



### **Pittsburgh Comprehensive Municipal Pension**

Pittsburgh Comprehensive Municipal

Executive Summary

March 31, 2022

### **Total Fund Composite**

### Manager Status

Market Value: \$1,020.0 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	
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, 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.

### **Plan Capital Movement**

- 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.
- On December 17, 2021, \$752,993 in cash was distributed from the Crescent Mezzanine Partners VIIB to the Operating Account.
- On December 15, 2021, \$130,620 in cash was distributed from the Crescent Mezzanine Partners VIB to the Operating Account.
- On October 22, 2021, the initial purchase of the Federated Hermes Global Equity Fund in the amount of \$10,000,000 was funded using proceeds from the SSGA S&P 500 Index Fund and available cash in the Operating Account.
- On October 8, 2021, \$457,573 in cash was distributed from the Crescent Mezzanine Partners VIB to the Operating Account.
- In 2022, \$1,392,500 has been wired from Siguler Guff account at PNC to the Siguler Guff Small Buyout IV fund, to cover capital calls.

### **Recent Action Items**

- Discussions on changes to the Emerging Manager program
- Committed \$3,000,000 to Magarac Ventures
- Committed \$15,000,000 to Siguler Guff Small Buyout Fund V

## **Total Fund Composite**

Market Value: \$1,020.0 Million and 100.0% of Fund

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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		1,020,049,516	-4,693,412	100.0	100.0	0
Dedicated Funding for CMPTF	Fixed Income Annuity	339,492,636	-6,688,000	33.3	40.0	-68,527,170
Total Invested Portfolio		680,556,880	1,994,588	66.7	60.0	68,527,170
Fixed Income Composite		100,639,705	-40,217	9.9	13.0	-31,966,732
Vanguard Ultra Short Duration	Short-Term Fixed Income	15,428,317	0	1.5		
Federated Investors	Core Fixed Income	63,100,091	-40,217	6.2		
BlackRock Total Return Fund	Core Fixed Income	22,111,297	0	2.2		
U.S. Equity Composite		283,370,314	-160,070	27.8	22.0	58,959,421
SSgA S&P 500 Index Fund	Large-Cap Core	189,028,995	-18,640	18.5		
Frontier Capital Management	Smid-Cap Core	48,451,364	-89,694	4.7		
Guyasuta Investment Advisors	Small-Cap Core	45,889,955	-51,736	4.5		
Emerging Manager Composite		10,413,808	-14,085	1.0	-	10,413,808
Twin Capital	Large-Cap Core	4,441,628	-3,835	0.4		
CIM Investment Management	Small-Cap Core	3,109,389	-5,255	0.3		
Columbus Macro	Global Core Equity	2,862,791	-4,995	0.3		
Non-U.S. Equity Composite		113,480,127	-19,464	11.1	12.0	-8,925,815
MFS International Equity Fund	Non-U.S. Large-Cap Core	90,403,253	0	8.9		
SSgA Active Emerging Markets Fund	Emerging Markets	10,215,014	-19,464	1.0		
ABS Emerging Markets	Emerging Markets	12,861,860	0	1.3		
Global Equity Composite		9,374,202	0	0.9	-	9,374,202
Federated Hermes Global Equity	Global Core Equity	9,374,202	0	0.9		
Hedge Fund Composite		58,647,070	0	5.7	5.0	7,644,594
ABS Offshore SPC Global	Hedged Equity Hedge FoF	16,865,136	0	1.7		
Entrust Three Rivers Partners	Multi-Strat. Hedge Fund	26,704,560	0	2.6		
Parametric Defensive Equity	Defensive Equity	15,077,374	0	1.5		
Real Estate Composite		52,399,765	220,978	5.1	5.0	1,397,290
Rreef America II	Core Real Estate	25,986,118	279,873	2.5	2.5	484,880
Barings Core Property Fund	Core Real Estate	26,413,648	-58,894	2.6	2.5	912,410
Private Equity Composite		24,021,620	538,106	2.4	3.0	-6,579,865
Cash Composite		28,210,268	1,469,339	2.8	0.0	28,210,268

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



## Total Invested Portfolio

Market Value: \$680.6 Million and 66.7% of Fund

#### Ending March 31, 2022

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio
Total Invested Portfolio		680,556,880	1,994,588	100.0
Fixed Income Composite		100,639,705	-40,217	14.8
Vanguard Ultra Short Duration	Short-Term Fixed Income	15,428,317	0	2.3
Federated Investors	Core Fixed Income	63,100,091	-40,217	9.3
BlackRock Total Return Fund	Core Fixed Income	22,111,297	0	3.2
U.S. Equity Composite		283,370,314	-160,070	41.6
SSgA S&P 500 Index Fund	Large-Cap Core	189,028,995	-18,640	27.8
Frontier Capital Management	Smid-Cap Core	48,451,364	-89,694	7.1
Guyasuta Investment Advisors	Small-Cap Core	45,889,955	-51,736	6.7
Emerging Manager Composite		10,413,808	-14,085	1.5
Twin Capital	Large-Cap Core	4,441,628	-3,835	0.7
CIM Investment Management	Small-Cap Core	3,109,389	-5,255	0.5
Columbus Macro	Global Core Equity	2,862,791	-4,995	0.4
Non-U.S. Equity Composite		113,480,127	-19,464	16.7
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ABS Emerging Markets	Emerging Markets	12,861,860	0	1.9
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Hedge Fund Composite		58,647,070	0	8.6
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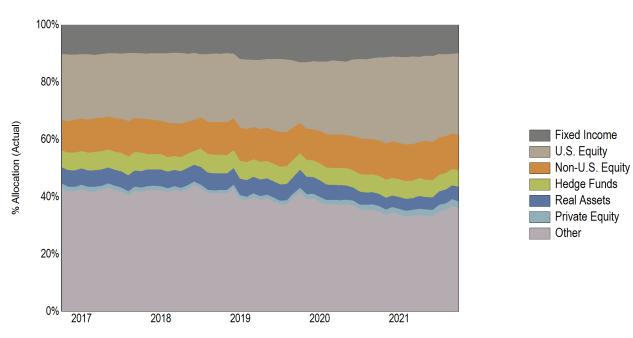
- Private Equity Composite may not include current performance, due to reporting cycle limitations.



