



Pittsburgh Comprehensive Municipal Pension

Pittsburgh Comprehensive Municipal

Executive Summary

June 30, 2020

Manager Status

Market Value: \$801.9 Million and 100.0% of Fund

Investment Manager	Asset Class	Status	Reason
Vanguard Ultra Short Duration	Short-Term Fixed Income	In Compliance	
Federated Investors	Core Fixed Income	In Compliance	
BlackRock Total Return Fund	Core Fixed Income	In Compliance	
SSgA S&P 500 Index Fund	Large-Cap Core	In Compliance	
Twin Capital	Large-Cap Core	In Compliance	
Frontier Capital Management	Smid-Cap Core	In Compliance	
Guyasuta Investment Advisors	Small-Cap Core	In Compliance	
CIM Investment Management	Small-Cap Core	In Compliance	
MFS International Equity Fund	Non-U.S. Large-Cap Core	In Compliance	
Columbus Macro	Global Core Equity	In Compliance	
SSgA Active Emerging Markets Fund	Emerging Markets	In Compliance	
ABS Emerging Markets	Emerging Markets	In Compliance	
ABS Offshore SPC Global	Hedged Equity Hedge FoF	In Compliance	
Entrust Three Rivers Partners	Multi-Strat. Hedge Fund	In Compliance	
Parametric Defensive Equity	Defensive Equity	In Compliance	
Rreef America II	Core Real Estate	In Compliance	
Barings Core Property Fund	Core Real Estate	In Compliance	
Birchmere Ventures III, LP	Venture Private Equity	In Compliance	***
Draper Triangle Ventures II, LP	Venture Private Equity	In Compliance	
Draper Triangle Ventures III, LP	Venture Private Equity	In Compliance	
Hirtle Callaghan Private Equity Fund V, LP	Global Divers. Private Equity FoF	In Compliance	
Crescent Mezzanine Partners VIB, LP	Mezz. Private Equity	In Compliance	
Crescent Mezzanine Partners VIB, LP	Mezz. Private Equity	In Compliance	
Siguler Guff Small Buyout Opportunities Fund IV, LP	LBO Private Equity FoF	In Compliance	
Dedicated Funding for CMPTF	Fixed Income Annuity	In Compliance	

Investment Manager Evaluation Terminology

The following terminology has been developed by Marquette Associates to facilitate efficient communication among the Investment Manager, Investment Consultant, and the Plan Sponsor. Each term signifies a particular status with the Fund and any conditions that may require improvement. In each case, communication is made only after consultation with the Trustees and/or the Investment Committee of the Plan.

In Compliance – The investment manager states it is acting in accordance with the Investment Policy Guidelines.

Market Value: \$801.9 Million and 100.0% of Fund

Ending June 30, 2020

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$801,875,757	-\$8,939,598	100.0%	100.0%	\$0
Dedicated Funding for CMPTF	Fixed Income Annuity	\$294,616,608	-\$6,688,000	36.7%	40.0%	-\$26,133,695
Total Invested Portfolio		\$507,259,149	-\$2,251,598	63.3%	60.0%	\$26,133,695
Fixed Income Composite		\$102,521,013	-\$39,536	12.8%	13.0%	-\$1,722,836
Vanguard Ultra Short Duration	Short-Term Fixed Income	\$15,441,367	\$0	1.9%		
Federated Investors	Core Fixed Income	\$64,137,242	-\$39,536	8.0%		
BlackRock Total Return Fund	Core Fixed Income	\$22,942,403	\$0	2.9%		
U.S. Equity Composite		\$189,042,997	-\$98,508	23.6%	22.0%	\$12,630,330
SSgA S&P 500 Index Fund	Large-Cap Core	\$129,382,452	-\$12,579	16.1%		
Frontier Capital Management	Smid-Cap Core	\$30,550,651	-\$54,424	3.8%		
Guyasuta Investment Advisors	Small-Cap Core	\$29,109,893	-\$31,505	3.6%		
Non-U.S. Equity Composite		\$88,355,970	-\$14,132	11.0%	12.0%	-\$7,869,121
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$70,462,237	\$0	8.8%		
SSgA Active Emerging Markets Fund	Emerging Markets	\$7,779,200	-\$14,132	1.0%		
ABS Emerging Markets	Emerging Markets	\$10,114,533	\$0	1.3%		
Emerging Manager Composite		\$7,599,691	-\$10,322	0.9%	-	\$7,599,691
Twin Capital	Large-Cap Core	\$2,983,596	-\$2,545	0.4%		
CIM Investment Management	Small-Cap Core	\$2,325,844	-\$3,904	0.3%		
Columbus Macro	Global Core Equity	\$2,290,250	-\$3,873	0.3%		
Hedge Fund Composite		\$47,587,011	\$0	5.9%	5.0%	\$7,493,224
ABS Offshore SPC Global	Hedged Equity Hedge FoF	\$14,729,370	\$0	1.8%		
Entrust Three Rivers Partners	Multi-Strat. Hedge Fund	\$21,326,380	\$0	2.7%		
Parametric Defensive Equity	Defensive Equity	\$11,531,261	\$0	1.4%		
Real Estate Composite		\$46,473,083	-\$298,481	5.8%	5.0%	\$6,379,295
Rreef America II	Core Real Estate	\$23,092,035	-\$242,847	2.9%	2.5%	\$3,045,142
Barings Core Property Fund	Core Real Estate	\$23,381,048	-\$55,633	2.9%	2.5%	\$3,334,154
Private Equity Composite		\$12,135,048	\$1,139,636	1.5%	3.0%	-\$11,921,225
Cash Composite		\$13,544,336	-\$2,930,256	1.7%	0.0%	\$13,544,336

- Private Equity Composite may not include current performance, due to reporting cycle limitations.



Total Invested Portfolio

Market Value: \$507.3 Million and 63.3% of Fund

Ending June 30, 2020

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio
Total Invested Portfolio		\$507,259,149	-\$2,251,598	100.0%
Fixed Income Composite		\$102,521,013	-\$39,536	20.2%
Vanguard Ultra Short Duration	Short-Term Fixed Income	\$15,441,367	\$0	3.0%
Federated Investors	Core Fixed Income	\$64,137,242	-\$39,536	12.6%
BlackRock Total Return Fund	Core Fixed Income	\$22,942,403	\$0	4.5%
U.S. Equity Composite		\$189,042,997	-\$98,508	37.3%
SSgA S&P 500 Index Fund	Large-Cap Core	\$129,382,452	-\$12,579	25.5%
Frontier Capital Management	Smid-Cap Core	\$30,550,651	-\$54,424	6.0%
Guyasuta Investment Advisors	Small-Cap Core	\$29,109,893	-\$31,505	5.7%
Non-U.S. Equity Composite		\$88,355,970	-\$14,132	17.4%
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$70,462,237	\$0	13.9%
SSgA Active Emerging Markets Fund	Emerging Markets	\$7,779,200	-\$14,132	1.5%
ABS Emerging Markets	Emerging Markets	\$10,114,533	\$0	2.0%
Emerging Manager Composite		\$7,599,691	-\$10,322	1.5%
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Hedge Fund Composite		\$47,587,011	\$0	9.4%
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Private Equity Composite		\$12,135,048	\$1,139,636	2.4%
Cash Composite		\$13,544,336	-\$2,930,256	2.7%

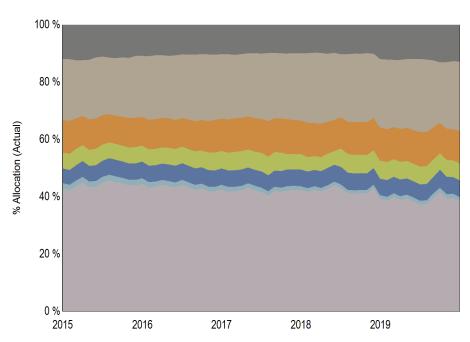
- Private Equity Composite may not include current performance, due to reporting cycle limitations.



Asset Allocation

Market Value: \$801.9 Million and 100.0% of Fund

Historic Asset Allocation



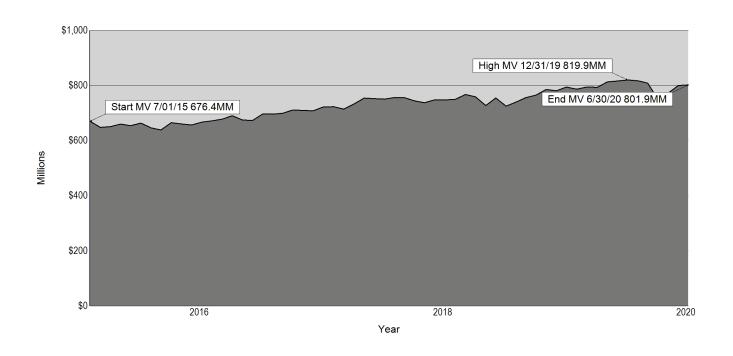


Asset Allocation vs. Target As Of June 30, 2020

	Current	Policy	Difference*	Difference**
Fixed Income	\$102,521,013	\$104,243,848	-\$1,722,836	-0.2%
U.S. Equity	\$194,352,438	\$176,412,667	\$17,939,771	2.2%
Non-U.S. Equity	\$90,646,220	\$96,225,091	-\$5,578,871	-0.7%
Hedge Funds	\$47,587,011	\$40,093,788	\$7,493,224	0.9%
Real Assets	\$46,473,083	\$40,093,788	\$6,379,295	0.8%
Private Equity	\$12,135,048	\$24,056,273	-\$11,921,225	-1.5%
Other	\$308,160,944	\$320,750,303	-\$12,589,359	-1.6%
Total	\$801,875,757	\$801,875,757		

Market Value History

Market Value: \$801.9 Million and 100.0% of Fund



Summary of Cash Flows

	Second Quarter	Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$453,063,514.16	\$522,400,244.22	\$493,978,764.63	\$424,290,747.14	\$394,283,974.71
Net Cash Flow	-\$1,978,315.88	\$6,285,440.62	\$2,786,739.54	\$12,293,043.58	-\$10,218,788.07
Net Investment Change	\$56,173,950.49	-\$21,426,536.07	\$10,493,644.60	\$70,675,358.05	\$123,193,962.13
Ending Market Value	\$507,259,148.77	\$507,259,148.77	\$507,259,148.77	\$507,259,148.77	\$507,259,148.77

Annualized Performance (Net of Fees)

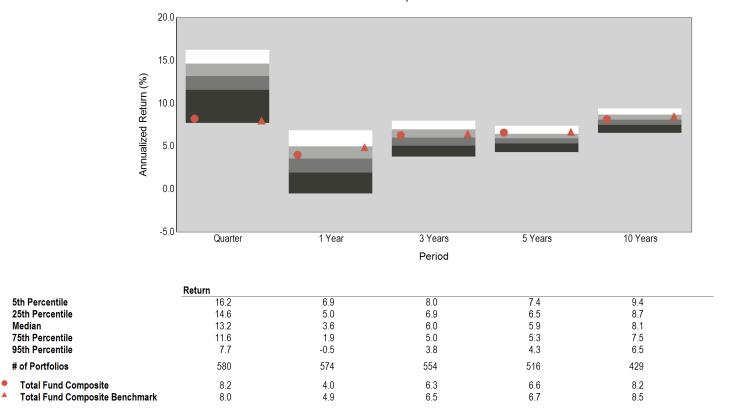
Market Value: \$801.9 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	1.1%	8.2%	-1.3%	4.0%	5.8%	6.3%	7.5%	6.6%	7.8%	8.2%
Total Fund Composite Benchmark	1.5%	8.0%	-0.6%	4.9%	5.7%	6.5%	7.5%	6.7%	7.5%	8.5%
InvMetrics Public DB Net Rank	92	95	24	41	30	41	48	22	18	47
Total Invested Portfolio	2.0%	12.4%	-3.9%	2.2%	4.1%	5.1%	7.3%	5.8%	7.1%	7.5%
Total Invested Portfolio Benchmark	2.1%	12.6%	-2.9%	3.6%	4.7%	6.0%	7.6%	6.2%	7.4%	8.6%
InvMetrics Public DB Net Rank	35	62	76	72	71	73	54	60	45	74
Fixed Income Composite	1.2%	5.1%	5.5%	8.2%	7.9%	5.2%	4.3%	4.5%	4.3%	4.5%
BBgBarc US Aggregate TR	0.6%	2.9%	6.1%	8.7%	8.3%	5.3%	3.9%	4.3%	4.0%	3.8%
InvMetrics Public DB US Fix Inc Net Rank	25	25	38	24	22	22	22	18	16	27
U.S. Equity Composite	2.3%	22.4%	-7.2%	2.3%	5.0%	7.5%	10.7%	8.7%	10.6%	12.3%
Dow Jones U.S. Total Stock Market	2.3%	22.1%	-3.5%	6.4%	7.6%	10.0%	12.0%	10.0%	11.6%	13.7%
InvMetrics Public DB US Eq Net Rank	17	26	81	59	63	69	47	58	50	68
Non-U.S. Equity Composite	4.6%	14.8%	-8.3%	-1.5%	2.0%	3.7%	8.0%	4.2%	5.3%	
MSCI ACWI ex USA	4.5%	16.1%	-11.0%	-4.8%	-1.8%	1.1%	5.7%	2.3%	3.7%	5.0%
InvMetrics Public DB ex-US Eq Net Rank	40	94	20	23	13	12	10	13	14	
Emerging Manager Composite	2.3%	18.7%	-9.7%	-1.8%	-0.5%	3.8%				
Emerging Manager Benchmark	2.9%	22.1%	-7.2%	1.2%	2.6%	6.4%				
Hedge Fund Composite	1.8%	9.4%	-6.6%	-4.4%	-0.8%	0.9%	3.6%	1.0%		
HFRI Equity Hedge (Total) Index	2.6%	13.3%	-3.2%	0.7%	0.5%	3.0%	5.2%	3.1%	4.3%	4.5%
HFRI Fund of Funds Composite Index	2.0%	7.9%	-1.6%	0.5%	0.8%	2.3%	3.3%	1.5%	2.7%	2.8%
InvMetrics Public DB Hedge Funds Net Rank	44	24	72	79	66	66	40	54		-
Real Estate Composite	-0.4%	-0.4%	0.7%	3.5%	4.9%	5.8%	6.1%	7.2%		
NFI	-0.6%	-1.7%	-1.0%	1.3%	3.4%	4.7%	5.3%	6.4%	8.1%	9.8%
InvMetrics Public DB Real Estate Priv Net Rank	18	19	7	8	15	21	52	59		

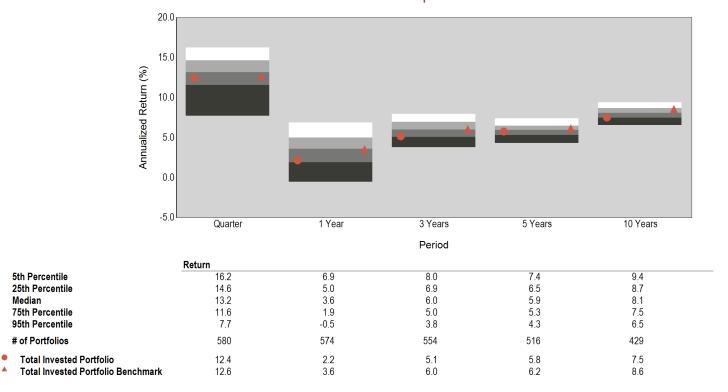
Annualized Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

