



# **Pittsburgh Comprehensive Municipal Pension**

Pittsburgh Comprehensive Municipal

Executive Summary

**September 30, 2022** 

# Manager Status

Market Value: \$930.2 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	
Vanguard Russell 2000	Small-Cap Core	In Compliance	
CIM Investment Management	Small-Cap Core	In Compliance	
Columbus Macro	Global Core Equity	Alert	Performance
Federated Hermes Global Equity	Global Core Equity	In Compliance	
MFS International Equity Fund	Non-U.S. Large-Cap Core	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	
Crescent Mezzanine Partners VIB, LP	Mezz. Private Equity	In Compliance	
Crescent Mezzanine Partners VIB, LP	Mezz. Private Equity	In Compliance	
Crescent Credit Solutions VIII A-2	Direct Lending	In Compliance	
Siguler Guff Small Buyout Opportunities Fund IV	LBO Private Equity FoF	In Compliance	
Siguler Guff Small Buyout Opportunities Fund V	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.

# **Plan Capital Movement**

- On September 15, 2022, proceeds from the liquidation of Guyasuta Small Cap Core were used to purchase shares of Vanguard Russell 2000 Index fund until a new small cap equity manager is selected from the RFP candidates.
- On August 5, 2022, \$360,000 in cash was wired to Siguler Guff Small Buyout V from the Operating Account for the initial capital call for the fund.
- On June 30, 2022, \$750,000 in cash was wired to Rreef America II fund from the Operating Account as the last part of an additional \$5,000,000 commitment to the fund.
- On March 31, 2022, \$500,000 in cash was wired to Rreef America II fund from the Operating Account as part of an additional \$5,000,000 commitment to the fund.
- On December 31, 2021, \$2,500,000 in cash was wired to Rreef America II fund from the Operating Account as part of an additional \$5,000,000 commitment to the fund.
- •In 2022, \$2,577,012 has been wired from the Crescent account at PNC to Crescent Credit Solutions VIII, to cover capital calls.
- •In 2022, \$2,320,301 has been wired from the Siguler Guff account at PNC to Siguler Guff Small Buyout IV, to cover capital calls.

# **Recent Action Items**

Committed \$3,000,000 to Magarac Ventures

Market Value: \$930.2 Million and 100.0% of Fund

		LIIdi	•	ig deptember 30, 2022				
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)		
Total Fund Composite		930,243,375	-5,015,895	100.0	100.0	0		
Dedicated Funding for CMPTF	Fixed Income Annuity	337,715,430	-6,688,000	36.3	40.0	-34,381,920		
Total Invested Portfolio		592,527,946	1,672,105	63.7	60.0	34,381,920		
Fixed Income Composite		92,822,118	-37,294	10.0	13.0	-28,109,521		
Vanguard Ultra Short Duration	Short-Term Fixed Income	15,382,973	0	1.7				
Federated Investors	Core Fixed Income	57,536,405	-37,294	6.2				
BlackRock Total Return Fund	Core Fixed Income	19,902,740	0	2.1				
U.S. Equity Composite		225,923,697	-933,153	24.3	22.0	21,270,154		
SSgA S&P 500 Index Fund	Large-Cap Core	150,847,306	-16,341	16.2				
Frontier Capital Management	Smid-Cap Core	37,653,317	-77,277	4.0				
Vanguard Russell 2000	Small-Cap Core	37,423,073	41,000,000	4.0				
Emerging Manager Composite		8,332,347	-12,310	0.9		8,332,347		
Twin Capital	Large-Cap Core	3,574,599	-3,379	0.4				
CIM Investment Management	Small-Cap Core	2,482,885	-4,625	0.3				
Columbus Macro	Global Core Equity	2,274,863	-4,307	0.2				
Non-U.S. Equity Composite		91,408,031	-16,160	9.8	12.0	-20,221,174		
MFS International Equity Fund	Non-U.S. Large-Cap Core	71,923,678	0	7.7				
SSgA Active Emerging Markets Fund	Emerging Markets	7,981,235	-16,160	0.9				
ABS Emerging Markets	Emerging Markets	11,503,118	0	1.2				
Global Equity Composite		7,133,572	0	0.8	-	7,133,572		
Federated Hermes Global Equity	Global Core Equity	7,133,572	0	0.8				
Hedge Fund Composite		53,923,895	0	5.8	5.0	7,411,726		
ABS Offshore SPC Global	Hedged Equity Hedge FoF	15,419,326	0	1.7				
Entrust Three Rivers Partners	Multi-Strat. Hedge Fund	25,224,604	0	2.7				
Parametric Defensive Equity	Defensive Equity	13,279,965	0	1.4				
Real Estate Composite		53,965,350	-302,606	5.8	5.0	7,453,181		
Rreef America II	Core Real Estate	27,763,022	-239,112	3.0	2.5	4,506,938		
Barings Core Property Fund	Core Real Estate	26,202,328	-63,494	2.8	2.5	2,946,244		
Private Equity Composite		27,488,439	2,231,154	3.0	3.0	-418,862		
Cash Composite		31,530,497	742,473	3.4	0.0	31,530,497		

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



# Total Invested Portfolio

Market Value: \$592.5 Million and 63.7% of Fund

# **Ending September 30, 2022**

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio
Total Invested Portfolio		592,527,946	1,672,105	100.0
Fixed Income Composite		92,822,118	-37,294	15.7
Vanguard Ultra Short Duration	Short-Term Fixed Income	15,382,973	0	2.6
Federated Investors	Core Fixed Income	57,536,405	-37,294	9.7
BlackRock Total Return Fund	Core Fixed Income	19,902,740	0	3.4
U.S. Equity Composite		225,923,697	-933,153	38.1
SSgA S&P 500 Index Fund	Large-Cap Core	150,847,306	-16,341	25.5
Frontier Capital Management	Smid-Cap Core	37,653,317	-77,277	6.4
Vanguard Russell 2000	Small-Cap Core	37,423,073	41,000,000	6.3
Emerging Manager Composite		8,332,347	-12,310	1.4
Twin Capital	Large-Cap Core	3,574,599	-3,379	0.6
CIM Investment Management	Small-Cap Core	2,482,885	-4,625	0.4
Columbus Macro	Global Core Equity	2,274,863	-4,307	0.4
Non-U.S. Equity Composite		91,408,031	-16,160	15.4
MFS International Equity Fund	Non-U.S. Large-Cap Core	71,923,678	0	12.1
SSgA Active Emerging Markets Fund	Emerging Markets	7,981,235	-16,160	1.3
ABS Emerging Markets	Emerging Markets	11,503,118	0	1.9
Global Equity Composite		7,133,572	0	1.2
Federated Hermes Global Equity	Global Core Equity	7,133,572	0	1.2
Hedge Fund Composite		53,923,895	0	9.1
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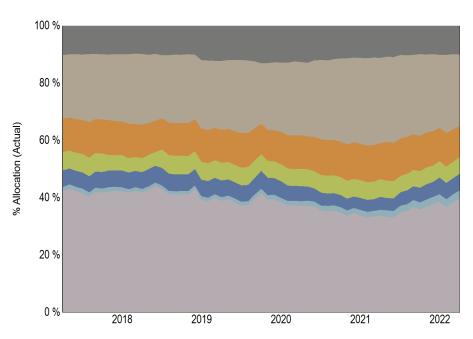
- Private Equity Composite may not include current performance, due to reporting cycle limitations.



# **Asset Allocation**

Market Value: \$930.2 Million and 100.0% of Fund

## **Historic Asset Allocation**



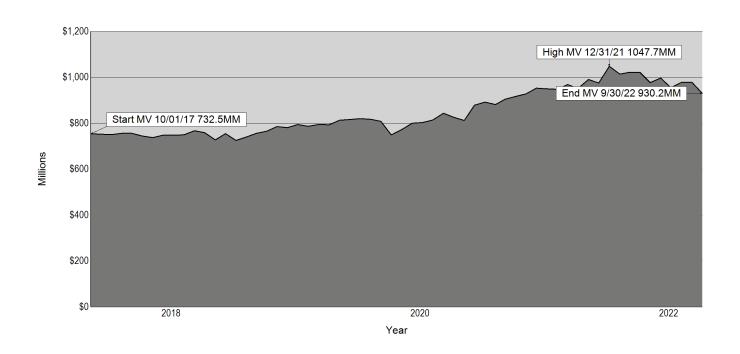


# Asset Allocation vs. Target As Of September 30, 2022

	Current	Policy	Difference*	Difference**
Fixed Income	\$92,822,118	\$120,931,639	-\$28,109,521	-3.0%
U.S. Equity	\$231,981,181	\$204,653,543	\$27,327,638	2.9%
Non-U.S. Equity	\$100,816,466	\$111,629,205	-\$10,812,739	-1.2%
Hedge Funds	\$53,923,895	\$46,512,169	\$7,411,726	0.8%
Real Assets	\$53,965,350	\$46,512,169	\$7,453,181	0.8%
Private Equity	\$27,488,439	\$27,907,301	-\$418,862	0.0%
Other	\$369,245,927	\$372,097,350	-\$2,851,424	-0.3%
Total	\$930,243,375	\$930,243,375		

# Market Value History

Market Value: \$930.2 Million and 100.0% of Fund



# **Summary of Cash Flows: Invested Portfolio**

	Third Quarter	Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$616,068,403.59	\$707,265,840.26	\$664,483,091.44	\$494,128,209.44	\$432,772,397.59
Net Cash Flow	\$1,992,742.78	\$6,788,396.45	\$8,987,823.27	\$29,320,844.19	\$42,101,255.32
Net Investment Change	-\$25,533,200.73	-\$121,526,291.07	-\$80,942,969.07	\$69,078,892.01	\$117,654,292.73
Ending Market Value	\$592,527,945.64	\$592,527,945.64	\$592,527,945.64	\$592,527,945.64	\$592,527,945.64

# Annualized Performance (Net of Fees)

Market Value: \$930.2 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	-4.1	-2.1	-10.0	-5.4	4.8	5.6	5.6	6.0	7.1	7.5
Total Fund Composite Benchmark	-4.0	-2.1	-10.3	-6.5	4.0	5.3	5.2	5.7	6.8	7.1
InvMetrics Public DB Net Rank	4	2	3	2	10	10	5	11	18	10
Total Invested Portfolio	-6.1	-4.1	-17.1	-12.1	3.1	4.4	4.1	4.7	6.7	6.9
Total Invested Portfolio Benchmark	-6.6	-4.5	-17.3	-13.2	2.3	4.3	4.2	4.9	6.7	6.9
InvMetrics Public DB Net Rank	31	34	30	20	20	26	31	41	32	31
Fixed Income Composite	-3.6	-3.7	-12.5	-12.6	-5.7	-1.4	1.2	0.8	1.7	1.9
Bloomberg US Aggregate TR	-4.3	-4.8	-14.6	-14.6	-8.0	-3.3	0.0	-0.3	0.5	0.9
InvMetrics Public DB US Fix Inc Net Rank	32	48	44	44	43	20	5	12	15	8
U.S. Equity Composite	-9.2	-4.6	-24.1	-16.5	5.8	7.2	5.8	7.6	10.7	11.1
Dow Jones U.S. Total Stock Market	-9.3	-4.6	-24.9	-18.1	4.1	7.5	6.3	8.5	10.8	11.3
InvMetrics Public DB US Eq Net Rank	35	48	61	48	48	40	59	66	24	36
Emerging Manager Composite	-9.2	-5.5	-24.5	-20.1	0.9	2.1	0.9	3.1		
Emerging Manager Benchmark	-9.4	-4.5	-25.0	-20.2	3.8	5.6	3.8	5.8		
Non-U.S. Equity Composite	-8.0	-8.1	-25.4	-21.5	-1.6	1.1	1.6	1.9	5.1	4.7
MSCI ACWI ex USA	-10.0	-9.9	-26.5	-25.2	-3.7	-1.5	-1.4	-0.8	3.3	3.0
InvMetrics Public DB ex-US Eq Net Rank	10	12	19	2	11	9	5	5	3	4
Global Equity Composite	-10.3	-9.3	-30.0							
MSCI ACWI	-9.6	-6.8	-25.6	-20.7	0.6	3.7	3.1	4.4	7.4	7.3
InvMetrics Public DB Glbl Eq Net Rank	99	97	97					-		
Hedge Fund Composite	-3.5	-2.0	-10.2	-8.9	4.3	3.2	2.1	2.7	3.2	
HFRI Fund of Funds Composite Index	-1.7	-0.4	-7.0	-6.6	3.3	4.1	3.1	3.1	3.2	3.5
HFRI Equity Hedge (Total) Index	-4.2	-2.3	-13.8	-13.2	5.2	6.2	4.2	4.4	5.5	5.3
InvMetrics Public DB Hedge Funds Net Rank	76	80	71	72	62	76	81	78	56	-
Real Estate Composite	-2.2	-2.2	8.7	18.3	15.0	10.2	9.1	8.8	8.7	
NFI-ODCE	0.1	0.3	12.4	21.0	17.3	11.4	9.7	9.3	8.9	9.9
InvMetrics Public DB Real Estate Priv Net Rank	99	99	98	85	85	85	80	87	82	

5th Percentile

25th Percentile

75th Percentile

95th Percentile

# of Portfolios

**Total Fund Composite** 

Total Fund Composite Benchmark

Median

# Annualized Performance (Net of Fees)

(11)

(15)

6.0

5.7

(10)

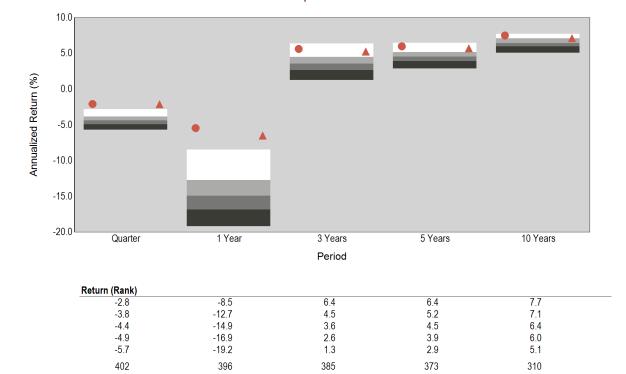
(23)

7.5

7.1

Market Value: \$930.2 Million and 100.0% of Fund

### **Total Fund DB Return Comparison**



5.6

5.3

(10)

(14)

### **Invested Portfolio DB Return Comparison**

(2)

(3)

