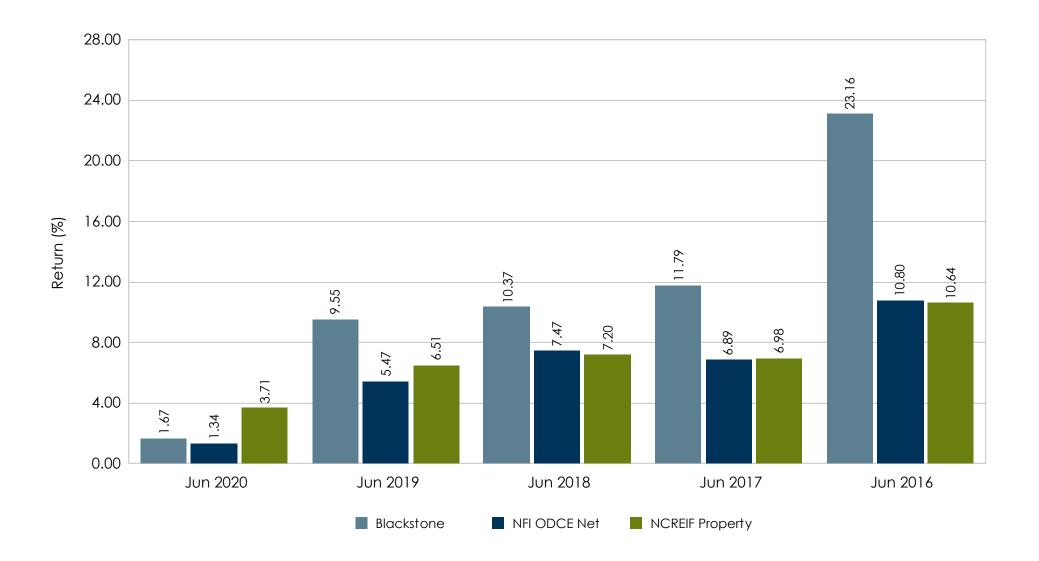
# **Blackstone Property Partners**

For the Periods Ending June 30, 2020



# **Blackstone Property Partners**

For the One Year Periods Ending June



# Private Real Estate - Active Funds

For the Period Ending June 30, 2020

# Summary of Cash Flows for 6 Months

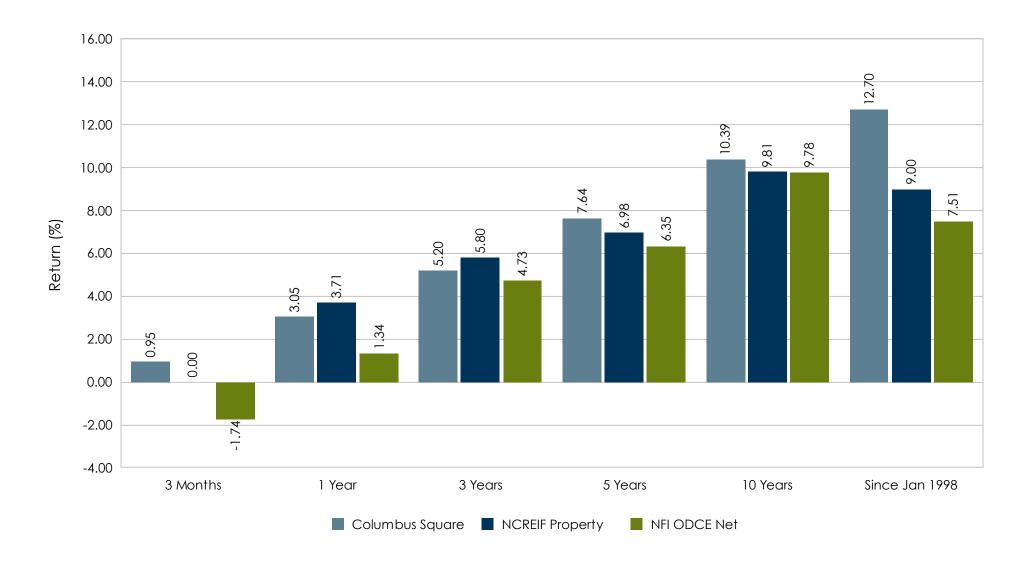
Cash Outflows	Cash Inflows	Net Cash Flows
-6,727,005	3,427,107	-3,299,898

Summary of Portfolio Inception to Date (Category totals include active and closed funds)

