

Austin Fire Fighters Relief and Retirement Fund August 24, 2020

Meeting Material

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Agenda

Agenda

- 1. Executive Summary
- 2. 2Q20 Investment Report
- 3. 2Q20 Asset Transfers
- 4. Annual Private Equity Peer Performance Review
- **5.** Memos Since Last Meeting
- 6. Roadmap
- 7. Appendices
 - Economic and Market Update
 - Disclaimer, Glossary, and Notes

Executive Summary



Executive Summary

2Q 20 Executive Summary

Category	Results	Notes
Total Fund Performance	Positive	+7.3%(\$67 mm investment gain)
Performance vs. Benchmarks	Outperformed	+7.3% vs. 6.9% (static) and 4.0% (dynamic)
Performance vs. Peers	Underperformed	+7.3% vs. +12.5% median (99th percentile)
Asset Allocation Attribution Effects	Negative	Underweight U.S. equity was detractive, overweight PE was detractive
Active Public Managers vs. Benchmarks	Outperformed	6 of 13 active managers beat respective benchmarks (after fees)
Active Public Managers vs. Peer Groups	Underperformed	5 of 12ª active managers beat peer group median (after fees)
Compliance with Targets	In Compliance	All exposure within policy ranges

¹ InvMetrics Public DB \$250mm-\$1 billion net.

² Excludes Aberdeen EMD. No appropriate peer group for Aberdeen blended currency emerging market debt. Peer groups only exist for local currency or USD strategies.



Executive Summary

Peer Rankings

- The Fund typically underperforms peers in strong equity rallies (because of the lower exposure to public equities).
- Historically the Fund's ranking has returned to above medium/top quartile in normal or negative quarters.

2Q20 (S&P 500 was +20.5%)										
As of 6/30/20	2Q 20	1 YR	3 YR	5 YR	10 YR					
Peer Ranking	99	62	54	38	54					
1Q20 (S&P 500 was <mark>-19.6%</mark>)										
As of 3/31/20	1Q 20	1 YR	3 YR	5 YR	10 YR					
Peer Ranking	5	8	8	8	25					
	4Q	19 (S&P 50	0 was +9.1%)							
As of 12/31/19	4Q 19	1 YR	3 YR	5 YR	10 YR					
Peer Ranking [,]	71	73	19	19	45					
3Q19 (S&P 500 was +1.7%)										
As of 9/30/19	3Q 19	1 YR	3 YR	5 YR	10 YR					
Peer Ranking	7	13	24	21	46					

¹ Rankings are based on the InvMetrics Public DB \$250 mm - \$1 bb net peer group. The 4Q19 data is based on the InvMetrics Public DB > \$1 billion net peer group as the plan was +\$1 bb at the time.



Executive Summary

Peer Rankings (continued)

2Q19 (S&P 500 was +4.3%)										
As of 6/30/19	2Q 19	1 YR	3 YR	5 YR	10 YR					
Peer Ranking	84	51	30	25	62					

1Q19 - - (S&P 500 was +13.6%)

As of 3/31/19	1Q 19	1 YR	3 YR	5 YR	10 YR
Peer Ranking	98	79	19	21	65

Attribution Summary as of June 30, 2020



Summary | As of June 30, 2020



Attribution Summary											
		3 Months End	ing June 30, 2020								
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects				
Domestic Equity	20.0%	21.2%	22.0%	-0.8%	-0.1%	-0.7%	-0.8%				
Public Foreign Equity	22.0%	20.6%	16.1%	4.5%	0.8%	-0.2%	0.6%				
Private Equity	15.0%	-3.8%	-20.9%	17.2%	4.1%	-1.9%	2.2%				
Investment Grade Bonds	13.0%	4.2%	2.9%	1.3%	0.2%	-0.1%	0.1%				
TIPS	5.0%	4.3%	4.2%	0.0%	0.0%	0.0%	0.0%				
High Yield Bonds & Bank Loans	5.0%	8.7%	9.6%	-0.9%	0.0%	0.0%	-0.1%				
Emerging Market Bonds	7.0%	12.6%	10.9%	1.7%	0.1%	0.0%	0.1%				
Real Estate	10.0%	-2.5%	-1.0%	-1.5%	-0.2%	0.0%	-0.1%				
Natural Resources	3.0%	-17.5%	31.3%	-48.8%	-1.4%	0.0%	-1.5%				
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
Total	100.0%	7.3%	6.9%	0.4%	3.5%	-3.0%	0.4%				

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



Summary | As of June 30, 2020



		Attributio	on Summary				
		1 Year Endin	g June 30, 2020				
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	20.0%	-0.3%	6.5%	-6.8%	-1.0%	-0.5%	-1.5%
Public Foreign Equity	22.0%	-2.1%	-4.8%	2.7%	0.6%	-0.1%	0.5%
Private Equity	15.0%	9.5%	-9.5%	19.0%	3.9%	-0.9%	2.9%
Investment Grade Bonds	13.0%	9.2%	8.7%	0.4%	0.1%	0.0%	0.1%
TIPS	5.0%	8.3%	8.3%	0.0%	0.0%	0.0%	0.0%
High Yield Bonds & Bank Loans	5.0%	5.4%	-0.9%	6.2%	0.3%	0.0%	0.2%
Emerging Market Bonds	7.0%	-2.0%	0.7%	-2.7%	-0.1%	0.0%	-0.2%
Real Estate	10.0%	1.6%	2.7%	-1.1%	-0.1%	-0.1%	-0.2%
Natural Resources	3.0%	-21.6%	-24.4%	2.7%	-0.2%	0.1%	-0.1%
Cash	0.0%	0.0%	1.3%	-1.3%	0.0%	0.0%	0.0%
Total	100.0%	2.6%	0.7%	1.9%	3.4%	-1.5%	1.9%

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



Summary | As of June 30, 2020

Attribution Effects 3 Years Ending June 30, 2020



	Attribution Summary 3 Years Ending June 30, 2020											
	Wtd. _W Actual Return	/td. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects						
Domestic Equity	6.7%	10.0%	-3.4%	-0.5%	-0.3%	-0.8%						
Public Foreign Equity	1.7%	1.1%	0.5%	0.2%	0.0%	0.2%						
Private Equity	13.6%	2.2%	11.4%	2.2%	-0.4%	1.8%						
Investment Grade Bonds	5.6%	5.3%	0.3%	0.0%	0.0%	0.0%						
TIPS	5.0%	5.0%	-0.1%	0.0%	0.0%	0.0%						
High Yield Bonds & Bank Loans	4.8%	2.9%	1.9%	0.1%	0.0%	0.1%						
Emerging Market Bonds	1.9%	3.4%	-1.5%	-0.1%	0.0%	-0.1%						
Real Estate	5.3%	5.4%	-0.1%	0.0%	0.0%	-0.1%						
Natural Resources	-9.6%	-8.0%	-1.6%	-0.2%	0.0%	-0.1%						
Hedge Funds		1.7%		0.0%	0.0%	0.0%						
Cash	0.0%	1.7%	-1.7%	0.0%	0.0%	-0.1%						
Total	5.7%	4.8%	0.9%	1.6%	-0.8%	0.9%						

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



2Q20 Investment Report

Fund Summary







Allocation vs. Targets and Policy											
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?						
US Equity	\$160,015,503	16%	20%	13% - 27%	Yes						
International Equity	\$203,109,430	21%	22%	15% - 29%	Yes						
Fixed Income	\$308,618,259	31%	30%	20% - 40%	Yes						
Private Equity	\$190,924,086	19%	15%	5% - 25%	Yes						
Real Estate	\$88,194,858	9%	10%	0% - 20%	Yes						
Natural Resources	\$22,216,926	2%	3%	0% - 5%	Yes						
Cash	\$6,914,681	1%	0%	0% - 5%	Yes						
Total	\$979,993,744	100%	100%								













	Return (Rank)					
5th Percentile	16.6	-0.9	5.7	7.2	7.1	10.0
25th Percentile	14.1	-1.6	4.3	6.4	6.2	8.9
Median	12.5	-2.7	3.1	5.9	5.8	8.2
75th Percentile	11.7	-4.0	1.8	4.9	5.3	7.5
95th Percentile	9.5	-5.8	0.2	3.9	4.3	6.6
# of Portfolios	71	71	71	68	61	47
Total Fund	7.3 (99)	-3.2 (61)	2.6 (62)	5.7 (54)	6.1 (38)	8.1 (54)
Static Benchmark	6.9 (99)	-4.7 (86)	0.7 (92)	4.8 (78)	5.7 (54)	7.7 (67)
× Dynamic Benchmark	4.0 (99)	-5.7 (94)	-0.6 (99)	4.2 (92)	5.2 (79)	8.5 (33)





	Return (Rank)					
5th Percentile	14.7	-1.5	4.1	6.8	7.0	9.3
25th Percentile	12.2	-3.1	2.8	5.9	5.9	8.5
Median	10.5	-4.2	1.3	4.8	5.2	7.8
75th Percentile	9.6	-5.2	0.1	4.4	5.0	7.2
95th Percentile	6.7	-7.3	-2.7	3.1	4.0	6.3
# of Portfolios	49	49	49	49	49	45
Total Fund	7.3 (95)	-3.2 (30)	2.6 (30)	5.7 (26)	6.1 (22)	8.1 (32)
Static Benchmark	6.9 (95)	-4.7 (62)	0.7 (70)	4.8 (56)	5.7 (35)	7.7 (53)
× Dynamic Benchmark	4.0 (99)	-5.7 (79)	-0.6 (84)	4.2 (79)	5.2 (57)	8.5 (25)



Fund Summary | As of June 30, 2020



Static Benchmark

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2020





Annualized Return vs. Annualized Standard Deviation

Static Benchmark

Annualized Return vs. Annualized Standard Deviation 10 Years Ending June 30, 2020





Fund Summary | As of June 30, 2020







Annualized Return vs. Annualized Standard Deviation 10 Years Ending June 30, 2020





Fund Summary | As of June 30, 2020

Asset Class Performance Summary (Net of Fees)										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Fund	979,993,744	100.0	7.3	-3.2	2.6	5.7	6.1	8.1	6.7	Mar-97
Static Benchmark			6.9	-4.7	0.7	4.8	5.7	7.7		Mar-97
Dynamic Benchmark			4.0	-5.7	-0.6	4.2	5.2	8.5		Mar-97
Domestic Equity	160,015,503	16.3	21.2	-8.8	-0.3	6.7	7.3	11.8	7.7	Mar-97
Russell 3000			22.0	-3.5	6.5	10.0	10.0	13.7	8.4	Mar-97
International Equity	203,109,430	20.7	20.6	-9.9	-2.1	1.7	3.3	5.9	5.5	Mar-97
Spliced International Equity Benchmark			16.1	-11.0	-4.8	1.1	2.3	5.0	4.9	Mar-97
Private Equity	190,924,086	19.5	-3.8	1.0	9.5	13.6	13.2	14.0	14.9	May-10
Private Equity Benchmark			-20.9	-13.4	-9.5	2.2	6.7	13.6	12.9	May-10
Fixed Income	308,618,259	31.5	6.4	2.9	5.8	4.5	4.2	3.6	5.1	Mar-97
BBgBarc US Aggregate TR			2.9	6.1	8.7	5.3	4.3	3.8	5.4	Mar-97
Real Estate	88,194,858	9.0	-2.5	-1.4	1.6	5.3	6.9	10.0	3.0	Dec-07
NCREIF Property Index			-1.0	-0.3	2.7	5.4	6.8	9.7	5.9	Dec-07
Natural Resources	22,216,926	2.3	-17.5	-18.6	-21.6	-9.6	-1.0		-1.4	Feb-13
S&P North American Natural Resources TR			31.3	-26.3	-24.4	-8.0	-6.5	-0.7	-5.0	Feb-13
Cash	6,914,681	0.7								

Spliced international equity benchmark is MSCI ACWI-ex U.S. for all periods except 1/1/1997-1/1/1999. MSCI ACWI-ex U.S. is not available during this time period so the MSCI EAFE Index was used.

Private Equity Benchmark consists of the S&P 500 Index +3% prior to 3/31/2018, and the MSCI ACWI Index + 2% (Quarter Lagged) thereafter.



	Tr	ailing Ne	t Perforr	nance							
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Fund	979,993,744	100.0		7.3	-3.2	2.6	5.7	6.1	8.1	6.7	Mar-97
Static Benchmark				6.9	-4.7	0.7	4.8	5.7	7.7		Mar-97
Dynamic Benchmark				4.0	-5.7	-0.6	4.2	5.2	8.5		Mar-97
InvMetrics Public DB \$250mm-\$1B Net Median				12.5	-2.7	3.1	5.9	5.8	<i>8.2</i>	6.7	Mar-97
InvMetrics Public DB \$250mm-\$1B Net Rank				99	61	62	54	38	54	49	Mar-97
Domestic Equity	160,015,503	16.3	16.3	21.2	-8.8	-0.3	6.7	7.3	11.8	7.7	Mar-97
Russell 3000				22.0	-3.5	6.5	10.0	10.0	13.7	8.4	Mar-97
Westwood Capital Large Cap Value	42,683,328	4.4	26.7	12.9	-13.2	-4.4	5.2	6.4	11.1	7.9	Oct-01
Russell 1000 Value				14.3	-16.3	-8.8	1.8	4.6	10.4	6.9	Oct-01
eV US Large Cap Value Equity Net Median				16.4	-14.9	-7.0	<i>2</i> .7	5.0	10.4	7.2	Oct-01
eV US Large Cap Value Equity Net Rank				87	38	32	25	30	32	24	Oct-01
Westfield Small/Mid Cap Growth	49,294,486	5.0	30.8	34.6	0.6	12.2	12.9	9.2	14.6	12.7	Nov-02
Russell 2500 Growth				32.9	2.0	9.2	12.1	9.6	14.4	11.8	Nov-02
eV US Small-Mid Cap Growth Equity Net Median				33.0	6.4	12.2	14.9	11.3	14.3	11.7	Nov-02
eV US Small-Mid Cap Growth Equity Net Rank				47	69	51	56	59	42	18	Nov-02
Vaughan Nelson Small Cap Value	37,991,459	3.9	23.7	16.2	-18.0	-13.5	-1.7			2.8	Jan-16
Russell 2000 Value				<i>18.9</i>	<i>-23.5</i>	-17.5	-4.3	1.3	7.8	3.3	Jan-16
eV US Small Cap Value Equity Net Median				20.7	-21.8	-16.2	-3.9	1.0	8.3	2.7	Jan-16
eV US Small Cap Value Equity Net Rank				86	23	32	27		-	49	Jan-16