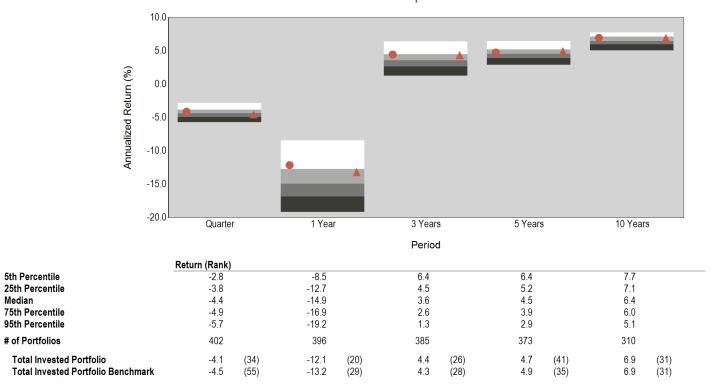
-5.4

-6.5

(2) (2)

-2.1

-2.1



# Calendar Performance (Net of Fees)

Market Value: \$930.2 Million and 100.0% of Fund

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	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)
Total Fund Composite	13.5	10.6	15.6	-0.1	11.7	8.1	3.2	9.2	13.6	12.3	1.8
Total Fund Composite Benchmark	12.6	10.8	14.4	0.1	12.2	7.7	3.5	7.2	14.1	10.5	1.3
InvMetrics Public DB Net Rank	54	81	93	2	95	26	1	1	66	41	22
Total Invested Portfolio	15.8	12.1	19.5	-5.0	14.7	8.5	0.0	6.6	17.6	14.1	-2.5
Total Invested Portfolio Benchmark	14.7	13.3	19.5	-4.8	16.0	7.4	0.7	6.8	17.6	12.2	0.3
InvMetrics Public DB Net Rank	19	61	49	69	49	16	34	22	22	7	92
Fixed Income Composite	-0.3	9.0	9.6	-0.9	4.3	4.5	0.0	6.1	-0.4	8.4	5.4
Bloomberg US Aggregate TR	-1.5	7.5	8.7	0.0	3.5	2.6	0.6	6.0	-2.0	4.2	7.8
InvMetrics Public DB US Fix Inc Net Rank	16	21	13	91	39	47	56	15	32	35	87
U.S. Equity Composite	25.9	17.8	31.1	-7.2	19.5	16.6	-2.3	12.5	34.2	17.8	0.6
Dow Jones U.S. Total Stock Market	25.7	20.8	30.9	-5.3	21.2	12.6	0.4	12.5	33.5	16.4	1.1
InvMetrics Public DB US Eq Net Rank	47	49	15	73	70	2	84	14	50	4	48
Emerging Manager Composite	15.3	12.3	25.9	-9.8	16.9						
Emerging Manager Benchmark	20.5	19.2	28.0	-8.4	18.9						
Non-U.S. Equity Composite	13.5	11.9	25.5	-11.4	28.5	1.9	-1.7	-4.2	12.9	21.3	
MSCI ACWI ex USA	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7
InvMetrics Public DB ex-US Eq Net Rank	1	59	12	6	48	83	23	62	82	8	
Global Equity Composite											
MSCI ACWI	18.5	16.3	26.6	-9.4	24.0	7.9	-2.4	4.2	22.8	16.1	-7.3
InvMetrics Public DB Glbl Eq Net Rank											
Hedge Fund Composite	9.2	8.1	9.3	-2.9	9.0	0.7	0.0	4.9			
HFRI Fund of Funds Composite Index	6.2	10.9	8.4	-4.0	7.8	0.5	-0.3	3.4	9.0	4.8	-5.7
HFRI Equity Hedge (Total) Index	11.7	17.9	13.7	-7.1	13.3	5.5	-1.0	1.8	14.3	7.4	-8.4
InvMetrics Public DB Hedge Funds Net Rank	41	49	38	68	23	74	45	35			
Real Estate Composite	21.2	0.3	6.1	6.9	6.5	8.4	14.4	11.0			
NFI-ODCE	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0
InvMetrics Public DB Real Estate Priv Net Rank	69	69	34	80	63	43	7	67			

# Annualized Performance (Net of Fees)

Market Value: \$930.2 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	-4.1	-2.1	-10.0	-5.4	4.8	5.6	5.6	6.0	7.1	7.5
Total Fund Composite Benchmark	-4.0	-2.1	-10.3	-6.5	4.0	5.3	5.2	5.7	6.8	7.1
InvMetrics Public DB Net Rank	4	2	3	2	10	10	5	11	18	10
Dedicated Funding for CMPTF	-0.3	1.7	5.2	8.2	7.8	7.6	8.1	8.0	7.9	8.4
Annual Return	0.6	1.8	5.4	7.2	7.2	7.2	7.3	7.3	7.4	7.5
Total Invested Portfolio	-6.1	-4.1	-17.1	-12.1	3.1	4.4	4.1	4.7	6.7	6.9
Total Invested Portfolio Benchmark	-6.6	-4.5	-17.3	-13.2	2.3	4.3	4.2	4.9	6.7	6.9
InvMetrics Public DB Net Rank	31	34	30	20	20	26	31	41	32	31
Fixed Income Composite	-3.6	-3.7	-12.5	-12.6	-5.7	-1.4	1.2	0.8	1.7	1.9
Bloomberg US Aggregate TR	-4.3	-4.8	-14.6	-14.6	-8.0	-3.3	0.0	-0.3	0.5	0.9
InvMetrics Public DB US Fix Inc Net Rank	32	48	44	44	43	20	5	12	15	8
Vanguard Ultra Short Duration	-0.4	-0.2	-1.3	-1.5	-0.4	0.5				
BofA Merrill Lynch 1 Year Treasury	0.0	-0.1	-0.8	-0.9	-0.4	0.5	1.2	1.2	1.0	0.8
Ultrashort Bond MStar MF Rank	68	85	60	60	63	39				
Federated Investors	-4.1	-4.3	-13.9	-14.0	-6.4	-1.4	1.2	0.9	1.8	1.8
Bloomberg US Aggregate TR	-4.3	-4.8	-14.6	-14.6	-8.0	-3.3	0.0	-0.3	0.5	0.9
eV US Core Fixed Inc Net Rank	27	21	21	22	7	3	3	3	1	4
BlackRock Total Return Fund	-4.9	-4.7	-15.8	-15.8	-7.7	-2.8	0.3	-0.1	0.9	1.7
Bloomberg US Aggregate TR	-4.3	-4.8	-14.6	-14.6	-8.0	-3.3	0.0	-0.3	0.5	0.9
Intermediate Core Bond MStar MF Rank	89	55	86	82	42	29	26	33	19	5
U.S. Equity Composite	-9.2	-4.6	-24.1	-16.5	5.8	7.2	5.8	7.6	10.7	11.1
Dow Jones U.S. Total Stock Market	-9.3	-4.6	-24.9	-18.1	4.1	7.5	6.3	8.5	10.8	11.3
InvMetrics Public DB US Eq Net Rank	35	48	61	48	48	40	59	66	24	36
SSgA S&P 500 Index Fund	-9.2	-4.9	-23.9	-15.5	4.8	8.1	7.1	9.2	11.4	
S&P 500	-9.2	-4.9	-23.9	-15.5	4.8	8.2	7.2	9.2	11.4	11.7
eV US Large Cap Core Equity Net Rank	72	44	60	49	47	25	28	26	18	
Frontier Capital Management	-11.0	-4.6	-26.1	-21.8	6.7	4.2	1.7	3.6	8.1	9.6
Russell 2500	-9.5	-2.8	-24.0	-21.1	7.0	5.4	2.9	5.5	8.4	9.6
eV US Small-Mid Cap Core Equity Net Rank	99	62	70	66	56	71	75	86	57	56
Vanguard Russell 2000										
Russell 2000	-9.6	-2.2	-25.1	-23.5	6.3	4.3	0.8	3.6	7.5	8.6
Small Cap MStar MF Rank										



# Annualized Performance (Net of Fees)

Market Value: \$930.2 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 (%)
Emerging Manager Composite	-9.2	-5.5	-24.5	-20.1	0.9	2.1	0.9	3.1		
Emerging Manager Benchmark	-9.4	-4.5	-25.0	-20.2	3.8	5.6	3.8	5.8		
Twin Capital	-9.0	-4.9	-23.0	-14.4	4.8	7.5	6.3	8.2		-
S&P 500	-9.2	-4.9	-23.9	-15.5	4.8	8.2	7.2	9.2	11.4	11.7
Russell 1000	-9.3	-4.6	-24.6	-17.2	4.1	7.9	6.9	9.0	11.2	11.6
eV US Large Cap Core Equity Net Rank	63	44	47	39	47	35	47	49		
CIM Investment Management	-9.7	-4.6	-25.9	-24.5	1.0	-1.3	-3.3	0.1		
Russell 2000	-9.6	-2.2	-25.1	-23.5	6.3	4.3	0.8	3.6	7.5	8.6
eV US Small Cap Core Equity Net Rank	78	76	69	85	95	98	98	97		
Columbus Macro	-9.0	-7.4	-25.5	-23.3	-4.4	-1.3	-1.3	-0.1		
MSCI ACWI	-9.6	-6.8	-25.6	-20.7	0.6	3.7	3.1	4.4	7.4	7.3
eV Global All Cap Core Eq Net Rank	52	67	51	69	91	97	96	98		
Non-U.S. Equity Composite	-8.0	-8.1	-25.4	-21.5	-1.6	1.1	1.6	1.9	5.1	4.7
MSCI ACWI ex USA	-10.0	-9.9	-26.5	-25.2	-3.7	-1.5	-1.4	-0.8	3.3	3.0
InvMetrics Public DB ex-US Eq Net Rank	10	12	19	2	11	9	5	5	3	4
MFS International Equity Fund	-8.2	-8.6	-26.7	-21.7	-1.9	0.7	1.7	2.3	5.2	5.5
MSCI EAFE	-9.4	-9.4	-27.1	-25.1	-3.0	-1.8	-1.7	-0.8	2.8	3.7
Foreign Large Blend MStar MF Rank	12	9	29	13	16	11	6	4	4	6
SSgA Active Emerging Markets Fund	-10.4	-10.4	-25.0	-25.3	-4.1	-2.0	-3.5	-3.0	3.1	0.4
MSCI Emerging Markets	-11.7	-11.6	-27.2	-28.1	-7.8	-2.1	-2.1	-1.8	3.9	1.0
eV Emg Mkts Equity Net Rank	55	54	32	32	36	60	89	80	78	88
ABS Emerging Markets	-4.9	-3.1	-16.7	-17.0	2.1	5.6	5.4	3.5	6.6	
HFRI Emerging Markets (Total) Index	-5.2	-5.5	-16.9	-17.3	-0.4	1.8	1.8	0.7	3.8	2.9
MSCI Emerging Markets	-11.7	-11.6	-27.2	-28.1	-7.8	-2.1	-2.1	-1.8	3.9	1.0
eV Emg Mkts Equity Net Rank	1	4	4	5	17	9	5	5	11	
Global Equity Composite	-10.3	-9.3	-30.0			-		-		
MSCI ACWI	-9.6	-6.8	-25.6	-20.7	0.6	3.7	3.1	4.4	7.4	7.3
InvMetrics Public DB Glbl Eq Net Rank	99	97	97							
Federated Hermes Global Equity	-10.3	-9.3	-30.0							
MSCI ACWI	-9.6	-6.8	-25.6	-20.7	0.6	3.7	3.1	4.4	7.4	7.3
Global Large Stock Blend Mstar MF Rank	94	93	92							

# Annualized Performance (Net of Fees)

Market Value: \$930.2 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	-3.5	-2.0	-10.2	-8.9	4.3	3.2	2.1	2.7	3.2	
HFRI Fund of Funds Composite Index	-1.7	-0.4	-7.0	-6.6	3.3	4.1	3.1	3.1	3.2	3.5
HFRI Equity Hedge (Total) Index	-4.2	-2.3	-13.8	-13.2	5.2	6.2	4.2	4.4	5.5	5.3
InvMetrics Public DB Hedge Funds Net Rank	76	80	71	72	62	76	81	78	56	
ABS Offshore SPC Global	-3.3	-3.2	-12.6	-12.6	0.9	2.8	2.2	2.5	2.9	
HFRX Equity Hedge Index	-2.0	-0.1	-4.8	-2.3	7.3	4.7	3.1	2.8	3.2	3.2
Entrust Three Rivers Partners	-2.4	-0.4	-6.9	-6.8	6.4	3.2	-	-		-
HFRI Fund of Funds Composite Index	-1.7	-0.4	-7.0	-6.6	3.3	4.1	3.1	3.1	3.2	3.5
Parametric Defensive Equity	-5.6	-3.5	-13.4	-8.3	4.6	3.7	3.3	4.4		
CBOE S&P 500 Covered Combo Index	-6.8	-7.6	-19.1	-13.0	3.3	0.9	0.8	2.8	5.5	5.6
50% S&P 500/50% 91 Day T-Bill	-4.5	-2.0	-12.0	-7.2	3.0	4.8	4.5	5.5	6.4	6.3
Real Estate Composite	-2.2	-2.2	8.7	18.3	15.0	10.2	9.1	8.8	8.7	
NFI-ODCE	0.1	0.3	12.4	21.0	17.3	11.4	9.7	9.3	8.9	9.9
InvMetrics Public DB Real Estate Priv Net Rank	99	99	98	85	85	85	80	87	82	
Rreef America II	-0.8	-0.8	11.8	23.7	18.2	12.4	10.7	10.3	9.6	
NFI-ODCE	0.1	0.3	12.4	21.0	17.3	11.4	9.7	9.3	8.9	9.9
Barings Core Property Fund	-3.6	-3.6	5.7	13.4	12.2	8.3	7.7	7.5	7.7	
NFI-ODCE	0.1	0.3	12.4	21.0	17.3	11.4	9.7	9.3	8.9	9.9