Total Fund DB Return Comparison



Invested Portfolio DB Return Comparison



Calendar Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

Calendar Year

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total Fund Composite	15.6%	-0.1%	11.7%	8.1%	3.2%	9.2%	13.6%	12.3%	1.8%	5.6%	23.4%
Total Fund Composite Benchmark	14.4%	0.1%	12.2%	7.7%	3.5%	7.2%	14.1%	10.5%	1.3%	12.6%	23.0%
InvMetrics Public DB Net Rank	93	2	95	26	1	1	66	41	22	98	19
Total Invested Portfolio	19.5%	-5.0%	14.7%	8.5%	0.0%	6.6%	17.6%	14.1%	-2.5%	5.6%	23.3%
Total Invested Portfolio Benchmark	19.5%	-4.8%	15.9%	7.4%	0.6%	6.8%	17.6%	12.2%	0.3%	12.4%	22.9%
InvMetrics Public DB Net Rank	49	69	49	16	34	22	22	7	92	98	20
Fixed Income Composite	9.6%	-0.9%	4.3%	4.5%	0.0%	6.1%	-0.4%	8.4%	5.4%	7.8%	13.8%
BBgBarc US Aggregate TR	8.7%	0.0%	3.5%	2.6%	0.6%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%
InvMetrics Public DB US Fix Inc Net Rank	13	91	39	47	56	15	32	35	87	41	42
U.S. Equity Composite	31.1%	-7.2%	19.5%	16.6%	-2.3%	12.5%	34.2%	17.8%	0.6%	8.6%	25.8%
Dow Jones U.S. Total Stock Market	30.9%	-5.3%	21.2%	12.6%	0.4%	12.5%	33.5%	16.4%	1.1%	17.5%	28.6%
InvMetrics Public DB US Eq Net Rank	15	73	70	2	84	14	50	4	48	99	86
Non-U.S. Equity Composite	25.5%	-11.4%	28.5%	1.9%	-1.7%	-4.2%	12.9%	21.3%			
MSCI ACWI ex USA	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%	11.2%	41.4%
InvMetrics Public DB ex-US Eq Net Rank	12	6	48	83	23	62	82	8			
Emerging Manager Composite	25.9%	-9.8%	16.9%	-	-	-					
Emerging Manager Benchmark	28.0%	-8.4%	18.9%	-							
Hedge Fund Composite	9.3%	-2.9%	9.0%	0.7%	0.0%	4.9%					
HFRI Equity Hedge (Total) Index	13.7%	-7.1%	13.3%	5.5%	-1.0%	1.8%	14.3%	7.4%	-8.4%	10.5%	24.6%
HFRI Fund of Funds Composite Index	8.4%	-4.0%	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%
InvMetrics Public DB Hedge Funds Net Rank	38	68	23	74	45	35					
Real Estate Composite	6.1%	6.9%	6.5%	8.4%	14.4%	11.0%					
NFI	4.4%	7.4%	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%
InvMetrics Public DB Real Estate Priv Net Rank	34	80	63	43	7	67					



Annualized Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	1.1%	8.2%	-1.3%	4.0%	5.8%	6.3%	7.5%	6.6%	7.8%	8.2%
Total Fund Composite Benchmark	1.5%	8.0%	-0.6%	4.9%	5.7%	6.5%	7.5%	6.7%	7.5%	8.5%
InvMetrics Public DB Net Rank	92	95	24	41	30	41	48	22	18	47
Dedicated Funding for CMPTF	-0.5%	1.8%	3.5%	7.3%	8.5%	8.2%	8.0%	7.9%	8.8%	
Annual Return	0.6%	1.8%	3.6%	7.2%	7.3%	7.4%	7.4%	7.4%	7.5%	
Total Invested Portfolio	2.0%	12.4%	-3.9%	2.2%	4.1%	5.1%	7.3%	5.8%	7.1%	7.5%
Total Invested Portfolio Benchmark	2.1%	12.6%	-2.9%	3.6%	4.7%	6.0%	7.6%	6.2%	7.4%	8.6%
InvMetrics Public DB Net Rank	35	62	76	72	71	73	54	60	45	74
Fixed Income Composite	1.2%	5.1%	5.5%	8.2%	7.9%	5.2%	4.3%	4.5%	4.3%	4.5%
BBgBarc US Aggregate TR	0.6%	2.9%	6.1%	8.7%	8.3%	5.3%	3.9%	4.3%	4.0%	3.8%
InvMetrics Public DB US Fix Inc Net Rank	25	25	38	24	22	22	22	18	16	27
Vanguard Ultra Short Duration	0.5%	1.8%	1.3%	2.7%						
BofA Merrill Lynch 1 Year Treasury	0.0%	0.0%	1.5%	2.8%	2.9%	2.2%	1.8%	1.6%	1.2%	1.0%
Ultrashort Bond MStar MF Rank	48	67	11	9						
Federated Investors	1.4%	5.7%	6.7%	9.8%	8.8%	5.8%	4.8%	4.9%	4.5%	4.5%
BBgBarc US Aggregate TR	0.6%	2.9%	6.1%	8.7%	8.3%	5.3%	3.9%	4.3%	4.0%	3.8%
eV US Core Fixed Inc Net Rank	26	15	25	15	22	15	4	11	15	19
BlackRock Total Return Fund	1.2%	5.6%	5.1%	7.9%	7.9%	5.1%	4.1%	4.4%	4.5%	4.8%
BBgBarc US Aggregate TR	0.6%	2.9%	6.1%	8.7%	8.3%	5.3%	3.9%	4.3%	4.0%	3.8%
eV US Core Fixed Inc Net Rank	41	15	82	72	70	66	37	53	13	10
U.S. Equity Composite	2.3%	22.4%	-7.2%	2.3%	5.0%	7.5%	10.7%	8.7%	10.6%	12.3%
Dow Jones U.S. Total Stock Market	2.3%	22.1%	-3.5%	6.4%	7.6%	10.0%	12.0%	10.0%	11.6%	13.7%
InvMetrics Public DB US Eq Net Rank	17	26	81	59	63	69	47	58	50	68
SSgA S&P 500 Index Fund	2.0%	20.5%	-3.1%	7.4%	8.9%	10.7%	12.5%	10.7%	12.1%	
S&P 500	2.0%	20.5%	-3.1%	7.5%	9.0%	10.7%	12.5%	10.7%	12.1%	14.0%
eV US Large Cap Core Equity Net Rank	41	38	33	24	24	21	19	12	10	
Frontier Capital Management	3.4%	32.0%	-15.0%	-7.2%	-3.5%	1.1%	7.2%	3.7%	7.7%	11.2%
Russell 2500	2.9%	26.6%	-11.1%	-4.7%	-1.5%	4.1%	7.8%	5.4%	8.2%	11.5%
eV US Small-Mid Cap Core Equity Net Rank	11	9	71	59	68	72	54	77	57	53
Guyasuta Investment Advisors	2.5%	21.6%	-15.2%	-7.4%	-1.0%	2.3%	7.3%	6.1%	8.3%	12.1%
Russell 2000	3.5%	25.4%	-13.0%	-6.6%	-5.0%	2.0%	7.2%	4.3%	7.2%	10.5%
eV US Small Cap Core Equity Net Rank	47	73	57	45	23	40	39	18	27	22

Annualized Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Non-U.S. Equity Composite	4.6%	14.8%	-8.3%	-1.5%	2.0%	3.7%	8.0%	4.2%	5.3%	
MSCI ACWI ex USA	4.5%	16.1%	-11.0%	-4.8%	-1.8%	1.1%	5.7%	2.3%	3.7%	5.0%
InvMetrics Public DB ex-US Eq Net Rank	40	94	20	23	13	12	10	13	14	
MFS International Equity Fund	4.3%	14.7%	-8.1%	-0.7%	3.3%	4.6%	8.8%	4.8%	6.1%	
MSCI EAFE	3.4%	14.9%	-11.3%	-5.1%	-2.1%	0.8%	5.4%	2.1%	3.9%	5.7%
Foreign Large Blend MStar MF Rank	32	83	19	18	3	4	4	2	5	
SSgA Active Emerging Markets Fund	5.0%	12.9%	-15.2%	-11.1%	-7.2%	-3.0%	3.7%	0.2%	1.1%	
MSCI Emerging Markets	7.4%	18.1%	-9.8%	-3.4%	-1.1%	1.9%	7.0%	2.9%	3.2%	3.3%
eV Emg Mkts Equity Net Rank	86	96	84	80	90	85	76	82	83	
ABS Emerging Markets	6.7%	16.8%	-3.7%	1.6%	1.5%	3.1%	6.2%	4.0%		
HFRI Emerging Markets (Total) Index	4.8%	13.1%	-4.1%	-1.4%	-0.5%	1.3%	4.4%	2.4%	2.9%	2.7%
MSCI Emerging Markets	7.4%	18.1%	-9.8%	-3.4%	-1.1%	1.9%	7.0%	2.9%	3.2%	3.3%
Emerging Manager Composite	2.3%	18.7%	-9.7%	-1.8%	-0.5%	3.8%		-		
Emerging Manager Composite Emerging Manager Benchmark	2.3% 2.9%	18.7% 22.1%	-9.7 % -7.2%	-1.8% 1.2%	-0.5% 2.6%	3.8% 6.4%		 		
		_							 	
Emerging Manager Benchmark	2.9%	22.1%	-7.2%	1.2%	2.6%	6.4%		-		 14.0%
Emerging Manager Benchmark Twin Capital	2.9% 1.6%	22.1% 19.5%	-7.2% -4.4%	1.2% 6.1%	2.6% 6.9%	6.4% 9.2%		-		
Emerging Manager Benchmark Twin Capital S&P 500	2.9% 1.6% 2.0%	22.1% 19.5% 20.5%	-7.2% -4.4% -3.1%	1.2% 6.1% 7.5%	2.6% 6.9% 9.0%	6.4% 9.2% 10.7%	 12.5%	 10.7%	 12.1%	 14.0%
Emerging Manager Benchmark Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net	2.9% 1.6% 2.0% 2.2%	22.1% 19.5% 20.5% 21.8%	-7.2% -4.4% -3.1% -2.8%	1.2% 6.1% 7.5% 7.5%	2.6% 6.9% 9.0% 8.7%	6.4% 9.2% 10.7% 10.6%	 12.5%	 10.7%	 12.1%	 14.0%
Emerging Manager Benchmark Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank	2.9% 1.6% 2.0% 2.2% 52	22.1% 19.5% 20.5% 21.8%	-7.2% -4.4% -3.1% -2.8% 41	1.2% 6.1% 7.5% 7.5% 34	2.6% 6.9% 9.0% 8.7% 45	6.4% 9.2% 10.7% 10.6% 40	 12.5% 12.4%	 10.7%	 12.1% 12.0%	 14.0%
Emerging Manager Benchmark Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management	2.9% 1.6% 2.0% 2.2% 52 2.1%	22.1% 19.5% 20.5% 21.8% 53	-7.2% -4.4% -3.1% -2.8% 41	1.2% 6.1% 7.5% 7.5% 34 -8.0%	2.6% 6.9% 9.0% 8.7% 45	6.4% 9.2% 10.7% 10.6% 40	 12.5% 12.4% 	 10.7% 10.5% 	 12.1% 12.0% 	 14.0% 14.0%
Emerging Manager Benchmark Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management Russell 2000 eV US Small Cap Core Equity Net	2.9% 1.6% 2.0% 2.2% 52 2.1% 3.5%	22.1% 19.5% 20.5% 21.8% 53 22.8% 25.4%	-7.2% -4.4% -3.1% -2.8% 41 -15.8% -13.0%	1.2% 6.1% 7.5% 7.5% 34 -8.0% -6.6%	2.6% 6.9% 9.0% 8.7% 45 -7.8% -5.0%	6.4% 9.2% 10.7% 10.6% 40 -0.4% 2.0%	 12.5% 12.4% 	 10.7% 10.5% 	 12.1% 12.0% 	 14.0% 14.0%
Emerging Manager Benchmark Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management Russell 2000 eV US Small Cap Core Equity Net Rank	2.9% 1.6% 2.0% 2.2% 52 2.1% 3.5% 56	22.1% 19.5% 20.5% 21.8% 53 22.8% 25.4% 62	-7.2% -4.4% -3.1% -2.8% 41 -15.8% -13.0% 62	1.2% 6.1% 7.5% 7.5% 34 -8.0% -6.6% 47	2.6% 6.9% 9.0% 8.7% 45 -7.8% -5.0% 68	6.4% 9.2% 10.7% 10.6% 40 -0.4% 2.0%	 12.5% 12.4% 7.2%	 10.7% 10.5% 4.3%	 12.1% 12.0% 7.2%	 14.0% 14.0%

Annualized Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedge Fund Composite	1.8%	9.4%	-6.6%	-4.4%	-0.8%	0.9%	3.6%	1.0%		
HFRI Equity Hedge (Total) Index	2.6%	13.3%	-3.2%	0.7%	0.5%	3.0%	5.2%	3.1%	4.3%	4.5%
HFRI Fund of Funds Composite Index	2.0%	7.9%	-1.6%	0.5%	0.8%	2.3%	3.3%	1.5%	2.7%	2.8%
InvMetrics Public DB Hedge Funds Net Rank	44	24	72	79	66	66	40	54		
ABS Offshore SPC Global	1.7%	9.1%	-1.8%	5.0%	2.4%	3.8%	5.6%	2.6%		
HFRX Equity Hedge Index	2.2%	8.1%	-6.3%	-2.1%	-3.2%	-0.1%	1.9%	-0.3%	1.2%	0.9%
Entrust Three Rivers Partners	2.0%	9.1%	-9.2%	-11.3%				-		
HFRI Fund of Funds Composite Index	2.0%	7.9%	-1.6%	0.5%	0.8%	2.3%	3.3%	1.5%	2.7%	2.8%
HFRI Equity Hedge (Total) Index	2.6%	13.3%	-3.2%	0.7%	0.5%	3.0%	5.2%	3.1%	4.3%	4.5%
Parametric Defensive Equity	1.4%	10.3%	-7.4%	-1.4%	1.7%	3.5%		-		
50% S&P 500/50% 91 Day T-Bill	1.0%	10.0%	-0.8%	5.0%	5.8%	6.5%	7.1%	6.1%	6.6%	7.3%
CBOE Put Write Index	1.0%	11.1%	-11.9%	-7.0%	-3.5%	-0.5%	2.6%	3.1%	4.6%	7.1%
Real Estate Composite	-0.4%	-0.4%	0.7%	3.5%	4.9%	5.8%	6.1%	7.2%		
NFI	-0.6%	-1.7%	-1.0%	1.3%	3.4%	4.7%	5.3%	6.4%	8.1%	9.8%
InvMetrics Public DB Real Estate Priv Net Rank	18	19	7	8	15	21	52	59		
Rreef America II	-0.6%	-0.6%	0.4%	3.4%	4.9%	5.9%	6.2%	7.2%		
NFI	-0.6%	-1.7%	-1.0%	1.3%	3.4%	4.7%	5.3%	6.4%	8.1%	9.8%
Barings Core Property Fund	-0.2%	-0.2%	1.0%	3.5%	4.9%	5.7%	6.1%	7.1%		
NFI	-0.6%	-1.7%	-1.0%	1.3%	3.4%	4.7%	5.3%	6.4%	8.1%	9.8%