Total Fund Composite Asset Allocation

Market Value: \$1,020.0 Million and 100.0% of Fund

#### **Historic Asset Allocation**



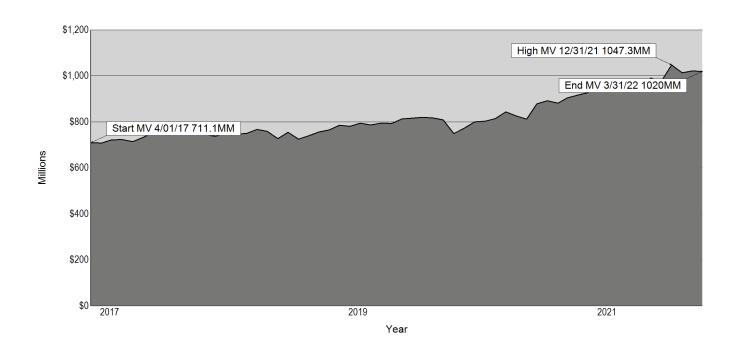
# Asset Allocation vs. Target As Of March 31, 2022

	Current	Policy	Difference*	Difference**
Fixed Income	\$100,639,705	\$132,606,437	-\$31,966,732	-3.1%
U.S. Equity	\$290,921,331	\$224,410,894	\$66,510,438	6.5%
Non-U.S. Equity	\$125,717,120	\$122,405,942	\$3,311,178	0.3%
Hedge Funds	\$58,647,070	\$51,002,476	\$7,644,594	0.7%
Real Assets	\$52,399,765	\$51,002,476	\$1,397,290	0.1%
Private Equity	\$24,021,620	\$30,601,485	-\$6,579,865	-0.6%
Other	\$367,702,904	\$408,019,806	-\$40,316,902	-4.0%
Total	\$1,020,049,516	\$1,020,049,516		

## **Total Fund Composite**

### Market Value History

Market Value: \$1,020.0 Million and 100.0% of Fund



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

	First Quarter	One Year	Three Years	Five Years
Beginning Market Value	\$706,884,593.26	\$626,483,498.63	\$463,391,072.81	\$415,559,629.31
Net Cash Flow	\$2,345,556.71	\$9,700,859.87	\$36,898,972.66	\$26,976,388.30
Net Investment Change	-\$28,673,270.03	\$44,372,521.44	\$180,266,834.47	\$238,020,862.33
Ending Market Value	\$680,556,879.94	\$680,556,879.94	\$680,556,879.94	\$680,556,879.94

## **Total Fund Composite**

## Annualized Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

	1 Mo (%)	3 Mo (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	4 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total Fund Composite	0.7	-2.2	7.5	15.9	9.9	9.0	8.9	8.1	8.8
Total Fund Composite Benchmark	1.1	-1.9	7.5	15.3	9.8	8.7	8.8	8.0	8.4
InvMetrics Public DB Net Rank	53	3	6	91	64	43	55	24	21
Total Invested Portfolio	1.1	-4.1	6.9	20.7	11.0	9.3	9.3	8.0	8.8
Total Invested Portfolio Benchmark	1.1	-3.6	7.2	20.5	11.3	9.4	9.6	8.3	8.9
InvMetrics Public DB Net Rank	20	20	11	21	30	34	41	27	22
Fixed Income Composite	-2.1	-5.0	-3.2	1.4	3.0	3.3	3.0	2.7	3.2
Bloomberg US Aggregate TR	-2.8	-5.9	-4.2	-1.8	1.7	2.4	2.1	1.9	2.2
InvMetrics Public DB US Fix Inc Net Rank	25	73	31	19	10	12	10	5	2
U.S. Equity Composite	2.5	-5.0	11.1	36.4	17.5	14.9	14.3	12.6	13.8
Dow Jones U.S. Total Stock Market	3.2	-5.4	11.7	34.8	18.1	15.7	15.3	13.3	14.2
InvMetrics Public DB US Eq Net Rank	69	46	45	14	25	29	49	36	22
Emerging Manager Composite	2.3	-5.5	1.7	26.9	11.0	8.5	9.1		
Emerging Manager Benchmark	2.4	-5.9	5.2	33.3	15.0	12.3	12.6		
Non-U.S. Equity Composite	-0.6	-7.4	3.0	21.3	10.0	7.1	9.1	6.9	6.8
MSCI ACWI ex USA	0.2	-5.4	-1.5	21.3	7.5	4.5	6.8	5.2	5.6
InvMetrics Public DB ex-US Eq Net Rank	59	56	3	70	5	3	6	12	4
Global Equity Composite	1.2	-8.0							
MSCI ACWI	2.2	-5.4	7.3	28.8	13.8	10.9	11.6	9.7	10.0
InvMetrics Public DB Glbl Eq Net Rank	80	94							
Hedge Fund Composite	0.3	-2.4	1.6	16.1	5.9	5.4	5.3	3.7	
HFRI Fund of Funds Composite Index	0.6	-2.6	1.3	12.1	5.9	4.4	4.6	3.3	3.9
HFRI Equity Hedge (Total) Index	0.5	-4.1	0.3	21.6	10.1	7.4	7.8	6.4	6.3
InvMetrics Public DB Hedge Funds Net Rank									
Real Estate Composite	6.3	6.3	26.6	13.1	10.5	9.5	9.1	9.4	
NFI-ODCE	2.3	7.2	27.3	13.7	10.3	9.4	8.9	9.2	9.9
InvMetrics Public DB Real Estate Priv Net Rank	26	60	51	54	54	58	67	72	