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA S&P 500	30,046,230	3.1	18.8	20.5	-3.1	7.4	10.7	10.7	14.0	8.5	Feb-04
S&P 500				20.5	-3.1	7.5	10.7	10.7	14.0	8.5	Feb-04
eV US Large Cap Equity Net Median				19.8	-5.7	3.8	8.2	8.5	12.5	8.4	Feb-04
eV US Large Cap Equity Net Rank				45	40	37	36	30	30	49	Feb-04
International Equity	203,109,430	20.7	20.7	20.6	-9.9	-2.1	1.7	3.3	5.9	5.5	Mar-97
Spliced International Equity Benchmark				16.1	-11.0	-4.8	1.1	2.3	5.0	4.9	Mar-97
Baillie Gifford International Growth Fund	46,097,646	4.7	22.7	36.7	17.5	30.6	15.8	12.4	11.9	13.0	May-09
MSCI ACWI ex USA				16.1	-11.0	-4.8	1.1	2.3	5.0	6.5	May-09
MSCI EAFE				14.9	-11.3	-5.1	0.8	2.1	5.7	6.7	May-09
eV ACWI ex-US All Cap Core Eq Net Median				17.0	-8.5	-1.9	2.9	3.1	6.6	7.9	May-09
eV ACWI ex-US All Cap Core Eq Net Rank				1	1	1	1	1	2	2	May-09
Sanderson International Value	39,549,891	4.0	19.5	13.4	-18.8	-11.7	-3.8	-1.7	-	2.3	Feb-13
MSCI EAFE Value				12.4	-19.3	-14.5	-4.4	-1.6	3.5	0.7	Feb-13
MSCI EAFE				14.9	-11.3	-5.1	0.8	2.1	5.7	3.6	Feb-13
eV EAFE All Cap Value Net Median				15.0	-16.9	-10.3	-3.0	-0.4	5.6	2.6	Feb-13
eV EAFE All Cap Value Net Rank				56	70	68	73	74		54	Feb-13
Highclere International Small Cap	39,343,680	4.0	19.4	16.9	-14.7	-4.0	-1.4	3.5	8.0	7.0	Dec-09
MSCI EAFE Small Cap				19.9	-13.1	-3.5	0.5	3.8	8.0	6.9	Dec-09
S&P EPAC Under USD2 Billion NR USD				19.6	-13.5	-5.3	-2.4	1.5	6.0	5.1	Dec-09
eV EAFE Small Cap Equity Net Median				20.6	-13.9	-5.2	-0.2	3.3	9.2	7.9	Dec-09
eV EAFE Small Cap Equity Net Rank				83	58	49	61	48	58	56	Dec-09



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA MSCI EAFE Fund	24,373,314	2.5	12.0	15.0	-11.1	-4.8	1.1	2.3		3.8	Feb-13
MSCI EAFE				14.9	-11.3	-5.1	0.8	2.1	5.7	3.6	Feb-13
eV EAFE Core Equity Net Median				16.7	-11.0	-3.9	0.8	2.3	6.8	4.6	Feb-13
eV EAFE Core Equity Net Rank				71	51	57	47	50		67	Feb-13
DFA Emerging Markets Value	25,312,722	2.6	12.5	19.0	-18.9	-17.3	-3.7	0.1	0.6	0.4	Dec-09
MSCI Emerging Markets Value NR USD				<i>13.8</i>	-18.0	-15.7	-2.6	-0.8	0.7	0.5	Dec-09
MSCI Emerging Markets				18.1	-9.8	-3.4	1.9	2.9	3.3	2.8	Dec-09
eV Emg Mkts All Cap Value Equity Net Median				17.7	-14.5	-10.0	-0.8	1.1	2.4	2.3	Dec-09
eV Emg Mkts All Cap Value Equity Net Rank				34	71	88	75	79	99	99	Dec-09
TT Emerging Markets Equity	28,432,178	2.9	14.0	19.9	-12.9	-5.8				-4.2	Apr-19
MSCI Emerging Markets				<u>18.1</u>	-9.8	-3.4	1.9	2.9	3.3	-2.2	Apr-19
eV Emg Mkts Equity Net Median				20.4	-10.1	-4.0	1.2	2.8	3.9	-2.0	Apr-19
eV Emg Mkts Equity Net Rank				53	73	62				64	Apr-19
Private Equity	190,924,086	19.5	19.5	-3.8	1.0	9.5	13.6	13.2	14.0	14.9	May-10
Private Equity Benchmark				-20.9	-13.4	-9.5	2.2	6.7	13.6	12.9	May-10
LGT Crown Global Opportunities VI	27,403,898	2.8	14.4								
Cross Creek Capital Partners II - B	13,518,624	1.4	7.1								
Blue Bay Direct Lending	5,524,376	0.6	2.9								
Aberdeen Flag Private Equity VI	15,103,855	1.5	7.9								
HarbourVest 2013 Direct	6,427,777	0.7	3.4								



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I (%)	S Data
LGT Crown Asia II	9,820,691	1.0	5.1								
57 Stars Global Opportunity 3	9,513,905	1.0	5.0								
Constitution Capital Partners	14,848,697	1.5	7.8								
Private Advisors Co-Investment Fund III	6,065,024	0.6	3.2								
Aberdeen Flag Private Equity V	9,199,960	0.9	4.8								
Partners Group Emerging Markets 2015	9,634,039	1.0	5.0								
Greenspring Global Partners V	7,968,509	0.8	4.2								
Greenspring Global Partners VI	12,872,479	1.3	6.7								
HarbourVest Co-Investment Fund IV	8,082,557	0.8	4.2								
Deutsche Bank SOF III	6,809,002	0.7	3.6								
Cross Creek Capital Partners III	9,569,489	1.0	5.0								
LGT Crown Europe Small Buyouts III	5,029,710	0.5	2.6								
LGT Crown Global Secondaries III	3,634,940	0.4	1.9								
Partners Group U.S. Distressed Private Equity 2009	719,460	0.1	0.4								
Private Equity Investors V	1,424,951	0.1	0.7								
LGT Crown Global Secondaries II	234,464	0.0	0.1								
SVB Strategic Investors Fund IX, L.P.	3,517,679	0.4	1.8								
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	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Dover Street X, L.P.	4,000,000	0.4	2.1								
Fixed Income	308,618,259	31.5	31.5	6.4	2.9	5.8	4.5	4.2	3.6	5.1	Mar-97
BBgBarc US Aggregate TR				2.9	6.1	<u>8</u> .7	5.3	4.3	3.8	5.4	Mar-97
SSgA Bond Fund	75,831,290	7.7	24.6	3.0	6.1	8.7	5.3	4.3	3.7	4.3	Jan-04
BBgBarc US Aggregate TR				2.9	6.1	<i>8</i> .7	5.3	4.3	3.8	4.4	Jan-04
eV US Core Fixed Inc Net Median				4.4	6.1	8.6	5.3	4.4	4.1	4.6	Jan-04
eV US Core Fixed Inc Net Rank				92	48	45	52	64	80	74	Jan-04
Loomis Sayles Core Plus Fixed Income	63,567,411	6.5	20.6	5.7	6.9	9.6	6.0	5.0		5.0	Jul-15
BBgBarc US Aggregate TR				2.9	6.1	<i>8</i> .7	5.3	4.3	3.8	4.3	Jul-15
eV US Core Plus Fixed Inc Net Median				5.8	5.0	7.9	5.2	4.6	4.6	4.6	Jul-15
eV US Core Plus Fixed Inc Net Rank				52	7	7	9	17		17	Jul-15
Aberdeen Emerging Markets Bond Fund	59,936,652	6.1	19.4	12.6	-5.2	-2.0	1.9	4.3	-	3.5	Dec-14
JP Morgan EMBI Global Diversified				12.3	<i>-2.8</i>	0.5	3.6	<i>5.3</i>	6.0	4.6	Dec-14
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad				10.9	-2.9	0.7	3.4	5.0	5.1	4.0	Dec-14
SSGA TIPS	55,937,378	5.7	18.1	4.3	6.0	8.3	5.0	3.7	-	2.7	Aug-14
BBgBarc US TIPS TR				4.2	6.0	8.3	5.0	3.7	3.5	2.8	Aug-14
eV US TIPS / Inflation Fixed Inc Net Median				4.8	5.0	7.4	4.9	3.6	3.4	2.6	Aug-14
eV US TIPS / Inflation Fixed Inc Net Rank				61	31	30	40	34	-	39	Aug-14



Market Value % of % of QTD YTD 1Yr 3 Yrs 5 Yrs 10 Yrs S.I. S.I. Date (\$) (%) (%) (%) (%) (%) (%) (%) Portfolio Sector **Pyramis Tactical Bond Fund** 35,284,490 3.6 11.4 8.7 2.0 6.1 5.4 5.3 ---5.0 Aug-13 8.7 5.3 4.3 3.8 BBgBarc US Aggregate TR 2.9 6.1 4.0 Aug-13 eV US Core Plus Fixed Inc Net Median 5.8 5.0 7.9 5.2 4.6 4.6 4.3 Aug-13 5 eV US Core Plus Fixed Inc Net Rank 2 94 86 37 8 ---Aug-13 Pacific Asset Management Bank Loans 5.9 -3.3 Dec-19 18,061,039 1.8 6.8 ------___ ----2.4 Credit Suisse Leveraged Loans 9.7 -4.8 -2.3 2.1 2.9 4.3 -3.2 Dec-19 Bank Loan MStar MF Median 8.4 -5.3 -2.6 1.5 2.3 3.8 -3.8 Dec-19 Bank Loan MStar MF Rank 7 11 86 --------Dec-19 ---**Real Estate** 88,194,858 9.0 9.0 6.9 Dec-07 -2.5 -1.4 1.6 5.3 10.0 3.0 NCREIF Property Index -1.0 -0.3 2.7 5.4 6.8 9.7 5.9 Dec-07 **Clarion Partners Lion Properties Fund** 65,992,885 6.7 74.8 -2.0 -0.8 2.3 6.1 7.7 5.8 Apr-05 11.3 1.7 5.1 6.7 NCREIF ODCE Equal Weighted (Net) -1.5 -0.8 10.0 6.2 Apr-05 Portfolio Advisors Real Estate Fund V 9,575,817 1.0 10.9 Partners Group Global RE 2011 1,979,679 0.2 2.2 Metropolitan Real Estate Distressed II 0.2 1.7 1,510,063 Partners Group Distressed RE 2009 1,482,773 0.2 1.7 Partners Group Real Estate Secondary 2017 7,653,641 0.8 8.7



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Natural Resources	22,216,926	2.3	2.3	-17.5	-18.6	-21.6	-9.6	-1.0		-1.4	Feb-13
S&P North American Natural Resources TR				31.3	-26.3	-24.4	-8.0	-6.5	-0.7	-5.0	Feb-13
Aether Real Assets III	9,919,294	1.0	44.6								
Aether Real Assets II	3,659,262	0.4	16.5								
Aether Real Assets IV	6,653,792	0.7	29.9								
Aether Real Assets V	1,984,578	0.2	8.9								
Cash	6,914,681	0.7	0.7								
Cash	6,914,681	0.7	100.0								



Calendar Year Performance										
	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Fund	15.7	-2.0	17.0	7.1	1.3	4.8	16.1	13.3	-2.6	13.8
Static Benchmark	15.8	-3.6	16.4	9.6	-0.1	5.7	15.1	12.6	-1.0	12.2
Dynamic Benchmark	14.6	-3.1	16.1	8.4	0.4	5.4	21.2	14.2	-2.1	14.9
Domestic Equity	29.4	-7.9	21.8	9.9	0.2	10.0	31.3	16.9	-0.5	18.2
Russell 3000	31.0	-5.2	21.1	12.7	0.5	12.6	33.6	16.4	1.0	16.9
Westwood Capital Large Cap Value	27.3	-5.7	20.4	10.9	-0.1	11.9	29.6	16.0	-0.7	13.2
Russell 1000 Value	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5	0.4	15.5
Westfield Small/Mid Cap Growth	35.2	-7.6	31.0	3.4	-4.1	7.8	37.2	19.5	-0.1	30.4
Russell 2500 Growth	32.7	-7.5	24.5	9.7	-0.2	7.1	40.6	16.1	-1.6	<u> 28</u> .9
Vaughan Nelson Small Cap Value	25.0	-14.1	6.8	20.7						
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.0	-5.5	24.5
SSgA S&P 500	31.5	-4.4	21.8	12.0	1.4	13.7	32.3	15.9	2.2	15.0
S&P 500	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0	2.1	15.1
International Equity	22.4	-15.9	34.0	5.0	-4.4	-4.4	19.7	18.1	-16.2	14.2
Spliced International Equity Benchmark	21.5	-14.2	27.2	4.5	-5.7	-3.9	<i>15.3</i>	16.8	-13.7	11.2
Baillie Gifford International Growth Fund	37.3	-17.3	45.5	1.4	-2.9	-6.4	29.9	17.6	-11.6	16.6
MSCI ACWI ex USA	21.5	-14.2	27.2	4.5	-5.7	-3.9	<i>15.3</i>	<i>16.8</i>	<i>-13.</i> 7	11.2
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Sanderson International Value	20.5	-18.2	26.1	2.5	-5.5	-2.3				
MSCI EAFE Value	16.1	-14.8	21.4	5.0	-5.7	-5.4	23.0	17.7	-12.2	3.2
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	<i>17.3</i>	-12.1	7.8
Highclere International Small Cap	23.5	-18.8	30.9	10.3	6.5	-4.4	24.6	20.2	-9.5	19.5
MSCI EAFE Small Cap	25.0	-17.9	33.0	2.2	9.6	-4.9	29.3	20.0	-15.9	22.0
S&P EPAC Under USD2 Billion NR USD	18.0	-19.6	30.8	3.5	9.0	-4.3	23.6	16.8	-16.2	19.8
SSgA MSCI EAFE Fund	22.4	-13.5	25.3	1.3	-0.6	-4.7				
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
DFA Emerging Markets Value	9.6	-11.9	33.8	19.8	-18.8	-4.4	-4.4	18.7	-26.1	21.6
MSCI Emerging Markets Value NR USD	12.0	-10.7	28.1	14.9	-18.6	-4.1	-5.1	15.9	-17.9	19.8
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	<i>18.2</i>	-18.4	18.9
TT Emerging Markets Equity										
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	<i>18.2</i>	-18.4	18.9
Private Equity	16.1	15.8	17.7	9.4	12.7	23.3	7.7	6.2	21.7	
Private Equity Benchmark	3.4	5.4	25.4	15.3	4.4	17.1	36.3	19.4	5.2	
LGT Crown Global Opportunities VI										
Cross Creek Capital Partners II - B										
Blue Bay Direct Lending										
Aberdeen Flag Private Equity VI										
HarbourVest 2013 Direct										



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
LGT Crown Asia II										
57 Stars Global Opportunity 3										
Constitution Capital Partners										
Private Advisors Co-Investment Fund III										
Aberdeen Flag Private Equity V										
Partners Group Emerging Markets 2015										
Greenspring Global Partners V										
Greenspring Global Partners VI										
HarbourVest Co-Investment Fund IV										
Deutsche Bank SOF III										
Cross Creek Capital Partners III										
LGT Crown Europe Small Buyouts III										
LGT Crown Global Secondaries III										
Partners Group U.S. Distressed Private Equity 2009										
Private Equity Investors V										
LGT Crown Global Secondaries II										
SVB Strategic Investors Fund IX, L.P.										