Calendar Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

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	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total Fund Composite	15.6%	-0.1%	11.7%	8.1%	3.2%	9.2%	13.6%	12.3%	1.8%	5.6%	23.4%
Total Fund Composite Benchmark	14.4%	0.1%	12.2%	7.7%	3.5%	7.2%	14.1%	10.5%	1.3%	12.6%	23.0%
InvMetrics Public DB Net Rank	93	2	95	26	1	1	66	41	22	98	19
Dedicated Funding for CMPTF	9.5%	7.5%	7.5%	7.6%	7.5%	13.2%	8.1%	9.8%	7.2%		
Annual Return	7.2%	7.5%	7.5%	7.5%	7.5%	7.5%	8.0%	8.0%	8.0%		
Total Invested Portfolio	19.5%	-5.0%	14.7%	8.5%	0.0%	6.6%	17.6%	14.1%	-2.5%	5.6%	23.3%
Total Invested Portfolio Benchmark	19.5%	-4.8%	15.9%	7.4%	0.6%	6.8%	17.6%	12.2%	0.3%	12.4%	22.9%
InvMetrics Public DB Net Rank	49	69	49	16	34	22	22	7	92	98	20
Fixed Income Composite	9.6%	-0.9%	4.3%	4.5%	0.0%	6.1%	-0.4%	8.4%	5.4%	7.8%	13.8%
BBgBarc US Aggregate TR	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%
InvMetrics Public DB US Fix Inc Net Rank	13	91	39	47	56	15	32	35	87	41	42
Vanguard Ultra Short Duration						_	_	-	_		
BofA Merrill Lynch 1 Year Treasury	3.0%	1.9%	0.6%	0.8%	0.3%	0.2%	0.3%	0.2%	0.5%	0.7%	0.8%
Ultrashort Bond MStar MF Rank											
Federated Investors	10.1%	-0.9%	4.3%	4.8%	-0.2%	5.0%	-0.8%	7.1%	6.5%	8.2%	11.2%
BBgBarc US Aggregate TR	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%
eV US Core Fixed Inc Net Rank	9	88	18	7	89	80	19	23	81	12	33
BlackRock Total Return Fund	9.9%	-0.8%	4.3%	3.5%	0.4%	8.2%	-0.1%	10.3%	4.7%	10.1%	16.3%
BBgBarc US Aggregate TR	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%
eV US Core Fixed Inc Net Rank	11	85	19	33	64	4	8	2	96	2	14
U.S. Equity Composite	31.1%	-7.2%	19.5%	16.6%	-2.3%	12.5%	34.2%	17.8%	0.6%	8.6%	25.8%
Dow Jones U.S. Total Stock Market	30.9%	-5.3%	21.2%	12.6%	0.4%	12.5%	33.5%	16.4%	1.1%	17.5%	28.6%
InvMetrics Public DB US Eq Net Rank	15	73	70	2	84	14	50	4	48	99	86
SSgA S&P 500 Index Fund	31.4%	-4.4%	21.8%	12.0%	1.4%	13.8%					
S&P 500	31.5%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%
eV US Large Cap Core Equity Net Rank	29	32	46	20	36	33	-	-			
Frontier Capital Management	28.8%	-13.5%	18.6%	20.1%	-6.5%	12.1%	39.0%	18.0%	-6.5%	28.9%	46.5%
Russell 2500	27.8%	-10.0%	16.8%	17.6%	-2.9%	7.1%	36.8%	17.9%	-2.5%	26.7%	34.4%
eV US Small-Mid Cap Core Equity Net Rank	48	80	35	5	88	1	26	29	86	25	5
Guyasuta Investment Advisors	32.3%	-10.4%	12.2%	29.4%	-9.9%	8.4%	36.2%	25.7%	4.1%	19.3%	40.8%
Russell 2000	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%	-4.2%	26.9%	27.2%
eV US Small Cap Core Equity Net Rank	7	46	71	3	88	15	73	1	17	97	9



Calendar Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

Calendar Year

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Non-U.S. Equity Composite	25.5%	-11.4%	28.5%	1.9%	-1.7%	-4.2%	12.9%	21.3%			
MSCI ACWI ex USA	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%	11.2%	41.4%
InvMetrics Public DB ex-US Eq Net Rank	12	6	48	83	23	62	82	8			
MFS International Equity Fund	28.4%	-10.7%	28.0%	0.3%	0.0%	-4.2%	18.6%	22.5%	_		
MSCI EAFE	22.0%	-13.8%	25.0%	1.0%	-0.8%	-4.9%	22.8%	17.3%	-12.1%	7.8%	31.8%
Foreign Large Blend MStar MF Rank	3	9	24	64	37	36	64	12			
SSgA Active Emerging Markets Fund	12.0%	-14.6%	34.3%	11.7%	-13.7%	-3.3%	-5.6%	17.2%	_		
MSCI Emerging Markets	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%	-18.4%	18.9%	78.5%
eV Emg Mkts Equity Net Rank	91	30	69	32	59	74	91	69			
ABS Emerging Markets	18.0%	-13.3%	26.7%	4.9%	-3.4%						
HFRI Emerging Markets (Total) Index	11.8%	-10.9%	19.4%	7.0%	-3.3%	-2.6%	5.5%	10.4%	-14.0%	11.4%	40.3%
MSCI Emerging Markets	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%	-18.4%	18.9%	78.5%
Emerging Manager Composite	25.9%	-9.8%	16.9%	-	-	-	-	-	-	-	
Emerging Manager Benchmark	28.0%	-8.4%	18.9%							-	
Twin Capital	30.0%	-6.5%	20.7%								
S&P 500	31.5%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%
Russell 1000	31.4%	-4.8%	21.7%	12.1%	0.9%	13.2%	33.1%	16.4%	1.5%	16.1%	28.4%
eV US Large Cap Core Equity Net Rank	38	58	59		-						
CIM Investment Management	28.0%	-14.0%	11.1%				-				
Russell 2000	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%	-4.2%	26.9%	27.2%
eV US Small Cap Core Equity Net Rank	19	71	79								
Columbus Macro	19.0%	-9.1%	-	_	_	_	-	_	_		
MSCI ACWI	26.6%	-9.4%	24.0%	7.9%	-2.4%	4.2%	22.8%	16.1%	-7.3%	12.7%	34.6%
eV Global All Cap Core Eq Net Rank	86	44									

Calendar Performance (Net of Fees)

Market Value: \$801.9 Million and 100.0% of Fund

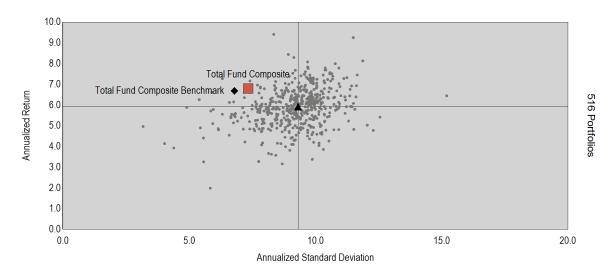
Calendar Year

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Hedge Fund Composite	9.3%	-2.9%	9.0%	0.7%	0.0%	4.9%					
HFRI Equity Hedge (Total) Index	13.7%	-7.1%	13.3%	5.5%	-1.0%	1.8%	14.3%	7.4%	-8.4%	10.5%	24.6%
HFRI Fund of Funds Composite Index	8.4%	-4.0%	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%
InvMetrics Public DB Hedge Funds Net Rank	38	68	23	74	45	35					
ABS Offshore SPC Global	15.3%	-6.4%	12.3%	-4.3%	4.0%	4.8%	-				
HFRX Equity Hedge Index	10.7%	-9.4%	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%
Entrust Three Rivers Partners	2.6%						-			-	
HFRI Fund of Funds Composite Index	8.4%	-4.0%	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%
HFRI Equity Hedge (Total) Index	13.7%	-7.1%	13.3%	5.5%	-1.0%	1.8%	14.3%	7.4%	-8.4%	10.5%	24.6%
Parametric Defensive Equity	16.3%	-2.9%									
50% S&P 500/50% 91 Day T-Bill	16.1%	-1.0%	10.9%	6.1%	0.9%	6.7%	15.3%	7.9%	1.4%	7.8%	13.3%
CBOE Put Write Index	14.1%	-5.9%	10.8%	7.8%	6.4%	6.4%	12.3%	8.1%	6.2%	9.0%	31.5%
Real Estate Composite	6.1%	6.9%	6.5%	8.4%	14.4%	11.0%					
NFI	4.4%	7.4%	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%
InvMetrics Public DB Real Estate Priv Net Rank	34	80	63	43	7	67					
Rreef America II	6.3%	7.4%	6.4%	8.1%	15.6%	12.0%	-			-	
NFI	4.4%	7.4%	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%
Barings Core Property Fund	6.0%	6.3%	6.6%	8.6%	13.0%		-			-	
NFI	4.4%	7.4%	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%

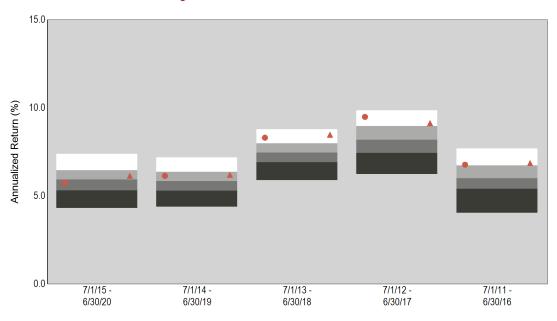
Invested Portfolio vs. Peer Universe

Market Value: \$507.3 Million and 63.3% of Fund

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



Rolling 5 Year Returns: Invested Portfolio



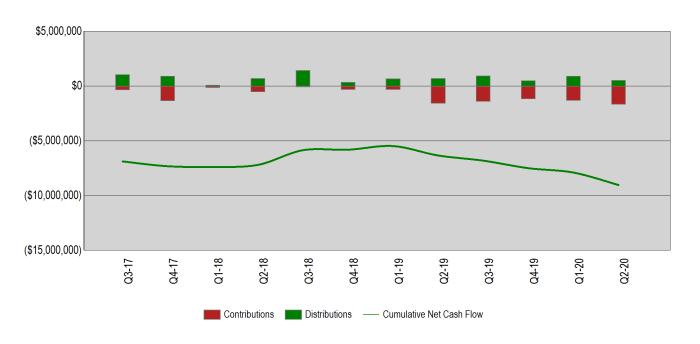
	Return (Rank)									
5th Percentile	7.4		7.2		8.8		9.9		7.7	
25th Percentile	6.5		6.4		8.0		9.0		6.7	
Median	5.9		5.8		7.5		8.2		6.0	
75th Percentile	5.3		5.3		6.9		7.4		5.4	
95th Percentile	4.3		4.4		5.9		6.2		4.1	
# of Portfolios	516		472		206		245		208	
Total Invested Portfolio	5.8	(60)	6.1	(36)	8.3	(15)	9.5	(9)	6.8	(24)
Total Invested Portfolio Benchmark	6.2	(40)	6.2	(32)	8.5	(12)	9.1	(19)	6.9	(21)

Private Equity Composite

Private Market Investments Overview

Investments		Commitments		Contribu Distrib		Valua	Performance			е	
Investment Name	Vintage Yr	Commit (\$)	Unfunded Commit (\$)	Cumulative Contribution (\$)	Cumulative Distribution (\$)	Valuation (\$)	Total Value (\$)	DPI	TVP I	RV PI	IRR (%)
Birchmere Ventures III, L.P.	2005	1,000,000	-47,694	1,047,694	893,418	69,464	962,882	0.85	0.92	0.07	-2.29
Draper Triangle Ventures II, L.P.	2004	1,000,000	-112,121	1,112,121	1,272,598	36,226	1,308,824	1.14	1.18	0.03	2.64
Draper Triangle Ventures III, L.P.	2013	2,000,000	27,819	2,044,497	72,316	1,572,965	1,645,281	0.04	0.80	0.77	-6.20
Hirtle Callaghan Private Equity Fund V, L.P.	2005	3,000,000	518,640	2,481,360	2,625,556	29,589	2,655,145	1.06	1.07	0.01	1.05
Crescent Mezzanine Partners VIB, L.P.	2013	10,000,000	757,498	10,777,452	10,731,659	2,890,971	13,622,630	1.00	1.26	0.27	8.37
Crescent Mezzanine Partners VIIB, L.P.	2016	10,000,000	3,987,338	7,647,437	2,494,887	5,308,486	7,803,373	0.33	1.02	0.69	1.54
Siguler Guff Small Buyout Opportunities Fund IV, L.P.	2019	15,000,000	12,607,500	2,392,500	30,841	2,227,347	2,258,188	0.01	0.94	0.93	
Total		42,000,000	17,738,980	27,503,061	18,121,275	12,135,048	30,256,323	0.66	1.10	0.44	3.38

Private Markets Cash Flow Analysis As of June 30, 2020



Investment Manager Statistics

Market Value: \$801.9 Million and 100.0% of Fund

3 Years Ending June 30, 2020

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Federated Investors	1.1	2.4%	0.2%	1.0	0.6	0.3	2.0%	112.7%	91.6%
BBgBarc US Aggregate TR	1.2				-		1.6%	-	
BlackRock Total Return Fund	0.9	2.8%	0.0%	0.9	0.5	-0.1	2.0%	96.5%	99.7%
BBgBarc US Aggregate TR	1.2						1.6%		
SSgA S&P 500 Index Fund	0.4	0.0%	0.0%	1.0	1.0	0.4	10.9%	100.1%	100.0%
S&P 500	0.4						10.9%		
Twin Capital	0.4	0.9%	-0.2%	1.0	1.0	-1.3	10.7%	95.2%	101.9%
S&P 500	0.4						10.9%		
Frontier Capital Management	0.0	5.3%	-0.5%	1.1	1.0	-0.4	16.7%	108.6%	113.2%
Russell 2500	0.1						14.5%		
Guyasuta Investment Advisors	0.0	4.8%	0.2%	0.9	1.0	0.2	13.7%	96.7%	95.5%
Russell 2000	0.0						14.8%		
CIM Investment Management	0.0	3.4%	-0.4%	1.0	1.0	-0.5	14.8%	89.3%	99.7%
Russell 2000	0.0						14.8%		
MFS International Equity Fund	0.2	2.5%	0.9%	0.9	1.0	1.5	9.6%	111.3%	86.6%
MSCI EAFE	0.0					-	10.1%		
SSgA Active Emerging Markets Fund	-0.2	3.7%	-1.0%	0.9	1.0	-1.1	10.4%	77.7%	104.2%
MSCI Emerging Markets	0.0		-		-	-	11.1%	-	
ABS Emerging Markets	0.1	3.9%	0.4%	1.2	1.0	0.5	9.0%	139.2%	115.1%
HFRI Emerging Markets (Total) Index	0.0						7.2%		

Investment Manager Statistics

Market Value: \$801.9 Million and 100.0% of Fund

5 Years Ending June 30, 2020

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio Anlzd	Down Mkt Capture Ratio Anlzd
Federated Investors	1.1	2.0%	0.3%	0.9	0.7	0.4	1.8%	109.9%	70.1%
BBgBarc US Aggregate TR	1.0				-		1.7%		
BlackRock Total Return Fund	0.9	2.2%	0.1%	0.9	0.6	0.0	1.9%	98.4%	87.3%
BBgBarc US Aggregate TR	1.0			-	-		1.7%		
SSgA S&P 500 Index Fund	0.6	0.0%	0.0%	1.0	1.0	1.1	8.6%	100.1%	99.9%
S&P 500	0.6						8.6%		
Frontier Capital Management	0.1	6.1%	-0.3%	1.2	1.0	-0.2	13.7%	115.1%	117.6%
Russell 2500	0.2						11.5%		
Guyasuta Investment Advisors	0.2	4.7%	0.6%	0.9	1.0	0.5	11.3%	104.3%	92.3%
Russell 2000	0.1		-	-	-	-	11.9%		
MFS International Equity Fund	0.2	2.7%	0.7%	0.9	1.0	1.0	8.2%	109.2%	88.7%
MSCI EAFE	0.1						8.5%		
SSgA Active Emerging Markets Fund	0.0	3.4%	-0.4%	1.0	1.0	-0.6	9.8%	89.0%	101.2%
MSCI Emerging Markets	0.1				-	-	10.2%		
ABS Emerging Markets	0.2	3.8%	0.3%	1.3	1.0	0.4	7.9%	138.2%	122.2%
HFRI Emerging Markets (Total) Index	0.1			-	-	-	6.3%		
ABS Offshore SPC Global	0.2	3.2%	0.7%	0.9	0.9	0.9	4.7%	127.6%	85.6%
HFRX Equity Hedge Index	-0.1			-	-	-	4.8%		