	Inception		Drawn	Remaining	Distributions	Adjusted		Total Value to
	Date	Committed	to Date	Commitment	to Date	Ending Value	Total Value	Paid-in
Total	Aug-11	130,500,000	100,471,972	42,362,640	79,753,435	56,175,469	135,928,904	1.35x
Real Estate	Aug-11	130,500,000	100,471,972	42,362,640	79,753,435	56,175,469	135,928,904	1.35x
Siguler Guff Dist. Real Estate Opp.	Aug-11	10,000,000	9,250,000	750,000	12,346,132	3,970,125	16,316,257	1.76x
TA Associates Realty X	Jan-13	20,000,000	20,000,000	-	29,972,947	2,263,657	32,236,604	1.61x
Cerberus Real Estate Fund III	Jul-13	20,000,000	25,185,319	4,871,659	26,902,842	9,111,520	36,014,362	1.43x
Hall Capital Fund III	Nov-14	7,500,000	7,080,261	419,739	2,880,272	5,620,322	8,500,594	1.20x
Siguler Guff Dist. Real Estate Opp. II	Dec-14	10,000,000	8,715,000	1,285,000	5,231,995	6,632,979	11,864,974	1.36x
Cerberus Institutional Real Estate Partners 4	Jun-16	15,000,000	12,738,859	3,824,590	1,563,559	12,098,873	13,662,432	1.07x
Siguler Guff Dist. Real Estate Opp. II B	Dec-17	10,000,000	5,860,000	4,140,000	-	6,200,739	6,200,739	1.06x
Angelo Gordon Realty Value Fund X	Jun-19	20,000,000	5,950,000	14,050,000	52,310	5,602,430	5,654,740	0.95x
Blackstone Real Estate Partners Fund IX, L.P	Sep-19	18,000,000	5,692,533	13,021,652	803,378	4,674,824	5,478,202	0.96x

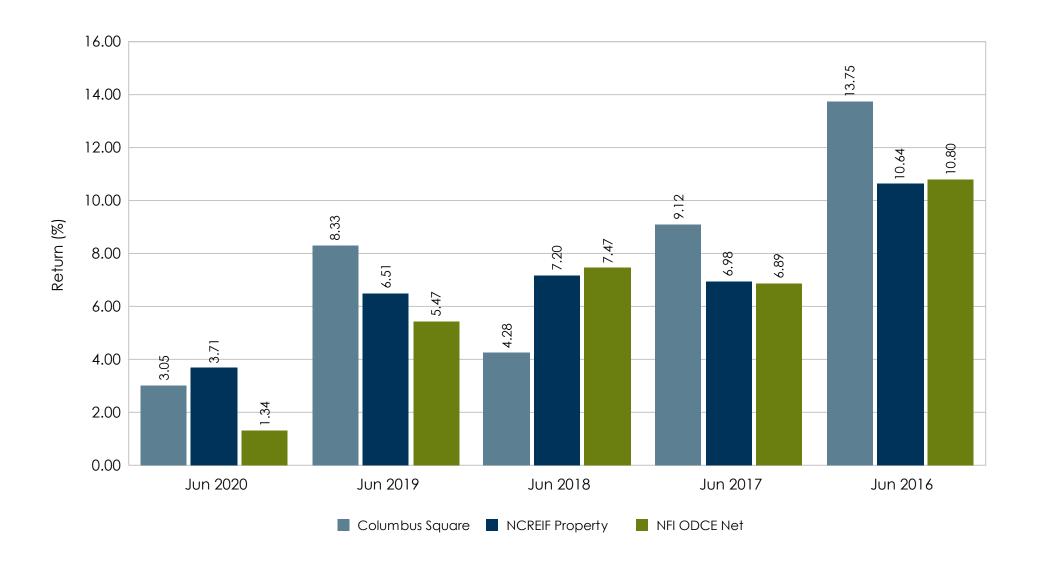
# **Columbus Square**

For the Periods Ending June 30, 2020



# **Columbus Square**

For the One Year Periods Ending June



# **Mount Lucas Peak Partners**

For the Periods Ending June 30, 2020

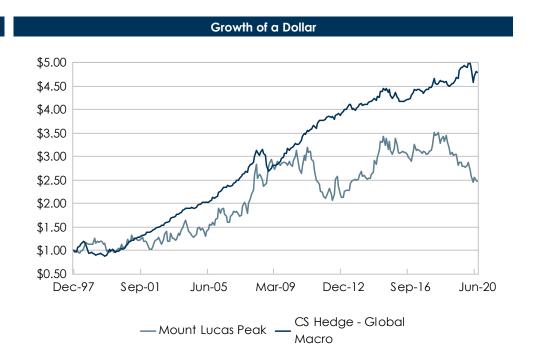
# **Account Description**

### **Performance Goals**

• Outperform the CS Hedge - Global Macro.