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Dover Street X, L.P.										
Fixed Income	10.5	-2.0	5.6	6.9	-2.1	3.1	-2.4	8.3	5.1	6.6
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
SSgA Bond Fund	8.7	0.0	3.5	2.6	0.5	5.9	-2.2	4.2	7.5	6.4
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
Loomis Sayles Core Plus Fixed Income	9.4	-0.4	5.4	6.9						
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
Aberdeen Emerging Markets Bond Fund	15.1	-7.5	13.0	13.3	-2.7					
JP Morgan EMBI Global Diversified	15.0	-4.3	10.3	10.2	1.2	7.4	-5.3	17.4	7.3	12.2
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	14.2	-3.9	10.9	10.4	-1.3	3.1	-5.2	16.8	4.0	13.1
SSGA TIPS	8.3	-1.3	3.0	4.6	-1.5					
BBgBarc US TIPS TR	8.4	-1.3	3.0	4.7	-1.4	3.6	- 8 .6	7.0	13.6	6.3
Pyramis Tactical Bond Fund	13.2	-0.9	5.9	10.4	-1.8	5.3				
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
Pacific Asset Management Bank Loans										
Credit Suisse Leveraged Loans	<i>8.2</i>	1.1	4.2	9.9	-0.4	2.1	6.2	9.4	1.8	10.0



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Real Estate	5.6	8.6	7.5	7.8	13.1	10.5	10.5	9.4	17.0	16.5
NCREIF Property Index	6.4	6.7	7.0	8.0	13.3	11.8	11.0	10.5	14.3	13.1
Clarion Partners Lion Properties Fund	6.3	9.2	8.0	9.3	15.7	12.3	11.8	9.9	17.7	18.0
NCREIF ODCE Equal Weighted (Net)	5.2	7.3	6.9	8.3	14.2	11.4	12.4	9.9	15.0	15.1
Portfolio Advisors Real Estate Fund V										
Partners Group Global RE 2011										
Metropolitan Real Estate Distressed II										
Partners Group Distressed RE 2009										
Partners Group Real Estate Secondary 2017										
Natural Resources	-13.4	2.1	15.7	8.6	-6.3	6.7				
S&P North American Natural Resources TR	17.6	-21.1	1.2	30.9	-24.3	-9.8	16.5	2.2	-7.4	23.9
Aether Real Assets III										
Aether Real Assets II										
Aether Real Assets IV										
Aether Real Assets V										
Cash										
Cash										



Statistics Summary										
	5 Years E	nding June 30, 2020)							
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error					
Total Fund	6.1%	6.9%	0.1	0.7	2.3%					
Static Benchmark	5.7%	8.1%		0.6	0.0%					
Domestic Equity	7.3%	16.5%	-1.1	0.4	2.6%					
Russell 3000	10.0%	15.4%		0.6	0.0%					
Westwood Capital Large Cap Value	6.4%	14.1%	0.5	0.4	3.3%					
Russell 1000 Value	4.6%	15.6%		0.2	0.0%					
Westfield Small/Mid Cap Growth	9.2%	20.9%	-0.1	0.4	4.7%					
Russell 2500 Growth	9.6%	19.7%	-	0.4	0.0%					
SSgA S&P 500	10.7%	14.8%	0.2	0.7	0.0%					
S&P 500	10.7%	14.8%	-	0.7	0.0%					
International Equity	3.3%	16.4%	0.4	0.1	2.9%					
Spliced International Equity Benchmark	2.3%	14.8%		0.1	0.0%					
Baillie Gifford International Growth Fund	12.4%	19.4%	1.1	0.6	9.2%					
MSCI ACWI ex USA	2.3%	14.8%		0.1	0.0%					
Sanderson International Value	-1.7%	16.1%	0.0	-0.2	3.6%					
MSCI EAFE Value	-1.6%	16.0%		-0.2	0.0%					
Highclere International Small Cap	3.5%	15.5%	-0.1	0.2	3.4%					
MSCI EAFE Small Cap	3.8%	16.3%		0.2	0.0%					
SSgA MSCI EAFE Fund	2.3%	14.4%	2.3	0.1	O.1%					



	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
MSCI EAFE	2.1%	14.4%		0.1	0.0%
DFA Emerging Markets Value	0.1%	19.9%	0.3	-0.1	3.4%
MSCI Emerging Markets Value NR USD	-0.8%	18.5%		-0.1	0.0%
Private Equity	13.2%	5.3%	0.5	2.3	14.1%
Private Equity Benchmark	6.7%	13.8%		0.4	0.0%
Fixed Income	4.2%	4.3%	0.0	0.7	3.3%
BBgBarc US Aggregate TR	4.3%	3.1%		1.0	0.0%
SSgA Bond Fund	4.3%	3.1%	-0.7	1.0	O.1%
BBgBarc US Aggregate TR	4.3%	3.1%		1.0	0.0%
Loomis Sayles Core Plus Fixed Income	5.0%	3.8%	0.3	1.0	2.3%
BBgBarc US Aggregate TR	4.3%	3.1%		1.0	0.0%
Aberdeen Emerging Markets Bond Fund	4.3%	10.5%	-0.4	0.3	2.6%
JP Morgan EMBI Global Diversified	5.3%	8.9%		0.5	0.0%
SSGA TIPS	3.7%	3.5%	-1.0	0.7	O.1%
BBgBarc US TIPS TR	3.7%	3.5%		0.7	0.0%
Pyramis Tactical Bond Fund	5.3%	5.3%	0.2	0.8	4.7%
BBgBarc US Aggregate TR	4.3%	3.1%		1.0	0.0%
Real Estate	6.9%	3.6%	0.1	1.6	2.0%
NCREIF Property Index	6.8%	3.1%		1.8	0.0%
Clarion Partners Lion Properties Fund	7.7%	4.0%	0.6	1.6	1.6%
NCREIF ODCE Equal Weighted (Net)	6.7%	3.3%		1.7	0.0%
Fund Detail

Domestic Equity



Domestic Equity | As of June 30, 2020

Asset Allocation on June 30, 2020					
	Actual	Actual			
Westwood Capital Large Cap Value	\$42,683,328	26.7%			
Westfield Small/Mid Cap Growth	\$49,294,486	30.8%			
Vaughan Nelson Small Cap Value	\$37,991,459	23.7%			
SSgA S&P 500	\$30,046,230	18.8%			
Total	\$160,015,503	100.0%			



Austin Fire Fighters Relief and Retirement Fund

Domestic Equity | As of June 30, 2020

	Domestic Equity Cha	aracteristics	
	Portfolio	Index	Portfolio
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	160.0		131.9
Number Of Holdings	619	3009	637
Characteristics			
Weighted Avg. Market Cap. (\$B)	126.7	309.4	93.0
Median Market Cap (\$B)	18.2	1.4	14.0
P/E Ratio	21.3	22.4	16.3
Yield	1.5	1.7	1.9
EPS Growth - 5 Yrs.	13.4	13.4	12.8
Price to Book	3.2	4.0	3.1

Sector Allocation (%) vs Russell 3000



Top 10 Holdings	
MICROSOFT CORP	2.0%
APPLE INC	1.8%
LPL FINANCIAL HOLDINGS INC	1.1%
JOHNSON & JOHNSON	1.1%
JPMORGAN CHASE & CO	1.1%
CACI INTERNATIONAL INC	1.0%
CISCO SYSTEMS INC	1.0%
CVS HEALTH CORP	1.0%
ASSURANT INC.	0.9%
CABOT MICROELECTRONICS CORP	0.9%
Total	11.9%

International Equity



International Equity | As of June 30, 2020

Asset Allocation on June 30, 2020					
	Actual	Actual			
Baillie Gifford International Growth Fund	\$46,097,646	22.7%			
Sanderson International Value	\$39,549,891	19.5%			
Highclere International Small Cap	\$39,343,680	19.4%			
SSgA MSCI EAFE Fund	\$24,373,314	12.0%			
DFA Emerging Markets Value	\$25,312,722	12.5%			
TT Emerging Markets Equity	\$28,432,178	14.0%			
Total	\$203,109,430	100.0%			





Austin Fire Fighters Relief and Retirement Fund

International Equity | As of June 30, 2020

Total International Equity Characteristics						
	Portfolio	Index	Portfolio			
	Q2-20	Q2-20	Q1-20			
Market Value						
Market Value (\$M)	203.1		168.4			
Number Of Holdings	3939	2372	3610			
Characteristics						
Weighted Avg. Market Cap. (\$B)	61.9	79.4	52.4			
Median Market Cap (\$B)	1.3	7.4	0.8			
P/E Ratio	15.5	16.4	11.7			
Yield	2.4	2.9	3.4			
EPS Growth - 5 Yrs.	9.3	8.2	9.3			
Price to Book	2.8	2.7	2.5			

Sector Allocation (%) vs MSCI ACWI ex USA



Top 10 Holdings	
ALIBABA GROUP HOLDING LTD	2.4%
TENCENT HOLDINGS LTD	2.1%
ASML HOLDING NV	1.8%
SAMSUNG ELECTRONICS CO LTD	1.5%
PING AN INSURANCE GROUP	1.4%
MERCADOLIBRE INC	1.2%
M3 INC	1.1%
MEITUAN DIANPING	1.0%
FERRARI NV	1.0%
KERING	0.9%
Total	14.3%



International Equity | As of June 30, 2020

Total International Equity Region Allocation						
	vs MSCI ACWI ex USA					
Region	% of Total	% of Bench	% Diff			
North America ex U.S.	0.0%	6.5%	-6.5%			
United States	3.5%	0.0%	3.5%			
Europe Ex U.K.	28.4%	31.5%	-3.0%			
United Kingdom	10.7%	9.2%	1.5%			
Pacific Basin Ex Japan	11.3%	7.5%	3.8%			
Japan	18.2%	16.5%	1.7%			
Emerging Markets	26.9%	28.3%	-1.4%			
Other	1.0%	0.5%	0.5%			
Total	100.0%	100.0%	0.0%			

Fixed Income

Austin Fire Fighters Relief and Retirement Fund

Fixed Income | As of June 30, 2020

Asset Allocation on June 30, 2020					
	Actual	Actual			
SSgA Bond Fund	\$75,831,290	24.6%			
Loomis Sayles Core Plus Fixed Income	\$63,567,411	20.6%			
Aberdeen Emerging Markets Bond Fund	\$59,936,652	19.4%			
SSGA TIPS	\$55,937,378	18.1%			
Pyramis Tactical Bond Fund	\$35,284,490	11.4%			
Pacific Asset Management Bank Loans	\$18,061,039	5.9%			
Total	\$308,618,259	100.0%			

Total Fixed Income Characteristics						
vs. BBgBarc US Aggregate TR						
Portfolio Index Portfolio						
Q2-20 Q2-20 Q1-20						
Fixed Income Characteristics						
Yield to Maturity	3.1	1.3	3.7			
Average Duration	5.7	6.7	5.9			
Average Quality A AA A						
Weighted Average Maturity	9.2	13.5	9.1			



Sector Allocation

Credit Quality Allocation





Private Equity | As of June 30, 2020





Real Estate | As of June 30, 2020





Natural Resources | As of June 30, 2020



Private Equity Assets

Austin Fire Fighters Relief and Retirement Fund

Private Equity Assets

Partnership	Focus	Туре	Vintage Year
Partners Group Distressed Private Equity 2009	Special Situations	Fund of Funds	2009
LGT Crown Global Secondaries II	Secondary Market	Fund of Funds	2009
Private Equity Investors V	Secondary Market	Fund of Funds	2009
Cross Creek Capital Partners II - B	Venture	Fund of Funds	2010
LGT Crown Asia II	Buyout	Fund of Funds	2011
Greenspring Global Partners V	Venture	Fund of Funds	2011
57 Stars Global Opportunity 3	Diversified	Fund of Funds	2011
LGT Crown Europe Small Buyouts III	Buyout	Fund of Funds	2012
LGT Crown Global Secondaries III	Secondary Market	Fund of Funds	2012
Private Advisors Co-Investment Fund III	Co-investments	Fund of Funds	2013
HarbourVest 2013 Direct	Co-investments	Fund of Funds	2013
Cross Creek Capital Partners III	Venture	Fund of Funds	2013
Flag Private Equity V	Buyout	Fund of Funds	2012
Greenspring Global Partners VI	Venture	Fund of Funds	2013
Constitution Capital Partners Ironsides III	Buyout	Fund of Funds	2014
Deutsche Bank Secondary Opportunities Fund III	Secondary Market	Fund of Funds	2014
Flag Private Equity VI	Buyout	Fund of Funds	2015
Blue Bay Direct Lending Fund II	Private Debt	Direct Fund	2015
Partners Group Emerging Markets 2015	Special Situations	Fund of Funds	2015
LGT Crown Global Opportunities VI	Diversified	Fund of Funds	2016
HarbourVest Co-Investment Fund IV	Co-investments	Fund of Funds	2017
SVB Strategic Investors Fund IX	Venture	Fund of Funds	2018
Dover Street X	Secondary Market	Fund of Funds	2020



Private Equity Assets

Partnership	Committed (\$mm)	Called (\$mm)	Distributed (\$mm)	Fair Value (\$mm)	nIRR [,] (%)	Vintage Year	TVPI Multiple
Partners Group Distressed Private Equity 2009	7.0	6.2	8.2	0.7	10.5	2009	1.4
LGT Crown Global Secondaries II ²	3.0	2.5	4.1	0.2	17.8	2009	1.7
Private Equity Investors V	3.0	3.0	1.4	1.4	-0.9	2009	0.9
Cross Creek Capital Partners II – B	12.5	11.7	8.5	13.5	14.0	2010	1.9
LGT Crown Asia II ²	10.0	9.2	5.4	9.8	11.0	2011	1.7
Greenspring Global Partners V	7.5	6.8	10.3	8.0	22.0	2011	2.7
57 Stars Global Opportunity 3	10.0	9.9	1.6	9.5	4.6	2011	1.1
LGT Crown Europe Small Buyouts III ²	8.6	6.9	6.2	5.0	12.4	2012	1.6
LGT Crown Global Secondaries III ²	10.0	7.2	6.6	3.6	11.6	2012	1.4
Private Advisors Co-Investment Fund III	10.0	10.3	9.4	6.1	12.6 ³	2013	1.5
HarbourVest 2013 Direct	10.0	9.7	11.7	6.4	18.2	2013	1.9
Cross Creek Capital Partners III	7.5	6.3	1.5	9.6	17.0	2013	1.8
Aberdeen Flag Private Equity V	10.0	10.0	7.4	9.2	17.1 ³	2012	1.7
Greenspring Global Partners VI	7.5	6.6	2.2	12.9	22.9	2013	2.3
Constitution Capital Partners Ironsides III	15.0	15.7	8.5	14.8	18.94 17.35	2014	1.5
Deutsche Bank Secondary Opportunities Fund III	10.0	8.8	4.9	6.8	15.0	2014	1.3
Aberdeen Flag Private Equity VI	15.0	14.0	5.4	15.1	20.3 ³	2015	1.5
Blue Bay Direct Lending Fund II	20.0	18.5	14.3	5.5	7.1	2015	1.1
Partners Group Emerging Markets 2015	10.0	8.5	0.8	9.6	6.0	2015	1.2
LGT Crown Global Opportunities VI ²	40.0	26.9	4.0	27.4	7.3	2016	1.2
HarbourVest Co-Investment Fund IV	10.0	8.1	1.7	8.1	8.5	2017	1.2
SVB Strategic Investors Fund IX	10.0	3.1	0.0	3.5	NM	2018	1.1
Dover Street X	40.0	4.0	0.0	4.0	NM	2020	1.0
Total	286.6	213.9	124.1	190.9			1.5x

¹ All performance figures are reported directly from managers, net of fees, as of 3/31/20, unless otherwise noted.