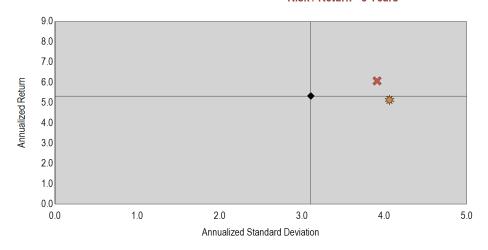
Fixed Income Composite

Characteristics

As of March 31, 2020

Market Value: \$97.5 Million and 13.0% of Fund

Risk / Return - 3 Years



3,010 81

27

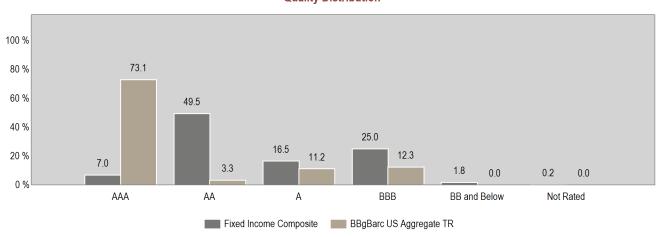
8

25

- Federated Investors
- BlackRock Total Return Fund
- ◆ BBgBarc US Aggregate TR

C	haracteristics			Sector			Maturity	
	Portfolio	Index		Portfolio	Index			Q1-20
	Q1-20	Q1-20		Q1-20	Q1-20	<1 Year		16.0%
Yield to Maturity	2.8%	1.7%	UST/Agency	15.5%	43.4%	1-3 Years		10.8%
Avg. Eff. Maturity	7.5 yrs.	8.2 yrs.	Corporate	43.7%	24.1%	3-5 Years		19.6%
Avg. Duration	5.7 yrs.	6.4 yrs.	MBS	29.3%	28.7%	5-7 Years		27.5%
Avg. Quality	Α	-	ABS	5.3%	0.4%	7-10 Years		12.3%
			Foreign	2.4%		10-15 Years		1.3%
		Normala a m Of	Muni	1.8%		15-20 Years		0.9%
Region		Number Of Assets	Other	2.1%		>20 Years		11.5%
North America ex U.S.		25				Not Rated/Cash		0.0%

Quality Distribution



United States

Europe Ex U.K. United Kingdom

Japan

Pacific Basin Ex Japan

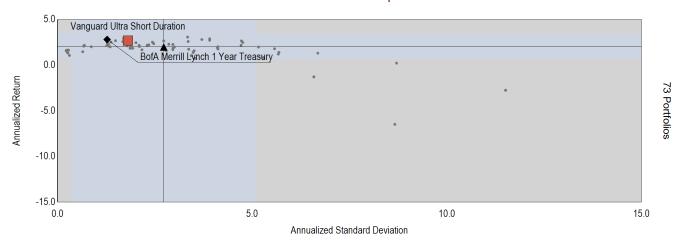
Vanguard Ultra Short Duration

Characteristics

As of June 30, 2020

Market Value: \$15.4 Million and 1.9% of Fund

Risk / Return - Since Inception



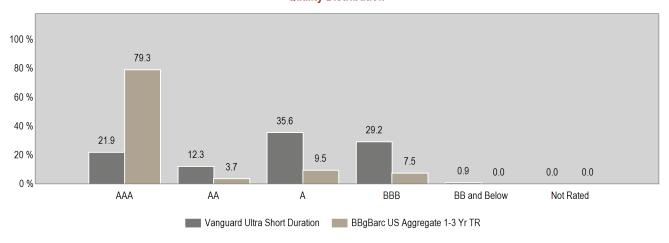
	Characteristics		
	Portfolio	Index	
	Q2-20	Q2-20	
Yield to Maturity	1.1%	0.8%	UST/Agency
Avg. Eff. Maturity	1.3 yrs.	2.7 yrs.	Corporate
Avg. Duration	1.2 yrs.	2.6 yrs.	MBS
Avg. Quality	А		ABS
			Foreign

Region	Number Of Assets
North America ex U.S.	10
United States	584
Europe Ex U.K.	23
United Kingdom	13
Pacific Basin Ex Japan	13
Japan	7

	Sector	
	Portfolio	Index
	Q2-20	Q2-20
UST/Agency	3.2%	53.6%
Corporate	62.1%	18.1%
MBS	4.6%	23.5%
ABS	14.4%	1.4%
Foreign	14.8%	
Muni	0.9%	
Other	0.0%	

Maturity	
	Q2-20
<1 Year	44.4%
1-3 Years	52.0%
3-5 Years	3.5%
5-7 Years	0.1%
7-10 Years	0.0%
10-15 Years	0.0%
15-20 Years	0.0%
>20 Years	0.0%
Not Rated/Cash	0.0%

Quality Distribution

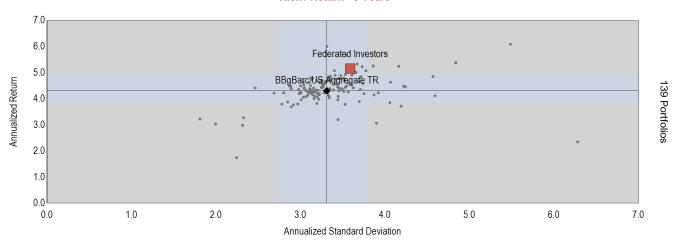


Federated Investors Characteristics

As of June 30, 2020

Market Value: \$64.1 Million and 8.0% of Fund

Risk / Return - 5 Years



Characteristics			
	Portfolio	Index	
	Q2-20	Q2-20	
Yield to Maturity	1.9%	1.3%	
Avg. Eff. Maturity	8.8 yrs.	8.6 yrs.	
Avg. Duration	6.7 yrs.	6.7 yrs.	
Avg. Quality	А		
Region		Number Of Assets	
Emerging Markets		23	

15

688

Other

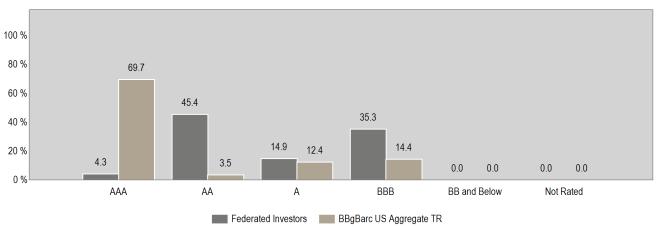
Total

	Portfolio	Index
	Q2-20	Q2-20
UST/Agency	13.1%	39.6%
Corporate	47.8%	27.4%
MBS	31.6%	29.0%
ABS	3.9%	0.4%
Foreign	1.5%	
Muni	2.1%	
Other	0.0%	

Sector

Maturity		
	Q2-20	
<1 Year	4.5%	
1-3 Years	8.4%	
3-5 Years	30.4%	
5-7 Years	24.3%	
7-10 Years	14.3%	
10-15 Years	2.4%	
15-20 Years	1.8%	
>20 Years	13.9%	
Not Rated/Cash	0.0%	

Quality Distribution



BlackRock Total Return Fund

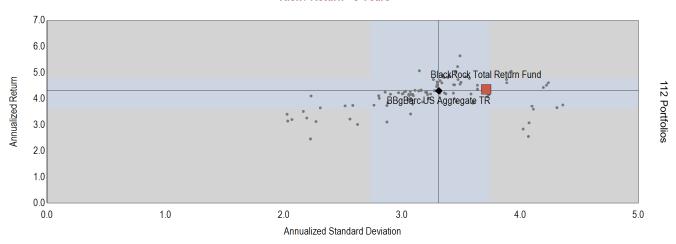
Characteristics

Q1-20

As of March 31, 2020

Market Value: \$21.7 Million and 2.9% of Fund

Risk / Return - 5 Years



Characteristics				
Portfolio Index				
	Q1-20	Q1-20		
Yield to Maturity	3.5%	1.7%		
Avg. Eff. Maturity	8.9 yrs.	8.2 yrs.		
Avg. Duration	6.3 yrs.	6.4 yrs.		
Avg. Quality	A			

Region	Number Of Assets
North America ex U.S.	22
United States	2,408
Europe Ex U.K.	71
United Kingdom	21
Pacific Basin Ex Japan	5
Japan	22

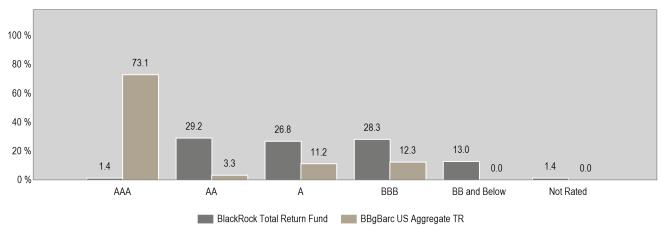
	Portfolio	Index
	Q1-20	Q1-20
UST/Agency	20.4%	43.4%
Corporate	59.9%	24.1%
MBS	8.6%	28.7%
ABS	1.5%	0.4%
Foreign	4.0%	
Muni	6.7%	
Other	-1.1%	

Sector

Maturity

<1 Year	1.9%
1-3 Years	7.8%
3-5 Years	37.1%
5-7 Years	17.3%
7-10 Years	19.3%
10-15 Years	2.3%
15-20 Years	3.7%
>20 Years	10.5%
Not Rated/Cash	0.0%

Quality Distribution



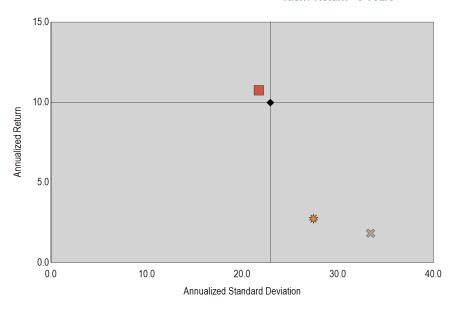
U.S. Equity Composite

Characteristics

Market Value: \$189.0 Million and 23.6% of Fund

As of June 30, 2020

Risk / Return - 3 Years



- SSgA S&P 500 Index Fund
- Frontier Capital Management
- Guyasuta Investment Advisors
- Dow Jones U.S. Total Stock Market

Characteristics

Cilaracteristics		
	Portfolio	Dow Jones U.S. Total Stock Market
Number of Holdings	648	3,743
Weighted Avg. Market Cap. (\$B)	255.8	310.0
Median Market Cap. (\$B)	14.5	0.8
Price To Earnings	21.9	22.4
Price To Book	3.6	4.0
Price To Sales	2.1	2.5
Return on Equity (%)	20.9	18.7
Yield (%)	1.7	1.7
Beta	1.1	1.0
R-Squared	1.0	1.0

Characteristics

Gilaracteristics		
	Portfolio	Dow Jones U.S. Total Stock Market
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	2.5	2.6
Materials	7.4	2.7
Industrials	11.9	8.6
Consumer Discretionary	9.5	11.3
Consumer Staples	5.4	6.3
Health Care	14.2	14.9
Financials	8.5	10.7
Information Technology	24.6	26.5
Communication Services	8.2	9.8
Utilities	2.1	2.9
Real Estate	3.6	3.6
Unclassified	0.1	0.0

Largest Holdings

	End Weight	Return
MICROSOFT CORP	4.1	29.4
APPLE INC	3.9	43.8
AMAZON.COM INC	3.1	41.5
FACEBOOK INC	1.4	36.1
ALPHABET INC	1.1	22.0

Top Contributors

	Beg Wgt	Return	Contribution
APPLE INC	3.4	43.8	1.5
MICROSOFT CORP	3.9	29.4	1.1
AMAZON.COM INC	2.6	41.5	1.1
FACEBOOK INC	1.3	36.1	0.5
PAN AMERICAN SILVER CORP	0.3	113.2	0.3

Bottom Contributors

	Beg Wgt	Return	Contribution
MTS SYSTEMS CORP	0.3	-21.8	-0.1
MATTHEWS INTERNATIONAL CORP	0.2	-20.3	0.0
EURONAV	0.2	-21.7	0.0
WELLS FARGO & CO	0.4	-9.0	0.0
GENERAL ELECTRIC CO	0.2	-13.8	0.0

Market Capitalization

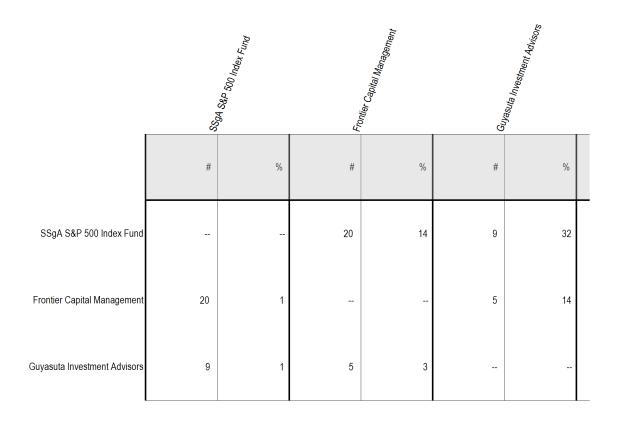
	Smaii Cap	Smail/ Mid	Cap	Large	Large Cap
U.S. Equity Composite	11.6%	13.0%	15.9%	21.3%	38.3%
Dow Jones U.S. Total Stock Market	4.7%	7.4%	15.2%	25.4%	47.3%
Weight Over/Under	6.9%	5.6%	0.7%	-4.2%	-9.1%

As of June 30, 2020

U.S. Equity Style Map 3 Years Ending June 30, 2020



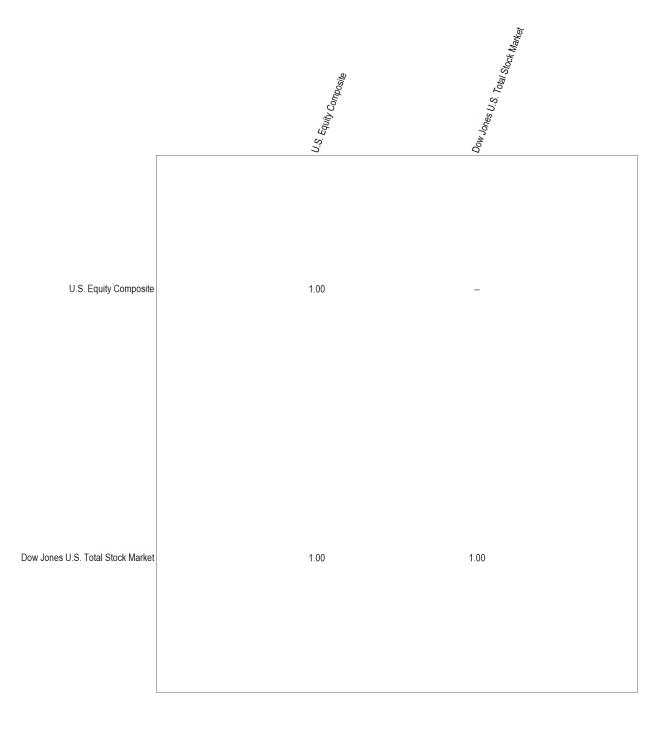
Common Holdings Matrix



Market Value: \$189.0 Million and 23.6% of Fund

As of June 30, 2020





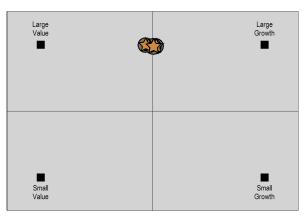
SSgA S&P 500 Index Fund

Characteristics

Market Value: \$129.4 Million and 16.1% of Fund

As of June 30, 2020

Style Drift - 5 Years



SSgA S&P 500 Index Fund

S&P 500

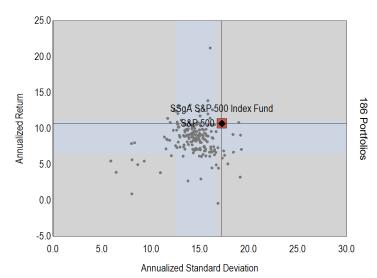
Characteristics

	Portfolio	S&P 500
Number of Holdings	507	505
Weighted Avg. Market Cap. (\$B)	365.9	370.7
Median Market Cap. (\$B)	21.3	21.3
Price To Earnings	22.8	22.9
Price To Book	4.1	4.2
Price To Sales	2.8	2.7
Return on Equity (%)	26.6	26.5
Yield (%)	1.8	1.8
Beta	1.0	1.0
R-Squared	1.0	1.0