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

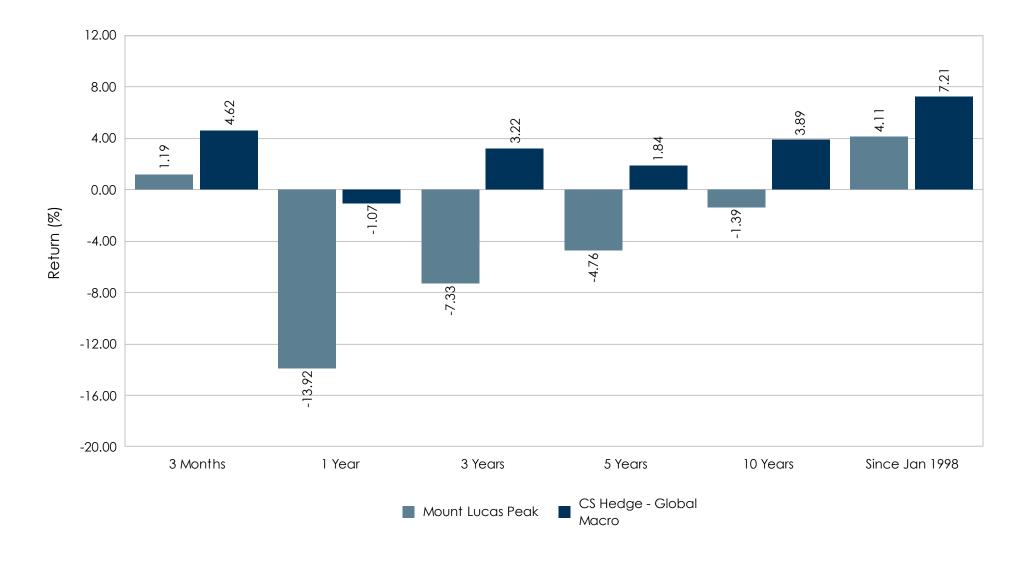
Dollar Growth Summary (\$000s)					
	3 Months	FYTD			
Beginning Market Value	22,594	26,764			
Net Additions	-59	-255			
Return on Investment	269	-3,706			
Ending Market Value	22,804	22,804			



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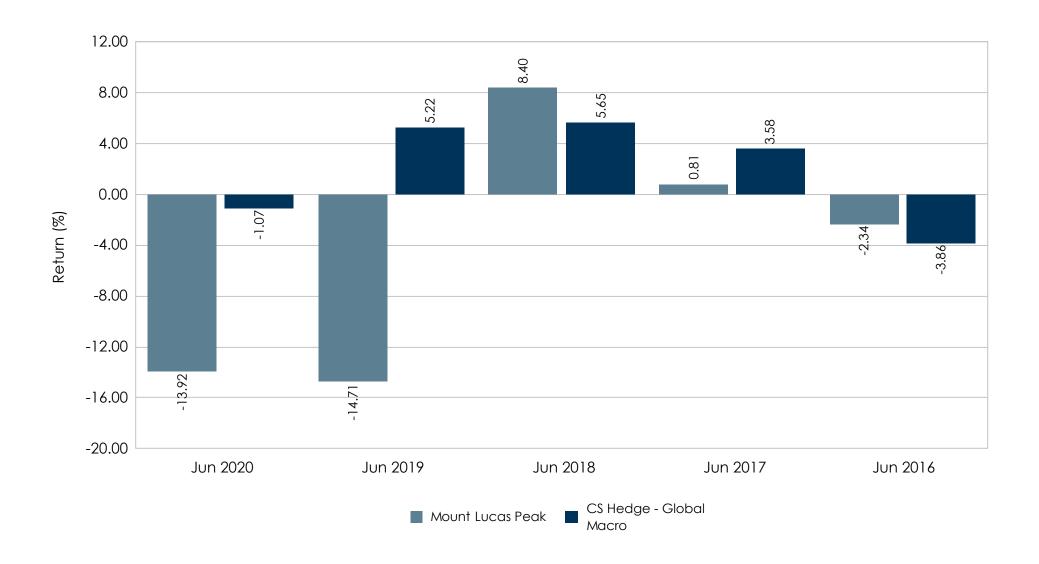
# **Mount Lucas Peak Partners**

For the Periods Ending June 30, 2020



# **Mount Lucas Peak Partners**

For the One Year Periods Ending June





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**Appendix** 

# **Securities Lending Income**

	<u>Domestic Equity</u>	<u>Fixed Income</u>	<u>Total</u>
2019			
Q1	\$0	\$0	\$0
Q2	\$0	\$0	\$0
Q3	\$12,071	\$1,047	\$13,117
Q4	\$8,463	\$599	\$9,062
2019 Total	\$20,533	\$1,645	\$22,179
2020			
Q1	\$15,261	\$817	\$16,078
Q2	\$14,226	\$5,598	\$19,824
Q3			\$0
Q4			\$0
2020 Total	\$29,487	\$6,415	\$35,902

### **Definitions of Statistical Measures**

**Alpha -** the annualized difference between the manager's actual return and the manager'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	Ва2	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.
09/30/2019	The index consists of 60.0% MSCI ACWI, 25.0% BloomBar Universal, 15.0% NFI ODCE Net.

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