 $^{^{2}}$ Performance and market value as of 6/30/2020.

³ As of 12/31/2019.

 $^{^{\}rm 4}$ Constitution Capital Ironsides Partnership Fund III.

⁵ Constitution Capital Ironsides Co-Investment Fund III.

Real Estate Assets



Closed-Ends Funds

Partnership	Focus	Туре	Vintage Year	TVPI Multiple
Partners Group U.S. Distressed 2009	U.S. Distressed	Fund of Funds	2009	1.4
Metropolitan Real Estate Distressed II	Real Estate Debt	Fund of Funds	2009	1.3
Partners Group Global RE 2011	Global	Fund of Funds	2011	1.4
Portfolio Advisors Global Real Estate V	Global	Fund of Funds	2015	1.2
Partners Group RE Secondary 2017	Global	Fund of Funds	2017	1.3
				1.3x

Partnership	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	nIRR ^ı (%)
Partners Group U.S. Distressed 2009	\$12.0	\$11.2	\$13.8	\$1.5	7.5
Metropolitan Real Estate Distressed II	\$12.0	\$11.3	\$13.6	\$1.5	9.0
Partners Group Global RE 2011	\$6.7	\$6.0	\$6.3	\$2.0	7.5
Portfolio Advisors Global Real Estate V	\$15.0	\$12.6	\$6.1	\$9.6	11.1
Partners Group RE Secondary 2017	\$15.0	\$7.3	\$0.0	\$7.7	5.5
Total	\$60.7	\$47.4	\$38.9	\$22.2	

¹ Performance figures are reported directly from manager, net of fees, as of 3/31/2020.

Natural Resources Assets

Austin Fire Fighters Relief and Retirement Fund

Natural Resources Assets

Partnership	Vintage Year	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	Net IRR [,] %	TVPI Multiple
Aether Real Assets II	2012	\$7.5	\$7.5	\$3.1	\$3.7	-3.9	0.9
Aether Real Assets III	2013	\$15.0	\$14.2	\$2.9	\$9.9	-4.5	0.9
Aether Real Assets IV	2016	\$10.0	\$7.8	\$0.3	\$6.7	-5.0	0.9
Aether Real Assets V	2018	\$10.0	\$2.0	\$0.2	\$2.0	N/A	1.1
Total		\$42.5	\$31.5	\$6.5	\$22.2		0.9x

 $^{^{1}}$ Performance figures are reported directly from manager, net of fees, as of 3/31/2020.

Portfolio Reviews

Austin Fire Fighters Relief and Retirement Fund

Westwood Capital Large Cap Value | As of June 30, 2020

Account Information				
Account Name	Westwood Capital Large Cap Value			
Account Structure	Separate Account			
Investment Style	Active			
Inception Date	10/01/01			
Account Type	US Equity			
Benchmark	Russell 1000 Value			
Universe	eV US Large Cap Value Equity Net			

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Westwood Capital Large Cap Value	12.9	-13.2	-4.4	5.2	6.4	11.1	7.9	Oct-01
Russell 1000 Value	14.3	-16.3	-8.8	1.8	4.6	10.4	6.9	Oct-01
eV US Large Cap Value Equity Net Median	16.4	-14.9	-7.0	2.7	5.0	10.4	7.2	Oct-01
eV US Large Cap Value Equity Net Rank	87	38	32	25	30	32	24	Oct-01

Top 10 Holdings	
CVS HEALTH CORP	3.3%
CISCO SYSTEMS INC	3.2%
JPMORGAN CHASE & CO	3.1%
JOHNSON & JOHNSON	3.0%
MICROSOFT CORP	3.0%
EQUIFAX INC.	2.9%
BECTON DICKINSON AND CO	2.8%
HOME DEPOT INC. (THE)	2.7%
APPLE INC	2.6%
CHURCH & DWIGHT CO. INC.	2.6%
Total	29.1%

Westwood Capit	al Large Cap Va	lue Characteris	tics
	Portfolio	Index	Portfolic
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	42.7		37.7
Number Of Holdings	47	839	46
Characteristics			
Weighted Avg. Market Cap. (\$B)	196.4	102.4	143.
Median Market Cap (\$B)	68.9	8.4	50.6
P/E Ratio	19.9	17.3	16.3
Yield	2.5	2.6	2.8
EPS Growth - 5 Yrs.	7.7	9.2	7.4
Price to Book	2.7	2.4	2.8
Sector Distribution			
Energy	5.0	5.3	4.8
Materials	0.0	4.5	1.0
Industrials	12.9	12.3	12.0
Consumer Discretionary	4.7	7.0	4.:
Consumer Staples	8.3	8.1	8.5
Health Care	15.7	14.1	16.9
Financials	18.7	18.5	20.
Information Technology	15.9	10.2	8.
Communication Services	9.4	9.3	11.9
Utilities	5.6	5.9	8.
Real Estate	3.8	4.7	3.

Austin Fire Fighters Relief and Retirement Fund

Westfield Small/Mid Cap Growth | As of June 30, 2020

Westfield Small/Mid Cap Growth Characteristics					
	Portfolio	Index	Portfo		
	Q2-20	Q2-20	Q1-3		
Market Value					
Market Value (\$M)	49.3		36		
Number Of Holdings	68	1265			
Characteristics					
Weighted Avg. Market Cap. (\$B)	10.7	5.0	ł		
Median Market Cap (\$B)	8.6	1.1			
P/E Ratio	29.4	30.0	2		
Yield	0.6	0.5			
EPS Growth - 5 Yrs.	21.8	13.4	24		
Price to Book	5.0	5.6			
Sector Distribution					
Energy	0.0	0.1	(
Materials	1.5	3.3			
Industrials	17.7	11.4	10		
Consumer Discretionary	10.4	11.4			
Consumer Staples	0.0	3.0	(
Health Care	28.1	30.0	З		
Financials	6.7	4.4			
Information Technology	28.7	29.5	29		
Communication Services	2.8	2.8			
Utilities	0.0	1.2	(
Real Estate	3.1	2.9	:		

Account Information					
Account Name	Westfield Small/Mid Cap Growth				
Account Structure	Separate Account				
Investment Style	Active				
Inception Date	11/01/02				
Account Type	US Equity				
Benchmark	Russell 2500 Growth				
Universe	eV US Small-Mid Cap Growth Equity Net				

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Westfield Small/Mid Cap Growth	34.6	0.6	12.2	12.9	9.2	14.6	12.7	Nov-02
Russell 2500 Growth	32.9	2.0	9.2	12.1	9.6	14.4	11.8	Nov-02
eV US Small-Mid Cap Growth Equity Net Median	33.0	6.4	12.2	14.9	11.3	14.3	11.7	Nov-02
eV US Small-Mid Cap Growth Equity Net Rank	47	69	51	56	59	42	18	Nov-02

Top 10 Holdings	
BIO-RAD LABORATORIES INC	2.9%
TREX CO INC	2.7%
ETSY INC	2.6%
FORTINET INC	2.5%
QUEST DIAGNOSTICS INC	2.4%
SPLUNK INC	2.4%
INSULET CORP	2.4%
CHARLES RIVER LABORATORIES INTERNATIONAL INC	2.3%
TELEDYNE TECHNOLOGIES INC.	2.2%
NEUROCRINE BIOSCIENCES INC	2.1%
Total	24.5%

Austin Fire Fighters Relief and Retirement Fund

Vaughan Nelson Small Cap Value | As of June 30, 2020

	Vaughan Nelsoi	n Small Cap Va	ue
Value		Portfolio	
ccount		Q2-20	
Active	Market Value		
1/01/16	Market Value (\$M)	38.0	
Equity	Number Of Holdings	63	
Value	Characteristics		
ity Net	Weighted Avg. Market Cap. (\$B)	3.3	
S.I.	Median Market Cap (\$B)	2.7	
Date	P/E Ratio	17.0	
Jan-16	Yield	1.4	
Jan-16	EPS Growth - 5 Yrs.	13.8	
Jan-16	Price to Book	2.3	
Jan-16	Sector Distribution		
	Energy	1.4	
	Materials	3.0	
4.0%	Industrials	30.2	
3.1%	Consumer Discretionary	1.6	
2.9%	Consumer Staples	0.9	
2.4%	Health Care	8.6	
2.3%	Financials	19.6	
2.3%	Information Technology	21.6	
2.2%	Communication Services	3.6	
2.2%	Utilities	4.0	
2.2%	Real Estate	5.6	
26.0%			

Account Information Account Name Vaughan Nelson Small C

Account Name	vagian iterson sinan cap valae
Account Structure	Separate Account
Investment Style	Active
Inception Date	1/01/16
Account Type	US Equity
Benchmark	Russell 2000 Value
Universe	eV US Small Cap Value Equity Net

Portfoli	o Perfo	orman	ice Si	ummai	ry			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 10 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Vaughan Nelson Small Cap Value	16.2	-18.0	-13.5	-1.7			2.8	Jan-16
Russell 2000 Value	18.9	-23.5	-17.5	-4.3	1.3	7.8	3.3	Jan-16
eV US Small Cap Value Equity Net Median	20.7	-21.8	-16.2	-3.9	1.0	8.3	2.7	Jan-16
eV US Small Cap Value Equity Net Rank	86	23	32	27		-	49	Jan-16

Top 10 Holdings	
CABOT MICROELECTRONICS CORP	4.0%
INSIGHT ENTERPRISES INC	3.1%
LPL FINANCIAL HOLDINGS INC	2.9%
WATTS WATER TECHNOLOGIES INC	2.4%
CACI INTERNATIONAL INC	2.3%
OLD REPUBLIC INTERNATIONAL CORP	2.3%
FIRST AMERICAN FINANCIAL CORP	2.3%
PRA HEALTH SCIENCES INC	2.2%
GATX CORP.	2.2%
MKS INSTRUMENTS INC	2.2%
Total	26.0%

Austin Fire Fighters Relief and Retirement Fund

SSgA S&P 500 | As of June 30, 2020

Account Information				
Account Name	SSgA S&P 500			
Account Structure	Commingled Fund			
Investment Style	Passive			
Inception Date	2/01/04			
Account Type	US Equity			
Benchmark	S&P 500			
Universe	eV US Large Cap Equity Net			

Portfoli	o Perf	ormar	nce Si	umma	ry			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA S&P 500	20.5	-3.1	7.4	10.7	10.7	14.0	8.5	Feb-04
S&P 500	20.5	-3.1	7.5	10.7	10.7	14.0	8.5	Feb-04
eV US Large Cap Equity Net Median	19.8	-5.7	3.8	8.2	8.5	12.5	8.4	Feb-04
eV US Large Cap Equity Net Rank	45	40	37	36	30	30	49	Feb-04

Top 10 Holdings	
MICROSOFT CORP	6.0%
APPLE INC	5.8%
AMAZON.COM INC	4.5%
FACEBOOK INC	2.1%
ALPHABET INC	1.7%
ALPHABET INC	1.6%
JOHNSON & JOHNSON	1.4%
BERKSHIRE HATHAWAY INC	1.4%
VISA INC	1.3%
PROCTER & GAMBLE CO (THE)	1.2%
Total	27.0%

SSgA	S&P 500 Char	acteristics	
	Portfolio	Index	Portfolio
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	30.0		24.9
Number Of Holdings	506	505	507
Characteristics			
Weighted Avg. Market Cap. (\$B)	365.9	370.7	264.4
Median Market Cap (\$B)	21.3	21.3	17.6
P/E Ratio	22.8	22.9	17.1
Yield	1.8	1.8	2.3
EPS Growth - 5 Yrs.	13.4	13.5	12.8
Price to Book	4.1	4.2	3.7
Sector Distribution			
Energy	2.8	2.7	2.6
Materials	2.5	2.5	2.4
Industrials	8.0	7.9	8.2
Consumer Discretionary	10.8	11.3	9.8
Consumer Staples	7.0	7.6	7.8
Health Care	14.6	14.2	15.4
Financials	10.1	10.3	10.9
Information Technology	27.5	26.9	25.5
Communication Services	10.8	10.9	10.7
Utilities	3.0	2.9	3.6
Real Estate	2.8	2.7	3.0

Austin Fire Fighters Relief and Retirement Fund

Baillie Gifford International Growth Fund | As of June 30, 2020

Account Information				
Account Name	Baillie Gifford International Growth Fund			
Account Structure	Mutual Fund			
Investment Style	Active			
Inception Date	5/01/09			
Account Type	Non-US Stock Developed			
Benchmark	MSCI ACWI ex USA			
Universe	eV ACWI ex-US All Cap Core Eq Net			

Portfoli	o Perfo	orman	ice Si	umma	ry			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Baillie Gifford International Growth Fund	36.7	17.5	30.6	15.8	12.4	11.9	13.0	May-09
MSCI ACWI ex USA	16.1	-11.0	-4.8	1.1	2.3	5.0	6.5	May-09
MSCI EAFE	14.9	-11.3	-5.1	0.8	2.1	5.7	6.7	May-09
eV ACWI ex-US All Cap Core Eq Net Median	17.0	-8.5	-1.9	2.9	3.1	6.6	7.9	May-09
eV ACWI ex-US All Cap Core Eq Net Rank	1	1	1	1	1	2	2	May-09

Top 10 Holdings	
ASML HOLDING NV	7.1%
TENCENT HOLDINGS LTD	6.7%
ALIBABA GROUP HOLDING LTD	5.2%
MERCADOLIBRE INC	5.2%
M3 INC	4.7%
MEITUAN DIANPING	4.4%
FERRARI NV	4.1%
SPOTIFY TECHNOLOGY S.A	3.8%
KERING	3.7%
ZALANDO SE	3.6%
Total	48.5%

Bailli <u>e Giff</u> o	ord EAFE Fund Ch	naracteristi <u>cs</u>	
	Portfolio	Index	Portfolio
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	46.1		33.7
Number Of Holdings	55	902	57
Characteristics			
Weighted Avg. Market Cap. (\$B)	117.9	60.7	103.2
Median Market Cap (\$B)	17.9	9.5	12.0
P/E Ratio	39.3	17.2	23.1
Yield	0.6	2.9	1.0
EPS Growth - 5 Yrs.	19.4	6.1	19.4
Price to Book	7.0	2.7	5.8
Sector Distribution			
Energy	0.0	3.4	0.0
Materials	3.9	7.3	4.1
Industrials	5.7	14.5	6.6
Consumer Discretionary	40.4	11.3	39.6
Consumer Staples	2.6	12.0	3.0
Health Care	11.6	14.5	11.4
Financials	7.4	16.1	9.6
Information Technology	13.7	8.3	12.5
Communication Services	14.6	5.4	13.2
Utilities	0.0	4.0	0.0
Real Estate	0.0	3.1	0.0