5th Percentile

25th Percentile

# of Portfolios

Total Fund Composite Benchmark

-1.9

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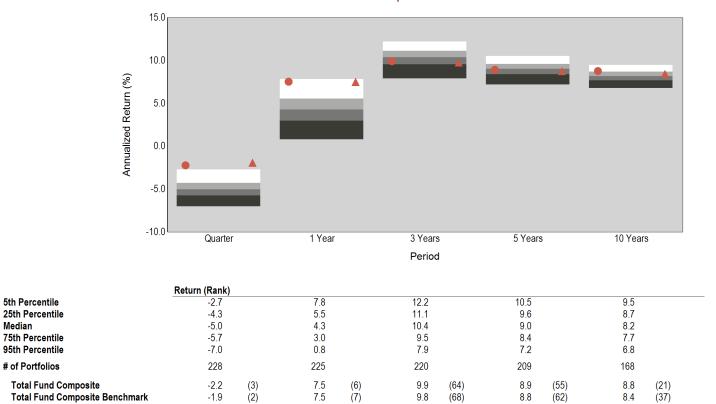
### Annualized Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

(37)

8.4

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



9.8

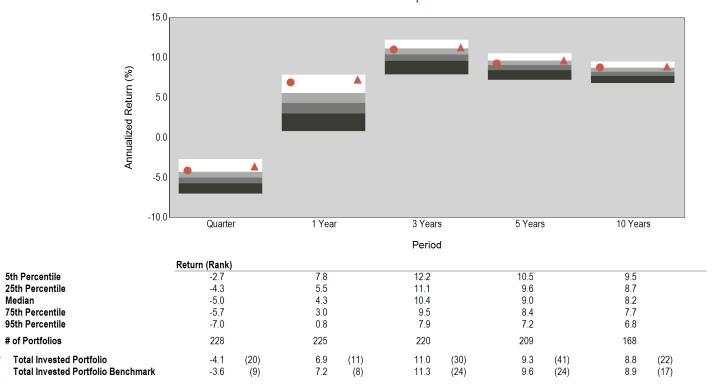
(68)

8.8

(62)

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

7.5



## **Total Fund Composite**

## Calendar Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

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	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)
Total Fund Composite	13.4	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	56	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	19.6	-4.7	15.9	7.4	0.7	7.0	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: \$1,020.0 Million and 100.0% of Fund

	1 Mo (%)	3 Mo (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	4 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total Fund Composite	0.7	-2.2	7.5	15.9	9.9	9.0	8.9	8.1	8.8
Total Fund Composite Benchmark	1.1	-1.9	7.5	15.3	9.8	8.7	8.8	8.0	8.4
InvMetrics Public DB Net Rank	53	3	6	91	64	43	55	24	21
Dedicated Funding for CMPTF	-0.3	1.7	8.4	7.8	7.6	8.2	8.0	7.9	8.6
Annual Return	0.6	1.8	7.2	7.2	7.2	7.3	7.3	7.4	7.5
Total Invested Portfolio	1.1	-4.1	6.9	20.7	11.0	9.3	9.3	8.0	8.8
Total Invested Portfolio Benchmark	1.1	-3.6	7.2	20.5	11.3	9.4	9.6	8.3	8.9
InvMetrics Public DB Net Rank	20	20	11	21	30	34	41	27	22
Fixed Income Composite	-2.1	-5.0	-3.2	1.4	3.0	3.3	3.0	2.7	3.2
Bloomberg US Aggregate TR	-2.8	-5.9	-4.2	-1.8	1.7	2.4	2.1	1.9	2.2
InvMetrics Public DB US Fix Inc Net Rank	25	73	31	19	10	12	10	5	2
Vanguard Ultra Short Duration	-0.5	-1.0	-1.0	0.8					
BofA Merrill Lynch 1 Year Treasury	-0.3	-0.6	-0.7	-0.2	1.1	1.4	1.3	1.1	0.8
Ultrashort Bond MStar MF Rank	67	67	70	62					
Federated Investors	-2.3	-5.4	-3.3	1.7	3.5	3.7	3.3	2.9	3.2
Bloomberg US Aggregate TR	-2.8	-5.9	-4.2	-1.8	1.7	2.4	2.1	1.9	2.2
eV US Core Fixed Inc Net Rank	10	18	10	6	2	2	2	3	8
BlackRock Total Return Fund	-2.7	-6.5	-4.5	0.9	2.5	2.9	2.6	2.3	3.4
Bloomberg US Aggregate TR	-2.8	-5.9	-4.2	-1.8	1.7	2.4	2.1	1.9	2.2
Intermediate Core Bond MStar MF Rank	33	94	69	10	12	19	15	20	6
U.S. Equity Composite	2.5	-5.0	11.1	36.4	17.5	14.9	14.3	12.6	13.8
Dow Jones U.S. Total Stock Market	3.2	-5.4	11.7	34.8	18.1	15.7	15.3	13.3	14.2
InvMetrics Public DB US Eq Net Rank	69	46	45	14	25	29	49	36	22
SSgA S&P 500 Index Fund	3.7	-4.6	15.6	34.4	18.9	16.4	15.9	14.0	
S&P 500	3.7	-4.6	15.6	34.5	18.9	16.5	16.0	14.0	14.6
eV US Large Cap Core Equity Net Rank	17	46	17	26	19	17	17	10	
Frontier Capital Management	1.1	-4.5	2.5	43.7	14.2	11.1	10.7	9.3	12.3
Russell 2500	1.6	-5.8	0.3	37.9	13.8	11.4	11.6	10.0	12.1
eV US Small-Mid Cap Core Equity Net Rank	39	26	62	17	55	50	70	62	54
Guyasuta Investment Advisors	-0.9	-6.9	3.5	37.9	15.3	12.9	11.6	10.7	12.6
Russell 2000	1.2	-7.5	-5.8	35.5	11.7	9.2	9.7	8.9	11.0
eV US Small Cap Core Equity Net Rank	77	44	32	53	30	20	32	30	28