Characteristics

	Portfolio	S&P 500
INDUSTRY SECTOR DISTRIBUTION (% E	quity)	
Energy	2.8	2.7
Materials	2.5	2.5
Industrials	7.9	7.9
Consumer Discretionary	10.7	11.3
Consumer Staples	6.9	7.6
Health Care	14.5	14.2
Financials	10.1	10.3
Information Technology	27.3	26.9
Communication Services	10.7	10.9
Utilities	3.0	2.9
Real Estate	2.8	2.7
Unclassified	0.0	0.0

Risk / Return - 5 Years



Largest Holdings

Ena weight	Return
6.0	29.4
5.8	43.8
4.5	41.5
2.1	36.1
1.6	22.0
	6.0 5.8 4.5 2.1

Top Contributors

Beg Wgt	Return	Contribution
5.0	43.8	2.2
5.6	29.4	1.7
3.8	41.5	1.6
1.9	36.1	0.7
0.5	82.0	0.4
	5.0 5.6 3.8 1.9	5.0 43.8 5.6 29.4 3.8 41.5 1.9 36.1

Bottom Contributors

	Beg Wgt	Return	Contribution
WELLS FARGO & CO	0.5	-9.0	0.0
GENERAL ELECTRIC CO	0.3	-13.8	0.0
BIOGEN INC	0.3	-15.4	0.0
BERKSHIRE HATHAWAY INC	1.7	-2.4	0.0
CME GROUP INC	0.3	-5.6	0.0

Market Capitalization

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
SSgA S&P 500 Index Fund	0.0%	1.7%	14.0%	29.0%	55.3%
S&P 500	0.1%	1.6%	13.8%	28.4%	56.1%
Weight Over/Under	-0.1%	0.1%	0.2%	0.6%	-0.9%

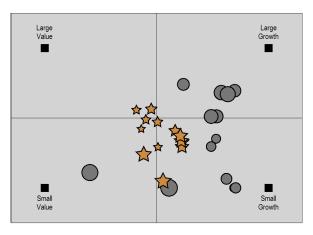
Frontier Capital Management

Characteristics

Market Value: \$30.6 Million and 3.8% of Fund

As of June 30, 2020

Style Drift - 5 Years



Frontier Capital Management

Russell 2500

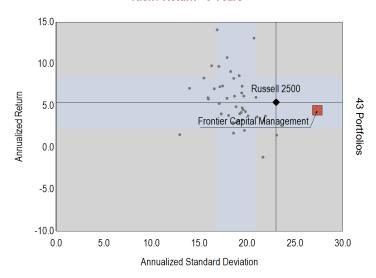
Characteristics

	Portfolio	Russell 2500
Number of Holdings	143	2,500
Weighted Avg. Market Cap. (\$B)	6.0	4.7
Median Market Cap. (\$B)	2.9	1.0
Price To Earnings	18.3	17.8
Price To Book	3.0	2.8
Price To Sales	1.3	1.6
Return on Equity (%)	4.0	1.3
Yield (%)	0.9	1.5
Beta	1.1	1.0
R-Squared	1.0	1.0

Characteristics

	Portfolio	Russell 2500
INDUSTRY SECTOR DISTRIBUTION (% E	quity)	
Energy	3.0	2.4
Materials	9.4	5.2
Industrials	17.9	14.8
Consumer Discretionary	10.9	11.8
Consumer Staples	1.0	3.3
Health Care	13.2	15.9
Financials	10.2	14.5
Information Technology	27.0	17.0
Communication Services	2.0	3.0
Utilities	0.0	3.2
Real Estate	1.8	8.8
Unclassified	0.7	0.0

Risk / Return - 5 Years



Largest Holdings

End Weight	Return
2.9	113.2
2.4	17.3
2.3	81.3
2.3	41.8
1.9	22.5
	2.4 2.3 2.3

Top Contributors

	Beg Wgt	Return	Contribution
PAN AMERICAN SILVER CORP	1.8	113.2	2.1
TUTOR PERINI CORP	1.6	81.3	1.3
DEXCOM INC	2.6	50.6	1.3
MONOLITHIC POWER SYSTEMS INC	2.6	41.8	1.1
TREX CO INC	1.6	62.3	1.0

Bottom Contributors

	Beg Wgt	Return	Contribution
EURONAV	1.3	-21.7	-0.3
TIVO CORP	1.1	-14.0	-0.1
CARDIOVASCULAR SYSTEMS INC	1.1	-10.4	-0.1
COGENT COMMUNICATIONS HOLDINGS INC	2.1	-4.8	-0.1
GASLOG LTD	0.3	-21.3	-0.1

Market Capitalization

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Frontier Capital Management	41.2%	38.5%	17.8%	2.5%	0.0%
Russell 2500	33.4%	52.8%	13.5%	0.0%	0.3%
Weight Over/Under	7.8%	-14.3%	4.3%	2.5%	-0.3%



Frontier Capital Management

Attribution

As of June 30, 2020 Market Value: \$30.6 Million and 3.8% of Fund

Sector Attribution vs Russell 2500

GICS Sector	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Energy	3.7%	1.3%	2.4%	8.0%	49.3%	-41.3%	0.6%	-1.5%	-1.0%	0.3%	-0.7%
Materials	10.0%	4.9%	5.1%	47.1%	24.9%	22.3%	-0.1%	2.2%	2.2%	-0.1%	2.1%
Industrials	19.5%	14.6%	5.0%	33.1%	23.1%	10.0%	-0.2%	2.0%	1.8%	-0.5%	1.3%
Consumer Discretionary	9.0%	9.6%	-0.6%	52.2%	46.4%	5.8%	-0.1%	0.5%	0.4%	1.9%	2.3%
Consumer Staples	0.7%	3.1%	-2.4%	28.4%	20.4%	8.0%	0.1%	0.1%	0.2%	-0.2%	0.0%
Health Care	16.9%	16.8%	0.0%	24.6%	32.8%	-8.1%	0.0%	-1.4%	-1.4%	1.1%	-0.3%
Financials	9.3%	14.8%	-5.5%	26.2%	15.2%	11.0%	0.6%	1.0%	1.6%	-1.6%	0.0%
Information Technology	26.2%	17.9%	8.3%	34.8%	34.6%	0.1%	0.7%	0.0%	0.7%	1.5%	2.2%
Communication Services	3.2%	3.0%	0.2%	21.7%	22.9%	-1.2%	0.0%	0.0%	0.0%	-0.1%	-0.1%
Utilities	0.0%	4.3%	-4.3%		1.1%		1.1%	0.0%	1.1%	-1.1%	0.0%
Real Estate	1.4%	9.7%	-8.3%	25.4%	13.7%	11.7%	1.0%	0.2%	1.2%	-1.2%	0.0%
Total				33.2%	26.3%	6.8%	3.7%	3.1%	6.8%	0.0%	6.8%

Performance Attribution vs. Russell 2500

	Total	Selection	Allocation	Interaction
	Effects	Effect	Effect	Effects
Energy	-0.3%	-0.5%	1.1%	-0.9%
Materials	3.4%	1.0%	1.2%	1.2%
Industrials	2.9%	1.5%	1.0%	0.4%
Consumer Discretionary	0.1%	0.6%	-0.4%	-0.1%
Consumer Staples	-0.4%	0.3%	-0.5%	-0.2%
Health Care	-1.5%	-1.4%	-0.2%	0.0%
Financials	0.1%	1.6%	-0.9%	-0.6%
Information Technology	2.6%	0.0%	2.6%	0.0%
Communication Services	0.0%	0.0%	0.0%	0.0%
Utilities	0.0%		0.0%	
Real Estate	-1.0%	1.1%	-1.1%	-1.0%
Cash	0.0%	0.0%	0.0%	0.0%
Portfolio	5.8% =	4.1% +	2.8% +	-1.1%

Market Cap Attribution vs. Russell 2500

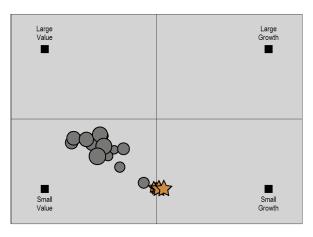
	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 7.47	25.8%	19.7%	6.1%	25.6%	28.5%	-2.9%	0.1%	-0.7%	-0.6%	0.4%	-0.2%
2) 4.59 - 7.47	9.7%	20.0%	-10.4%	34.1%	21.1%	13.0%	0.5%	1.3%	1.8%	-1.0%	0.7%
3) 2.91 - 4.59	19.4%	20.1%	-0.8%	34.7%	23.8%	11.0%	0.0%	2.1%	2.1%	-0.5%	1.6%
4) 1.47 - 2.91	14.7%	20.1%	-5.4%	19.3%	27.2%	-7.8%	0.0%	-1.2%	-1.2%	0.2%	-1.0%
5) 0.00 - 1.47	30.5%	20.0%	10.4%	44.9%	31.2%	13.7%	0.5%	4.2%	4.7%	1.0%	5.7%
Total				33.2%	26.3%	6.8%	1.2%	5.7%	6.8%	0.0%	6.8%

Guyasuta Investment Advisors

Characteristics

As of June 30, 2020 Market Value: \$29.1 Million and 3.6% of Fund

Style Drift - 5 Years



Guyasuta Investment Advisors

Russell 2000

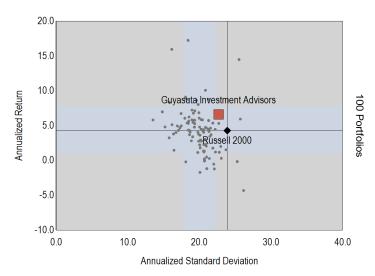
Characteristics

	Portfolio	Russell 2000
Number of Holdings	32	2,005
Weighted Avg. Market Cap. (\$B)	9.4	2.1
Median Market Cap. (\$B)	3.9	0.6
Price To Earnings	21.2	16.2
Price To Book	2.6	2.7
Price To Sales	1.2	1.4
Return on Equity (%)	8.6	-6.1
Yield (%)	1.8	1.4
Beta	0.9	1.0
R-Squared	1.0	1.0

Characteristics

	Portfolio	Russell 2000
INDUSTRY SECTOR DISTRIBUTION (% E	quity)	
Energy	8.0	2.2
Materials	27.2	4.0
Industrials	23.3	14.5
Consumer Discretionary	2.7	11.8
Consumer Staples	3.5	3.3
Health Care	14.3	20.6
Financials	0.0	16.4
Information Technology	10.5	13.8
Communication Services	3.7	2.5
Utilities	0.0	3.6
Real Estate	9.2	7.1
Unclassified	0.0	0.0

Risk / Return - 5 Years



Largest Holdings

	End Weight	Return
PROLOGIS INC	5.1	16.8
APPLIED INDUSTRIAL TECHNOLOGIES INC	4.9	37.3
PERKINELMER INC.	4.4	30.4
REGENCY CENTERS CORP.	4.1	21.3
METTLER-TOLEDO INTERNATIONAL INC	4.0	16.7

Top Contributors

	Beg Wgt	Return	Contribution
H.B. FULLER CO.	2.8	60.6	1.7
APPLIED INDUSTRIAL TECHNOLOGIES INC	4.4	37.3	1.6
NN INC	0.8	174.0	1.4
BEACON ROOFING SUPPLY INC	2.2	59.4	1.3
CIENA CORP	3.5	36.0	1.3

Bottom Contributors

	Beg Wgt	Return	Contribution
MTS SYSTEMS CORP	1.9	-21.8	-0.4
MATTHEWS INTERNATIONAL CORP	1.4	-20.3	-0.3
BELDEN INC	2.0	-9.7	-0.2
AMERICAN VANGUARD CORP	3.5	-4.8	-0.2
WATTS WATER TECHNOLOGIES INC	3.5	-4.0	-0.1

Market Capitalization

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Guyasuta Investment Advisors	33.8%	38.3%	22.5%	5.4%	0.0%
Russell 2000	70.3%	29.6%	0.1%	0.0%	0.0%
Weight Over/Under	-36.6%	8.8%	22.4%	5.4%	0.0%



Guyasuta Investment Advisors

Attribution

As of June 30, 2020 Market Value: \$29.1 Million and 3.6% of Fund

Sector Attribution vs Russell 2000

GICS Sector	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Energy	0.5%	1.7%	-1.3%	111.6%	28.2%	83.3%	0.0%	0.4%	0.4%	0.1%	0.4%
Materials	30.7%	3.4%	27.2%	19.6%	29.4%	-9.8%	1.1%	-3.0%	-1.9%	0.1%	-1.7%
Industrials	25.1%	15.4%	9.8%	29.7%	25.7%	4.0%	0.0%	1.0%	1.0%	0.1%	1.1%
Consumer Discretionary	2.5%	8.8%	-6.3%	44.9%	56.9%	-11.9%	-2.0%	-0.3%	-2.3%	2.8%	0.5%
Consumer Staples	4.2%	3.4%	0.7%	12.4%	19.7%	-7.2%	0.0%	-0.3%	-0.3%	-0.2%	-0.5%
Health Care	14.8%	21.2%	-6.4%	27.7%	32.1%	-4.4%	-0.4%	-0.6%	-1.1%	1.5%	0.4%
Financials	0.0%	16.7%	-16.7%		12.0%		2.2%	0.0%	2.2%	-2.2%	0.0%
Information Technology	8.0%	14.9%	-6.9%	9.0%	26.0%	-17.0%	-0.1%	-1.4%	-1.4%	0.1%	-1.3%
Communication Services	3.9%	2.3%	1.6%	24.8%	17.9%	6.9%	-0.1%	0.3%	0.2%	-0.2%	0.0%
Utilities	0.0%	4.5%	-4.5%		-3.6%		1.3%	0.0%	1.3%	-1.3%	0.0%
Real Estate	10.4%	7.6%	2.8%	18.8%	14.8%	4.0%	-0.3%	0.4%	0.1%	-0.8%	-0.7%
Total				23.4%	25.2%	-1.8%	1.7%	-3.5%	-1.8%	0.0%	-1.8%

Performance Attribution vs. Russell 2000

	Total	Selection	Allocation	Interaction
	Effects	Effect	Effect	Effects
Energy	0.0%	1.4%	-0.4%	-1.1%
Materials	4.5%	-0.3%	7.2%	-2.4%
Industrials	2.9%	0.6%	2.0%	0.3%
Consumer Discretionary	-4.0%	-1.1%	-3.7%	0.8%
Consumer Staples	-0.2%	-0.2%	0.1%	0.0%
Health Care	-3.0%	-0.9%	-2.4%	0.3%
Financials	-2.0%		-2.0%	
Information Technology	-3.2%	-2.5%	-2.0%	1.3%
Communication Services	0.5%	0.2%	0.2%	0.1%
Utilities	0.2%		0.2%	
Real Estate	0.7%	0.3%	0.3%	0.1%
Cash	0.0%	0.0%	0.0%	0.0%
Portfolio	-3.7% =	-2.6% +	-0.5% +	-0.6%