# Calendar Performance (Net of Fees)

Market Value: \$930.2 Million and 100.0% of Fund

Ca	lend	lar	Year
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					'	Calellua	i i eai				
	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)
otal Fund Composite	13.5	10.6	15.6	-0.1	11.7	8.1	3.2	9.2	13.6	12.3	1.8
Total Fund Composite Benchmark	12.6	10.8	14.4	0.1	12.2	7.7	3.5	7.2	14.1	10.5	1.3
InvMetrics Public DB Net Rank	54	81	93	2	95	26	1	1	66	41	22
Dedicated Funding for CMPTF	8.5	7.3	9.5	7.5	7.5	7.6	7.5	13.2	8.1	9.8	7.2
Annual Return	7.2	7.2	7.2	7.5	7.5	7.5	7.5	7.5	8.0	8.0	8.0
Total Invested Portfolio	15.8	12.1	19.5	-5.0	14.7	8.5	0.0	6.6	17.6	14.1	-2.5
Total Invested Portfolio Benchmark	14.7	13.3	19.5	-4.8	16.0	7.4	0.7	6.8	17.6	12.2	0.3
InvMetrics Public DB Net Rank	19	61	49	69	49	16	34	22	22	7	92
Fixed Income Composite	-0.3	9.0	9.6	-0.9	4.3	4.5	0.0	6.1	-0.4	8.4	5.4
Bloomberg US Aggregate TR	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8
InvMetrics Public DB US Fix Inc Net Rank	16	21	13	91	39	47	56	15	32	35	87
Vanguard Ultra Short Duration	0.2	2.1									
BofA Merrill Lynch 1 Year Treasury	0.0	1.7	3.0	1.9	0.6	0.8	0.3	0.2	0.3	0.2	0.5
Ultrashort Bond MStar MF Rank	42	24									
Federated Investors	-0.2	10.8	10.1	-0.9	4.3	4.8	-0.2	5.0	-0.8	7.1	6.5
Bloomberg US Aggregate TR	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8
eV US Core Fixed Inc Net Rank	6	4	9	88	18	7	89	80	19	23	81
BlackRock Total Return Fund	-0.7	9.1	9.9	-0.8	4.3	3.5	0.4	8.2	-0.1	10.3	4.7
Bloomberg US Aggregate TR	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8
Intermediate Core Bond MStar MF Rank	14	26	5	76	35	45	35	2	18	14	88
U.S. Equity Composite	25.9	17.8	31.1	-7.2	19.5	16.6	-2.3	12.5	34.2	17.8	0.6
Dow Jones U.S. Total Stock Market	25.7	20.8	30.9	-5.3	21.2	12.6	0.4	12.5	33.5	16.4	1.1
InvMetrics Public DB US Eq Net Rank	47	49	15	73	70	2	84	14	50	4	48
SSgA S&P 500 Index Fund	28.6	18.3	31.4	-4.4	21.8	12.0	1.4	13.8		-	
S&P 500	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0	2.1
eV US Large Cap Core Equity Net Rank	31	29	29	32	46	20	36	33			
Frontier Capital Management	18.1	18.0	28.8	-13.5	18.6	20.1	-6.5	12.1	39.0	18.0	-6.5
Russell 2500	18.2	20.0	27.8	-10.0	16.8	17.6	-2.9	7.1	36.8	17.9	-2.5
eV US Small-Mid Cap Core Equity Net Rank	79	41	48	80	35	5	88	1	26	29	86
Vanguard Russell 2000											
Russell 2000	14.8	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2
Small Cap MStar MF Rank											

# Calendar Performance (Net of Fees)

Market Value: \$930.2 Million and 100.0% of Fund

# **Calendar Year**

	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)
Emerging Manager Composite	15.3	12.3	25.9	-9.8	16.9						
Emerging Manager Benchmark	20.5	19.2	28.0	-8.4	18.9						
Twin Capital	28.1	15.3	30.0	-6.5	20.7						
S&P 500	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0	2.1
Russell 1000	26.5	21.0	31.4	-4.8	21.7	12.1	0.9	13.2	33.1	16.4	1.5
eV US Large Cap Core Equity Net Rank	36	43	38	58	59						
CIM Investment Management	7.0	11.6	28.0	-14.0	11.1	-				-	
Russell 2000	14.8	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2
eV US Small Cap Core Equity Net Rank	98	64	19	71	79					-	
Columbus Macro	8.2	9.4	19.0	-9.1							
MSCI ACWI	18.5	16.3	26.6	-9.4	24.0	7.9	-2.4	4.2	22.8	16.1	-7.3
eV Global All Cap Core Eq Net Rank	97	75	86	44							
Non-U.S. Equity Composite	13.5	11.9	25.5	-11.4	28.5	1.9	-1.7	-4.2	12.9	21.3	
MSCI ACWI ex USA	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7
InvMetrics Public DB ex-US Eq Net Rank	1	59	12	6	48	83	23	62	82	8	
MFS International Equity Fund	15.2	11.1	28.4	-10.7	28.0	0.3	0.0	-4.2	18.6	22.5	
MSCI EAFE	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1
Foreign Large Blend MStar MF Rank	7	41	3	9	24	64	37	36	64	12	
SSgA Active Emerging Markets Fund	6.8	6.8	12.0	-14.6	34.3	11.7	-13.7	-3.3	-5.6	17.2	-
MSCI Emerging Markets	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4
eV Emg Mkts Equity Net Rank	28	87	91	30	69	32	59	74	91	69	
ABS Emerging Markets	8.0	21.8	18.0	-13.3	26.7	4.9	-3.4				
HFRI Emerging Markets (Total) Index	6.9	12.9	11.8	-10.9	19.4	7.0	-3.3	-2.6	5.5	10.4	-14.0
MSCI Emerging Markets	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4
eV Emg Mkts Equity Net Rank	25	38	62	19	95	73	2				
Global Equity Composite	-			-		-		-	-		
MSCIACWI	18.5	16.3	26.6	-9.4	24.0	7.9	-2.4	4.2	22.8	16.1	-7.3
InvMetrics Public DB Glbl Eq Net Rank											
Federated Hermes Global Equity				-	-	-	-	-	-	-	
MSCI ACWI	18.5	16.3	26.6	-9.4	24.0	7.9	-2.4	4.2	22.8	16.1	-7.3
Global Large Stock Blend Mstar MF Rank											



# Calendar Performance (Net of Fees)

Market Value: \$930.2 Million and 100.0% of Fund

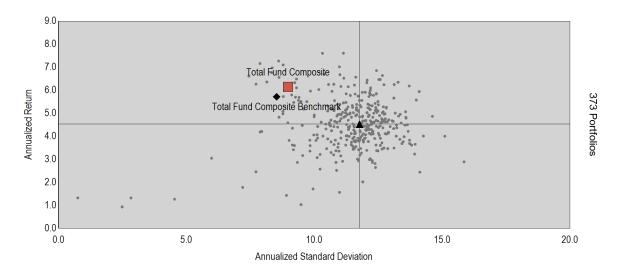
# **Calendar Year**

	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)
Hedge Fund Composite	9.2	8.1	9.3	-2.9	9.0	0.7	0.0	4.9	-	-	
HFRI Fund of Funds Composite Index	6.2	10.9	8.4	-4.0	7.8	0.5	-0.3	3.4	9.0	4.8	-5.7
HFRI Equity Hedge (Total) Index	11.7	17.9	13.7	-7.1	13.3	5.5	-1.0	1.8	14.3	7.4	-8.4
InvMetrics Public DB Hedge Funds Net Rank	41	49	38	68	23	74	45	35			
ABS Offshore SPC Global	2.7	14.5	15.3	-6.4	12.3	-4.3	4.0	4.8	_		
HFRX Equity Hedge Index	12.1	4.6	10.7	-9.4	10.0	0.1	-2.3	1.4	11.1	4.8	-19.1
Entrust Three Rivers Partners	9.1	5.7	2.6			-			-		
HFRI Fund of Funds Composite Index	6.2	10.9	8.4	-4.0	7.8	0.5	-0.3	3.4	9.0	4.8	-5.7
Parametric Defensive Equity	17.7	4.6	16.3	-2.9	-	_	-	-	_		
CBOE S&P 500 Covered Combo Index	20.8	-0.2	19.5	-4.9	15.4	7.9	4.3	5.5	16.4	7.5	6.4
50% S&P 500/50% 91 Day T-Bill	13.7	9.9	16.1	-1.0	10.9	6.1	0.9	6.7	15.3	7.9	1.4
Real Estate Composite	21.2	0.3	6.1	6.9	6.5	8.4	14.4	11.0	-	-	
NFI-ODCE	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0
InvMetrics Public DB Real Estate Priv Net Rank	69	69	34	80	63	43	7	67		-	
Rreef America II	23.9	1.1	6.3	7.4	6.4	8.1	15.6	12.0			
NFI-ODCE	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0
Barings Core Property Fund	19.0	-0.3	6.0	6.3	6.6	8.6	13.0	-	-		
NFI-ODCE	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0

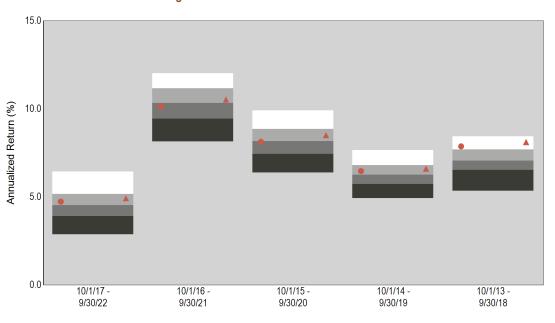
# Invested Portfolio vs. Peer Universe

Market Value: \$592.5 Million and 63.7% of Fund

# Annualized Return vs. Annualized Standard Deviation 5 Years Ending September 30, 2022



# Rolling 5 Year Returns: Invested Portfolio



	Return (Rank)									
5th Percentile	6.4		12.0		9.9		7.7		8.4	
25th Percentile	5.2		11.2		8.9		6.8		7.7	
Median	4.5		10.3		8.2		6.3		7.1	
75th Percentile	3.9		9.4		7.4		5.7		6.5	
95th Percentile	2.9		8.2		6.4		4.9		5.3	
# of Portfolios	373		558		528		495		219	
<ul> <li>Total Invested Portfolio</li> <li>Total Invested Portfolio Benchmark</li> </ul>	4.7 4.9	(41) (35)	10.1 10.5	(56) (43)	8.1 8.5	(52) (36)	6.5 6.6	(40) (34)	7.9 8.1	(20) (11)

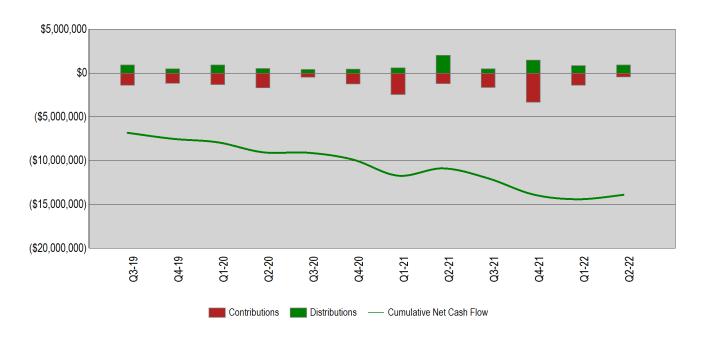
# Private Equity Composite

# **Private Market Investments Overview**

Detail for Period Ending June 30, 2022

Investments Commitments			ments	Contribu Distrib		Valua	Performance			е	
Investment Name	Vintage Yr	Commit (\$)	Unfunded Commit (\$)	Cumulative Contribution (\$)	Cumulative Distribution (\$)	Valuation (\$)	Total Value (\$)	DPI	RV PI	TVP I	IRR (%)
Draper Triangle Ventures II, L.P.	2004	1,000,000	-112,121	1,112,121	1,300,576	3,024	1,303,600	1.17	0.00	1.17	2.57
Birchmere Ventures III, L.P.	2005	1,000,000	-47,694	1,047,694	893,418	17,909	911,327	0.85	0.02	0.87	-4.31
Draper Triangle Ventures III, L.P.	2013	2,000,000	27,819	2,044,497	180,118	2,616,060	2,796,178	0.09	1.28	1.37	5.78
Crescent Mezzanine Partners VIB, L.P.	2013	10,000,000	757,498	10,777,452	12,998,161	1,331,997	14,330,158	1.21	0.12	1.33	9.10
Crescent Mezzanine Partners VIIB, L.P.	2016	10,000,000	1,746,426	9,891,610	5,606,785	6,237,054	11,843,839	0.57	0.63	1.20	8.25
Siguler Guff Small Buyout Opportunities Fund IV, L.P.	2019	15,000,000	5,718,553	9,357,801	604,379	12,932,324	13,536,703	0.06	1.38	1.45	
Crescent Credit Solutions VIIIA-2, L.P.	2021	10,000,000	7,286,741	2,713,259	938,214	2,016,309	2,954,523	0.35	0.74	1.09	
Total		49,000,000	15,377,223	36,944,434	22,521,651	25,154,677	47,676,328	0.61	0.68	1.29	7.65

## Private Markets Cash Flow Analysis As of June 30, 2022



Investment Manager Statistics

Market Value: \$930.2 Million and 100.0% of Fund

# 3 Years Ending September 30, 2022

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Federated Investors	-0.3	2.3%	0.5%	1.0	0.9	0.9	3.3%	148.5%	90.0%
Bloomberg US Aggregate TR	-0.6					-	3.1%		
BlackRock Total Return Fund	-0.5	3.0%	0.2%	1.0	0.8	0.1	3.6%	123.4%	103.5%
Bloomberg US Aggregate TR	-0.6						3.1%		
SSgA S&P 500 Index Fund	0.3	0.0%	0.0%	1.0	1.0	-1.1	11.9%	99.9%	100.0%
S&P 500	0.3					-	11.9%		
Frontier Capital Management	0.1	5.7%	0.0%	1.2	1.0	-0.1	18.6%	117.6%	110.7%
Russell 2500	0.2						16.2%		
Guyasuta Investment Advisors	0.3	8.5%	1.5%	0.9	0.9	0.7	15.4%	106.1%	85.4%
Russell 2000	0.1					-	17.0%		
MFS International Equity Fund	0.0	4.0%	0.6%	0.9	1.0	0.6	10.9%	108.1%	94.1%
MSCI EAFE	-0.1						11.6%		
SSgA Active Emerging Markets Fund	-0.1	6.6%	0.1%	0.9	0.9	0.1	12.1%	90.7%	92.9%
MSCI Emerging Markets	-0.1						13.2%		
ABS Emerging Markets	0.3	4.4%	0.9%	1.2	1.0	0.9	10.0%	138.2%	103.0%
HFRI Emerging Markets (Total) Index	0.1						8.2%		
Twin Capital	0.3	1.2%	0.0%	1.0	1.0	-0.2	11.7%	96.6%	98.3%
S&P 500	0.3						11.9%		
CIM Investment Management	0.0	2.6%	-1.2%	1.0	1.0	-1.9	16.4%	83.9%	104.7%
Russell 2000	0.1						17.0%		
Columbus Macro	-0.1	3.6%	-1.0%	0.9	1.0	-1.2	10.8%	74.3%	99.6%
MSCI ACWI	0.1					-	12.1%		
ABS Offshore SPC Global	0.2	6.1%	-0.4%	1.0	0.8	-0.3	6.5%	98.1%	122.1%
HFRX Equity Hedge Index	0.4						5.8%		
Parametric Defensive Equity	0.2	5.1%	0.7%	0.8	1.0	0.6	7.6%	86.3%	74.4%
CBOE S&P 500 Covered Combo Index	0.0						9.7%		