## Annualized Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

	1 Mo (%)	3 Mo (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	4 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Emerging Manager Composite	2.3	-5.5	1.7	26.9	11.0	8.5	9.1		
Emerging Manager Benchmark	2.4	-5.9	5.2	33.3	15.0	12.3	12.6		
Twin Capital	3.3	-4.1	14.9	32.9	17.7	14.9	14.6		
S&P 500	3.7	-4.6	15.6	34.5	18.9	16.5	16.0	14.0	14.6
Russell 1000	3.4	-5.1	13.3	34.9	18.7	16.3	15.8	13.7	14.5
eV US Large Cap Core Equity Net Rank	32	37	24	39	29	40	42		
CIM Investment Management	1.3	-6.9	-10.6	27.4	7.6	4.9	5.7	_	-
Russell 2000	1.2	-7.5	-5.8	35.5	11.7	9.2	9.7	8.9	11.0
eV US Small Cap Core Equity Net Rank	12	43	97	95	98	98	99		
Columbus Macro	1.8	-5.9	-1.2	18.6	6.1	4.5	6.2	-	-
MSCI ACWI	2.2	-5.4	7.3	28.8	13.8	10.9	11.6	9.7	10.0
eV Global All Cap Core Eq Net Rank	58	48	94	92	96	95	94		
on-U.S. Equity Composite	-0.6	-7.4	3.0	21.3	10.0	7.1	9.1	6.9	6.8
MSCI ACWI ex USA	0.2	-5.4	-1.5	21.3	7.5	4.5	6.8	5.2	5.6
InvMetrics Public DB ex-US Eq Net Rank	59	56	3	70	5	3	6	12	4
MFS International Equity Fund	-0.4	-7.9	4.9	21.3	10.8	8.2	9.8	7.3	7.8
MSCI EAFE	0.6	-5.9	1.2	20.9	7.8	4.8	6.7	5.1	6.3
Foreign Large Blend MStar MF Rank	49	65	3	51	8	3	3	2	7
SSgA Active Emerging Markets Fund	-0.7	-3.6	-5.1	20.9	4.9	0.5	4.5	4.3	2.6
MSCI Emerging Markets	-2.3	-7.0	-11.4	18.5	4.9	1.7	6.0	4.7	3.4
eV Emg Mkts Equity Net Rank	43	25	36	48	64	74	80	67	85
ABS Emerging Markets	-1.5	-6.9	-3.1	21.9	9.2	5.4	7.7	6.8	
HFRI Emerging Markets (Total) Index	-0.8	-6.1	-2.8	15.6	5.6	2.8	4.8	4.7	3.9
MSCI Emerging Markets	-2.3	-7.0	-11.4	18.5	4.9	1.7	6.0	4.7	3.4
eV Emg Mkts Equity Net Rank	56	44	29	45	23	16	30	22	
obal Equity Composite	1.2	-8.0			-		-		-
MSCI ACWI	2.2	-5.4	7.3	28.8	13.8	10.9	11.6	9.7	10.0
InvMetrics Public DB Glbl Eq Net Rank	80	94							
Federated Hermes Global Equity	1.2	-8.0						-	
MSCI ACWI	2.2	-5.4	7.3	28.8	13.8	10.9	11.6	9.7	10.0
World Large Stock Blend Mstar MF Rank	68	74							