Market Cap Attribution vs. Russell 2000

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 3.14	55.0%	20.0%	34.9%	20.9%	16.6%	4.3%	-3.0%	2.4%	-0.6%	-1.7%	-2.4%
2) 2.08 - 3.14	6.8%	19.6%	-12.8%	6.5%	24.3%	-17.8%	0.1%	-1.2%	-1.1%	-0.2%	-1.3%
3) 1.35 - 2.08	21.0%	20.1%	0.9%	35.3%	26.2%	9.1%	0.0%	1.9%	1.9%	0.2%	2.1%
4) 0.75 - 1.35	7.2%	20.2%	-13.0%	23.8%	26.5%	-2.7%	-0.2%	-0.2%	-0.4%	0.3%	-0.1%
5) 0.00 - 0.75	10.1%	20.0%	-10.0%	23.0%	32.3%	-9.3%	-0.7%	-0.9%	-1.7%	1.4%	-0.2%
Total				23.4%	25.2%	-1.8%	-3.8%	1.9%	-1.8%	0.0%	-1.8%

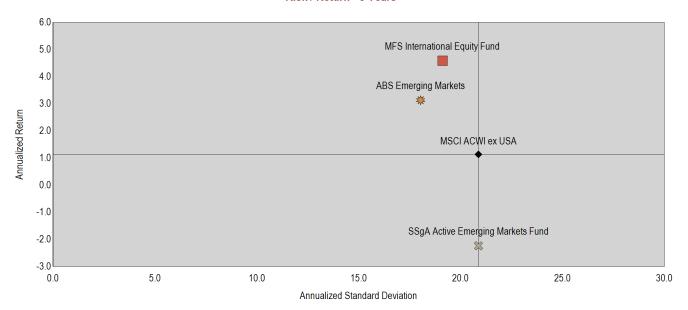
Non-U.S. Equity Composite

Characteristics

As of June 30, 2020 Mark

Market Value: \$88.4 Million and 11.0% of Fund

Risk / Return - 3 Years



Characteristics

	Portfolio	MSCI ACWI ex USA
Number of Holdings	335	2,372
Weighted Avg. Market Cap. (\$B)	88.0	79.4
Median Market Cap. (\$B)	6.8	7.4
Price To Earnings	19.7	16.4
Price To Book	3.0	2.7
Price To Sales	1.9	1.3
Return on Equity (%)	16.5	14.2
Yield (%)	2.2	2.9
Beta	0.9	1.0
R-Squared	1.0	1.0

Total	100.0%	100.0%
Other	0.0%	0.4%
Emerging Markets	11.8%	28.6%
Japan	14.2%	16.5%
Pacific Basin Ex Japan	5.5%	7.5%
United Kingdom	10.5%	9.1%
Europe Ex U.K.	52.5%	31.3%
United States	3.0%	0.0%
North America ex U.S.	2.5%	6.5%
Region	% of Total	% of Bench

Characteristics

	Portfolio	MSCI ACWI ex USA
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	2.1	4.8
Materials	7.7	7.6
Industrials	16.2	11.4
Consumer Discretionary	7.7	12.5
Consumer Staples	16.6	9.9
Health Care	17.7	10.6
Financials	13.0	18.2
Information Technology	13.4	11.0
Communication Services	2.0	7.5
Utilities	1.2	3.5
Real Estate	0.3	2.8
Unclassified	0.0	0.0

Market Capitalization

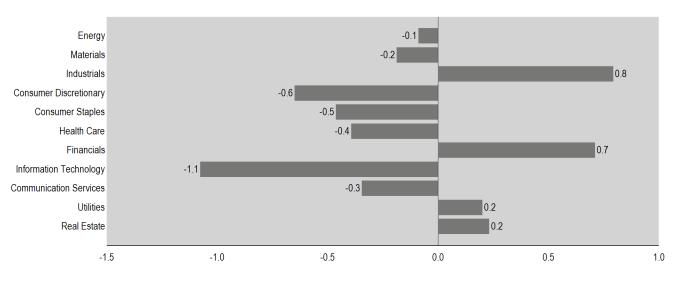
	Small Cap	Mid Cap	Large Cap
Non-U.S. Equity Composite	2.9%	12.0%	85.1%
MSCI ACWI ex USA	7.7%	22.8%	69.5%
Weight Over/Under	-4.8%	-10.8%	15.6%

Non-U.S. Equity Composite

Attribution

As of June 30, 2020 Market Value: \$88.4 Million and 11.0% of Fund

Active Contribution vs. MSCI ACWI ex USA



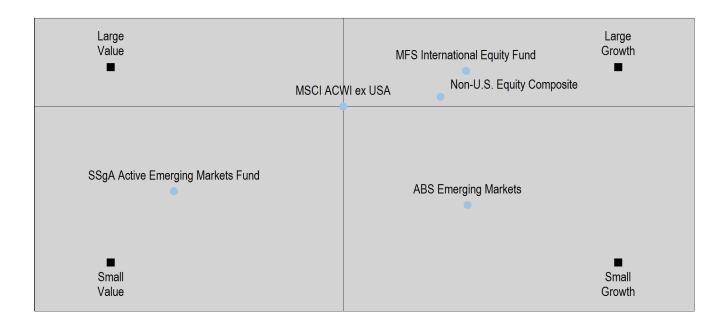
Non-U.S. Equity Composite

Market Cap Attribution vs. MSCI ACWI ex USA

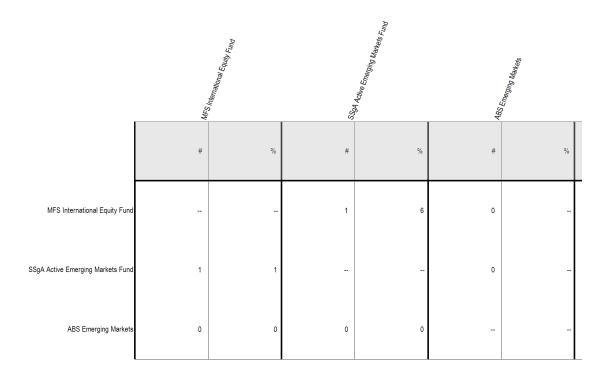
	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 87.84	24.5%	20.0%	4.5%	12.6%	12.8%	-0.3%	-0.1%	0.0%	-0.1%	-0.7%	-0.9%
2) 38.11 - 87.84	19.1%	20.3%	-1.1%	17.9%	16.7%	1.3%	0.0%	0.2%	0.2%	0.1%	0.3%
3) 20.16 - 38.11	31.6%	20.2%	11.5%	13.9%	16.4%	-2.5%	0.0%	-0.5%	-0.5%	0.0%	-0.6%
4) 8.87 - 20.16	15.1%	20.2%	-5.1%	20.0%	18.1%	1.9%	-0.1%	0.2%	0.1%	0.3%	0.4%
5) 0.00 - 8.87	9.6%	19.4%	-9.8%	17.3%	18.2%	-0.9%	-0.2%	-0.3%	-0.5%	0.3%	-0.1%
Total				15.6%	16.4%	-0.9%	-0.4%	-0.5%	-0.9%	0.0%	-0.9%

As of June 30, 2020

Equity Style Map 3 Years Ending June 30, 2020



Common Holdings Matrix



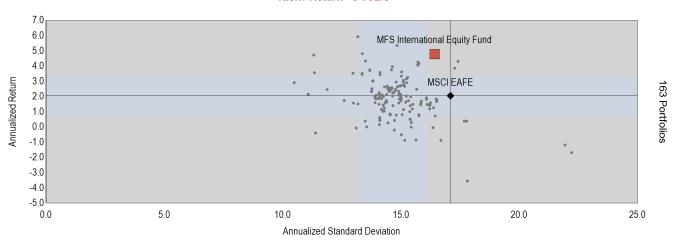
MFS International Equity Fund

Characteristics

As of June 30, 2020

Market Value: \$70.5 Million and 8.8% of Fund

Risk / Return - 5 Years



Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	77	902
Weighted Avg. Market Cap. (\$B)	84.2	60.7
Median Market Cap. (\$B)	34.5	9.5
Price To Earnings	21.6	17.2
Price To Book	3.1	2.7
Price To Sales	2.2	1.2
Return on Equity (%)	17.2	13.8
Yield (%)	2.0	2.9
Beta	0.9	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
North America ex U.S.	2.7%	0.0%
United States	3.3%	0.0%
Europe Ex U.K.	58.1%	48.3%
United Kingdom	11.7%	14.1%
Pacific Basin Ex Japan	4.5%	11.6%
Japan	15.7%	25.4%
Emerging Markets	4.0%	0.0%
Other	0.0%	0.6%
Total	100.0%	100.0%

Characteristics

	Portfolio	MSCI EAFE
INDUSTRY SECTOR DISTRIBUTION (% Ed	quity)	
Energy	1.8	3.4
Materials	7.9	7.3
Industrials	17.5	14.5
Consumer Discretionary	6.8	11.3
Consumer Staples	17.8	12.0
Health Care	19.3	14.5
Financials	12.5	16.1
Information Technology	12.9	8.3
Communication Services	0.8	5.4
Utilities	1.0	4.0
Real Estate	0.0	3.1
Unclassified	0.0	0.0

Market Capitalization

	Small Cap	Mid Cap	Large Cap
MFS International Equity Fund	0.0%	10.6%	89.4%
MSCI EAFE	5.2%	22.5%	72.3%
Weight Over/Under	-5.2%	-12.0%	17.1%

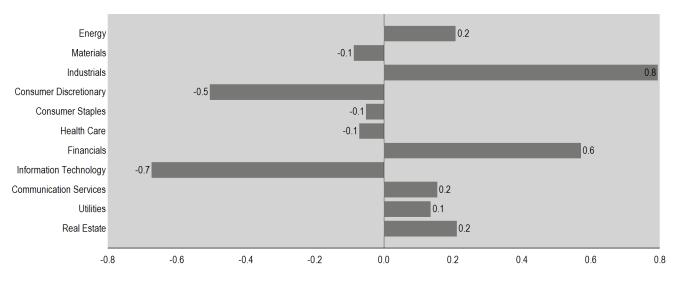
MFS International Equity Fund

Attribution

Market Value: \$70.5 Million and 8.8% of Fund

As of June 30, 2020

Active Contribution



MFS International Equity Fund

Performance By Characteristic

				ioiiiiaiioo i	Jy Ollarao	.0110110					
	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 82.45	25.9%	19.9%	6.0%	12.6%	9.5%	3.1%	-0.3%	0.9%	0.6%	-1.2%	-0.6%
2) 39.49 - 82.45	20.2%	20.3%	-0.1%	18.3%	17.4%	1.0%	0.0%	0.2%	0.2%	0.4%	0.6%
3) 22.92 - 39.49	29.5%	20.2%	9.4%	14.9%	15.5%	-0.6%	0.0%	0.0%	0.0%	0.0%	0.1%
4) 10.26 - 22.92	18.4%	20.1%	-1.7%	18.3%	17.7%	0.6%	0.0%	0.1%	0.0%	0.5%	0.5%
5) 0.00 - 10.26	5.9%	19.5%	-13.5%	13.3%	16.9%	-3.6%	-0.2%	-0.6%	-0.7%	0.3%	-0.4%
Total				15.5%	15.4%	0.1%	-0.5%	0.6%	0.1%	0.0%	0.1%



Carbon metrics as of Jun 30, 2020 | Category: Foreign Large Growth as of Jun 30, 2020 | Based on 98% of AUM | Data is based on long positions only.

*Sustainability metrics are from data gathered by Morningstar



SSgA Active Emerging Markets Index Fund

Characteristics

As of June 30, 2020 Market Value: \$7.8 Million and 1.0% of Fund

Risk / Return - 5 Years



Characteristics

	Portfolio	MSCI Emerging Markets
Number of Holdings	260	1,385
Weighted Avg. Market Cap. (\$B)	123.6	130.7
Median Market Cap. (\$B)	3.9	5.4
Price To Earnings	11.5	15.6
Price To Book	2.4	2.9
Price To Sales	1.2	1.5
Return on Equity (%)	16.2	15.6
Yield (%)	3.9	2.7
Beta	0.9	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
EM Asia	65.3%	79.2%
EM Latin America	8.0%	7.9%
EM Europe & Middle East	4.4%	4.7%
EM Africa	2.5%	3.9%
Other	19.9%	4.3%
Total	100.0%	100.0%

Characteristics

MSCI

	Portfolio	Emerging Markets
INDUSTRY SECTOR DISTRIBUTION (% E	quity)	
Energy	5.3	6.0
Materials	5.9	6.8
Industrials	4.3	4.7
Consumer Discretionary	16.1	17.3
Consumer Staples	5.0	6.3
Health Care	3.0	4.2
Financials	17.8	19.2
Information Technology	18.3	16.8
Communication Services	13.2	13.3
Utilities	3.6	2.3
Real Estate	3.5	2.6
Unclassified	0.0	0.0

Market Capitalization

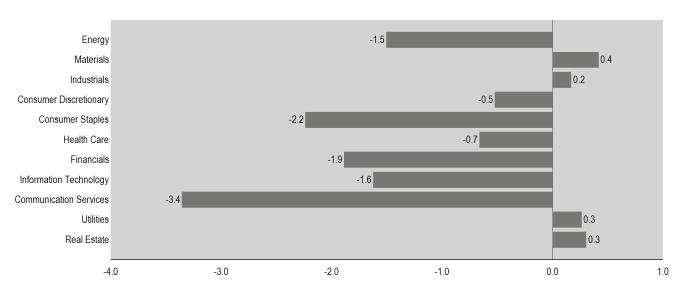
	Small Cap	Mid Cap	Large Cap
SSgA Active Emerging Markets Fund	16.9%	23.8%	59.4%
MSCI Emerging Markets	5.1%	17.5%	77.4%
Weight Over/Under	11.7%	6.2%	-18.0%

SSgA Active Emerging Markets Index Fund

Attribution

As of June 30, 2020 Market Value: \$7.8 Million and 1.0% of Fund

Active Contribution



SSgA Active Emerging Markets Fund

Performance By Characteristic

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 234.94	0.4%	18.1%	-17.7%	20.9%	19.6%	1.4%	-0.3%	-0.1%	-0.5%	0.3%	-0.2%
2) 33.77 - 234.94	17.4%	22.4%	-5.0%	9.8%	14.4%	-4.6%	0.2%	-0.9%	-0.7%	-0.8%	-1.5%
3) 13.58 - 33.77	25.8%	20.3%	5.6%	14.5%	20.4%	-5.9%	0.2%	-1.5%	-1.3%	0.5%	-0.8%
4) 5.36 - 13.58	13.2%	20.3%	-7.1%	14.6%	15.9%	-1.3%	0.2%	-0.3%	-0.1%	-0.4%	-0.5%
5) 0.00 - 5.36	43.2%	19.0%	24.2%	20.0%	20.6%	-0.7%	0.6%	0.1%	0.6%	0.5%	1.1%
Total				16.1%	18.0%	-2.0%	0.7%	-2.7%	-2.0%	0.0%	-2.0%

ABS Emerging Markets

Characteristics

As of June 30, 2020 Market Value: \$10.1 Million and 1.3% of Fund

Characteristics

Strategy Breakdown

	ABS Investment Management
Product Assets	\$315,515,554
#Underlying Managers	22
% of Portfolio in Top 3 Funds	26.9%
Aggregate Portfolio Leverage	120.0%
Best Performing Manager Return	9.4%
Worst Performing Manager Return	-28.6%
# Managers Hired Over Quarter	0
# Managers Fired Over Quarter	1
Total Outflows from the Fund	\$56,289,819
Pending Outflows	\$0
Total Inflows to the Fund	\$50,000,280
% of Fund Liquid in 6 Months	97.5%
% of Fund Liquid in 12 Months	98.5%
% of Fund Liquid in 24 Months	100.0%
Client Percent of Fund	3.1%