Austin Fire Fighters Relief and Retirement Fund

Sanderson International Value | As of June 30, 2020

	D (6.1)		
	Portfolio	Index	Portfolio
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	39.5		34.9
Number Of Holdings	75	902	79
Characteristics			
Weighted Avg. Market Cap. (\$B)	42.9	60.7	41.3
Median Market Cap (\$B)	17.3	9.5	17.6
P/E Ratio	13.9	17.2	11.9
Yield	3.4	2.9	4.7
EPS Growth - 5 Yrs.	2.6	6.1	4.1
Price to Book	2.1	2.7	2.0
Sector Distribution			
Energy	2.0	3.4	1.9
Materials	11.6	7.3	10.3
Industrials	18.2	14.5	15.8
Consumer Discretionary	6.0	11.3	5.6
Consumer Staples	7.1	12.0	7.2
Health Care	13.3	14.5	13.4
Financials	31.2	16.1	30.8
Information Technology	6.8	8.3	6.6
Communication Services	3.5	5.4	3.5
Utilities	0.4	4.0	0.4
Real Estate	0.0	3.1	0.0

Account Information					
Account Name	Sanderson International Value				
Account Structure	Commingled Fund				
Investment Style	Active				
Inception Date	2/01/13				
Account Type	Non-US Stock Developed				
Benchmark	MSCI EAFE Value				
Universe	eV EAFE All Cap Value Net				

Portfol	io Perf	ormar	ice Si	umma	ry			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Sanderson International Value	13.4	-18.8	-11.7	-3.8	-1.7		2.3	Feb-13
MSCI EAFE Value	12.4	-19.3	-14.5	-4.4	-1.6	3.5	0.7	Feb-13
MSCI EAFE	14.9	-11.3	-5.1	0.8	2.1	5.7	3.6	Feb-13
eV EAFE All Cap Value Net Median	15.0	-16.9	-10.3	-3.0	-0.4	5.6	2.6	Feb-13
eV EAFE All Cap Value Net Rank	56	70	68	73	74		54	Feb-13

Top 10 Holdings	
PING AN INSURANCE GROUP	5.5%
CRH PLC	3.0%
SANOFI	2.7%
NESTLE SA, CHAM UND VEVEY	2.6%
DEUTSCHE POST AG	2.6%
UBS GROUP AG	2.5%
GLAXOSMITHKLINE PLC	2.4%
NOVARTIS AG	2.4%
BRAMBLES LTD	2.4%
HOYA CORP	2.3%
Total	28.4%

Austin Fire Fighters Relief and Retirement Fund

Highclere International Small Cap | As of June 30, 2020

Account Information			
Account Name	Highclere International Small Cap		
Account Structure	Commingled Fund		
Investment Style	Active		
Inception Date	12/01/09		
Account Type	Non-US Stock Developed		
Benchmark	MSCI EAFE Small Cap		
Universe	eV EAFE Small Cap Equity Net		

Portfolio	o Perfo	orman	ice Si	umma	ry			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Highclere International Small Cap	16.9	-14.7	-4.0	-1.4	3.5	8.0	7.0	Dec-09
MSCI EAFE Small Cap	19.9	-13.1	-3.5	0.5	3.8	8.0	6.9	Dec-09
S&P EPAC Under USD2 Billion NR USD	19.6	-13.5	-5.3	-2.4	1.5	6.0	5.1	Dec-09
eV EAFE Small Cap Equity Net Median	20.6	-13.9	-5.2	-0.2	3.3	9.2	7.9	Dec-09
eV EAFE Small Cap Equity Net Rank	83	58	49	61	48	58	56	Dec-09

Top 10 Holdings	
SAKATA INX CORP	1.0%
ADVANCED CERAMIC X	0.9%
SHIZUOKA GAS CO LTD	0.9%
QT GROUP OYJ	0.9%
DAITO PHARMACEUTICAL CO LTD	0.9%
GRAINGER PLC	0.9%
FUKUOKA REIT	0.9%
GRAFTON GROUP PLC	0.9%
AICA KOGYO CO LTD	0.8%
CREDITO EMILIANO	0.8%
Total	9.0%

Highclere Intern	ational Smal	ll Cap Characte	ristics
	Portfolio	Index	Portfolio
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	39.3		33.7
Number Of Holdings	194	2322	197
Characteristics			
Weighted Avg. Market Cap. (\$B)	1.2	2.4	0.9
Median Market Cap (\$B)	0.8	1.0	0.7
P/E Ratio	15.1	15.2	12.5
Yield	2.4	2.5	3.2
EPS Growth - 5 Yrs.	8.8	8.9	8.2
Price to Book	2.1	2.2	1.9
Sector Distribution			
Energy	1.5	1.7	2.0
Materials	6.4	8.2	5.6
Industrials	23.3	21.7	21.8
Consumer Discretionary	11.1	12.4	12.1
Consumer Staples	6.3	6.8	8.6
Health Care	8.7	8.1	7.9
Financials	7.7	10.6	7.1
Information Technology	18.3	10.7	19.2
Communication Services	5.1	4.5	5.0
Utilities	1.7	2.8	1.6
Real Estate	9.5	12.3	8.8

Austin Fire Fighters Relief and Retirement Fund

SSgA MSCI EAFE Fund | As of June 30, 2020

Account Information				
SSgA MSCI EAFE Fund				
Commingled Fund				
Passive				
2/01/13				
Non-US Stock Developed				
MSCI EAFE				
eV EAFE Core Equity Net				

Portfol	io Perfo	orman	ice Si	ımma	ry			
	QTD	YTD	1 Yr	3 Yrs	5 Yrs 1	0 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
SSgA MSCI EAFE Fund	15.0	-11.1	-4.8	1.1	2.3		3.8	Feb-13
MSCI EAFE	14.9	-11.3	-5.1	0.8	2.1	5.7	3.6	Feb-13
eV EAFE Core Equity Net Median	16.7	-11.0	-3.9	0.8	2.3	6.8	4.6	Feb-13
eV EAFE Core Equity Net Rank	71	51	57	47	50		67	Feb-13

Top 10 Holdings	
NESTLE SA, CHAM UND VEVEY	2.5%
ROCHE HOLDING AG	1.8%
NOVARTIS AG	1.4%
ASML HOLDING NV	1.2%
SAP SE	1.1%
ASTRAZENECA PLC	1.0%
TOYOTA MOTOR CORP	1.0%
LVMH MOET HENNESSY LOUIS VUITTON SE	0.9%
AIA GROUP LTD	0.9%
NOVO NORDISK 'B'	0.9%
Total	12.8%

SSgA MSC	CI EAFE Fund Cha	aracteristics	
	Portfolio	Index	Portfolic
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	24.4		21.2
Number Of Holdings	917	902	945
Characteristics			
Weighted Avg. Market Cap. (\$B)	60.5	60.7	55.4
Median Market Cap (\$B)	9.4	9.5	8
P/E Ratio	17.1	17.2	13.9
Yield	2.9	2.9	3.
EPS Growth - 5 Yrs.	6.1	6.1	6.
Price to Book	2.7	2.7	2.
Sector Distribution			
Energy	3.4	3.4	3.
Materials	7.3	7.3	6.
Industrials	14.5	14.5	14
Consumer Discretionary	11.3	11.3	11.4
Consumer Staples	12.0	12.0	12.
Health Care	14.4	14.5	14
Financials	16.1	16.1	16.
Information Technology	8.4	8.3	7.
Communication Services	5.4	5.4	5.
Utilities	4.0	4.0	4.
Real Estate	3.1	3.1	3.

Austin Fire Fighters Relief and Retirement Fund

DFA Emerging Markets Value | As of June 30, 2020

	g Markets Value		
	Portfolio	Index	Portfolio
	Q2-20	Q2-20	Q1-20
Market Value			
Market Value (\$M)	25.3		21.3
Number Of Holdings	2761	1015	2399
Characteristics			
Weighted Avg. Market Cap. (\$B)	29.6	36.3	28.3
Median Market Cap (\$B)	0.5	4.8	0.3
P/E Ratio	9.0	10.7	7.2
Yield	4.3	4.0	5.0
EPS Growth - 5 Yrs.	4.6	6.5	3.7
Price to Book	1.6	1.9	1.4
Sector Distribution			
Energy	13.8	10.0	13.4
Materials	14.2	8.6	13.5
Industrials	9.0	5.8	8.4
Consumer Discretionary	6.7	6.6	6.5
Consumer Staples	2.3	4.4	2.4
Health Care	2.2	2.8	1.8
Financials	27.8	31.2	31.2
Information Technology	9.0	14.0	9.0
Communication Services	6.3	8.5	6.2
Utilities	1.6	3.7	1.4
Real Estate	6.3	4.3	6.

A	ccount Information
Account Name	DFA Emerging Markets Value
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	12/01/09
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets Value NR USD
Universe	eV Emg Mkts All Cap Value Equity Net

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 10 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
DFA Emerging Markets Value	19.0	-18.9	-17.3	-3.7	0.1	0.6	0.4	Dec-09
MSCI Emerging Markets Value NR USD	13.8	-18.0	-15.7	-2.6	-0.8	0.7	0.5	Dec-09
MSCI Emerging Markets	18.1	-9.8	-3.4	1.9	2.9	3.3	2.8	Dec-09
eV Emg Mkts All Cap Value Equity Net Median	17.7	-14.5	-10.0	-0.8	1.1	2.4	2.3	Dec-09
eV Emg Mkts All Cap Value Equity Net Rank	34	71	88	75	79	99	99	Dec-09

Top 10 Holdings	
CHINA CONSTRUCTION BANK CORP	4.1%
RELIANCE INDUSTRIES LTD	4.0%
CHINA MOBILE LTD	2.4%
VALE SA	2.0%
INDUSTRIAL & COMMERCIAL BANK OF CHINA LTD	1.8%
HON HAI PRECISION INDUSTRY CO LTD	1.3%
BANK OF CHINA LTD	1.2%
CNOOC LTD	1.1%
OIL CO LUKOIL PJSC	1.0%
BHARTI AIRTEL LTD	1.0%
Total	19.8%

Austin Fire Fighters Relief and Retirement Fund

TT Emerging Markets Equity | As of June 30, 2020

	TT Emerging	Markets Equ	ity Characteris
s Equity		Portfolio	Index
d Fund		Q2-20	Q2-20
Active	Market Value		
4/01/19	Market Value (\$M)	28.4	
erging	Number Of Holdings	61	1385
arkets	Characteristics		
uity Net	Weighted Avg. Market Cap. (\$B)	117.1	130.7
S.I.	Median Market Cap (\$B)	9.0	5.4
Date	P/E Ratio	16.9	15.6
Apr-19	Yield	2.2	2.7
Apr-19	EPS Growth - 5 Yrs.	16.1	12.0
Apr-19 Apr-19	Price to Book	3.1	2.9
Аргтэ	Sector Distribution		
	Energy	4.0	6.0
	Materials	7.7	6.8
8.9%	Industrials	4.8	4.6
8.0% 6.4%	Consumer Discretionary	24.9	17.5
5.1%	Consumer Staples	2.7	6.3
4.6%	Health Care	1.5	4.1
4.3%	Financials	16.0	19.4
3.3%	Information Technology	16.0	16.8
2.3% 2.2%	Communication Services	9.4	13.5
2.2%	Utilities	3.1	2.3
17.2%	Real Estate	7.1	2.6

Account InformationAccount NameTT Emerging Markets ExpAccount StructureCommingled IInvestment StyleAccount Inception DateInception Date4/dAccount TypeNon-US Stock Emerging MarketsBenchmarkMSCI Emerging MarketsUniverseeV Emg Mkts Equity

Portfo	lio Perfo	orman	ce Su	imma	ry			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
TT Emerging Markets Equity	19.9	-12.9	-5.8				-4.2	Apr-19
MSCI Emerging Markets	18.1	-9.8	-3.4	1.9	2.9	3.3	-2.2	Apr-19
eV Emg Mkts Equity Net Median	20.4	-10.1	-4.0	1.2	2.8	3.9	-2.0	Apr-19
eV Emg Mkts Equity Net Rank	53	73	62				64	Apr-19

Top 10 Holdings	
ALIBABA GROUP HOLDING LTD	8.9%
SAMSUNG ELECTRONICS CO LTD	8.0%
NASPERS LTD	6.4%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	5.1%
ICICI BANK	4.6%
TENCENT HOLDINGS LTD	4.3%
SUNAC CHINA HOLDINGS LTD	3.3%
VALE SA	2.3%
LG	2.2%
NEW ORIENTAL EDUCATION & TECHNOLOGY GROUP INC	2.2%
Total	47.2%

Austin Fire Fighters Relief and Retirement Fund

SSgA Bond Fund | As of June 30, 2020

Account Information					
Account Name	SSgA Bond Fund				
Account Structure	Commingled Fund				
Investment Style	Passive				
Inception Date	1/01/04				
Account Type	US Fixed Income Investment Grade				
Benchmark	BBgBarc US Aggregate TR				
Universe	eV US Core Fixed Inc Net				

Portfolio	Perform	ance	Sumi	mary			
	QTD			5 Yrs 10		S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	Date
SSgA Bond Fund	3.0	8.7	5.3	4.3	3.7	4.3	Jan-04
BBgBarc US Aggregate TR	2.9	8.7	5.3	4.3	3.8	4.4	Jan-04
eV US Core Fixed Inc Net Median	4.4	8.6	5.3	4.4	4.1	4.6	Jan-04
eV US Core Fixed Inc Net Rank	92	45	52	64	80	74	Jan-04

SSgA Bond Fund Characteristics vs. BBgBarc US Aggregate TR							
VS. BByBard	US Aggregate Tr	K					
	Portfolio	Index	Portfolio				
	Q2-20	Q2-20	Q1-20				
Fixed Income Characteristics	Fixed Income Characteristics						
Yield to Maturity	1.3	1.3	1.6				
Average Duration	6.1	6.7	5.7				
Average Quality	AA	AA	AA				
Weighted Average Maturity	8.0	13.5	7.7				







Austin Fire Fighters Relief and Retirement Fund

Loomis Sayles Core Plus Fixed Income | As of June 30, 2020

Account Information					
Account Name	Loomis Sayles Core Plus Fixed Income				
Account Structure	Commingled Fund				
Investment Style	Active				
Inception Date	7/01/15				
Account Type	US Fixed Income Investment Grade				
Benchmark	BBgBarc US Aggregate TR				
Universe	eV US Core Plus Fixed Inc Net				

Portfolio F	Perform	ance	Sumi	nary			
	QTD	1 Yr	3 Yrs	5 Yrs 1	0 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	Date
Loomis Sayles Core Plus Fixed Income	5.7	9.6	6.0	5.0		5.0	Jul-15
BBgBarc US Aggregate TR	2.9	8.7	5.3	4.3	3.8	4.3	Jul-15
eV US Core Plus Fixed Inc Net Median	5.8	7.9	5.2	4.6	4.6	4.6	Jul-15
eV US Core Plus Fixed Inc Net Rank	52	7	9	17		17	Jul-15

Loomis Sayles Core Plus Fixed Income Characteristics						
vs. BBgBarc US Aggregate TR						
	Portfolio	Index	Portfolio			
	Q2-20	Q2-20	Q1-20			
Fixed Income Characteristics						
Yield to Maturity	2.1	1.3	2.6			
Average Duration	6.7	6.7	6.3			
Average Quality	BBB	AA	А			
Weighted Average Maturity	9.6	13.5	8.8			