Investment Manager Statistics

Market Value: \$930.2 Million and 100.0% of Fund

# 5 Years Ending September 30, 2022

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio Anlzd	Down Mkt Capture Ratio Anlzd
Federated Investors	0.0	2.0%	0.4%	1.0	0.9	0.7	2.8%	125.3%	89.9%
Bloomberg US Aggregate TR	-0.2			-	-	-	2.7%		
BlackRock Total Return Fund	-0.2	2.4%	0.1%	1.0	0.9	0.1	3.1%	109.4%	103.3%
Bloomberg US Aggregate TR	-0.2				-		2.7%		
SSgA S&P 500 Index Fund	0.4	0.0%	0.0%	1.0	1.0	-0.2	10.3%	100.0%	100.0%
S&P 500	0.4				-		10.3%		
Frontier Capital Management	0.1	4.6%	-0.3%	1.1	1.0	-0.2	15.4%	107.8%	111.1%
Russell 2500	0.2						13.6%		
Guyasuta Investment Advisors	0.3	7.2%	1.2%	0.9	0.9	0.7	12.9%	105.5%	85.4%
Russell 2000	0.1						14.3%		
MFS International Equity Fund	0.1	3.3%	0.7%	0.9	1.0	0.9	9.3%	112.4%	91.1%
MSCI EAFE	-0.1						9.6%		
SSgA Active Emerging Markets Fund	-0.2	5.5%	-0.2%	0.9	0.9	-0.1	9.9%	88.9%	94.8%
MSCI Emerging Markets	-0.1						10.8%		
ABS Emerging Markets	0.1	4.0%	0.7%	1.2	1.0	0.7	8.5%	137.0%	107.4%
HFRI Emerging Markets (Total) Index	0.0						6.8%		
Twin Capital	0.4	1.1%	-0.1%	1.0	1.0	-0.7	10.1%	95.9%	99.3%
S&P 500	0.4						10.3%		
CIM Investment Management	0.0	3.2%	-0.6%	1.0	1.0	-0.9	14.1%	89.8%	102.9%
Russell 2000	0.1						14.3%		

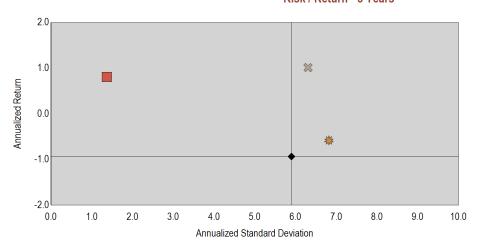
# Fixed Income Composite

# Characteristics

As of June 30, 2022

Market Value: \$96.4 Million and 10.1% of Fund

### Risk / Return - 3 Years



- Vanguard Ultra Short Duration
- ⋇ Federated Investors
- \* BlackRock Total Return Fund
- Bloomberg US Aggregate TR

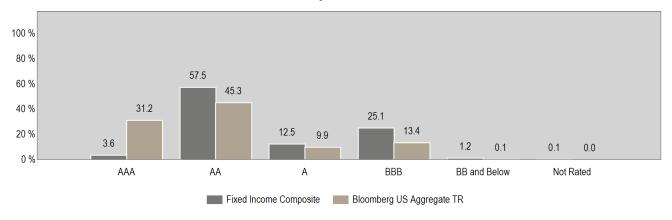
	Characteristics	
	Portfolio	Index
	Q2-22	Q2-22
Yield to Maturity	3.9%	3.7%
Avg. Eff. Maturity	6.9 yrs.	8.9 yrs.
Avg. Duration	5.2 yrs.	6.7 yrs.
Avg. Quality	A	

Region	Number Of Assets
North America ex U.S.	55
United States	2,651
Europe Ex U.K.	104
United Kingdom	48
Pacific Basin Ex Japan	18
Japan	35
Emerging Markets	75
Other	571
Total	3,557

Danifalia In	ıdex
Q2-22 Q2 US Sector Allocation	2-22
03 Sector Allocation	
UST/Agency 29.7	64.8
Corporate 37.0	29.6
MBS 21.2	
ABS 10.2	0.1
Foreign 0.8	5.3
Muni 0.2	0.2
Cash -3.9	

**Sector** 

Maturity							
	Q2-22						
<1 Year	15.2%						
1-3 Years	25.6%						
3-5 Years	13.0%						
5-7 Years	5.9%						
7-10 Years	15.6%						
10-15 Years	16.2%						
15-20 Years	0.9%						
>20 Years	7.8%						
Not Rated/Cash	0.0%						



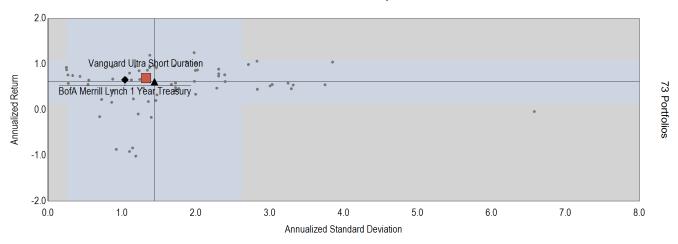
# Vanguard Ultra Short Duration

# Characteristics

As of September 30, 2022

Market Value: \$15.4 Million and 1.7% of Fund

# Risk / Return - Since Inception



Characteristics		
	Portfolio	Index
	Q3-22	Q3-22
Yield to Maturity	4.7%	4.5%
Avg. Eff. Maturity	0.8 yrs.	2.0 yrs.
Avg. Duration	0.7 yrs.	1.9 yrs.
Avg. Quality	А	

Avg. Quality	Α	-
Region		Number Of Assets
North America ex U.S.		24
United States		472
Europe Ex U.K.		37
United Kingdom		24
Pacific Basin Ex Japan		15

22 17

8

619

Japan

Other

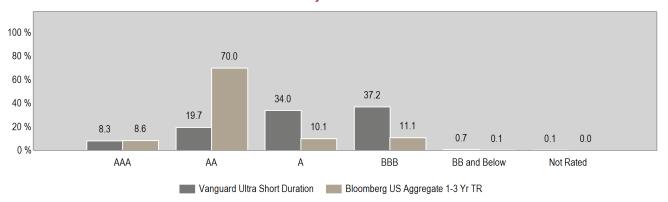
Total

**Emerging Markets** 

Portfolio	Index
Q3-22	Q3-22
14.8	64.8
69.3	29.6
0.5	
13.7	0.1
1.1	5.3
	0.2
	Q3-22 14.8 69.3 0.5 13.7

	Q3-22
<1 Year	73.0%
1-3 Years	26.7%
3-5 Years	0.1%
5-7 Years	0.2%
7-10 Years	0.0%
10-15 Years	0.0%
15-20 Years	0.0%
>20 Years	0.0%
Not Rated/Cash	0.0%

Maturity



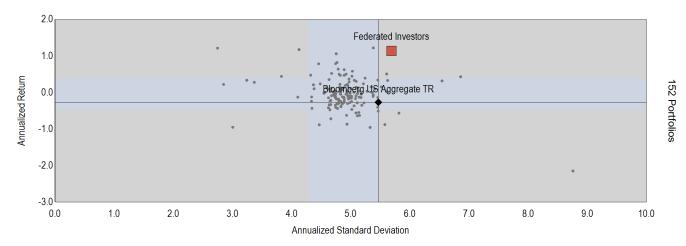
# **Federated Investors**

# Characteristics

As of September 30, 2022

Market Value: \$57.5 Million and 6.2% of Fund





	Portfolio	Index
	Q3-22	Q3-22
Yield to Maturity	4.7%	4.7%
Avg. Eff. Maturity	8.5 yrs.	8.7 yrs.
Avg. Duration	6.3 yrs.	6.4 yrs.
Avg. Quality	А	

**Characteristics** 

Region	Number Of Assets
North America ex U.S.	2
United States	237
Europe Ex U.K.	4
United Kingdom	2
Emerging Markets	2
Other	1
Total	248

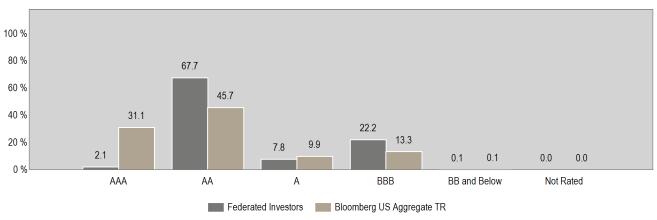
	Sector		
		Portfolio	Index
		Q3-22	Q3-22
US Sector Allocation			
UST/Agency		34.9	64.8
Corporate		26.8	29.6
MBS		23.6	
ABS		5.3	0.1
Foreign		0.2	5.3
Muni			0.2
Cash		0.2	-

	Q3-22
<1 Year	4.4%
1-3 Years	20.7%
3-5 Years	16.9%
5-7 Years	8.9%
7-10 Years	19.0%
10-15 Years	18.4%
15-20 Years	1.6%
>20 Years	10.0%

0.0%

Not Rated/Cash

**Maturity** 



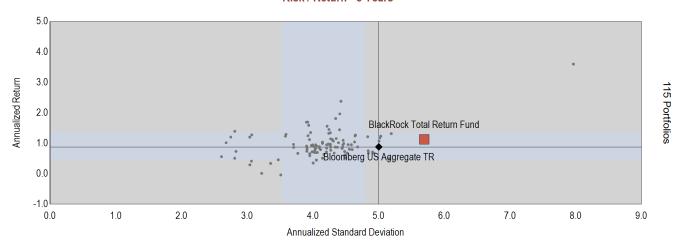
# BlackRock Total Return Fund

# Characteristics

As of June 30, 2022

Market Value: \$20.9 Million and 2.2% of Fund

#### Risk / Return - 5 Years



# Portfolio Index Q2-22 Q2-22 Yield to Maturity 5.4% 3.7% Avg. Eff. Maturity 8.3 yrs. 8.9 yrs. Avg. Duration 5.7 yrs. 6.7 yrs. Avg. Quality A -

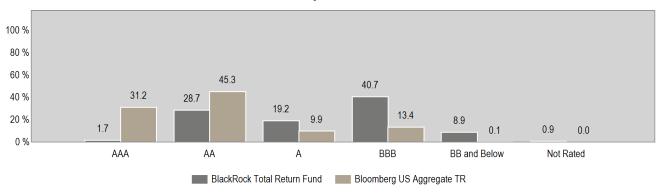
**Characteristics** 

Region	Number Of Assets
North America ex U.S.	26
United States	1,858
Europe Ex U.K.	62
United Kingdom	17
Pacific Basin Ex Japan	2
Japan	14
Emerging Markets	54
Other	561
Total	2,594

Sector		
	Portfolio	Index
	Q2-22	Q2-22
US Sector Allocation		
UST/Agency	19.4	64.8
Corporate	49.3	29.6
MBS	9.2	
ABS	20.7	0.1
Foreign	1.5	5.3
Muni	1.0	0.2
Cash	-3.7	

	•
	Q2-22
<1 Year	8.9%
1-3 Years	19.8%
3-5 Years	22.6%
5-7 Years	11.9%
7-10 Years	18.4%
10-15 Years	2.6%
15-20 Years	2.4%
>20 Years	13.4%
Not Rated/Cash	0.0%

**Maturity** 



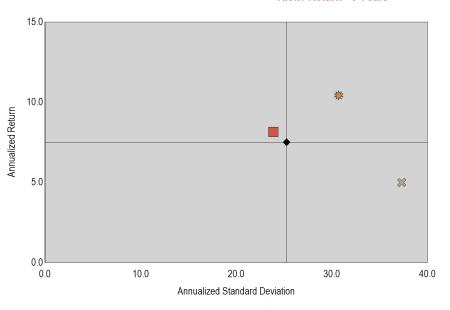
# U.S. Equity Composite

As of September 30, 2022

# Characteristics

Market Value: \$225.9 Million and 24.3% of Fund

### Risk / Return - 3 Years



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

#### **Characteristics**

Ondracteristics		
	Portfolio	Dow Jones U.S. Total Stock Market
Number of Holdings	2,530	4,278
Weighted Avg. Market Cap. (\$B)	322.5	399.0
Median Market Cap. (\$B)	1.6	1.0
Price To Earnings	16.3	17.3
Price To Book	3.1	3.5
Price To Sales	1.5	1.7
Return on Equity (%)	21.7	22.7
Yield (%)	1.7	1.8
Beta	1.1	1.0
R-Squared	1.0	1.0

### **Characteristics**

INDUSTRY SECTOR DISTRIBUTION (% Equity)	Portfolio	Dow Jones U.S. Total Stock Market
Energy	4.7	4.6
Materials	3.8	2.8
Industrials	11.4	8.9
Consumer Discretionary	11.5	11.6
Consumer Staples	5.1	6.3
Health Care	15.4	15.0
Financials	12.6	11.8
Information Technology	21.9	25.3
Communication Services	6.0	7.4
Utilities	2.6	3.0
Real Estate	3.1	3.4
Unclassified	1.3	0.0

### **Largest Holdings**

	End Weight	Return
APPLE INC	4.6	1.2
MICROSOFT CORP	3.8	-9.1
AMAZON.COM INC	2.2	6.4
TESLA INC	1.6	18.2
ALPHABET INC	1.3	-12.2

## **Top Contributors**

	Beg Wgt	Return	Contribution
TESLA INC	1.2	18.2	0.2
AMAZON.COM INC	1.9	6.4	0.1
ARRAY TECHNOLOGIES INC	0.2	50.6	0.1
ALBEMARLE CORP	0.3	26.7	0.1
LPL FINANCIAL HOLDINGS INC	0.4	18.6	0.1

### **Bottom Contributors**

	Beg Wgt	Return	Contribution
MICROSOFT CORP	4.0	-9.1	-0.4
ALPHABET INC	1.4	-12.2	-0.2
NVIDIA CORPORATION	0.8	-19.9	-0.2
LIBERTY BROADBAND CORP	0.4	-36.2	-0.2
ALPHARET INC	1.3	-12 1	-0.2