	Weight (%)	Attribution (%)
Credit	0.0%	0.0%
Event Driven	0.0%	0.0%
Global Macro/CTA	0.0%	0.0%
Multi-Strategy	0.0%	0.0%
Hedged Equity	98.9%	-5.7%
Relative Value	0.0%	0.0%
Short Selling	0.0%	0.0%
Other*	0.0%	0.0%
Cash	1.1%	0.0%
Total	100.0%	-5.7%

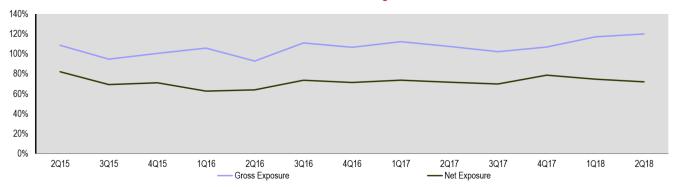
Security Geographic Exposure	Weight (%)
U.S. Exposure	0.7%
International Exposure	98.2%
Cash	1.1%

Top Ten Holdings Investment Detail

Fund	Tymo	Cost (\$M)	Fair Market Value (\$M)	Weight (%)	Quarter Return
ruliu	Туре	Cost (\$W)	value (\$W)	weight (%)	Retuin
WF Asian Smaller Companies Fund Limited	Hedged Equity	\$0.0	\$35.9	11.4%	-2.7%
Sagil Latin American Opportunities	Hedged Equity	\$0.0	\$26.9	8.5%	-5.4%
One North Capital Asia Value Fund	Hedged Equity	\$0.0	\$22.0	7.0%	-1.2%
ANDA SMA	Hedged Equity	\$0.0	\$21.6	6.9%	-10.7%
White Oak India Fund	Hedged Equity	\$0.0	\$20.2	6.4%	-2.8%
RWC Emerging Markets	Hedged Equity	\$0.0	\$17.6	5.6%	-8.2%
The Russian Prosperity Fund	Hedged Equity	\$0.0	\$17.3	5.5%	-8.0%
36One Hedge Portfolio	Hedged Equity	\$0.0	\$16.7	5.3%	-0.8%
Sinovision Long-Only	Hedged Equity	\$0.0	\$16.0	5.1%	-0.8%
Sinovision Taiwan Fund	Hedged Equity	\$0.0	\$15.2	4.8%	8.1%

				SEC
Fund	Size of Fund (\$M)	Fund Inception	Investment Inception	Registered
WF Asian Smaller Companies Fund Limited	\$1,444.0	January-03	July-12	Yes
Sagil Latin American Opportunities	\$426.0	July-09	August-14	Yes
One North Capital Asia Value Fund	\$270.0	March-09	October-12	Yes
ANDA SMA	\$400.0	January-10	July-17	Yes
White Oak India Fund	\$143.7	September-17	December-17	Yes
RWC Emerging Markets	\$4,497.1	August-12	August-16	Yes
The Russian Prosperity Fund	\$3,300.0	September-96	January-15	Yes
36One Hedge Portfolio	\$113.0	May-13	June-16	Yes
Sinovision Long-Only	\$37.2	January-10	September-17	Yes
Sinovision Taiwan Fund	\$357.0	January-10	August-16	Yes

Gross/Net Positioning



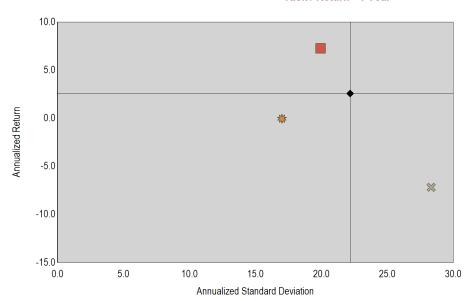
*Other:(freeform)

Emerging Manager Composite

Characteristics

As of June 30, 2020 Market Value: \$7.6 Million and 0.9% of Fund

Risk / Return - 1 Year



- Twin Capital
- Columbus Macro
- Emerging Manager Benchmark

Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	364	2,988
Weighted Avg. Market Cap. (\$B)	223.5	234.0
Median Market Cap. (\$B)	4.3	9.1
Price To Earnings	19.7	19.6
Price To Book	3.3	3.5
Price To Sales	1.9	1.9
Return on Equity (%)	13.9	19.1
Yield (%)	1.6	2.2
Beta	1.1	1.0
R-Squared	1.0	1.0

Largest Holdings

End Weight	Return
4.1	29.4
3.9	43.8
3.1	41.5
1.4	36.1
1.1	22.0
	4.1 3.9 3.1 1.4

Top Contributors

	Beg Wgt	Return	Contribution
APPLE INC	3.4	43.8	1.5
MICROSOFT CORP	3.9	29.4	1.1
AMAZON.COM INC	2.6	41.5	1.1
FACEBOOK INC	1.3	36.1	0.5
PAN AMERICAN SILVER CORP	0.3	113.2	0.3

Characteristics

	Portfolio	MSCI ACWI
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	2.5	3.6
Materials	7.4	4.6
Industrials	11.9	9.4
Consumer Discretionary	9.5	11.8
Consumer Staples	5.4	8.0
Health Care	14.2	12.9
Financials	8.5	13.4
Information Technology	24.6	20.7
Communication Services	8.2	9.3
Utilities	2.1	3.2
Real Estate	3.6	2.9
Unclassified	0.1	0.0

Bottom Contributors

	Beg Wgt	Return	Contribution	
MTS SYSTEMS CORP	0.3	-21.8	-0.1	
MATTHEWS INTERNATIONAL CORP	0.2	-20.3	0.0	
EURONAV	0.2	-21.7	0.0	
WELLS FARGO & CO	0.4	-9.0	0.0	
GENERAL ELECTRIC CO	0.2	-13.8	0.0	
Market Capitalization				

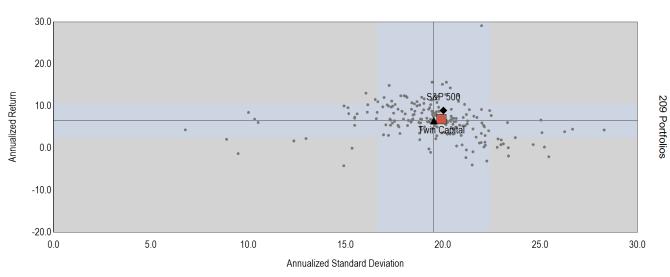
	Small Cap	Mid Cap	Large Cap
Emerging Manager Composite	42.9%	5.9%	51.2%
MSCI ACWI	3.6%	15.4%	81.0%
Weight Over/Under	39.3%	-9.5%	-29.9%

Twin Capital

Characteristics

As of June 30, 2020 Market Value: \$3.0 Million and 0.4% of Fund

Risk / Return - 2 Years



Characteristics

	Portfolio	S&P 500
Number of Holdings	167	505
Weighted Avg. Market Cap. (\$B)	395.9	370.7
Median Market Cap. (\$B)	40.5	21.3
Price To Earnings	21.4	22.9
Price To Book	3.9	4.2
Price To Sales	2.3	2.7
Return on Equity (%)	28.8	26.5
Yield (%)	1.9	1.8
Beta	1.0	1.0
R-Squared	1.0	1.0

Characteristics

	Portfolio	S&P 500
INDUSTRY SECTOR DISTRIBUTION (% Eq	juity)	
Energy	2.6	2.7
Materials	1.7	2.5
Industrials	7.5	7.9
Consumer Discretionary	10.9	11.3
Consumer Staples	6.6	7.6
Health Care	14.1	14.2
Financials	10.0	10.3
Information Technology	27.4	26.9
Communication Services	10.9	10.9
Utilities	3.4	2.9
Real Estate	2.8	2.7
Unclassified	0.6	0.0

Lar	gest	Ho	ldi	na	S

	End Weight	Return
MICROSOFT CORP	6.7	29.4
APPLE INC	6.4	43.8
AMAZON.COM INC	4.6	41.5
ALPHABET INC	2.4	22.0
FACEBOOK INC	2.1	36.1

Top Contributors

	End Weight	Return	Contribution
APPLE INC	6.4	43.8	2.8
MICROSOFT CORP	6.7	29.4	2.0
AMAZON.COM INC	4.6	41.5	1.9
FACEBOOK INC	2.1	36.1	0.7
PAYPAL HOLDINGS INC	0.6	82.0	0.5

Bottom Contributors

	End Weight	Return	Contribution
BIOGEN INC	0.4	-15.4	-0.1
WELLS FARGO & CO	0.3	-9.0	0.0
BERKSHIRE HATHAWAY INC	1.1	-2.4	0.0
CME GROUP INC	0.4	-5.6	0.0
MOLSON COORS BEVERAGE CO	0.2	-11.9	0.0

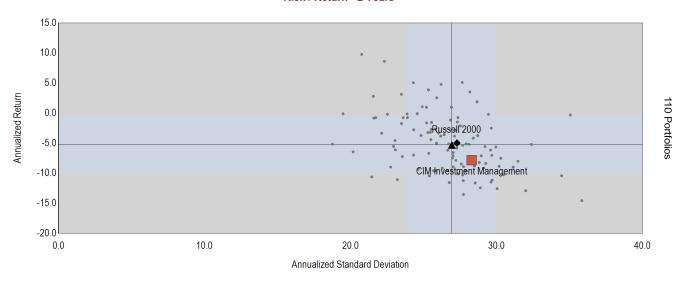
Market Capitalization

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Twin Capital	0.2%	2.6%	16.4%	23.5%	57.3%
S&P 500	0.1%	1.6%	13.8%	28.4%	56.1%
Weight Over/Under	0.1%	1.0%	2.6%	-4.9%	1.1%

Market Value: \$2.3 Million and 0.3% of Fund

As of June 30, 2020

Risk / Return - 2 Years



acte	acterist

	Portfolio	2000
Number of Holdings	198	2,005
Weighted Avg. Market Cap. (\$B)	3.4	2.1
Median Market Cap. (\$B)	2.0	0.6
Price To Earnings	17.2	16.2
Price To Book	2.7	2.7
Price To Sales	1.5	1.4
Return on Equity (%)	-4.0	-6.1
Yield (%)	1.3	1.4
Beta	1.0	1.0
R-Squared	1.0	1.0

Characteristics

Portfolio	Russell 2000
quity)	
0.7	2.2
2.6	4.0
14.7	14.5
8.1	11.8
8.7	3.3
21.2	20.6
15.2	16.4
12.4	13.8
2.8	2.5
5.2	3.6
6.0	7.1
0.0	0.0
	quity) 0.7 2.6 14.7 8.1 8.7 21.2 15.2 12.4 2.8 5.2 6.0

Largest Holdings

	End Weight	Return
ISHARES RUSSELL 2000 ETF	2.3	25.5
TETRA TECH INC	1.7	12.3
CALAVO GROWERS INC	1.2	9.0
GENERAC HOLDINGS INC	1.1	30.9
FEDERATED HERMES INC	1.1	25.9

Top Contributors

	End Weight	Return	Contribution
CIRCOR INTERNATIONAL INC	0.9	119.1	1.1
ESPERION THERAPEUTICS INC	1.0	62.7	0.7
UPWORK INC	0.5	123.9	0.6
MATADOR RESOURCES CO	0.3	242.7	0.6
ISHARES RUSSELL 2000 ETF	2.3	25.5	0.6

Bottom Contributors

	End Weight	Return	Contribution
FORESCOUT TECHNOLOGIES INC	0.5	-32.9	-0.2
PROASSURANCE CORP	0.2	-41.9	-0.1
BRINK'S CO (THE)	0.7	-12.2	-0.1
ALLETE INC.	0.9	-8.9	-0.1
FRESH DEL MONTE PRODUCE INC.	0.7	-10.6	-0.1

Market Capitalization

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
CIM Investment Management	58.0%	39.7%	0.0%	2.4%	0.0%
Russell 2000	70.3%	29.6%	0.1%	0.0%	0.0%
Weight Over/Under	-12.4%	10.1%	-0.1%	2.3%	0.0%



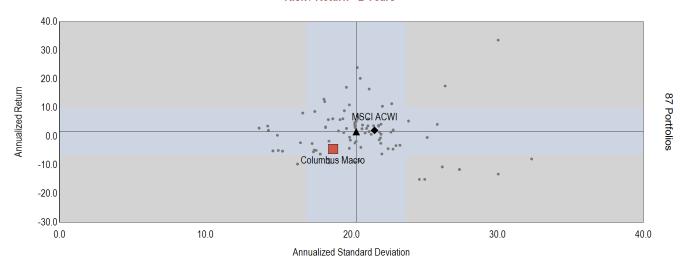
Columbus Macro

Characteristics

Market Value: \$2.3 Million and 0.3% of Fund

As of June 30, 2020

Risk / Return - 2 Years



	<u>Portfolio</u>	MSCI ACWI
Characteristics		
Weighted Average Market Cap (\$M)	31,858.20	55,302.00
Price To Earnings	12.7	22.2
Price To Book	1.6	4.0
Price To Sales	1.1	3.3
Return on Equity (%)	18.1%	18.7%
Yield (%)	3.0%	2.5%
Beta	0.71	1.00
R-Squared	73.9	100.0

World Regions	<u>Portfolio</u>	MSCI ACWI
Americas	33.0%	58.7%
North America	29.0%	57.2%
Latin America	4.0%	1.5%
Greater Europe	21.0%	21.0%
United Kingdom	5.0%	5.3%
Europe Developed	11.0%	13.8%
Europe Emerging	2.0%	0.7%
Africa/ Middle East	3.0%	1.1%
Greater Asia	47.0%	20.4%
Japan	7.0%	7.6%
Australasia	2.0%	2.2%
Asia Developed	13.0%	4.8%
Asia Emerging	25.0%	5.8%

Sector Allocation	<u>Portfolio</u>	MSCI ACWI
Basic Materials	6.0%	5.0%
Communication Services	3.0%	3.9%
Consumer Cyclical	11.0%	11.6%
Consumer Defensive	13.0%	8.8%
Healthcare	7.0%	11.8%
Industrials	10.0%	10.2%
Real Estate	6.0%	3.0%
Technology	17.0%	17.4%
Energy	4.0%	6.2%
Financial Services	18.0%	18.7%
Utilities	4.0%	3.4%



Equity Style
Large Cap
Mid Cap
Small Cap

Value	Core	Growth
24%	20%	23%
10%	7%	5%
6%	4%	2%

Top 5 Holdings

Mutual Fund	Weight
iShares Core MSCI Emerging Markets ETF	18.00%
iShares Core MSCI EAFE ETF	16.00%
iShares MSCI ACWI ETF	13.00%
WisdomTree Emerging Markets SmCp Div ETF	11.00%
iShares Edge MSCI Min Vol EM ETF	7.00%

Columbus Macro Characteristics

As of June 30, 2020

Characteristics

	ABS Investment Management
Product Assets	\$5.0
# Underlying Managers	28
% of Portfolio in Top 3 Funds	18.8%
Aggregate Portfolio Leverage	0.0%
# Managers Hired Over Quarter	1
# Managers Fired Over Quarter	2
Total Outflows from the Fund	\$81.0
Pending Outflows	\$1.0
Total Inflows to the Fund	\$0.1
% of Fund Liquid in 6Months	90.0%
% of Fund Liquid in 12Months	9.7%
% of Fund Liquid in 24Months	0.3%

Strategy Breakdown

	Weight(%)	Attribution(%)
Credit	0.0%	0.0%
Event Driven	0.0%	0.0%
Global Macro/CTA	0.0%	0.0%
Multi-Strategy	0.0%	0.0%
Hedged Equity	100.0%	1.2%
Relative Value	0.0%	0.0%
Short Selling	0.0%	0.0%
Other	0.0%	0.0%
Total	100.0%	1.2%