Sector Allocation



Austin Fire Fighters Relief and Retirement Fund

Aberdeen Emerging Markets Bond Fund | As of June 30, 2020

Account Information					
Account Name	Aberdeen Emerging Markets Bond Fund				
Account Structure	Commingled Fund				
Investment Style	Active				
Inception Date	12/01/14				
Account Type	International Emerging Market Debt				
Benchmark	JP Morgan EMBI Global Diversified				
Universe					

Portfolio Performance Summary							
	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	Date
Aberdeen Emerging Markets Bond Fund	12.6	-2.0	1.9	4.3		3.5	Dec-14
JP Morgan EMBI Global Diversified	12.3	0.5	3.6	5.3	6.0	4.6	Dec-14
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	10.9	0.7	3.4	5.0	5.1	4.0	Dec-14

Aberdeen Emerging Markets Bond Fund Characteristics								
vs. JP Morgan EMBI Global TR								
Portfolio Index Portfol								
	Q2-20	Q2-20	Q1-20					
Fixed Income Characteristics								
Yield to Maturity	6.9	4.7	7.9					
Average Duration	6.9	8.2	6.3					
Average Quality	BB	BBB	BB					
Weighted Average Maturity	11.4	13.2	10.7					



Sector Allocation 100.0 100 86.8 90 80 70 60 50 40 30 20 10.9 10 2.3 0 Corporate Cash Foreign

Aberdeen Emerging Markets Bond Fund

Austin Fire Fighters Relief and Retirement Fund

SSGA TIPS | As of June 30, 2020

Account Information					
Account Name	SSGA TIPS				
Account Structure	Commingled Fund				
Investment Style	Passive				
Inception Date	8/01/14				
Account Type	US Inflation Protected Fixed				
Benchmark	BBgBarc US TIPS TR				
Universe	eV US TIPS / Inflation Fixed Inc Net				

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
SSGA TIPS	4.3	6.0	8.3	5.0	3.7		2.7	Aug-14
BBgBarc US TIPS TR	4.2	6.0	8.3	5.0	3.7	3.5	2.8	Aug-14
eV US TIPS / Inflation Fixed Inc Net Median	4.8	5.0	7.4	4.9	3.6	3.4	2.6	Aug-14
eV US TIPS / Inflation Fixed Inc Net Rank	61	31	30	40	34		39	Aug-14

SSGA TIPS Characteristics								
vs. BBgBarc US TIPS TR								
	Portfolio	Index	Portfolio					
	Q2-20	Q2-20	Q1-20					
Fixed Income Characteristics								
Yield to Maturity	0.7	-0.7	0.9					
Average Duration	4.4	7.7	6.7					
Average Quality	AAA	AAA	AAA					
Weighted Average Maturity	8.2	8.2	8.4					





Austin Fire Fighters Relief and Retirement Fund

Pyramis Tactical Bond Fund | As of June 30, 2020

Account Information						
Account Name	Pyramis Tactical Bond Fund					
Account Structure	Commingled Fund					
Investment Style	Active					
Inception Date	8/01/13					
Account Type	US Fixed Income High Yield					
Benchmark	BBgBarc US Aggregate TR					
Universe	eV US Core Plus Fixed Inc Net					

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pyramis Tactical Bond Fund	8.7	2.0	6.1	5.4	5.3		5.0	Aug-13
BBgBarc US Aggregate TR	2.9	6.1	8.7	5.3	4.3	3.8	4.0	Aug-13
eV US Core Plus Fixed Inc Net Median	5.8	5.0	7.9	5.2	4.6	4.6	4.3	Aug-13
eV US Core Plus Fixed Inc Net Rank	2	94	86	37	8		5	Aug-13

Pyramis Tactical Bond Fund Characteristics vs. BBgBarc US Aggregate TR								
Portfolio Index Portfoli								
	Q2-20	Q2-20	Q1-20					
Fixed Income Characteristics								
Yield to Maturity	4.8	1.3	6.3					
Average Duration	6.1	6.7	6.4					
Average Quality	BBB	AA	BBB					
Weighted Average Maturity	11.4	13.5	13.4					

Credit Quality Allocation



Sector Allocation


MEKETA

Austin Fire Fighters Relief and Retirement Fund

Pacific Asset Management Bank Loans | As of June 30, 2020

Account Information								
Account Name	Pacific Asset Management Bank Loans							
Account Structure	Mutual Fund							
Investment Style	Passive							
Inception Date	12/01/19							
Account Type	US Fixed Income							
Benchmark	Credit Suisse Leveraged Loans							
Universe	Bank Loan MStar MF							

Portfolio Performance Summary									
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date	
Pacific Asset Management Bank Loans	6.8	-3.3					-2.4	Dec-19	
Credit Suisse Leveraged Loans	9.7	-4.8	-2.3	2.1	2.9	4.3	-3.2	Dec-19	
Bank Loan MStar MF Median	8.4	-5.3	-2.6	1.5	2.3	3.8	-3.8	Dec-19	
Bank Loan MStar MF Rank	86	7					11	Dec-19	

Pacific Asset Management Bank Loans Characteristics								
	Portfolio Po							
	Q2-20	Q1-20						
Fixed Income Characteristics								
Yield to Maturity	5.4	7.3						
Average Duration	0.3	0.3						
Average Quality	В	В						
Weighted Average Maturity	4.5	4.6						



Pacific Asset Management Bank Loans



Pacific Asset Management Bank Loans

Characteristics not available for the Credit Suisse Leveraged Loan Index.

Clarion Partners Lion Properties Fund | As of June 30, 2020



Account Information								
Account Name	Clarion Partners Lion Properties Fund							
Account Structure	Commingled Fund							
Investment Style	Active							
Inception Date	4/01/05							
Account Type	Real Estate							
Benchmark	NCREIF ODCE Equal Weighted (Net)							
Universe								

Portfolio Performance Summary									
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date	
Clarion Partners Lion Properties Fund	-2.0	-0.8	2.3	6.1	7.7	11.3	5.8	Apr-05	
NCREIF ODCE Equal Weighted (Net)	-1.5	-0.8	1.7	5.1	6.7	10.0	6.2	Apr-05	





MEKETA



Fee Summary | As of June 30, 2020

Investment Expense Analysis									
	As Of June 30, 202	0							
Name	Market Value	% of Portfolio	Estimated Fee	Estimated Fee Value					
Westwood Capital Large Cap Value	\$42,683,328	6.4%	0.50%	\$213,417					
Westfield Small/Mid Cap Growth	\$49,294,486	7.3%	0.22%	\$108,448					
Vaughan Nelson Small Cap Value	\$37,991,459	5.7%	0.95%	\$360,427					
SSgA S&P 500	\$30,046,230	4.5%	0.02%	\$4,507					
Baillie Gifford International Growth Fund	\$46,097,646	6.9%	0.61%	\$281,196					
Sanderson International Value	\$39,549,891	5.9%	0.83%	\$329,574					
Highclere International Small Cap	\$39,343,680	5.9%	1.20%	\$470,280					
SSgA MSCI EAFE Fund	\$24,373,314	3.6%	0.06%	\$14,624					
DFA Emerging Markets Value	\$25,312,722	3.8%	0.57%	\$144,283					
TT Emerging Markets Equity	\$28,432,178	4.2%	0.80%	\$227,457					
SSgA Bond Fund	\$75,831,290	11.3%	0.03%	\$22,749					
Loomis Sayles Core Plus Fixed Income	\$63,567,411	9.5%	0.28%	\$178,919					
Aberdeen Emerging Markets Bond Fund	\$59,936,652	8.9%	0.45%	\$269,715					
SSGA TIPS	\$55,937,378	8.3%	0.03%	\$16,781					
Pyramis Tactical Bond Fund	\$35,284,490	5.3%	0.34%	\$119,967					
Pacific Asset Management Bank Loans	\$18,061,039	2.7%	0.41%	\$74,050					
Total	\$671,743,193	100.0%	0.42%	\$2,836,395					

2Q20 Asset Transfers Review



Asset Transfers Review

Completed Asset Transfers in 2Q20

Target Portfolio	Action	Source	Amount	Target Portfolio
Cash	Raise cash for operational needs	SSgA Bond Fund	\$5 mm	April 2020
Cash	Raise cash for operational needs	Pyramis Tactical Bond Fund	\$5 mm	June 2020

Annual Private Equity Peer Performance Review As of December 31, 2019



Annual Private Equity Peer Performance Review



Trailing Performance Comparison (as of December 31, 2019)¹

• Austin Fire Fighter's private equity portfolio has outperformed the majority of private equity fund universe benchmarks over most time periods.

¹ Austin Fire Private Equity performance is calculated from true 12/31/19 NAVs (i.e. it should match the returns found in the 3/31/20 Austin Fire performance report. Benchmarks are also based on true 12/31/19 NAVs. MSCI ACWI +2% is as of 12/31/19 to match the same time frame of the Austin Fire private equity performance numbers.

MEKETA

Austin Fire Fighters Relief and Retirement Fund

Annual Private Equity Peer Performance Review

Partnership	Commitment \$mm	Quartile
Greenspring Global Partners V	7.5	1st
Flag Private Equity V	10	1st
HarbourVest 2013 Direct	10	st
Greenspring Global Partners VI	7.5	st
Constitution Capital Partners Ironsides III	15	1st
Flag Private Equity VI	15	st
HarbourVest Co-Investment Fund IV	10	1st
LGT Crown Global Secondaries II	3	2 nd
Cross Creek Capital Partners II - B	12.5	2 nd
LGT Crown Europe Small Buyouts III	8.6	2 nd
LGT Crown Global Secondaries III	10	2 nd
Cross Creek Capital Partners III	7.5	2 nd
Deutsche Bank Secondary Opportunities Fund III	10	2 nd
Partners Group Distressed Private Equity 2009	7	3 rd
LGT Crown Asia II	10	3 rd
Private Advisors Co-Investment Fund III	10	3 rd
Blue Bay Direct Lending Fund II	20	3 rd
LGT Crown Global Opportunities VI	40	3 rd
Private Equity Investors V	3	4 th
57 Stars Global Opportunity 3	10	4 th
Partners Group Emerging Markets 2015	10	4 th
SVB Strategic Investors Fund IX	10	NA

All Funds Peer Quartile Overview



Annual Private Equity Peer Performance Review

Partnership	Vintage Year	Committed \$mm	Quartile	Fund's nIRR (%)	Upper nIRR (%)	Median nIRR (%)	Peer Group
Greenspring Global Partners V	2011	7.5	1 st	22.4	17.37	13.69	CA All Regions all FoF
HarbourVest 2013 Direct	2013	10	1 st	20.4	19.01	15.43	CA All Regions all FoF
Flag Private Equity V	2012	10	st	17.1	16.56	12.68	CA All Regions all FoF
Greenspring Global Partners VI	2013	7.5	1st	24.3	19.01	15.43	CA All Regions all FoF
Flag Private Equity VI	2015	15	st	20.3	19.23	15.89	CA All Regions all FoF
HarbourVest Co-Investment Fund IV	2017	15	1st	16.6	14.37	12.17	CA All Regions all FoF
Constitution Capital Partners Ironsides III	2014	10	st	21.7 18.3	18.19	14.06	CA All Regions all FoF







Annual Private Equity Peer Performance Review

Partnership	Vintage Year	Committed \$mm	Quartile	Fund's nIRR (%)	Upper nIRR (%)	Median nIRR (%)	Peer Group
LGT Crown Global Secondaries II	2009	3	2 nd	17.9	18.53	15.8	CA All Regions Secondaries
Cross Creek Capital Partners II - B	2010	12.5	2 nd	15	15.91	12.19	CA All Regions all FoF
LGT Crown Europe Small Buyouts III	2012	8.6	2^{nd}	13.9	16.56	12.68	CA All Regions all FoF
LGT Crown Global Secondaries III	2012	10	2 nd	12.6	15.59	10.88	CA All Regions Secondaries
Deutsche Bank Secondary Opportunities III	2014	7.5	2^{nd}	16.2	19.9	14.6	CA All Regions Secondaries
Cross Creek Capital Partners III	2013	10	2 nd	17	19.01	15.43	CA All Regions all FoF

Second Quartile Exposure





Annual Private Equity Peer Performance Review

Partnership	Vintage Year	Committed \$mm	Quartile	Fund's nIRR (%)	Upper nIRR (%)	Median nIRR (%)	Peer Group
Partners Group Distressed Private Equity 2009	2009	7	3 rd	11	14.85	11.71	CA All Regions all FoF
LGT Crown Asia II	2011	10	3 rd	11.9	17.37	13.69	CA All Regions all FoF
Private Advisors Co-Investment Fund III	2013	10	3 rd	12.4	19.01	15.43	CA All Regions all FoF
Blue Bay Direct Lending Fund II	2015	20	3 rd	7.8	10.93	9.87	CA All Regions Credit Opportunities
LGT Crown Global Opportunities VI	2016	40	3 rd	9.2	21.26	10.37	CA All Regions all FoF







Annual Private Equity Peer Performance Review

Bottom Quartile Exposure

Partnership	Vintage Year	Committed \$mm	Quartile	Fund's nIRR (%)	Upper nIRR (%)	Median nIRR (%)	Peer Group
Private Equity Investors V	2009	3	4^{th}	-1.7	18.53	15.8	CA All Regions Secondaries
57 Stars Global Opportunity 3	2011	10	4 th	5.4	12.41	11.57	CA All Emerging Markets all FoF
Partners Group Emerging Markets 2015	2015	10	4 th	10.9	19.23	15.89	CA All Regions all FoF





Annual Private Equity Peer Performance Review



All Funds Peer Quartile Overview



Annual Private Equity Peer Performance Review

Summary

- The private equity investments have performed well and are marked at a 1.5x net multiple.
- Thirteen funds are performing above median, including seven in the top quartile (relative to vintage year peers), which is an increase from five last year.
- Approximately 55% of invested capital is exposed to funds above median.
- Many of the funds in the third quartile are only a few percentage points below median.
- Only one fund is marked at a loss (Private Equity Investors V). It was the smallest commitment made.
- In total, we estimate the total private equity program has generated \$100.4 million in investment appreciation (after fees).

Investments by Quartile	Invested \$mm	TVPI Net Multiple	Investment Appreciation \$mm
First Quartile Funds	69.2	1.7x	48.2
Second Quartile Funds	43.4	1.6x	25.5
Third Quartile Funds	70.7	1.3x	22.2
Bottom Quartile Funds	21.3	1.2x	4.5
Total	204.6x	1.5x	100.4

Memos Since Last Meeting



5200 Blue Lagoon Drive Suite 120 Miami, FL 33126

MEMORANDUM

TO: Trustees, Austin Fire Fighters Relief and Retirement Fund

- **FROM:** Leandro A. Festino, Aaron C. Lally, Meketa Investment Group
- **DATE:** July 10, 2020
- **RE:** Highclere Update

BACKGROUND

Austin Fire Fighters currently¹ has \$33.7 million invested in the Highclere International Small Cap strategy. In December 2019 Meketa visited Highclere's office in London. In April 2020 Meketa had a conference call update with the Highclere team to discuss performance following 1Q20. In this memo, we highlight observations from both meetings. In addition, where appropriate, we cite comments we previously made in a 2018 memo that was written following an onsite visit.