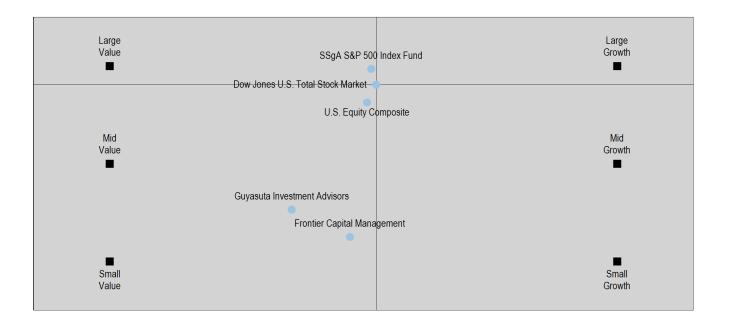
# **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
U.S. Equity Composite	16.0%	12.6%	13.1%	20.7%	37.6%
Dow Jones U.S. Total Stock Market	6.1%	7.3%	15.0%	25.8%	45.8%
Weight Over/Under	9.9%	5.3%	-1.9%	-5.1%	-8.2%

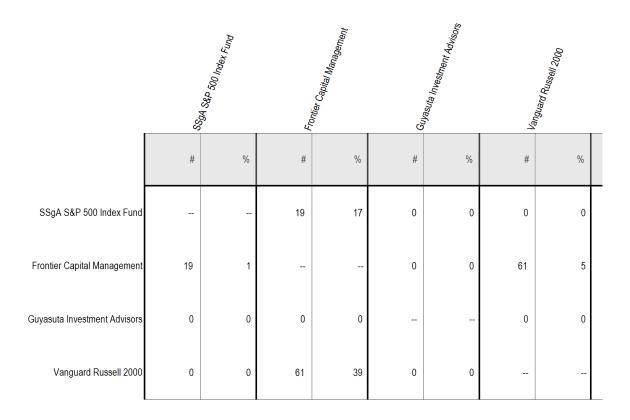


As of September 30, 2022

U.S. Equity Style Map 5 Years Ending September 30, 2022



## **Common Holdings Matrix**



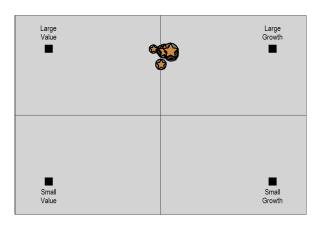
# SSgA S&P 500 Index Fund

As of September 30, 2022

# Characteristics

Market Value: \$150.8 Million and 16.2% of Fund

# Style Drift - 5 Years



SSgA S&P 500 Index Fund

S&P 500

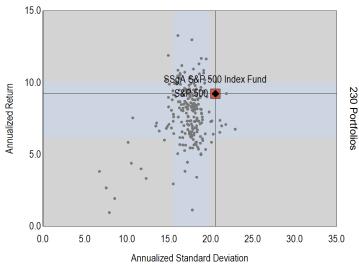
### **Characteristics**

	Portfolio	S&P 500
Number of Holdings	506	503
Weighted Avg. Market Cap. (\$B)	464.2	468.4
Median Market Cap. (\$B)	27.1	27.1
Price To Earnings	18.4	18.6
Price To Book	3.8	3.8
Price To Sales	2.0	2.0
Return on Equity (%)	32.2	32.1
Yield (%)	1.8	1.8
Beta	1.0	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	S&P 500
INDUSTRY SECTOR DISTRIBUTION (% Eq	juity)	
Energy	4.6	4.5
Materials	2.5	2.4
Industrials	7.8	7.8
Consumer Discretionary	11.6	12.1
Consumer Staples	6.8	7.4
Health Care	15.0	14.7
Financials	10.9	11.3
Information Technology	26.2	25.8
Communication Services	8.0	8.3
Utilities	3.0	3.0
Real Estate	2.8	2.7
Unclassified	0.1	0.0

### Risk / Return - 5 Years



## **Largest Holdings**

	End Weight	Return
APPLE INC	6.9	1.2
MICROSOFT CORP	5.7	-9.1
AMAZON.COM INC	3.3	6.4
TESLA INC	2.3	18.2
ALPHABET INC	1.9	-12.2

### **Top Contributors**

Contribution
0.3
0.2
0.1
0.1
0.1

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
MICROSOFT CORP	6.0	-9.1	-0.5
ALPHABET INC	2.0	-12.2	-0.3
NVIDIA CORPORATION	1.2	-19.9	-0.2
ALPHABET INC	1.9	-12.1	-0.2
META PLATFORMS INC	1.2	-15.9	-0.2

## **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
SSgA S&P 500 Index Fund	0.0%	1.4%	14.6%	29.6%	54.4%
S&P 500	0.1%	1.4%	14.4%	28.9%	55.2%
Weight Over/Under	-0.1%	0.0%	0.1%	0.7%	-0.8%

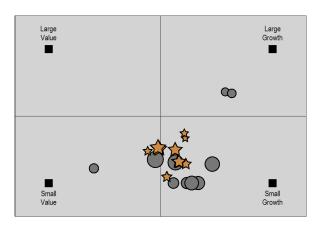
# Frontier Capital Management

Characteristics

Market Value: \$37.7 Million and 4.0% of Fund

As of September 30, 2022

Style Drift - 5 Years



Frontier Capital Management

Russell 2500

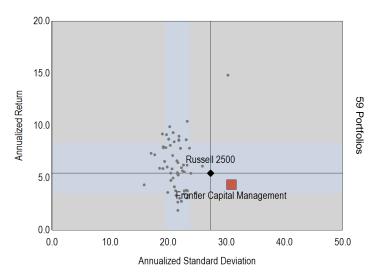
#### Characteristics

	Portfolio	Russell 2500
Number of Holdings	137	2,471
Weighted Avg. Market Cap. (\$B)	7.1	5.7
Median Market Cap. (\$B)	3.7	1.5
Price To Earnings	13.9	12.3
Price To Book	2.3	2.4
Price To Sales	1.1	1.3
Return on Equity (%)	11.0	10.4
Yield (%)	0.8	1.8
Beta	1.2	1.0
R-Squared	1.0	1.0

#### Characteristics

	Portfolio	2500
INDUSTRY SECTOR DISTRIBUTION (% Ed	quity)	
Energy	3.7	5.0
Materials	8.8	5.3
Industrials	22.2	17.4
Consumer Discretionary	12.3	10.9
Consumer Staples	0.0	3.3
Health Care	14.1	13.7
Financials	14.8	16.3
Information Technology	14.6	14.4
Communication Services	1.5	2.6
Utilities	0.0	3.1
Real Estate	1.4	8.0
Unclassified	5.6	0.0

## Risk / Return - 5 Years



## **Largest Holdings**

	End Weight	Return
BUILDERS FIRSTSOURCE INC	2.3	9.7
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	2.0	12.3
LPL FINANCIAL HOLDINGS INC	1.8	18.6
KBR INC	1.7	-10.5
ARRAY TECHNOLOGIES INC	1.7	50.6

## **Top Contributors**

	Beg Wgt	Return	Contribution
ARRAY TECHNOLOGIES INC	1.1	50.6	0.6
ALBEMARLE CORP	1.5	26.7	0.4
LPL FINANCIAL HOLDINGS INC	2.2	18.6	0.4
ATI INC	1.3	17.2	0.2
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	1.7	12.3	0.2

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
SEMTECH CORP	1.0	-46.5	-0.5
MRC GLOBAL INC	1.5	-27.8	-0.4
COHERENT CORP	1.2	-31.6	-0.4
ARGO GROUP INTERNATIONAL HOLDINGS LTD	0.7	-46.9	-0.3
CONTROLADORA VUELA COMPANIA DE AVIACION SA DE CV	1.0	-31.9	-0.3

## **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Frontier Capital Management	34.1%	45.7%	19.0%	1.3%	0.0%
Russell 2500	38.1%	48.9%	13.0%	0.0%	0.0%
Weight Over/Under	-4.0%	-3.3%	6.0%	1.3%	0.0%

# Frontier Capital Management

# Attribution

As of September 30, 2022 Market Value: \$37.7 Million and 4.0% 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	3.2%	4.5%	-1.3%	8.5%	6.2%	2.3%	-0.1%	0.1%	0.0%	0.4%	0.4%
Materials	8.9%	5.6%	3.3%	9.9%	-6.9%	16.8%	-0.1%	1.5%	1.4%	-0.2%	1.1%
Industrials	22.8%	17.0%	5.9%	-5.6%	-0.4%	-5.3%	0.1%	-1.2%	-1.1%	0.4%	-0.7%
Consumer Discretionary	14.0%	11.1%	2.9%	-8.9%	-4.2%	-4.7%	0.0%	-0.7%	-0.7%	-0.2%	-0.9%
Consumer Staples	0.0%	3.3%	-3.3%		-4.9%		0.1%	0.0%	0.1%	-0.1%	0.0%
Health Care	14.6%	13.1%	1.4%	-1.8%	0.5%	-2.3%	0.0%	-0.3%	-0.3%	0.4%	0.1%
Financials	16.3%	16.4%	0.0%	-0.2%	-2.0%	1.7%	0.0%	0.3%	0.3%	0.1%	0.4%
Information Technology	16.8%	14.3%	2.5%	-10.1%	-1.8%	-8.3%	0.0%	-1.4%	-1.4%	0.1%	-1.2%
Communication Services	1.2%	2.8%	-1.7%	-40.2%	-9.8%	-30.4%	0.1%	-0.4%	-0.2%	-0.2%	-0.4%
Utilities	0.0%	3.3%	-3.3%		-8.3%		0.2%	0.0%	0.2%	-0.2%	0.0%
Real Estate	2.2%	8.6%	-6.5%	-10.0%	-10.1%	0.1%	0.5%	0.0%	0.5%	-0.6%	-0.2%
Total				-4.1%	-2.7%	-1.3%	0.7%	-2.1%	-1.3%	0.0%	-1.3%

### Performance Attribution vs. Russell 2500

	Total	Selection	Allocation	Interaction
	Effects	Effect	Effect	Effects
Energy	0.0%	0.1%	-0.1%	0.0%
Materials	1.3%	1.0%	-0.2%	0.5%
Industrials	-1.2%	-0.9%	0.0%	-0.3%
Consumer Discretionary	-0.8%	-0.5%	-0.1%	-0.1%
Consumer Staples	0.2%		0.2%	
Health Care	-0.3%	-0.3%	0.0%	0.0%
Financials	0.3%	0.3%	0.0%	0.0%
Information Technology	-1.4%	-1.2%	0.0%	-0.2%
Communication Services	-0.2%	-0.9%	0.2%	0.5%
Utilities	0.3%		0.3%	
Real Estate	0.7%	0.0%	0.7%	0.0%
Cash	0.0%	0.0%	0.0%	0.0%
Portfolio	-1.3% =	-2.4% +	0.8% +	0.3%

## 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 8.60	26.7%	20.1%	6.6%	1.4%	-1.5%	2.8%	0.1%	0.8%	0.8%	0.2%	1.1%
2) 5.72 - 8.60	18.2%	19.9%	-1.7%	-5.5%	-1.7%	-3.8%	0.0%	-0.7%	-0.7%	0.2%	-0.5%
3) 3.67 - 5.72	13.1%	20.0%	-6.9%	-4.9%	-4.0%	-0.9%	0.1%	-0.1%	0.0%	-0.3%	-0.3%
4) 1.63 - 3.67	19.5%	20.1%	-0.6%	-5.7%	-4.1%	-1.7%	0.0%	-0.3%	-0.3%	-0.3%	-0.6%
5) 0.00 - 1.63	22.5%	19.8%	2.6%	-7.5%	-2.4%	-5.1%	0.0%	-1.1%	-1.1%	0.1%	-1.1%
Total				-4.1%	-2.7%	-1.3%	0.2%	-1.5%	-1.3%	0.0%	-1.3%

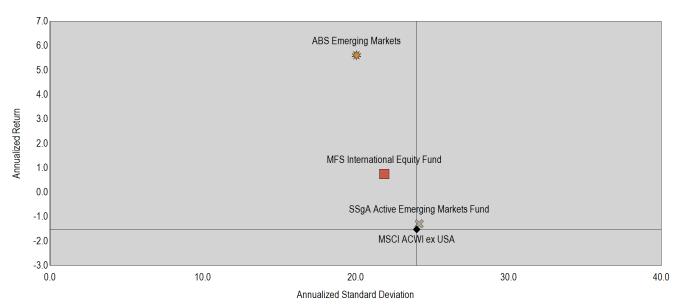
# Non-U.S. Equity Composite

# Characteristics

As of September 30, 2022

Market Value: \$91.4 Million and 9.8% of Fund

## Risk / Return - 5 Years



### Characteristics

	Portfolio	MSCI ACWI ex USA
Number of Holdings	335	2,270
Weighted Avg. Market Cap. (\$B)	81.8	71.1
Median Market Cap. (\$B)	8.3	7.8
Price To Earnings	13.6	11.4
Price To Book	2.5	2.4
Price To Sales	1.4	1.2
Return on Equity (%)	18.8	15.1
Yield (%)	3.2	3.7
Beta	0.9	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
North America ex U.S.	4.0%	8.3%
United States	1.3%	0.0%
Europe Ex U.K.	52.3%	30.2%
United Kingdom	9.3%	9.7%
Pacific Basin Ex Japan	4.6%	8.0%
Japan	13.6%	14.1%
Emerging Markets	13.5%	29.0%
Other	1.4%	0.8%
Total	100.0%	100.0%

### Characteristics

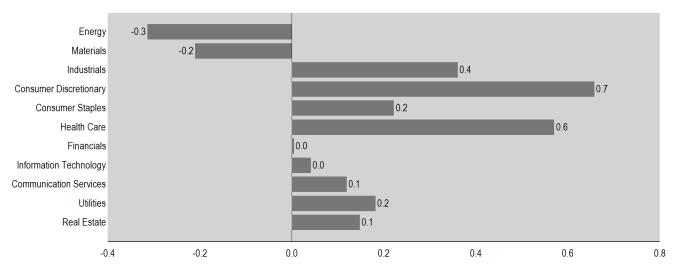
	Portfolio	MSCI ACWI ex USA
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	2.8	6.2
Materials	7.3	8.2
Industrials	16.5	12.1
Consumer Discretionary	10.3	11.2
Consumer Staples	13.0	9.4
Health Care	16.0	9.8
Financials	17.8	20.7
Information Technology	10.8	10.8
Communication Services	2.1	6.1
Utilities	1.6	3.4
Real Estate	0.2	2.4
Unclassified	0.0	0.0

### **Market Capitalization**

	Small Cap	Mid Cap	Large Cap
Non-U.S. Equity Composite	7.7%	20.2%	72.1%
MSCI ACWI ex USA	17.7%	26.5%	55.8%
Weight Over/Under	-10.0%	-6.3%	16.3%