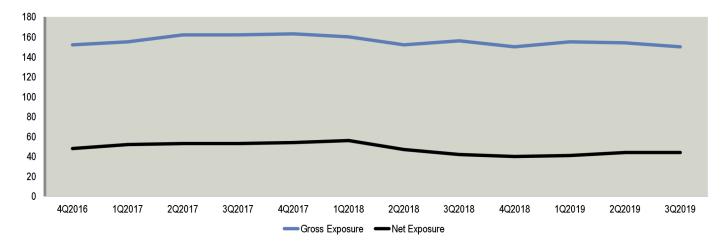
Security Geographic Exposure	Weight(%)
US Exposure	57.9%
International Exposure	40.8%
Cach	1 3%

Top Ten Holdings Invetsment Detail

Fund	Туре	Fair Market Value (\$M)	Weight %	Quarter Return
TPG Public Equity Partners B, Ltd	Hedged Equity	\$87.2	7.5%	2.5%
LongPond	Hedged Equity	\$62.4	5.4%	3.5%
Camber Capital Offshore Fund, Ltd.	Hedged Equity	\$60.2	5.2%	0.2%
Seligman Tech Spectrum Fund	Hedged Equity	\$65.0	5.6%	9.5%
SoMa Equity	Hedged Equity	\$66.2	5.7%	-3.9%
Artisan	Hedged Equity	\$55.6	4.8%	3.3%
Pleiad Asia Offshore Feeder Fund	Hedged Equity	\$60.2	5.2%	1.5%
Toronado	Hedged Equity	\$58.4	5.0%	10.0%
Rye Bay	Hedged Equity	\$47.6	4.1%	1.6%
Sagil	Hedged Equity	\$43.9	3.8%	2.3%
Fund	Fund Size (\$M)	Fund Inception	Investment Inception	SEC Registered
TPG Public Equity Partners B, Ltd	\$2,797.0	13-Sep	15-Jun	Yes
LongPond	\$2,679.0	10-Oct	12-Nov	Yes
Camber Capital Offshore Fund 1 td	\$1,668.0	6-Apr	10-Feb	Yes

Fund	Fund Size (\$M)	Fund Inception	Investment Inception	SEC Registered
TPG Public Equity Partners B, Ltd	\$2,797.0	13-Sep	15-Jun	Yes
LongPond	\$2,679.0	10-Oct	12-Nov	Yes
Camber Capital Offshore Fund, Ltd.	\$1,668.0	6-Apr	10-Feb	Yes
Seligman Tech Spectrum Fund	\$741.0	1-Jul	15-Feb	Yes
SoMa Equity	\$1,817.0	16-May	16-Dec	Yes
Artisan	\$445.0	17-Nov	19-Jan	Yes
Pleiad Asia Offshore Feeder Fund	\$2,186.0	14-Oct	14-Oct	Yes
Toronado	\$409.0	13-Jun	18-Aug	Yes
Rye Bay	\$795.0	16-Jan	17-May	Yes
Sagil	\$520.0	9-Jul	17-Mar	Yes

Gross/Net Positioning

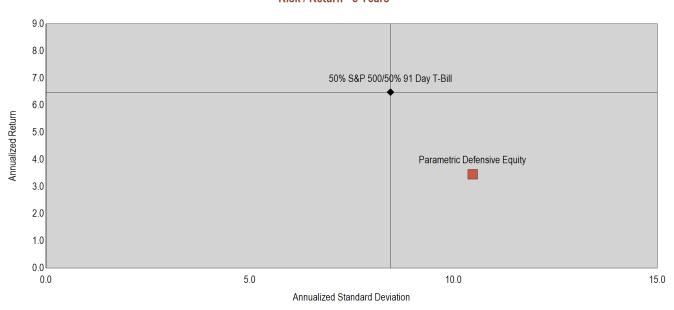


Parametric Defensive Equity

Characteristics

As of June 30, 2020

Risk / Return - 3 Years



Characteristics

Strategy Breakdown

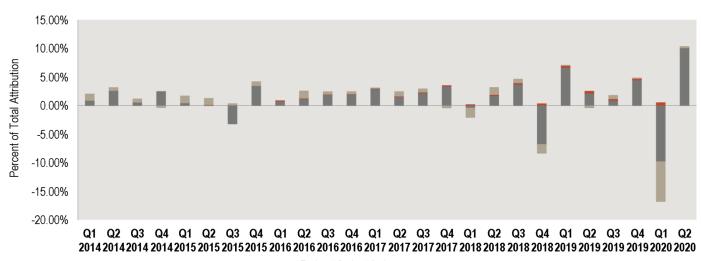
Parametric Defensive Equity

Portfolio Value	\$6.63 billion
Standard Deviation	7.8%
Sharpe Ratio	0.9

Fully Funded Base Portfolio with Option Overlay

S&P 500 Index	50.0%
Sells covered puts below current market price	
U.S. Treasury Bills	50.0%
Sells covered calls above current market price	

Quarterly Performance Attribution



"Equity "Cash "Options



As of March 31, 2020 Market Value: \$23.4 Million and 3.1% of Fund

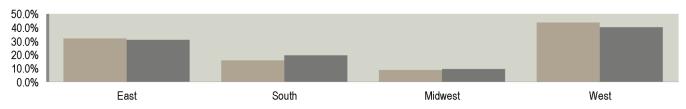
Characteristics Strategy Breakdown

			% of Portfolio	Top Five Metro Areas	% of NAV
Fund GAV (\$MM)	\$14,346.6	Pre-Development		San Francisco, CA	10.7%
Fund NAV (\$MM)	\$12,407.1	Development	0.6%	Los Angeles, CA	10.0%
Cash (% of NAV)	3.7%	Initial Leasing		Boston, MA	9.8%
# of Investments	109	Operating	99.4%	New York, NY	9.4%
% in Top 10 by NAV	28.7%	Re-Development		Seattle, WA	7.9%
Leverage %	18.9%	Other			
Occupancy	93.0%				
# of MSAs	31	Queue In:		Queue Out:	
1-Year Dividend Yield	3.3%	Contribution Queue (\$MM)	\$231.74	Redemption Queue (\$MM)	\$0.00
As of Date	31-Mar-20	Anticipated Drawdown (Months)	6	Anticipated Payout (Months)	0

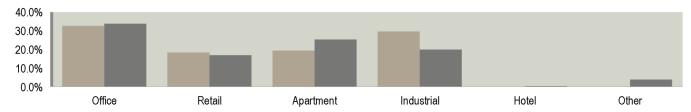
Top Ten Holdings Investment Detail

#	Property	Туре	Location	% of Fund NAV
1	Riverfront Office Park	Office	Cambridge, MA	6.2%
2	222 Broadway	Office	New York, NY	3.6%
3	222 South Riverside	Office	Chicago, IL	3.0%
4	Manhattan Village	Retail	Manhattan Beach, CA	2.9%
5	San Francisco Design Center	Retail	San Francisco, CA	2.6%
6	West 8th	Office	Seattle, WA	2.2%
7	505 Montgomery	Office	San Francisco, CA	2.1%
8	Alvarado Business Park	Industrial	Union City, CA	2.1%
9	525 Market Street	Office	San Francisco, CA	2.0%
10	Fullerton Crossroads	Industrial	Fullerton, CA	2.0%
Total				28.7%

Regional Breakdown by NAV (Excluding Cash & Debt)



Property Type Breakdown by NAV (Excluding Cash & Debt)



Property Size Breakdown by NAV (Excluding Cash & Debt)



Barings Core Property Fund

Characteristics

As of December 31, 2019

As of Date

\sim	I		_ 1	L		u	
U	na	ıra	CI	cer	1S	C	ICS

Fund GAV (\$MM)	\$3,639.5	

31-Dec-19

Fund NAV (\$MM) \$2,714.0 Cash (% of NAV) 3.2% # of Investments 44 43.3% % in Top 10 by NAV 23.3% Leverage % Occupancy 89.9% # of MSAs 20 1-Year Dividend Yield 4.2%

Strategy Breakdown

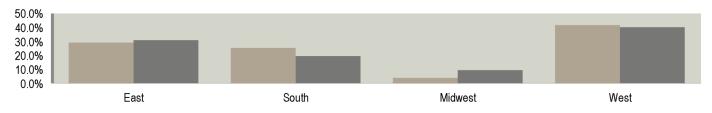
	% of Portfolio	Top Five Metro Areas	% of NAV
Pre-Development	0.7%	Los Angeles, CA	18.9%
Development	1.6%	New York-Northern NJ	17.5%
Initial Leasing	0.7%	Dallas-Ft. Worth, TX	10.0%
Operating	94.9%	West Palm Beach, FL	8.6%
Re-Development	1.8%	San Francisco, CA	5.7%
Other	0.3%		

Queue In:		Queue Out:	
Contribution Queue (\$MM)	\$0.00	Redemption Queue (\$MM)	\$97.69
Anticipated Drawdown (Months)	0	Anticipated Payout (Months)	6

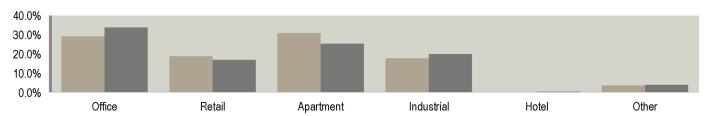
Top Ten Holdings Investment Detail

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#	Property	Туре	Location	% of Fund NAV	
1	100 Wall Street	Office	New York, NY	7.1%	
2	Boca Center Office	Office	Boca Raton, FL	5.8%	
3	33 New Montgomery	Office	San Francisco, CA	5.7%	
4	801 South Figueroa	Office	Los Angeles, CA	5.0%	
5	Promenade at Town Center	Retail	Valencia, CA	3.7%	
6	Ridge	Apartment	Waltham, MA	3.7%	
7	Water Tower Flats	Apartment	Arvada, CO	3.7%	
8	Triangle	Apartment	Redmond, WA	3.2%	
9	Torrance Crossroads	Retail	Torrance, CA	2.7%	
10	Riello	Apartment	Edgewater, NJ	2.6%	
Total				43.3%	

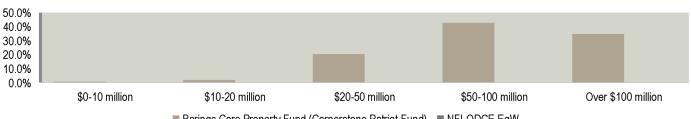
Regional Breakdown by NAV (Excluding Cash & Debt)



Property Type Breakdown by NAV (Excluding Cash & Debt)



Property Size Breakdown by NAV (Excluding Cash & Debt)



Pittsburgh Comprehensive Municipal Pension

Plan Capital Movement

- On May 28, 2020, \$496,362 in cash was distributed from the Crescent Mezzanine Partners VIIB to the Operating Account
- On April 30, 2020, \$187,695 in cash was distributed from the Rreef America II fund to the Operating Account
- On March 26, 2020, \$22,787 was distributed from the Siguler Guff Small Buyout IV to the Operating Account
- On March 4, 2020, \$345,000 was distributed from the Crescent Mezzanine Partners VIB to the Operating Account
- On January 28, 2020, \$469,088 was distributed from the Crescent Mezzanine Partners VIB to the Operating Account
- On December 11, 2019, \$147,918 in cash was distributed from the Crescent Mezzanine Partners VIIB to the Operating Account
- On December 10, 2019, \$110,042 in cash was wired from the Crescent Account held at PNC to Crescent Mezzanine Partners VIB, to cover a capital call
- On December 10, 2019, \$148,708 in cash was distributed from the Crescent Mezzanine Partners VIB to the Operating Account
- On October 31, 2019, \$191,387 in cash was distributed from RREEF America II to the Operating Account
- On October 29, 2019, \$263,443 in cash was wired from the Crescent Account held at PNC to Crescent Mezzanine Partners VIIB, to cover a capital call
- On October 11, 2019, \$18,193 in cash was wired from the Crescent Account held at PNC to Crescent Mezzanine Partners VIB, to cover a capital call
- On October 11, 2019, \$80,771 in cash was distributed from the Crescent Mezzanine Partners VIB to the Operating Account
- On October 10, 2019, \$81,442 in cash was distributed from the Crescent Mezzanine Partners VIIB to the Operating Account
- On September 27, 2019, \$596,715 in cash was wired from the Crescent Account held at PNC to Crescent Mezzanine Partners VIIB, to cover a capital call

Recent Action Items

- Discussions on-going for environmentally responsible investing within ESG Subcommittee
- Dedicated Funding for CMPTF's valuation was updated based on a 7.25% discount rate beginning 1-1-2019



Total Fund Composite

Fee Schedule

Market Value: \$801.9 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Short-Term Fixed Income	Vanguard Ultra Short Duration	0.10% on the Balance	0.10% \$15,441	0.47%
Core Fixed Income	Federated Investors	0.25% on the Balance	0.25% \$160,343	0.30%
Core Fixed Income	BlackRock Total Return Fund	0.40% on the Balance	0.40% \$91,770	0.56%
Large-Cap Core	SSgA S&P 500 Index Fund	0.04% on the Balance	0.04% \$51,753	0.03%
Large-Cap Core	Twin Capital	0.35% on the first \$50 million 0.20% on the Balance	0.35% \$10,443	0.55%
Smid-Cap Core	Frontier Capital Management	0.75% on the Balance	0.75% \$229,130	0.80%
Small-Cap Core	Guyasuta Investment Advisors	0.45% on the Balance	0.45% \$130,995	0.85%
Small-Cap Core	CIM Investment Management	0.75% on the first \$1 million 0.65% on the next \$3 million 0.60% on the Balance	0.69% \$16,118	0.85%
Non-U.S. Large-Cap Core	MFS International Equity Fund	0.75% on the Balance	0.75% \$528,467	0.85%
Global Core Equity	Columbus Macro	0.70% on the Balance	0.70% \$16,032	0.71%
Emerging Markets	SSgA Active Emerging Markets Fund	0.75% on the Balance	0.75% \$58,344	0.90%
Emerging Markets	ABS Emerging Markets	0.80% on the Balance	0.80% \$80.916	1.00%
Hedged Equity Hedge FoF	ABS Offshore SPC Global	1.00% on the Balance	1.00% \$147,294	1.00%
Multi-Strat. Hedge Fund	Entrust Three Rivers Partners	1.25% on the Balance	1.25% \$266,580	1.00%
Defensive Equity	Parametric Defensive Equity	0.325% on the first \$50 million 0.30% on the next \$50 million 0.275% on the Balance	0.325% \$37,477	0.70%
Core Real Estate	Rreef America II	0.95% on the Balance	0.95% \$ 219,37 4	1.00%
Core Real Estate	Barings Core Property Fund	1.10% on the first \$15 million 1.00% on the next \$10 million 0.80% on the Balance	1.06% \$248,810	1.00%

Total Fund Composite

Fee Schedule

Market Value: \$801.9 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
		0.80% on the Balance		
Venture Private Equity	Draper Triangle Ventures III, LP	2.50% on total commitments plus 20% carried interest	3.18% \$50,000	2.86%
Mezz. Private Equity	Crescent Mezzanine Partners VIB, LP	1.50% on total commitments plus 20% carried interest after 8% preferred return	5.19% \$150,000	5.19%
Mezzanine Debt	Crescent Mezzanine Partners VIIB, L.P.	0.75% on total commitments 0.75% on invested capital plus 20% carried interest after 8% preferred return	2.16% \$114,814	2.16%
LBO Private Equity FoF	Siguler Guff Small Buyout Opportunities Fund IV, LP	0.80% on total commitments discounted by 20%	5.39% \$120,000	13.47%
Fixed Income Annuity	Dedicated Funding for CMPTF	0.00% on the Balance	0.00% \$0	0.00%
Total Investment Management Fee	es		0.34% \$ 2,744,099	0.40%
Custodian	PNC Bank	0.015% on the all assets, excluding Dedicated Funding for CMPTF	0.01% \$76,089	
Total Fund			0.35% \$2,820,188	

DISCLOSURE

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