SUMMARY AND OPINION

The Highclere International Small Cap strategy is a good option among other active international small cap strategies. Its two most attractive attributes are its focus on the very small end of the market cap spectrum (micro-cap exposure) and the experience of the lead portfolio manager and chief investment officer, Ed Makin. Its least desirable attribute is the high fee (1.25% on first \$25 mm, 1.10% on next \$25 mm, 1.00% thereafter).

Firm

Highclere manages \$4.2 billion across three investment strategies; international small cap, international SMID, and emerging markets SMID. The international small cap strategy is the largest strategy with just under \$2 billion in assets. The team continues to manage capacity in the small cap strategy using their waitlist. Year to date, they have matched flows (\$140mm out) with inflows funded exclusively from the waitlist. The two SMID strategies remain open, and continue to be a focus for the team on the marketing front.

¹ As of March 31, 2020.

BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO

PHILOSOPHY

The small cap strategy is entirely bottom-up driven with little to no top-down macro analysis. Highclere seeks to invest in sound businesses trading at attractive valuations that are positioned to beat analyst expectations. The team believes that the best opportunities for them to add value are in underfollowed companies where pricing inefficiency is high. Therefore, the team maintains a significant tilt toward micro-cap stocks. The team emphasizes absolute return, and seeks to protect capital by investing in businesses with relatively low leverage. Country bets are often insignificant (relative to benchmark weights) but industry/sector weights will vary more materially.

PERFORMANCE AND VOLATILITY

In 2018 we wrote: "the strategy has low beta (0.85), strong downside capture (<80%), with reasonable upside capture (92%). Some market environments are more favorable than others for Highclere and a long term investment horizon is a must for this strategy, as is the case with any truly active manager that takes strong active bets away from its benchmark.

Highclere has historically performed best during large, rapid changes in market volatility. As the charts below show, there is a clear relationship between Highclere's excess returns and increasing market volatility. When volatility increases, Highclere's excess returns go up, and so too does its peer ranking (significantly.) In highly volatile down markets, Highclere has historically added its greatest value."



Rolling One Year Excess Return vs. Volatility (from 2018 memo)



Rolling One Year Peer Rank vs. Volatility (from 2018 memo)

Post Mortem Review - 1Q20 Performance

Highclere slightly outperformed its benchmark and peers in the first quarter but the degree of outperformance fell a bit short of our expectations (a few positions in communication services sector and Japanese REITS were the main laggards).

	QTR	1 YR	3 YR	5 YR	10 YR
Peer Rank as of 12/31/19	32	54	63	41	61
Peer Rank as of 3/31/20	34	25	57	37	56
Improvement?	No	Yes	Yes	Yes	Yes

	QTR	1 YR	3 YR	5 YR	10 YR
Excess Return ² as of 12/31/19	+1.30	-1.50	-1.40	+0.10	+0.40
Excess Return as of 3/31/20	+0.50	+1.90	-1.50	+0.60	+0.50
Improvement?	No	Yes	No	Yes	Yes

Overall the trend of preserving better on the downturn has held true over the long term.

 $^{^{\}rm 2}$ Net of fees, relative to the MSCI EAFE Small Cap index.

10 year excess returns in different markets³

	In up markets	In down markets
Excess Returns	-0.2%	5.0%

WHAT WE ARE WATCHING LOOKING FORWARD

Торіс	Observations	Takeaway
Firm Ownership	Highclere continues to manage equity ownership prudently. The firm reached an agreement with Silchester (whose founding partners still own 49.5% of equity as seed investors). Second generation senior employees at Highclere will use incentive compensation to purchase a portion of Silchester's stake going forward.	Highclere employees purchasing more equity in the firm is a positive.
Team	After a slight uptick in turnover between 2013-2016, when five analysts either left the firm or were asked to leave, Highclere has experienced encouraging stability, suggesting that Mr. Ed Makin (CEO and lead PM) has been able to plug the gaps in coverage left by the departing team members effectively. In our opinion the analysts are strong but their strength is greatly enhanced by Mr. Makin's presence We continue to view Mr. Makin's leadership as an important aspect of Highclere's value proposition.	The stability of the team over the past four years is a positive.

 $^{^3}$ Over trailing ten year period, relative to the S&P EPAC < \$2 billion Index.

Торіс	Observations	Takeaway
Eventual Generational Transfer	Ed Makin remains very active as Highclere's CEO and the lead PM on the firm's three strategies, but he appears to be preparing the team for the time when he decides to scale back his involvement. Highclere is approaching the point at which the "second generation" of investment talent will be stepping in to take on lead responsibilities as the first generation scales back and retires. Highclere is positioned better than many firms on this front. Alex Sweet and Richard Gordon, two long- time team members, are the second generation investment team members most relevant to this strategy. Both are extremely well versed in the Highclere approach and display sufficient depth/breadth in portfolio discussions.	If Mr. Makin scales back his role we will need to reevaluate the strategy/firm.
Assets Under Management	AUM in the strategy is near its high water mark, and portfolio turnover is trending towards lower levels relative to the strategy's long-term history. Highclere has been extremely prudent with capacity management. It is one of the reasons why Ed Makin left Wellington to found his own firm in the first place. This is a benefit and a challenge, especially since the strategy tilts towards micro caps. The strategy walks a fine line between asset growth and liquidity in the smallest micro cap names.	While we don't see any indications of asset gathering, we are always mindful of the negative implications it presents.
Fees	The biggest negative for us with Highclere is the strategy's price point, which is high relative to the competition. While Highclere can afford to charge a premium, since they continue to operate with a waitlist, all else equal they would inch higher in the rankings if they were willing to cut the price tag, which starts at a hefty 1.25% on the first \$25mm invested.	Higher fees result in a higher hurdle to clear for the strategy when evaluating net of fees performance. This is offset somewhat by the focus on micro cap companies. Typically, the smaller the size of the companies in the portfolio, the higher the expense ratio.

BENCHMARK

We added S&P EPAC < \$2 billion Index as a secondary benchmark to evaluate the strategy. Highclere prefers this benchmark. The most meaningful differences between this index and the more standard MSCI EAFE Small Cap Index is (1) the S&P index skews towards micro caps and (2) country weights, specifically Japan exposure. The S&P index maintains a nearly 45% weight in Japan (vs. 32% in EAFE Small). While we typically use the MSCI EAFE Small Cap Index as our proxy for small cap strategies, the MSCI index incorporates much larger cap stocks than Highclere typically invests in. In other words, the MSCI EAFE Small cap tends to do better when larger market cap stocks outperform, and the S&P EPAC < \$2 billion tends to do better when the smallest market cap stocks outperform. For now we plan to include both benchmarks in our performance reporting.

CONCLUSION

The strategy is unique and differentiated from other strategies in use by the Austin Fire Fighters. We see no need to make any changes at this time but will be mindful of the list of items to monitor going forward.

Please feel free to give us a call at 305-341-2900 with any questions.

LAF/ ACL/nd

Roadmap



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AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

PRELIMINARY ROAD MAP

August 2020 Investment Committee Meeting

- 1. 2Q20 markets and performance review
- 2. 2Q20 asset transfers review
- 3. Annual private equity peer performance review
- 4. Memos since last meeting
- 5. Roadmap

November 2020 Investment Committee Meeting

- 1. 3Q20 performance review
- 2. Private equity pacing history review

Future/Ongoing

- 1. Monitor private equity exposure and pacing
- 2. Invite HarbourVest to attend a meeting when in person meetings resume

¹ Dates and actions subject to change based on client needs and capital market conditions

Appendices

Economic and Market Update

Data as of June 30, 2020





Economic and Market Update



Case Count by Select Region^{1,2}

- Cases of COVID-19 continue to grow globally with now over 11.5 million reported cases across 188 countries.
- The US remains the epicenter with numbers in Latin America surging, driven by Brazil, which now has the second highest case count.

¹ Source: Bloomberg. Data is as of June 30, 2020.

² North Asia: China, Hong Kong, Japan, South Korea, and Taiwan. Southeast Asia: Singapore, India, Indonesia, Malaysia, Pakistan, Philippines, Thailand, Bangladesh, Sri Lanka, and Vietnam. Europe: Austria, Belarus, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, United Kingdom, Switzerland, and Ukraine. Latin America: Chile, Brazil, Mexico, Argentina, Colombia, Peru, Venezuela, Ecuador, Panama, Paraguay, Costa Rica, Bolivia, Uruguay, El Salvador, Honduras, Cuba, Dominican Republic, Haiti, and Nicaragua. Middle East/North Africa: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Turkey, Tunisia, United Arab Emirates, and Yemen.



Economic and Market Update





- As the US economy slowly reopens, there has been a spike in cases in certain states that is creating stress on their healthcare systems, leading to officials slowing, or reversing, reopening plans.
- Some of the states that were hardest hit in the early stages continue to make progress on containing it.
- Looking forward, a continued trend of rising cases could significantly weigh on economic growth.

¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update

Indices	Q2	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500	20.5%	-3.1%	7.5%	10.7%	10.7%	14.0%
MSCI EAFE	14.9%	-11.3%	-5.1%	0.8%	2.1%	5.7%
MSCI Emerging Markets	18.1%	-9.8%	-3.4%	1.9%	2.9%	3.3%
MSCI China	15.3%	3.5%	13.1%	8.6%	5.3%	6.4%
Bloomberg Barclays Aggregate	2.9%	6.1%	8.7%	5.3%	4.3%	3.8%
Bloomberg Barclays TIPS	4.2%	6.0%	8.3%	5.0%	3.7%	3.5%
Bloomberg Barclays High Yield	10.2%	-3.8%	0.0%	3.3%	4.8%	6.7%
10-year US Treasury	0.7%	12.7%	14.2%	6.6%	4.8%	4.7%
30-year US Treasury	-0.7%	24.9%	29.8%	12.4%	9.7%	8.5%

Market Returns¹

- Global risk assets have recovered meaningfully from their lows, largely driven by record fiscal and monetary policy stimulus; the S&P 500 recovered by over 39% from the mid-March lows.
- Risk assets have reacted positively to the gradual re-opening of the global economy, some economic data beating expectations, and the potential for a vaccine being developed sooner than initially expected.
- Despite the recovery in risk assets, yields on safe-haven assets like US Treasuries remain at record lows due to expectations for extremely accommodative monetary policy for the foreseeable future.

¹ Source: InvestorForce and Bloomberg. Data is as of June 30, 2020.



Economic and Market Update





- Given the anticipated economic carnage surrounding the pandemic, US stocks declined from a February peak into bear market (-20%) territory at the fastest pace in history.
- From the February 19 peak, the S&P 500 plunged 34% in just 24 trading days.
- The index rebounded from its lows, and is only down around 3% year-to-date through the end of June, primarily due to the unprecedented monetary and fiscal stimulus announced in the US, as well as improvements in virus data, and the economy slowly reopening.
- It is unclear whether the US equity market's recovery is temporary, particularly given the recent surge in cases.

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¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update



- Valuations based on both forward and backward looking earnings for the US stock market remain well above long-term averages, driven by the recent run.
- Many are looking to improvements in earnings to support market levels as the US economy continues to reopen.
- The key risk remains that a spike in COVID-19 cases could slow, or reverse, the reopening plans.

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¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update



2020 YTD Sector Returns¹

- Information technology is the best performing sector, with a narrow group of companies like Amazon and Netflix largely driving market gains. The outperformance has been due to consumers moving to online purchases and entertainment.
- The consumer discretionary sector also experienced gains as the economy slowly reopens, people return to work, and as stimulus checks are spent.
- The energy sector has seen some improvements given supply cuts and economies starting to reopen, but it remains the sector with the greatest decline, triggered by the fall in oil prices.

¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update



Volatility has Declined

- Given the recent fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term equity volatility, as measured by the VIX index, continues to decline from record levels but remains elevated.
- At the recent height, the VIX reached 82.7, surpassing the pinnacle of volatility during the GFC, showing the magnitude of the crisis, and of investor fear.
- Expectations of volatility within fixed income, represented by the MOVE index, remain near historic lows given the broad monetary support including interest rate cuts, funding programs, quantiattive easing, and forward guidance.

¹ Source: Chicago Board of Exchange. Data is as of June 30, 2020.

² Source: Bloomberg. Data is as of June 30, 2020



Economic and Market Update

Global Financial Crisis Comparison

	2007-2009 Global Financial Crisis	COVID-19 Crisis
Primary Causes	 Excess Risk Taking Due to: Deregulation, un-constrained securitization, shadow banking system, fraud 	 Pandemic/Natural Disaster: Large scale global restrictions on businesses and individuals leading to immediate and significant deterioration in economic fundamentals
	2007-2009 Global Financial Crisis	COVID-19 Crisis
Fiscal Measures	 American Recovery Reinvestment Act of 2009: \$787 billion Economic Stimulus Act of 2008: \$152 billion 	 PPP Act: \$659 billion CARES Act of 2020: \$2.3 trillion Families First Coronavirus Response Act: \$150 billion Coronavirus Preparedness & Response Supplemental Appropriations Act 2020: \$8.3 billion National Emergency: \$50 billion
	2007-2009 Global Financial Crisis	COVID-19 Crisis
Monetary Measures		
Lowering Fed Funds Rate	Х	Х
Quantitative Easing	Х	Х
Primary Dealer Repos	Х	Х
Central Bank Swap Lines	Х	Х
Commercial Paper Funding Facility	Х	Х
Primary Dealers Credit Facility	Х	Х
Money Market Lending Facility	Х	Х
Term Auction Facility	Х	
TALF	Х	Х
TSLF	Х	
FIMA Repo Facility		Х
Primary & Secondary Corp. Debt		Х
PPP Term Facility		Х
Municipal Liquidity Facility		Х
Main Street Loan Facility		Х



Economic and Market Update

Global Financial Crisis Comparison (continued)

- The US **fiscal** response to the COVID-19 Crisis has been materially larger than the response to the 2007-2009 Global Financial Crisis (GFC), and stimulus is acutely focused on areas of the economy showing the greatest need, including small and mid-sized companies. For example, the Paycheck Protection Program (PPP) helps small businesses keep employees working by offering forgivable loans to cover salaries.
- On the **monetary** side, markets targeted during both crises represent those most in need, but for the COVID-19 Crisis the policy response was dramatically faster, measured in weeks, not years, as in the GFC.
- Of the monetary stimulus measures, the corporate debt (Primary & Secondary Corporate Debt) programs and Main Street Loan Facility are new and garnered much attention from market participants.
- Through the end of June, Fed programs have experienced various degrees of usage. However, at this point, none has come close to reaching program limits. Still, the psychological value of knowing the programs are available, if necessary, likely supports market sentiment.

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Austin Fire Fighters Relief and Retirement Fund

Economic and Market Update

Historic \$2T US Fiscal Stimulus

Destination	Amount (\$ Billion)
Individuals	\$560
Large Corporations	\$500
Small Business	\$377
State & Local Governments	\$340
Public Health	\$154
Student Loans	\$44
Safety Net	\$26

- Late in March, a historic \$2 trillion fiscal package was approved in the US, representing close to 10% of GDP and including support across the economy.
- Individuals received cash payments of up to \$1,200 per adult and \$500 per child, and extended and higher weekly unemployment benefits (+\$600/week).
- The package also includes a \$500 billion lending program for distressed industries like airlines, and \$377 billion in loans to small businesses (this program was recently extended).
- Other parts of the package include allocations to state and local governments, support for public health, student loan relief, and a safety net.
- With certain programs scheduled to expire, active discussions are going on now related to the next round of fiscal stimulus, with various extensions and expansions being considered.