As of September 30, 2022

#### Active Contribution vs. MSCI ACWI ex USA



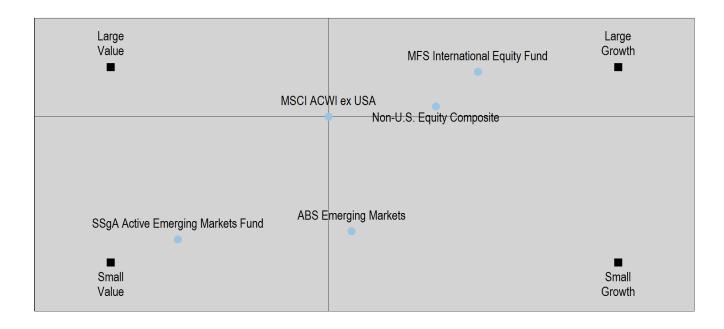
Non-U.S. Equity Composite

## Market Cap Attribution vs. MSCI ACWI ex USA

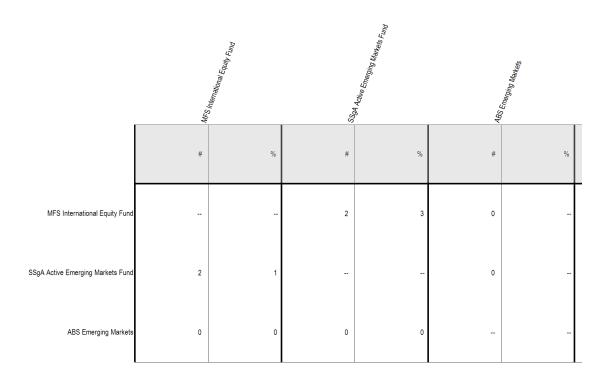
	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 127.42	22.6%	19.6%	3.0%	-9.9%	-12.8%	2.9%	-0.1%	0.5%	0.4%	-0.6%	-0.2%
2) 50.69 - 127.42	25.4%	20.5%	4.9%	-7.9%	-8.0%	0.1%	0.1%	-0.2%	-0.1%	0.4%	0.2%
3) 25.68 - 50.69	26.4%	20.0%	6.4%	-5.5%	-7.7%	2.1%	0.2%	0.2%	0.4%	0.4%	0.8%
4) 10.57 - 25.68	16.6%	20.1%	-3.4%	-8.6%	-9.4%	0.7%	0.0%	0.3%	0.3%	0.1%	0.4%
5) 0.00 - 10.57	9.0%	19.9%	-10.9%	-8.1%	-11.6%	3.5%	0.2%	0.9%	1.1%	-0.3%	0.7%
Total				-7.9%	-9.9%	2.0%	0.3%	1.7%	2.0%	0.0%	2.0%

As of September 30, 2022

Equity Style Map 5 Years Ending September 30, 2022



## **Common Holdings Matrix**



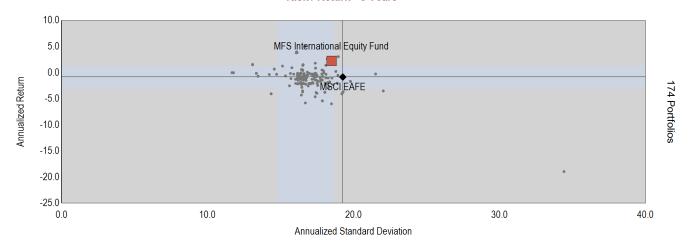
# MFS International Equity Fund

# Characteristics

As of September 30, 2022

Market Value: \$71.9 Million and 7.7% of Fund

### Risk / Return - 5 Years



## Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	77	798
Weighted Avg. Market Cap. (\$B)	84.3	67.3
Median Market Cap. (\$B)	37.0	10.4
Price To Earnings	16.0	12.2
Price To Book	2.7	2.4
Price To Sales	1.7	1.2
Return on Equity (%)	18.8	15.1
Yield (%)	2.8	3.7
Beta	0.9	1.0
R-Squared	1.0	1.0

Region	% of	% of
Region	Total	Bench
North America ex U.S.	4.5%	0.0%
United States	1.4%	0.0%
Europe Ex U.K.	57.7%	48.2%
United Kingdom	10.3%	15.5%
Pacific Basin Ex Japan	4.2%	12.8%
Japan	15.0%	22.6%
Emerging Markets	5.5%	0.0%
Other	1.4%	0.8%
Total	100.0%	100.0%

#### **Characteristics**

	Portfolio	MSCI EAFE
INDUSTRY SECTOR DISTRIBUTION (% E	quity)	
Energy	2.4	4.9
Materials	7.0	7.5
Industrials	17.7	15.0
Consumer Discretionary	10.0	11.0
Consumer Staples	13.9	11.3
Health Care	17.3	13.9
Financials	17.6	17.6
Information Technology	10.1	7.9
Communication Services	1.4	4.8
Utilities	1.3	3.4
Real Estate	0.0	2.8
Unclassified	0.0	0.0

## **Market Capitalization**

	Small Cap	Mid Cap	Large Cap
MFS International Equity Fund	3.9%	19.9%	76.2%
MSCI EAFE	12.6%	27.4%	60.0%
Weight Over/Under	-8.8%	-7.5%	16.2%



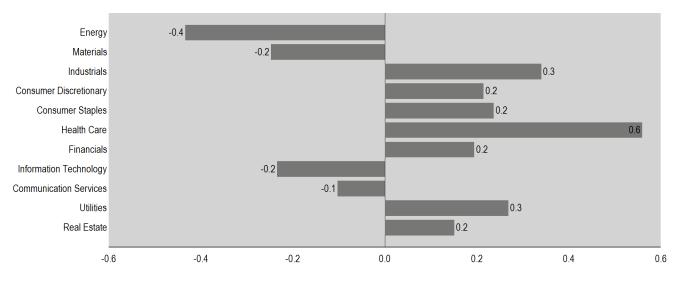
# MFS International Equity Fund

**Attribution** 

Market Value: \$71.9 Million and 7.7% of Fund

As of September 30, 2022

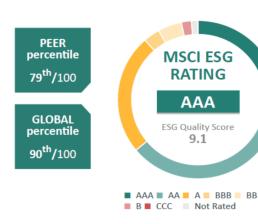
#### **Active Contribution**

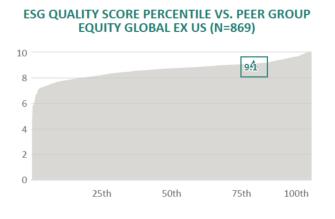


MFS International Equity Fund

#### **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 127.42	23.2%	19.9%	3.3%	-9.2%	-9.8%	0.6%	0.0%	0.0%	-0.1%	-0.1%	-0.2%
2) 52.90 - 127.42	25.8%	19.9%	6.0%	-7.9%	-8.7%	0.8%	0.1%	-0.2%	-0.1%	0.1%	0.0%
3) 29.45 - 52.90	24.0%	20.1%	3.9%	-5.4%	-8.2%	2.8%	0.0%	0.4%	0.5%	0.2%	0.7%
4) 14.27 - 29.45	20.4%	20.2%	0.3%	-7.6%	-9.9%	2.2%	0.0%	0.4%	0.4%	-0.1%	0.3%
5) 0.00 - 14.27	6.6%	20.0%	-13.4%	-9.4%	-10.1%	0.7%	0.1%	0.8%	0.9%	-0.2%	0.8%
Total				-7.7%	-9.3%	1.7%	0.2%	1.5%	1.7%	0.0%	1.7%







<sup>\*</sup>Sustainability metrics are from data gathered by MSCI

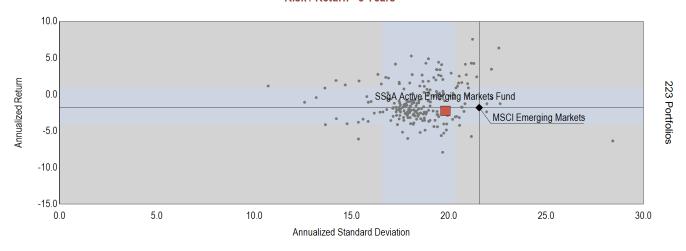
# SSgA Active Emerging Markets Index Fund

# Characteristics

As of September 30, 2022

Market Value: \$8.0 Million and 0.9% of Fund

## Risk / Return - 5 Years



## Characteristics

	Portfolio	MSCI Emerging Markets
Number of Holdings	261	1,384
Weighted Avg. Market Cap. (\$B)	56.8	86.9
Median Market Cap. (\$B)	4.3	5.5
Price To Earnings	6.4	10.1
Price To Book	1.9	2.5
Price To Sales	0.6	1.0
Return on Equity (%)	17.1	14.6
Yield (%)	6.8	3.8
Beta	0.9	1.0
R-Squared	0.9	1.0

Region	% of Total	% of Bench
EM Asia	68.8%	77.7%
EM Latin America	10.1%	9.0%
EM Europe & Middle East	1.3%	1.2%
EM Africa	3.8%	3.5%
Other	16.0%	8.6%
Total	100.0%	100.0%

### Characteristics

	Portfolio	MSCI Emerging Markets
INDUSTRY SECTOR DISTRIBUTION (% Eq	uity)	
Energy	6.8	5.3
Materials	9.9	8.7
Industrials	5.7	5.8
Consumer Discretionary	12.3	14.0
Consumer Staples	4.7	6.6
Health Care	4.0	3.9
Financials	20.2	22.6
Information Technology	17.7	18.3
Communication Services	8.2	9.7
Utilities	4.8	3.2
Real Estate	2.4	2.0
Unclassified	0.1	0.0

## **Market Capitalization**

	Small Cap	Mid Cap	Large Cap
SSgA Active Emerging Markets Fund	27.2%	30.4%	42.4%
MSCI Emerging Markets	17.0%	23.6%	59.5%
Weight Over/Under	10.2%	6.8%	-17.0%

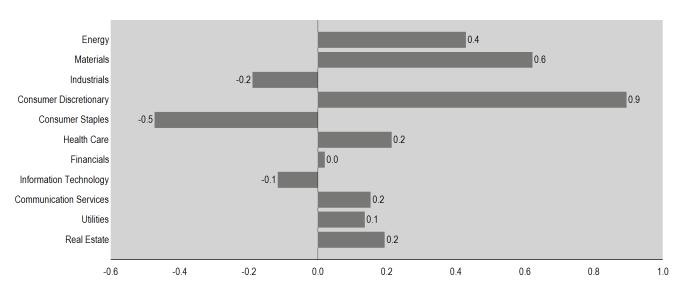


## SSgA Active Emerging Markets Index Fund

Attribution

As of September 30, 2022 Market Value: \$8.0 Million and 0.9% 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 191.96	14.9%	19.9%	-5.0%	-20.4%	-19.9%	-0.4%	0.4%	0.1%	0.5%	-1.7%	-1.1%
2) 35.35 - 191.96	9.5%	20.0%	-10.6%	-7.8%	-5.7%	-2.0%	-0.5%	0.0%	-0.4%	1.2%	0.7%
3) 14.71 - 35.35	21.0%	20.2%	0.7%	-8.2%	-7.8%	-0.4%	0.0%	-0.1%	-0.1%	0.8%	0.7%
4) 5.37 - 14.71	20.7%	20.0%	0.7%	-7.2%	-8.2%	1.0%	0.0%	0.2%	0.2%	0.7%	0.9%
5) 0.00 - 5.37	33.9%	19.8%	14.2%	-8.6%	-16.3%	7.7%	-0.6%	2.0%	1.5%	-0.9%	0.5%
Total				-9.9%	-11.6%	1.7%	-0.6%	2.2%	1.7%	0.0%	1.7%

## **ABS Emerging Markets**

### Characteristics

#### As of September 30, 2022

Manager: ABS Investment Management
Product: ABS Emerging Markets Portfolio
Strategy: Hedge Fund of Fund - Hedged Equity

#### Market Value: \$11.5 Million and 1.2% of Fund

Date as of: Sep 30th, 2022

Benchmark 1: HFRI Equity Hedge (Total) Index Benchmark 2: MSCI Emerging Markets

#### Investment Strategy:

ABS Investment Wanagement was founded in 2003 and is entirely dedicated to investing in long/short equity hedge funds. The firm was started by Alain De Coster, Laurence Russian, and Guilherme who are Swiss, American, and Brazilian respectively. Since inception the firm has allocated to funds across the globe; leveraging the global networks and insights of their three cofounders. Building off of a decade of experience backing managers focused on investing in emerging markets, ABS launched the fund dedicated to the strategy in 2012. The fund will invest in 15-25 underlying funds focused on emerging markets. The fund is long biased with average gross exposure of 100%-125% and net exposure of 60%-80%.