## Annualized Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

	1 Mo (%)	3 Mo (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	4 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Hedge Fund Composite	0.3	-2.4	1.6	16.1	5.9	5.4	5.3	3.7	
HFRI Fund of Funds Composite Index	0.6	-2.6	1.3	12.1	5.9	4.4	4.6	3.3	3.9
HFRI Equity Hedge (Total) Index	0.5	-4.1	0.3	21.6	10.1	7.4	7.8	6.4	6.3
InvMetrics Public DB Hedge Funds Net Rank									
ABS Offshore SPC Global	0.0	-4.4	-3.0	11.8	7.1	4.8	5.6	3.9	
HFRX Equity Hedge Index	1.5	-0.3	8.9	16.2	6.9	3.8	4.7	3.0	3.7
Entrust Three Rivers Partners	-0.6	-1.5	0.3	16.9	3.4		-		
HFRI Fund of Funds Composite Index	0.6	-2.6	1.3	12.1	5.9	4.4	4.6	3.3	3.9
Parametric Defensive Equity	2.4	-1.7	10.1	20.1	9.6	8.7	8.2		-
CBOE S&P 500 Covered Combo Index	4.2	-0.5	13.1	23.9	10.0	8.7	8.5	8.4	8.2
50% S&P 500/50% 91 Day T-Bill	1.9	-2.2	7.8	16.4	9.9	8.9	8.6	7.5	7.6
Real Estate Composite	6.3	6.3	26.6	13.1	10.5	9.5	9.1	9.4	
NFI-ODCE	2.3	7.2	27.3	13.7	10.3	9.4	8.9	9.2	9.9
InvMetrics Public DB Real Estate Priv Net Rank	26	60	51	54	54	58	67	72	
Rreef America II	6.2	6.2	29.0	14.8	11.6	10.4	9.8	10.0	
NFI-ODCE	2.3	7.2	27.3	13.7	10.3	9.4	8.9	9.2	9.9
Barings Core Property Fund	6.5	6.5	24.7	11.7	9.6	8.8	8.4	8.9	
NFI-ODCE	2.3	7.2	27.3	13.7	10.3	9.4	8.9	9.2	9.9

## Calendar Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

Calendar Year	r
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					,	Calelluai	I Cai				
	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)
otal Fund Composite	13.4	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	56	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	19.6	-4.7	15.9	7.4	0.7	7.0	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
Guyasuta Investment Advisors	23.4	15.4	32.3	-10.4	12.2	29.4	-9.9	8.4	36.2	25.7	4.1
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	56	46	7	46	71	3	88	15	73	1	17

## Calendar Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

#### **Calendar Year**

						Gaionaa	· · · · · ·				
	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							
on-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				-	-	-	-	-		-	
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								-		-	-
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
World Large Stock Blend Mstar MF Rank											



## Calendar Performance (Net of Fees)

Market Value: \$1,020.0 Million and 100.0% of Fund

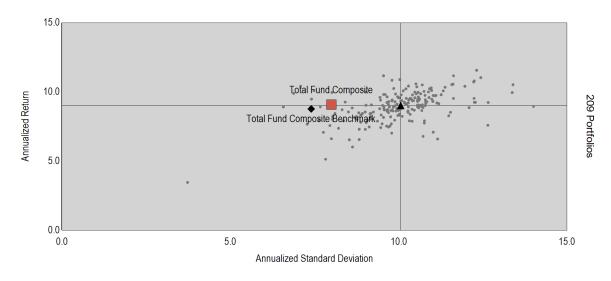
#### **Calendar Year**

	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

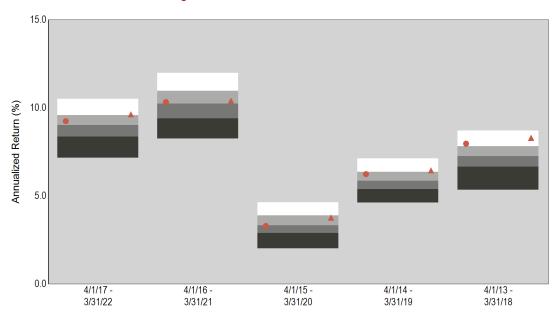
### Invested Portfolio vs. Peer Universe

Market Value: \$680.6 Million and 66.7% of Fund

#### **Annualized Return vs. Annualized Standard Deviation** 5 Years Ending March 31, 2022



Rolling 5 Year Returns: Invested Portfolio



	Return (Rank)	)									
5th Percentile	10.5		12.0		4.6		7.1		8.7		
25th Percentile	9.6		11.0		3.9		6.4		7.8		
Median	9.0		10.2		3.3		5.9		7.3		
75th Percentile	8.4		9.4		2.9		5.4		6.7		
95th Percentile	7.2		8.3		2.0		4.6		5.4		
# of Portfolios	209		538		488		490		232		
Total Invested Portfolio	9.3	(41)	10.3	(48)	3.3	(53)	6.2	(31)	8.0	(20)	
Total Invested Portfolio Benchn	mark 9.6	(24)	10.4	(46)	3.8	(30)	6.5	(23)	8.3	(12)	