Economic and Market Update

Policy Responses

	Fiscal	Monetary
United States	\$50 billion to states for virus related support, interest waived on student loans, flexibility on tax payments and filings, expanded COVID-19 testing, paid sick leave for hourly workers, \$2 trillion package for individuals, businesses, and state/local governments. Additional \$484 billion package to replenish small business loans, provide funding to hospitals, and increase testing.	Cut policy rates to zero, unlimited QE4, offering trillions in repo market funding, restarted CPFF, PDCF, MMMF programs to support lending and financing market, expanded US dollar swap lines with foreign central banks, announced IG corporate debt buying program with subsequent amendment for certain HY securities, Main Street Lending program, Muni liquidity facility, repo facility with foreign central banks, and easing of some financial regulations for lenders.
Euro Area	Germany: Launched 750 billion euro stimulus package. France: 45 billion euro for workers, guaranteed up to 300 billion euro in corporate borrowing. Italy: 25 billion euro emergency decree, suspending mortgage payments for impacted workers. Spain: 200 billion euro and 700 million euro loan and aid package, respectively.	Targeted longer-term refinancing operations aimed at small and medium sized businesses, under more favorable pricing, and announced the 750 billion euro Pandemic Emergency Purchase Program. and then expanded the purchases to 1.53 trillion and including lower-quality corporate debt
Japan	\$1.1 trillion in small business loans, direct funding program to stop virus spread among nursing homes and those affected by school closures, and direct payments to individuals	Initially increased QE purchases (ETFs, corporate bonds, and CP) and then expanded to unlimited purchases and doubling of corporate debt and commercial paper, expanded collateral and liquidity requirements, and 0% interest loans to businesses hurt by virus
China	Tax cuts, low-interest business loans, extra payments to gov't benefit recipients.	Expanded repo facility, policy rate cuts, purchase of small business loans, and lowered reserve requirements.
Canada	\$7.1 billion in loans to businesses to help with virus damage.	Cut policy rates, expanded bond-buying and repos, lowered bank reserve requirements.
UK (BOE)	Tax cut for retailers, small business cash grants, benefits for those infected with virus, expanded access to gov't benefits for self and un-employed.	Lowered policy rates and capital requirements for UK banks, restarts QE program and subsequently increased the purchase amounts.
Australia	\$11.4 billion, subsidies for impacted industries like tourism, one-time payment to gov't benefit recipients.	Policy rate cut, started QE.


Economic and Market Update



- Global oil markets rallied from April lows, including from the technically-induced negative levels that saw the May futures contract trade at nearly -\$40 per barrel.
- In addition to improvements in sentiment as the global economy begins to reopen and some measures of economic fundamentals reporting better than expected numbers, OPEC+ recently agreed to extend supply cuts of 9.7 million barrels/day (~10% of global output) through July.
- Counterbalancing the OPEC+ production cut agreement, US oil producers (particularly shale output) are reportedly turning wells back on as the price of oil rises.

¹ Source: Bloomberg. Represents WTI first available futures contract. Data is as of June 30, 2020.



Economic and Market Update





- The US Treasury yield curve has declined materially since 2019, largely due to central bank policy actions, safe-haven demand, and weak economic expectations.
- Yields out to the 5-year maturity point have been principally driven by cuts to monetary policy rates, the Federal Reserve's ongoing purchase program, and commitments by policy makers to keep policy rates accommodative for the foreseeable future.
- Longer-dated yields have also been heavily influenced by monetary policy actions, but have recently risen on modest increases in longer-term inflation expectations.

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¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update



10-Year Breakeven Inflation¹

- Inflation breakeven rates initially declined sharply, due to a combination of lower growth and inflation expectations, as well as liquidity dynamics in TIPS during the height of rate volatility.
- Liquidity eventually improved and breakeven rates increased, but given the uncertainty regarding economic growth and the inflationary effects of the unprecedented US fiscal and monetary responses, inflation expectations remain well below historical averages.

¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update



• Credit spreads (the spread above a comparable Treasury bond) for investment grade and high yield corporate debt expanded sharply as investors sought safety.

- Investment grade bonds held up better than high yield bonds. The Federal Reserve's corporate debt purchase program for investment grade and certain high yield securities that were recently downgraded from investment grade, was well received by investors, leading to a decline in spreads.
- Overall, corporate debt issuance has more than doubled since 2008, which magnifies the impact of deterioration in the corporate debt market. This is particularly true in the energy sector, which represents over 10% of the high yield bond market.

¹ Source: Federal Reserve Bank of St. Louis Economic Research. Data is as of June 30, 2020.



Economic and Market Update



- Even though spreads have declined given the Federal Reserve's support, defaults, particularly in the high yield sector, increased dramatically.
- The energy sector has been hard hit given the decline in oil prices, with defaults reaching double-digit levels and expectations for them to increase.

¹ Source: J.P. Morgan; S&P LCD. Data is as of June 30, 2020.



Economic and Market Update



US Dollar versus Broad Currencies¹

- When financial markets began aggressively reacting to COVID-19 developments, the US dollar came under selling pressure as investors sought safe-haven exposure in currencies like the Japanese yen given its current account surplus and its status as the largest creditor globally.
- As the crisis grew into a pandemic, investors' preferences shifted to holding US dollars and highly liquid, short-term securities like US Treasury bills. This global demand for US dollars led to appreciation versus most major currencies.
- A relatively strong US dollar makes US goods more expensive for overseas consumers and causes commodity prices outside the US to rise, affecting foreign countries, and particularly emerging markets.
- To help ease global demand for US dollars, the Federal Reserve, working with a number of global central banks, re-established the US dollar swap program, providing some relief to other currencies. Usage of the program continues to decline as dollar funding demands have eased.

¹ Source: Bloomberg. Represents the DXY Index. Data is as of June 30, 2020.



Economic and Market Update

Economic Impact

Supply Chain Disruptions:

- Factories closing, increased cost of stagnant inventory, and disrupted supply agreements.
- Reduced travel, tourism, and separation policies including closed borders: Significant impact on service-based economies.

Labor Force Impacts:

- Huge layoffs across service and manufacturing economies.
- Increased strains as workforce productivity declines from increased societal responsibilities (e.g., home schooling of children) and lower functionality working from home.
- Illnesses from the disease will also depress the labor force.

Declines in Business and Consumer Sentiment:

• Sentiment drives investment and consumption, which leads to increased recessionary pressures as sentiment slips.

Wealth Effect:

• As financial markets decline and wealth deteriorates, consumer spending will be impacted.



Economic and Market Update



GDP Data Shows First Signs of Crisis¹

- The global economy faces major recessionary pressures this year, but optimism remains for improvements in 2021, as economies are expected to gradually reopen.
- In the US, the third estimate for first quarter GDP came in at -5.0%, with personal consumption declining the most since 1980. Eurozone GDP fell (-3.6%) with the major economies in France, Spain, and Italy experiencing historic declines.
- Bloomberg Economics estimates that second quarter US GDP could be as low as -5.6% (YoY).

¹ Source: Bloomberg. QI 2020 data represents third estimate of GDP for Euro Area and third estimate of GDP for United States.



Economic and Market Update



Global PMIs

- Purchasing Managers Indices (PMI), based on surveys of private sector companies, collapsed across the world to record lows, as output, new orders, production, and employment have been materially impacted by closed economies. The service sector was particularly hard hit by the stay at home orders.
- Readings below 50 represent contractions across underlying components and act as a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- Recently, there have been improvements in data as economies reopen, contributing to the optimism in equity markets.

¹ Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of June 2020.

² Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of June 2020.

³ Source: Bloomberg. Caixin Manufacturing PMI data is as of June 2020. Caixin Services PMI as of May 2020



Economic and Market Update



US Unemployment Rate¹

- In May, the unemployment rate continued its decline from the recent April 14.7% peak, falling to 11.1%.
- Despite the improvement, unemployment levels remain well above pre-virus readings and are likely higher than reported due to issues related to some workers being misclassified. According to the Bureau of Labor Statistics, absent the misclassification issue, the June unemployment rate would be higher by 1.0%.
- The recent increase in COVID-19 cases could lead to an increase in the unemployment rate going forward.

¹ Source: Bloomberg. Data is as of June 30, 2020.



Economic and Market Update



US Jobless Claims

- Over the last 15 weeks, close to 49 million people filed for initial unemployment. This level far exceeds the 22 million jobs added since the GFC, highlighting the unprecedented impact of the virus.
- Despite the continued decline in initial jobless claims, the 1.4 million level of the last reading remains many multiples above the worst reading during the Global Financial Crisis.
- Continuing jobless claims (i.e., those currently receiving benefits) has also declined from record levels, but remains elevated.

¹ Source: Bloomberg. First reading of seasonally adjusted initial jobless claims. Data is as of June 26, 2020.

² Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of June 19, 2020.



Economic and Market Update



Savings and Spending

- Fiscal programs including stimulus checks, enhanced unemployment benefits, and loans to small businesses through the Paycheck Protection Program (PPP) have largely supported income levels through the shutdown.
- Despite the income support, the savings rate has increased at the expense of spending, driven by uncertainties related to the future of the job market and stimulus programs.

¹ Source: Bloomberg. Data is as of June 30, 2020.

² Source: Bloomberg. Data is as of May 31, 2020.



Economic and Market Update



Sentiment Indicators

- A strong indicator of future economic activity are the attitudes of businesses and consumers today.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses comprise a majority of the economy, making sentiment in that segment important too.
- Sentiment indicators have shown some improvements as the economy re-opens, but they remain well below prior levels.

¹ Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of June 30, 2020.

² Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of May 30, 2020.



Economic and Market Update



Some US Data has Improved

- There have been improvements in high frequency data, but overall levels remain well below prior readings.
- Generally, people have become more active as restrictions eased and stores reopened. Retail sales recovered from a record decline with a record increase, more than double the forecast.
- States that eased restrictions on restaurants saw initial improvements before declining, as in-store dining has been cited as a key contributor to increases in cases.

¹ Source: Bloomberg. Data is as of May 31, 2020 and represents the US Retail Sales SA MoM%

² Source: Bloomberg. Data is as of June 26, 2020 and represents the deviation from normal mobility behaviors induced by COVID-19 (formerly the "Social Distancing Index").

³ Source Bloomberg. Data is as of June 30, 2020 and represents some states that eased restaurant restrictions.



Economic and Market Update

Government Re-Opening Recommendation¹

Phase One	Phase Two	Phase Three
 Vulnerable individuals continue to stay at home. Avoid groups of more than 10 people if social distancing is not possible. Minimize non-essential travel. Work remotely if possible with restrictions in the office for these hyperparts that energy. 	 Vulnerable individuals continue to stay at home. Avoid groups of more than 50 people if social distancing is not possible. Non-essential travel resumes. 	 Vulnerable individuals can return to public life with social distancing. Workplaces can reopen without restrictions. Larger venues can operate under reduced social distancing protocols.
 office for those businesses that open. Schools remain closed, but some larger venues can open with strict protocols. Outpatient elective surgeries can resume. 	 Continue to work remotely if possible with restrictions in the office for those businesses that open. Schools can reopen. 	

- Inpatient elective surgeries can resume
- The Trump administration announced guidelines for re-opening the US economy.
- Guidelines recommend states document a "downward trajectory" in new cases for two weeks before beginning a three-phase process to scale back distancing measures and reopen local economies.
- States should also document an additional two-week period decline in instances between each of the three phases, and be prepared to reinstate social distancing measures should cases rebound.
- The recent spike in cases in certain states, and the potential for similar increases elsewhere, remains a significant headwind to the re-opening plans in the US.

¹ Source: https://www.whitehouse.gov/openingamerica/



Economic and Market Update

Looking Forward...

- There will be significant economic impact and a global recession.
 - How deep it will be and how long it will last depend on factors (below) that are unknowable at this time.
- The length of the virus and country responses will be key considerations.
 - As of now, it is not clear the end is in sight, particularly given the recent increases in cases in certain areas; however, individual countries are attempting to lay the groundwork to support a recoveries in their economies.
- Central banks and governments are pledging support, but will it be enough?
 - Market reactions to announced policies have been positive, but additional support will likely be required until the virus gets better contained.
- Expect heightened market volatility given the recent spike in cases and valuation levels.
 - This has been a consistent theme recently; volatility is likely to remain elevated for some time.
- It is important to retain a long-term focus.
 - History supports the argument that maintaining a long-term focus will ultimately prove beneficial for diversified portfolios.

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Austin Fire Fighters Relief and Retirement Fund

Economic and Market Update

Prior Drawdowns and Recoveries from 1926-2020¹

Period	Peak-to-Trough Decline of the S&P 500	Approximate Time to Recovery
Sept 1929 to June 1932	-85%	266 months
February 1937 to April 1942	-57%	48 months
May 1946 to February 1948	-25%	27 months
August 1956 to October 1957	-22%	11 months
December 1961 to June 1962	-28%	14 months
February 1966 to October 1966	-22%	7 months
November 1968 to May 1970	-36%	21 months
January 1973 to October 1974	-48%	69 months
September 1976 to March 1978	-19%	17 months
November 1980 to August 1982	-27%	3 months
August 1987 to December 1987	-32%	19 months
July 1990 to October 1990	-20%	4 months
July 1998 to August 1998	-19%	3 months
March 2000 to October 2002	-49%	56 months
October 2007 to March 2009	-57%	49 months
February 2020 to May 2020	-34%	TBD
Average	-36%	41 months
Average ex. Great Depression	-33%	25 months

• As markets continue to recover questions remain about whether the ultimate low has been seen.

- Markets are continuing to reprice amid the uncertain impact of the virus on companies and the broader economy, which means this drawdown is still being defined in the context of history.
- That said, financial markets have experienced material declines with some frequency, and while certain declines took a meaningful time to recover, in all cases they eventually did.

¹ Source: Goldman Sachs. Recent peak to trough declines are through June 30, 2020.



Economic and Market Update

Implications for Clients

- Portfolios have generally experienced significant improvements from the March lows.
- Even though equity markets have recovered from their lows, it is important to remain vigilant and be prepared to rebalance if volatility increases again.
 - Before rebalancing, consider changes in liquidity needs given the potential for cash inflows to decline in some cases.
 - Also, consider the cost of rebalancing if investment liquidity declines.
- Diversification works. The latest decline was an example of a flight to quality leading to gains in very high quality bonds.

Performance YTD

(through June 30, 2020)

S&P 500	ACWI (ex. US)	Aggregate Bond Index	Balanced Portfolio ¹
-3.1%	-11.2%	6.1%	-2.6%

- Meketa will continue to monitor the situation and communicate frequently.
 - The situation is fluid and the economic impact is uncertain at this stage.
- Please feel free to reach out with any questions.

¹ Source: InvestorForce. Balanced Portfolio represents 60% MSCI ACWI and 40% Bloomberg Barclays Global Aggregate.

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Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.



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Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.



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Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

<u>5% (discount)</u> = 5 (yrs. to maturity)

1% pro rata, plus 5.26% (current yield)

6.26% (yield to maturity)

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

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NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999. The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.