#### Monthly Returns: (Net of Fees)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2022	-3.38%	-2.17%	-1.49%	-2.82%	-0.77%	-4.27%	0.89%	0.96%	-4.90%				-16.73%
2021	2.35%	2.20%	-0.78%	2.21%	2.81%	0.56%	-2.66%	2.30%	-0.82%	0.14%	-1.51%	1.09%	7.99%
2020	-1.15%	-2.89%	-14.12%	6.94%	2.31%	6.66%	7.94%	2.14%	-1.14%	0.04%	8.66%	6.69%	21.61%
2019	5.58%	2.68%	2.24%	1.10%	-4.16%	4.00%	-0.91%	-2.52%	1.36%	3.21%	-0.43%	4.60%	17.55%
2018	4.66%	-1.95%	-1.28%	-0.40%	-1.97%	-3.50%	0.71%	-3.05%	-2.99%	-4.78%	1.84%	-1.65%	-13.77%
2017	4.62%	2.52%	2.18%	1.78%	1.12%	0.69%	2.80%	1.72%	0.45%	2.52%	0.17%	2.95%	26.12%

#### Growth of \$1000 Since Inception



2012	-27.16% 2013	-11.57% 2014	-28.11% 2015	-2.07%	-1.81%	1.05%	1.76%	2020	2021
	10.0170	2.0 + 70	10.2070	0.2470	7.57 /6	3.32 /6	3.3470		
	-13.81%	-2.34%	-13.25%	6.24%	4.37%	5.32%	5.54%		
	-16.73%	-3.13%	-16.98%	5.54%	3.22%	4.26%	4.57%		
	YTD	3MO	1YR	3YR	5YR	10YR	INCEPT		
		-16.73%	-16.73% -3.13%	-16.73% -3.13% -16.98%	-16.73% -3.13% -16.98% 5.54%	-16.73% -3.13% -16.98% 5.54% 3.22%	-16.73% -3.13% -16.98% 5.54% 3.22% 4.26%	-16.73% -3.13% -16.98% 5.54% 3.22% 4.26% 4.57%	-16.73% -3.13% -16.98% 5.54% 3.22% 4.26% 4.57%

Manager	 7.33%	8.19%	-2.86%	-3.95%	4.36%	26.12%	-13.77%	17.55%	21.61%	7.99%
HFRI Equity Hedge (Total) Index	 5.35%	14.28%	1.78%	-0.97%	5.46%	13.29%	-7.14%	13.71%	17.89%	11.67%
MSCI Emerging Markets	 13.75%	-2.60%	-2.19%	-14.92%	11.19%	37.28%	-14.58%	18.44%	18.31%	-2.54%

### Risk and Return 3YR Statistics Risk and Return Since Inception Statistics

	Manager	Benchmark 1	Benchmark 2		Manager	Benchmark 1	Benchmark 2
Annualized Return	5.54%	6.24%	-2.07%	Annualized Return	4.57%	5.54%	1.76%
Standard Deviation	14.68%	12.29%	19.18%	Standard Deviation	10.92%	8.28%	15.99%
Sharpe Ratio	0.36	0.45	-0.10	Sharpe Ratio	0.36	0.59	0.07
Skew	-0.74	-0.63	-0.49	Skew	-0.55	-0.66	-0.21
Kurtosis	3.10	2.23	0.77	Kurtosis	3.18	4.45	0.73
Up Capture		104.51%	82.88%	Up Capture		110.25%	65.20%
Down Capture		108.92%	64.98%	Down Capture		123.52%	59.31%

#### Benchmark Based Return Statistics 3 Year Benchmark Based Return Statistics Since Inception

	Benchmark1	Benchmark2		Benchmark1	Benchmark2
Alpha	-1.42%	7.04%	Alpha	-1.89%	3.46%
Beta	1.11	0.73	Beta	1.17	0.63
R2	86.95%	90.89%	R2	78.25%	85.41%

#### Crisis Performance

	Financial Crisis May '07 - Feb '09	Euro Crisis April '11 - Sept '11	Taper Tantrum April '13 - Aug '13
Manager			-4.8%
HFRI Equity Hedge (Tota			1.0%
MSCI Emerging Markets			-9.4%

Inv	vestment Terms & Servic	ce Providers
Inc	ception Date	7/31/2012
Ad	dministrator	Citco

KPMG

Auditors

#### Crisis Performance Cont.

	Oil/Shale Crash	COVID-19
	May '15 - Jan '16	Dec '19 - Mar '20
Manager	-15.3%	-17.6%
HFRI Equity Hedge (Tota	-9.9%	-14.6%
MSCI Emerging Markets	-24.7%	-23.6%

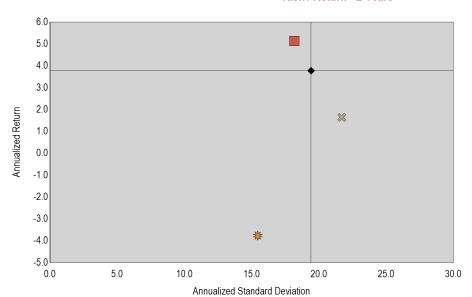


# **Emerging Manager Composite**

### Characteristics

As of September 30, 2022 Market Value: \$8.3 Million and 0.9% of Fund

#### Risk / Return - 2 Years



- Twin Capital
- CIM Investment Management
- Columbus Macro
  - Emerging Manager Benchmark

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	Portfolio	MSCI ACWI
Number of Holdings	416	2,895
Weighted Avg. Market Cap. (\$B)	291.7	306.8
Median Market Cap. (\$B)	5.4	10.7
Price To Earnings	14.7	14.9
Price To Book	2.9	3.1
Price To Sales	1.4	1.5
Return on Equity (%)	19.6	22.4
Yield (%)	1.6	2.5
Beta	1.0	1.0
R-Squared	1.0	1.0

#### Largest Holdings

End Weight	Return
4.6	1.2
3.8	-9.1
2.2	6.4
1.6	18.2
1.3	-12.2
	4.6 3.8 2.2 1.6

## I op Contributors

Beg Wgt	Return	Contribution
1.2	18.2	0.2
1.9	6.4	0.1
0.2	50.6	0.1
0.3	26.7	0.1
0.4	18.6	0.1
	1.2 1.9 0.2 0.3	1.2 18.2 1.9 6.4 0.2 50.6 0.3 26.7

#### Characteristics

	Portfolio	MSCI ACWI
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	4.7	5.2
Materials	3.8	4.7
Industrials	11.4	9.5
Consumer Discretionary	11.5	11.5
Consumer Staples	5.1	7.7
Health Care	15.4	13.0
Financials	12.6	14.5
Information Technology	21.9	20.7
Communication Services	6.0	7.4
Utilities	2.6	3.1
Real Estate	3.1	2.7
Unclassified	1.3	0.0

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
MICROSOFT CORP	4.0	-9.1	-0.4
ALPHABET INC	1.4	-12.2	-0.2
NVIDIA CORPORATION	0.8	-19.9	-0.2
LIBERTY BROADBAND CORP	0.4	-36.2	-0.2
ALPHABET INC	1.3	-12.1	-0.2

#### **Market Capitalization**

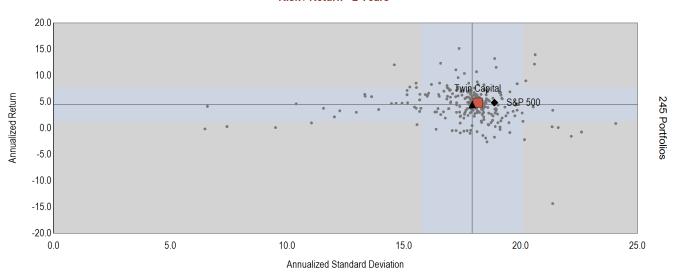
	Small Cap	Mid Cap	Large Cap
Emerging Manager Composite	39.6%	10.4%	50.0%
MSCI ACWI	7.9%	18.1%	74.0%
Weight Over/Under	31.7%	-7.8%	-23.9%

## Twin Capital

## Characteristics

As of September 30, 2022 Market Value: \$3.6 Million and 0.4% of Fund

#### Risk / Return - 2 Years



#### Characteristics

	Portfolio	S&P 500
Number of Holdings	180	503
Weighted Avg. Market Cap. (\$B)	482.0	468.4
Median Market Cap. (\$B)	42.7	27.1
Price To Earnings	15.7	18.6
Price To Book	3.4	3.8
Price To Sales	1.6	2.0
Return on Equity (%)	31.4	32.1
Yield (%)	1.8	1.8
Beta	1.0	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	S&P 500
INDUSTRY SECTOR DISTRIBUTION (% Eq	juity)	
Energy	4.5	4.5
Materials	2.2	2.4
Industrials	7.8	7.8
Consumer Discretionary	11.3	12.1
Consumer Staples	6.9	7.4
Health Care	15.2	14.7
Financials	11.1	11.3
Information Technology	25.7	25.8
Communication Services	8.3	8.3
Utilities	3.3	3.0
Real Estate	2.5	2.7
Unclassified	0.0	0.0

#### Largest Holdings

	End Weight	Return
APPLE INC	7.4	1.2
MICROSOFT CORP	5.8	-9.1
AMAZON.COM INC	3.3	6.4
TESLA INC	2.6	18.2
ALPHABET INC	2.1	-12.2

### Top Contributors

	End Weight	Return	Contribution
TESLA INC	2.6	18.2	0.5
CONOCOPHILLIPS	1.4	16.0	0.2
AMAZON.COM INC	3.3	6.4	0.2
ALBEMARLE CORP	0.4	26.7	0.1
APPLE INC	7.4	1.2	0.1

#### **Bottom Contributors**

	End Weight	Return	Contribution
MICROSOFT CORP	5.8	-9.1	-0.5
ALPHABET INC	2.1	-12.2	-0.3
ALPHABET INC	1.6	-12.1	-0.2
PROCTER & GAMBLE CO (THE)	1.5	-11.6	-0.2
PFIZER INC	1.1	-15.9	-0.2

#### **Market Capitalization**

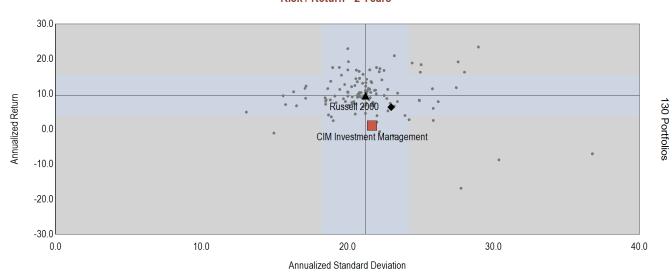
	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Twin Capital	0.1%	3.6%	18.1%	22.6%	55.7%
S&P 500	0.1%	1.4%	14.4%	28.9%	55.2%
Weight Over/Under	0.0%	2.2%	3.7%	-6.4%	0.5%

## **CIM Investment Management**

### Characteristics

As of September 30, 2022 Market Value: \$2.5 Million and 0.3% of Fund

#### Risk / Return - 2 Years



#### Characteristics

	Portfolio	Russell 2000
Number of Holdings	237	1,970
Weighted Avg. Market Cap. (\$B)	4.0	2.6
Median Market Cap. (\$B)	2.4	1.0
Price To Earnings	13.0	11.7
Price To Book	2.4	2.2
Price To Sales	1.3	1.3
Return on Equity (%)	1.9	5.4
Yield (%)	1.3	1.7
Beta	1.0	1.0
R-Squared	1.0	1.0

#### Characteristics

	Portfolio	Russell 2000
INDUSTRY SECTOR DISTRIBUTION (% Ed	quity)	
Energy	2.2	6.2
Materials	4.0	4.0
Industrials	16.0	14.8
Consumer Discretionary	10.6	10.1
Consumer Staples	4.3	3.5
Health Care	16.5	18.8
Financials	16.8	17.3
Information Technology	14.1	12.8
Communication Services	2.4	2.7
Utilities	3.9	3.4
Real Estate	4.6	6.4
Unclassified	2.5	0.1

#### Largest Holdings

	End Weight	Return
ISHARES TRUST - ISHARES RUSSELL 2000 ETF	1.9	-2.1
VALLEY NATIONAL BANCORP	1.2	4.7
FEDERATED HERMES INC	1.2	5.0
VIVINT SMART HOME INC	1.1	89.1
M/I HOMES INC	1.1	-8.6

#### **Top Contributors**

	End Weight	Return	Contribution
VIVINT SMART HOME INC	1.1	89.1	1.0
APELLIS PHARMACEUTICALS INC	0.7	51.0	0.3
SUNPOWER CORP	0.5	45.7	0.2
YELP INC	0.9	22.1	0.2
SHOCKWAVE MEDICAL INC	0.4	45.5	0.2

#### **Bottom Contributors**

	End Weight	Return	Contribution
TRINSEO PLC	0.5	-52.0	-0.2
MERCURY SYSTEMS INC	0.6	-36.9	-0.2
LEAFLY HOLDINGS INC	0.2	-84.9	-0.2
COHERENT CORP	0.6	-31.6	-0.2
AVIENT CORP	0.7	-23.9	-0.2

#### **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
CIM Investment Management	58.6%	38.8%	0.6%	2.0%	0.0%
Russell 2000	72.7%	26.8%	0.4%	0.0%	0.0%
Weight Over/Under	-14.2%	12.0%	0.1%	2.0%	0.0%

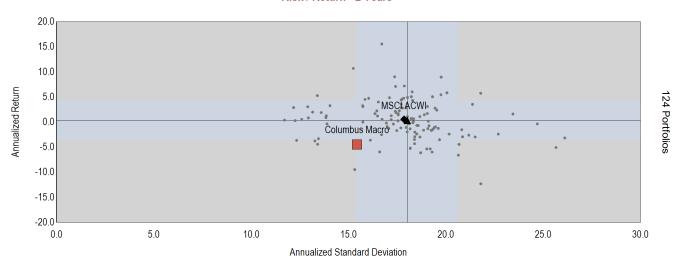
## Columbus Macro

### Characteristics

Market Value: \$2.3 Million and 0.2% of Fund

As of September 30, 2022

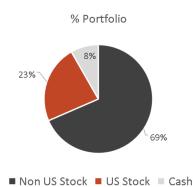
#### Risk / Return - 2 Years



	<u>Portfolio</u>	MSCI ACWI	
<u>Characteristics</u>			
Weighted Average Market Cap (\$M)	25,609.93	35,350.00	
Price To Earnings	15.6	20.4	
Price To Book	2.1	3.7	
Price To Sales	1.5	2.3	
Return on Equity (%)	20.0%	19.5%	
Yield (%)	2.4%	1.9%	
Beta	0.42	1.00	
R-Squared	60.6	100.0	

World Regions	<u>Portfolio</u>	MSCI ACWI
Americas	28.9%	62.5%
North America	26.7%	59.6%
Latin America	2.2%	2.9%
Greater Europe	23.0%	15.9%
United Kingdom	4.3%	3.2%
Europe Developed	13.6%	11.0%
Europe Emerging	1.5%	0.7%
Africa/ Middle East	3.6%	1.0%
Greater Asia	48.1%	21.8%
Japan	7.4%	6.2%
Australasia	2.3%	2.9%
Asia Developed	13.3%	3.3%
Asia Emerging	25.1%	9.4%

Sector Allocation	<u>Portfolio</u>	MSCI ACWI
Basic Materials	6.6%	4.7%
Communication Services	7.7%	9.2%
Consumer Cyclical	11.6%	12.4%
Consumer Defensive	7.2%	6.8%
Healthcare	11.1%	11.7%
Industrials	10.3%	9.7%
Real Estate	3.5%	2.6%
Technology	18.8%	22.3%
Energy	3.0%	3.5%
Financial Services	17.3%	14.5%
Utilities	3.0%	2.6%



<b>Equity Style</b>
Large Cap
Mid Cap
Small Cap

Value	Core	Growth
17%	29%	21%
8%	10%	5%
4%	3%	3%

#### Top 5 Holdings

Mutual Fund	Weight
iShares MSCI ACWI ETF	19.33%
iShares Core MSCI Emerging Markets ETF	16.71%
iShares Core MSCI EAFE ETF	15.96%
WisdomTree Emerging Markets SmCp Div ETF	9.53%
SPDR Blmbg Barclays 1-3 Mth T-Bill ETF	7.79%

## ABS Offshore SPC Global

### Characteristics

As of September 30, 2022

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	ABS Investment Management
Product Assets	\$801.8
# Underlying Managers	28
% of Portfolio in Top 3 Funds	9.6%
Aggregate Portfolio Leverage	0.0%
# Managers Hired Over Quarter	0
# Managers Fired Over Quarter	0
Total Outflows from the Fund	\$11.6
Pending Outflows	\$0.0
Total Inflows to the Fund	\$0.0
% of Fund Liquid in 6Months	88.7%
% of Fund Liquid in 12Months	100.0%
% of Fund Liquid in 24Months	100.0%