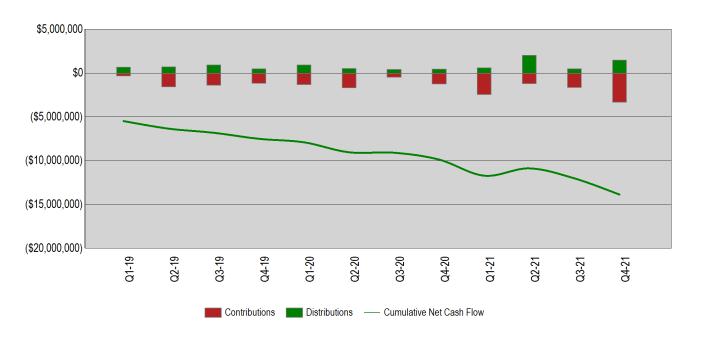
## Private Equity Composite

#### **Private Market Investments Overview**

Detail for Period Ending December 31, 2021

Investments		Commit	ments	Contribu Distrib		Valua	ations	F	erfor	mance	е
Investment Name	Vintage Yr	Commit (\$)	Unfunded Commit (\$)	Cumulative Contribution (\$)	Cumulative Distribution (\$)	Valuation (\$)	Total Value (\$)	DPI	RV Pl	TVP I	IRR (%)
Draper Triangle Ventures II, L.P.	2004	1,000,000	-112,121	1,112,121	1,300,576	3,121	1,303,697	1.17	0.00	1.17	2.57
Birchmere Ventures III, L.P.	2005	1,000,000	-47,694	1,047,694	893,418	69,416	962,834	0.85	0.07	0.92	-2.22
Draper Triangle Ventures III, L.P.	2013	2,000,000	27,819	2,044,497	72,316	3,078,717	3,151,033	0.04	1.51	1.54	8.76
Crescent Mezzanine Partners VIB, L.P.	2013	10,000,000	757,498	10,777,452	12,998,161	1,455,882	14,454,043	1.21	0.14	1.34	9.42
Crescent Mezzanine Partners VIIB, L.P.	2016	10,000,000	1,746,426	9,891,610	5,274,553	6,376,773	11,651,326	0.53	0.64	1.18	8.50
Siguler Guff Small Buyout Opportunities Fund IV, L.P.	2019	15,000,000	7,413,192	7,597,500	257,606	9,634,647	9,892,253	0.03	1.27	1.30	
Crescent Credit Solutions VIIIA-2, L.P.	2021	10,000,000	7,286,741	2,713,259	0	2,864,958	2,864,958	0.00	1.06	1.06	
Total		49,000,000	17,071,861	35,184,133	20,796,630	23,483,514	44,280,144	0.59	0.67	1.26	7.27

# Private Markets Cash Flow Analysis As of December 31, 2021



Investment Manager Statistics

Market Value: \$1,020.0 Million and 100.0% of Fund

#### 3 Years Ending March 31, 2022

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Federated Investors	0.6	2.3%	0.5%	0.9	0.8	0.9	2.8%	133.9%	83.4%
Bloomberg US Aggregate TR	0.2						2.7%		
BlackRock Total Return Fund	0.3	3.0%	0.2%	1.0	0.8	0.3	3.1%	116.9%	99.1%
Bloomberg US Aggregate TR	0.2						2.7%		
SSgA S&P 500 Index Fund	0.9	0.0%	0.0%	1.0	1.0	-0.8	10.0%	100.0%	100.1%
S&P 500	0.9	-					10.0%		
Frontier Capital Management	0.4	5.5%	0.0%	1.2	1.0	0.2	17.2%	116.7%	109.7%
Russell 2500	0.4						14.9%		
Guyasuta Investment Advisors	0.5	7.4%	1.2%	0.9	1.0	0.6	14.4%	112.8%	94.3%
Russell 2000	0.3	-		-			15.9%		
MFS International Equity Fund	0.5	4.2%	0.8%	0.9	1.0	0.7	9.6%	114.8%	94.7%
MSCI EAFE	0.4						10.1%		
SSgA Active Emerging Markets Fund	0.2	6.5%	0.3%	0.9	0.9	0.1	10.9%	90.3%	88.8%
MSCI Emerging Markets	0.2						12.2%		
ABS Emerging Markets	0.4	4.1%	0.6%	1.2	1.0	0.9	9.5%	136.8%	107.1%
HFRI Emerging Markets (Total) Index	0.3						7.7%		
Twin Capital	0.9	1.1%	-0.1%	1.0	1.0	-0.7	9.9%	95.9%	99.2%
S&P 500	0.9	-					10.0%		
CIM Investment Management	0.3	3.5%	-0.7%	1.0	1.0	-1.0	15.3%	85.0%	100.6%
Russell 2000	0.3						15.9%		
Columbus Macro	0.3	3.3%	-1.3%	0.9	1.0	-2.1	9.4%	71.5%	109.4%
MSCI ACWI	0.6	-					10.4%		
ABS Offshore SPC Global	0.5	6.0%	0.2%	0.9	0.7	0.0	6.0%	102.9%	102.8%
HFRX Equity Hedge Index	0.6	-		-	-		5.5%	-	
Parametric Defensive Equity	0.7	4.2%	0.3%	0.8	1.0	-0.1	6.7%	83.7%	79.0%
CBOE S&P 500 Covered Combo Index	0.6	-		-	-		8.3%		

Investment Manager Statistics

Market Value: \$1,020.0 Million and 100.0% of Fund

### 5 Years Ending March 31, 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	0.5	2.0%	0.4%	0.9	0.8	0.7	2.3%	125.0%	84.7%
Bloomberg US Aggregate TR	0.2						2.2%		
BlackRock Total Return Fund	0.3	2.3%	0.1%	1.0	0.8	0.2	2.5%	111.2%	99.2%
Bloomberg US Aggregate TR	0.2				-		2.2%		
SSgA S&P 500 Index Fund	0.8	0.0%	0.0%	1.0	1.0	0.0	9.1%	100.0%	100.0%
S&P 500	0.8						9.1%		
Frontier Capital Management	0.4	4.5%	-0.2%	1.1	1.0	0.0	14.5%	108.5%	110.4%
Russell 2500	0.4						12.8%		
Guyasuta Investment Advisors	0.5	6.3%	0.8%	0.9	1.0	0.4	12.3%	105.6%	94.5%
Russell 2000	0.3				-		13.6%		
MFS International Equity Fund	0.5	3.5%	0.8%	0.9	1.0	0.9	8.4%	113.0%	90.9%
MSCI EAFE	0.3				-		8.7%		
SSgA Active Emerging Markets Fund	0.2	5.4%	0.0%	0.9	0.9	-0.1	9.2%	89.1%	92.4%
MSCI Emerging Markets	0.2						10.2%		
ABS Emerging Markets	0.4	3.8%	0.5%	1.2	1.0	0.8	8.2%	133.9%	111.9%
HFRI Emerging Markets (Total) Index	0.3						6.5%		
Twin Capital	0.8	1.0%	-0.2%	1.0	1.0	-1.0	8.9%	95.9%	100.6%
S&P 500	0.8						9.1%		
CIM Investment Management	0.2	3.1%	-0.7%	1.0	1.0	-1.1	13.3%	87.3%	102.3%
Russell 2000	0.3						13.6%		