#### Strategy Breakdown

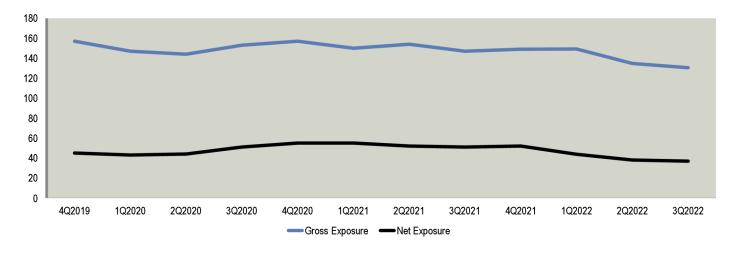
	Weight(%)	Attribution(%)
Credit	0.0%	0.0%
Event Driven	0.0%	0.0%
Global Macro/CTA	0.0%	0.0%
Multi-Strategy	0.0%	0.0%
Hedged Equity	100.0%	-3.0%
Relative Value	0.0%	0.0%
Short Selling	0.0%	0.0%
Other	0.0%	0.0%
Total	100.0%	-3.0%

Security Geographic Exposure	Weight(%)
US Exposure	65.8%
International Exposure	31.0%
Cash	3.2%

#### **Top Ten Holdings Invetsment Detail**

Fund	Туре	Fair Market Value (\$M)	Weight %	Quarter Return
Seligman Tech	Hedged Equity	\$36.0	4.4%	-11.8%
TPG PEP	Hedged Equity	\$36.9	4.5%	-2.0%
Toronado	Hedged Equity	\$42.0	5.2%	-5.9%
Sagil	Hedged Equity	\$41.2	5.1%	0.9%
Energy Dynamics	Hedged Equity	\$50.4	6.2%	5.5%
Riposte	Hedged Equity	\$35.9	4.4%	1.6%
One01	Hedged Equity	\$35.4	4.3%	-6.4%
140 Summer	Hedged Equity	\$36.8	4.5%	0.4%
Azora	Hedged Equity	\$41.9	5.1%	3.0%
Medina Singh	Hedged Equity	\$35.7	4.4%	3.0%
Fund	Fund Size (\$M)	Fund Inception	Investment Inception	SEC Registered
<b>Fund</b> Seligman Tech	Fund Size (\$M) \$1,300.0	Fund Inception 15-Feb	Investment Inception 15-Feb	SEC Registered Yes
	, ,	•	•	
Seligman Tech	\$1,300.0	15-Feb	15-Feb	Yes
Seligman Tech TPG PEP	\$1,300.0 \$2,370.0	15-Feb 15-Jun	15-Feb 15-Jun	Yes Yes
Seligman Tech TPG PEP Toronado	\$1,300.0 \$2,370.0 \$351.5	15-Feb 15-Jun 13-Jun	15-Feb 15-Jun 18-Aug	Yes Yes Yes
Seligman Tech TPG PEP Toronado Sagil	\$1,300.0 \$2,370.0 \$351.5 \$381.0	15-Feb 15-Jun 13-Jun 17-Mar	15-Feb 15-Jun 18-Aug 17-Mar	Yes Yes Yes Yes
Seligman Tech TPG PEP Toronado Sagil Energy Dynamics	\$1,300.0 \$2,370.0 \$351.5 \$381.0 \$1,820.6	15-Feb 15-Jun 13-Jun 17-Mar 18-Apr	15-Feb 15-Jun 18-Aug 17-Mar 18-Apr	Yes Yes Yes Yes Yes
Seligman Tech TPG PEP Toronado Sagil Energy Dynamics Riposte	\$1,300.0 \$2,370.0 \$351.5 \$381.0 \$1,820.6 \$299.0	15-Feb 15-Jun 13-Jun 17-Mar 18-Apr 13-Nov	15-Feb 15-Jun 18-Aug 17-Mar 18-Apr 16-Feb	Yes Yes Yes Yes Yes Yes
Seligman Tech TPG PEP Toronado Sagil Energy Dynamics Riposte One01	\$1,300.0 \$2,370.0 \$351.5 \$381.0 \$1,820.6 \$299.0 \$343.0	15-Feb 15-Jun 13-Jun 17-Mar 18-Apr 13-Nov 20-Jul	15-Feb 15-Jun 18-Aug 17-Mar 18-Apr 16-Feb 20-Jul	Yes Yes Yes Yes Yes Yes Yes Yes Yes

#### Gross/Net Positioning

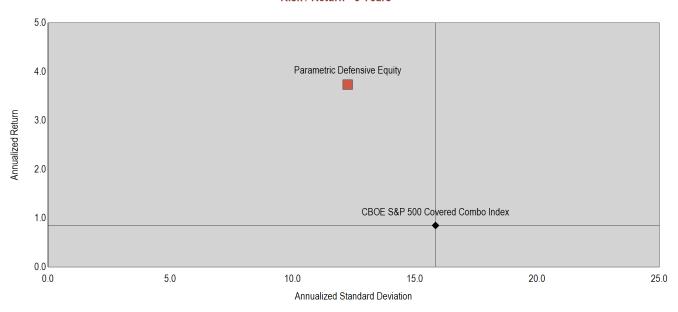


## Parametric Defensive Equity

Characteristics

As of September 30, 2022

Risk / Return - 3 Years



#### Characteristics

### Parametric Defensive Equity

Portfolio Value	\$5.54 billion
Standard Deviation	8.2%
Sharpe Ratio	0.8

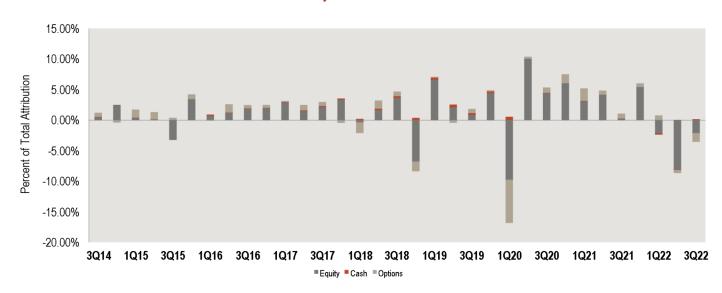
#### Strategy Breakdown

#### 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**



### Rreef America II Characteristics

As of September 30, 2022

#### Market Value: \$27.8 Million and 3.0% of Fund

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Fund GAV (\$MM)	\$19,713.0
Fund NAV (\$MM)	\$16,683.8
Cash (% of NAV)	1.9%
# of Investments	127
% in Top 10 by NAV	23.9%
Leverage %	17.9%
Occupancy	93.0%
# of MSAs	36
1-Year Dividend Yield	2.9%
As of Date	30-Sep-22

	% of Portfolio
Pre-Development	1.3%
Development	1.5%
Initial Leasing	
Operating	97.2%
Re-Development	

Strategy Breakdown

Re-Development	
Other	

Top Five Metro Areas	% of NAV
Los Angeles	10.1%
San Francisco	9.6%
New York	8.6%
Boston	7.8%
Seattle	7.2%

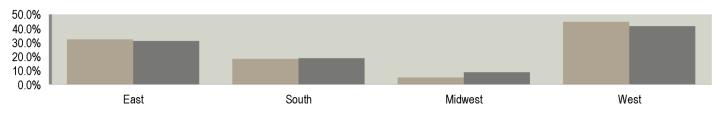
Queue In:
Contribution Queue (\$MM) \$145.67
Anticipated Drawdown (Months) 6

Queue Out:
Redemption Queue (\$MM) \$871.78
Anticipated Payout (Months) 6

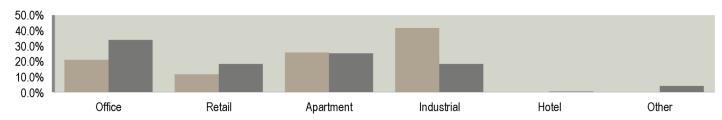
Top Ten Holdings Investment Detail

#	Property	Туре	Location	% of Fund NAV
1	Riverfront Office Park	Office	Cambridge,MA	4.9%
2	Fullerton Crossroads	Industrial	Fullerton,CA	3.5%
3	New Jersey Port Industrial	Industrial	Jersey City,NJ	2.8%
4	Manhattan Village	Retail	Manhattan Beach,CA	2.2%
5	Alvarado Business Park	Industrial	Union City,CA	1.9%
6	Harris Business Center	Industrial	City of Commerce,CA	1.8%
7	Sharon Green Apartments	Apartment	Menlo Park,CA	1.8%
8	222 Broadway	Office	New York,NY	1.7%
9	Gateway Commerce Center IND	Industrial	Columbia,ML	1.7%
10	Stadium Plaza Business Park	Industrial	Anaheim,CA	1.7%
Total				23.9%

#### 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

9

Anticipated Payout (Months)

As of September 30, 2022

	raci		

Fund GAV (\$MM)	\$3,935.7
Fund NAV (\$MM)	\$2,886.2
Cash (% of NAV)	0.7%
# of Investments	45
% in Top 10 by NAV	39.5%
Leverage %	24.4%
Occupancy	94.4%
# of MSAs	20
1-Year Dividend Yield	3.6%
As of Date	30-Sep-22

Strategy	Breakdown
----------	-----------

	% of Portfolio	Top Five Metro Areas	% of NAV
Pre-Development	0.0%	Los Angeles, CA	18.3%
Development	1.2%	New York - Newark	15.2%
Initial Leasing	1.5%	Dallas - Ft Worth. TX	15.1%
Operating	95.7%	Boston, MA	10.0%
Re-Development	0.4%	Austin, TX	7.9%
Other	1.3%		
Queue In:		Queue Out:	
Contribution Queue (\$MM)	\$0.00	Redemption Queue (\$MM)	\$202.76

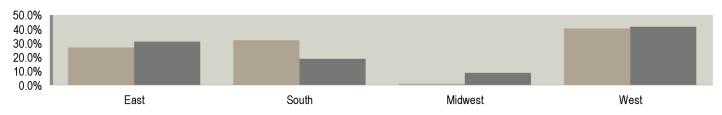
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Top Ten Holdings Investment Detail

Anticipated Drawdown (Months)

#	Property	Туре	Location	% of Fund NAV
1	100 Wall Street	Office	New York, NY	6.7%
2	Water Tower Flats	Apartment	Arvada, CO	4.4%
3	Ridge	Apartment	Waltham, MA	3.9%
4	One Patriots Park	Other	Bedford, MA	3.8%
5	Gateway 190 Portfolio	Industrial	Garland / Plano, TX	3.7%
6	Sun Valley Industrial Park	Industrial	Sun Valley, CA	3.5%
7	Metro Point Logistics Center	Industrial	Ridgefield, NJ	3.5%
8	Jupiter Road Industrial Park	Industrial	Garland, TX	3.5%
9	701 Rio	Office	Austin, TX	3.4%
10	Riverpark 500-600	Industrial	Fort Worth, TX	3.3%
Total				39.5%

#### Regional Breakdown by NAV (Excluding Cash & Debt)



#### Property Type Breakdown by NAV (Excluding Cash & Debt)



#### Property Size Breakdown by NAV (Excluding Cash & Debt)



# **Total Fund Composite**

## Fee Schedule

Market Value: \$930.2 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
Short-Term Fixed Income	Vanguard Ultra Short Duration	0.10% on the Balance	0.10% \$15,383	0.47%
Core Fixed Income	Federated Investors	0.25% on the Balance	0.25% \$143,841	0.30%
Core Fixed Income	BlackRock Total Return Fund	0.40% on the Balance	0.40% \$79,611	0.56%
Large-Cap Core	SSgA S&P 500 Index Fund	0.04% on the Balance	0.04% \$60,339	0.02%
Large-Cap Core	Twin Capital	0.35% on the first \$50 million 0.20% on the Balance	0.35% \$12,511	0.55%
Smid-Cap Core	Frontier Capital Management	0.75% on the Balance	0.75% \$282,400	0.80%
Small-Cap Core	Vanguard Russell 2000	0.08% on the Balance	0.08% \$29,938	0.19%
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% \$17,139	0.85%
Global Core Equity	Columbus Macro	0.70% on the Balance	0.70% \$15,924	0.71%
Global Core Equity	Federated Hermes Global Equity	0.74% on the Balance	0.74% \$52,788	0.85%
Non-U.S. Large-Cap Core	MFS International Equity Fund	0.69% on the Balance	0.69% \$496,273	0.85%
Emerging Markets	SSgA Active Emerging Markets Fund	0.75% on the Balance	0.75% \$59,859	0.90%
Emerging Markets	ABS Emerging Markets	0.80% on the Balance	0.80% \$92,025	1.00%
Hedged Equity Hedge FoF	ABS Offshore SPC Global	1.00% on the Balance	1.00% \$154,193	1.00%
Multi-Strat. Hedge Fund	Entrust Three Rivers Partners	1.25% on the Balance	1.250% \$315,308	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	0.32% \$43,160	0.70%
Core Real Estate	Rreef America II	0.95% on the Balance	0.95% \$263,749	1.00%

# **Total Fund Composite**

## Fee Schedule

Market Value: \$930.2 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
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	1.05% \$274,619	1.00%
Venture Private Equity	Draper Triangle Ventures III, LP	2.50% on total commitments plus 20% carried interest	1.91% \$50,000	1.72%
Mezz. Private Equity	Crescent Mezzanine Partners VIB, LP	1.50% on total commitments plus 20% carried interest after 8% preferred return	11.26% \$150,000	11.26%
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	1.98% \$120,710	1.98%
Direct Lending	Crescent Credit Solutions VIII A-2	1.35% on the Balance plus 20% carried interest after 8% preferred return	1.35% \$62,010	1.50%
LBO Private Equity FoF	Siguler Guff Small Buyout Opportunities Fund IV	0.75% on Committed Capital 15% Carried Interest above 8% Preferred Return	0.90% \$112,500	2.41%
LBO Private Equity FoF	Siguler Guff Small Buyout Opportunities Fund V	0.55% on Committed Capital (1st Close Di 5% Carried Interest on Fund Investments 15% Carried Interest on Coinvestments Plus 8% Preferred Return	 \$82,500	
Fixed Income Annuity	Dedicated Funding for CMPTF	0.00% on the Balance	0.00% \$0	
Total Investment Management Fee	S		0.32% \$2,986,780	0.35%
Custodian	PNC Bank	0.015% on the all assets, excluding Dedicated Funding for CMPTF	0.01% \$88,879	
Total Fund			0.33% \$3,075,659	



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