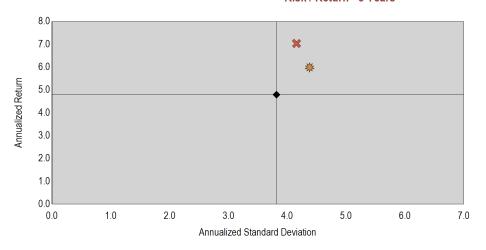
## Fixed Income Composite

### Characteristics

As of December 31, 2021

Market Value: \$105.9 Million and 10.1% of Fund

#### Risk / Return - 3 Years



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

	Characteristics	
	Portfolio	Index
	Q4-21	Q4-21
Yield to Maturity	1.8%	1.7%
Avg. Eff. Maturity	7.3 yrs.	8.6 yrs.
Avg. Duration	5.7 yrs.	6.8 yrs.
Avg. Quality	A	
Region		Number Of

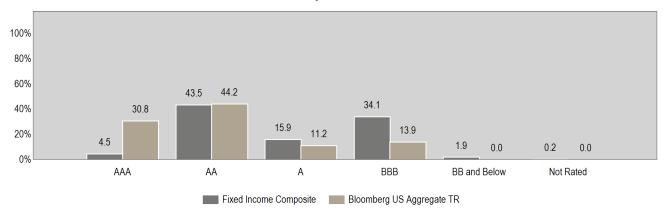
Region	Number Of Assets
North America ex U.S.	55
United States	2,804
Europe Ex U.K.	133
United Kingdom	63
Pacific Basin Ex Japan	31
Japan	37
Emerging Markets	96
Other	577
Total	3,796

	Portfolio	Index
	Q4-21	Q4-21
US Sector Allocation		
UST/Agency	15.9	63.4
Corporate	41.8	30.8
MBS	17.0	
ABS	10.2	0.1
Foreign	0.9	5.5
Muni	0.2	0.2
Cash	2.5	-

**Sector** 

	Q4-21
<1 Year	11.1%
1-3 Years	21.2%
3-5 Years	20.8%
5-7 Years	12.4%
7-10 Years	20.9%
10-15 Years	0.8%
15-20 Years	1.5%
>20 Years	11.3%
Not Rated/Cash	0.0%

**Maturity** 



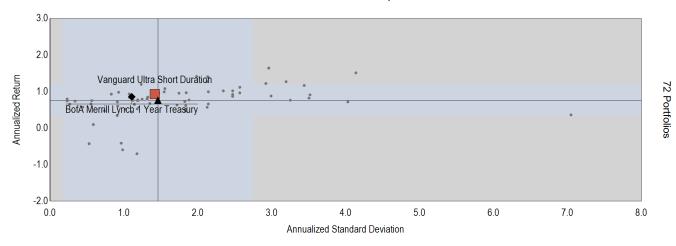
## Vanguard Ultra Short Duration

### Characteristics

As of December 31, 2021

Market Value: \$15.6 Million and 1.5% of Fund

#### Risk / Return - Since Inception



	Portfolio	Index
	Q4-21	Q4-21
Yield to Maturity	0.9%	0.8%
Avg. Eff. Maturity	1.0 yrs.	2.0 yrs.
Avg. Duration	1.0 yrs.	1.9 yrs.
Avg. Quality	Α	

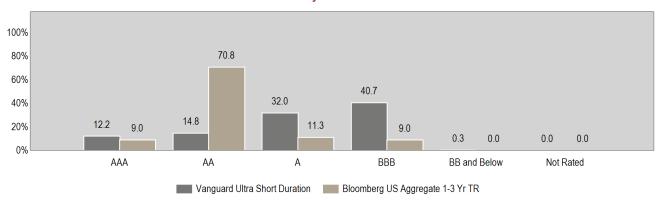
**Characteristics** 

Region	Number Of Assets
North America ex U.S.	28
United States	719
Europe Ex U.K.	52
United Kingdom	39
Pacific Basin Ex Japan	29
Japan	25
Emerging Markets	25
Other	19
Total	936

	Sector	
	Portfolio	Index
	Q4-21	Q4-21
US Sector Allocation		
UST/Agency	9.2	63.4
Corporate	59.1	30.8
MBS	0.7	
ABS	15.3	0.1
Foreign	3.0	5.5
Muni		0.2
Cash	3.9	

	Q4-21
<1 Year	52.3%
1-3 Years	47.6%
3-5 Years	0.0%
5-7 Years	0.1%
7-10 Years	0.1%
10-15 Years	0.0%
15-20 Years	0.0%
>20 Years	0.0%
Not Rated/Cash	0.0%

Maturity

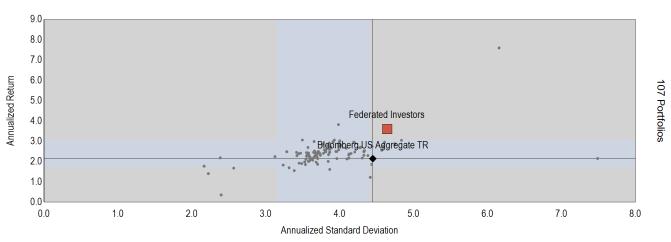


### Federated Investors

### Characteristics

As of March 31, 2022 Market Value: \$63.1 Million and 6.2% of Fund





-		
	Portfolio	Index
	Q1-22	Q1-22
Yield to Maturity	3.1%	2.9%
Avg. Eff. Maturity	8.8 yrs.	8.9 yrs.
Avg. Duration	6.7 yrs.	6.9 yrs.
Avg. Quality	Α	_

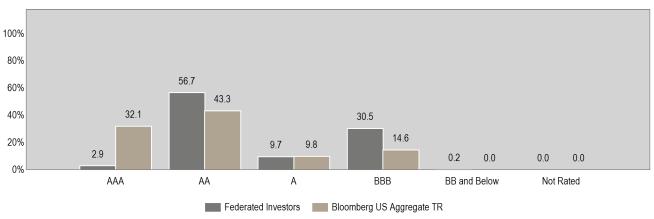
**Characteristics** 

Region	Number Of Assets
North America ex U.S.	4
United States	247
Europe Ex U.K.	4
United Kingdom	5
Emerging Markets	2
Other	1
Total	263

5	Sector	
	Portfolio	Index
	Q1-22	Q1-22
US Sector Allocation		
UST/Agency	17.3	63.7
Corporate	35.0	30.7
MBS	28.9	
ABS	5.3	0.1
Foreign	0.2	5.3
Muni		0.2
Cash	0.2	

	Q1-22
<1 Year	4.1%
1-3 Years	13.0%
3-5 Years	15.7%
5-7 Years	10.7%
7-10 Years	42.0%
10-15 Years	1.5%
15-20 Years	1.3%
>20 Years	11.8%
Not Rated/Cash	0.0%

**Maturity** 



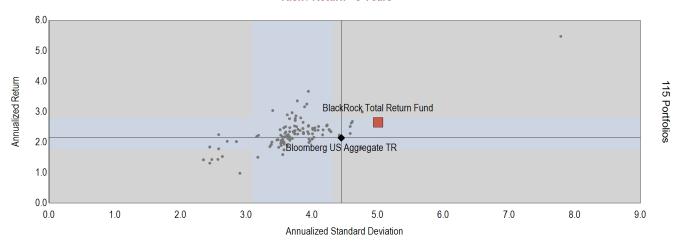
### BlackRock Total Return Fund

### Characteristics

As of December 31, 2021

Market Value: \$23.6 Million and 2.3% of Fund

#### Risk / Return - 5 Years



	Portfolio	Index
	Q4-21	Q4-21
Yield to Maturity	2.6%	1.7%
Avg. Eff. Maturity	9.2 yrs.	8.6 yrs.
Avg. Duration	6.7 yrs.	6.8 yrs.
Avg. Quality	А	-

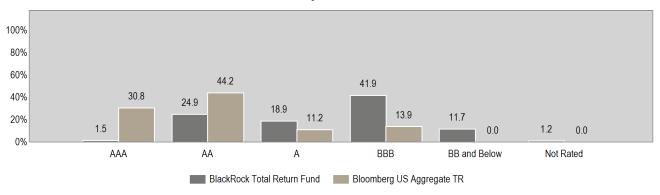
**Characteristics** 

Region	Number Of Assets
North America ex U.S.	25
United States	1,878
Europe Ex U.K.	78
United Kingdom	21
Pacific Basin Ex Japan	2
Japan	16
Emerging Markets	69
Other	557
Total	2,646

	Sector		
		Portfolio	Index
		Q4-21	Q4-21
US Sector Allocation			
UST/Agency		16.5	63.4
Corporate		51.1	30.8
MBS		10.0	
ABS		19.4	0.1
Foreign		1.7	5.5
Muni		1.1	0.2
Cash		-2.9	

	Q4-21
<1 Year	4.7%
1-3 Years	16.7%
3-5 Years	21.1%
5-7 Years	14.9%
7-10 Years	20.1%
10-15 Years	3.0%
15-20 Years	3.2%
>20 Years	16.4%
Not Rated/Cash	0.0%

**Maturity** 



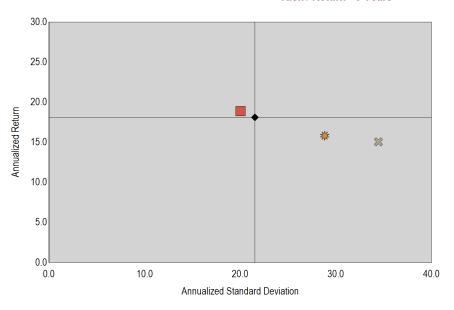
## U.S. Equity Composite

Characteristics

Market Value: \$283.4 Million and 27.8% of Fund

As of March 31, 2022

#### Risk / Return - 3 Years



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

#### **Characteristics**

	Portfolio	Dow Jones U.S. Total Stock Market
Number of Holdings	653	4,243
Weighted Avg. Market Cap. (\$B)	445.5	545.5
Median Market Cap. (\$B)	22.2	1.3
Price To Earnings	21.8	21.4
Price To Book	3.8	4.1
Price To Sales	2.2	2.7
Return on Equity (%)	25.6	23.1
Yield (%)	1.2	1.4
Beta	1.1	1.0
R-Squared	1.0	1.0

#### Characteristics

Characteristics		
	Portfolio	Dow Jones U.S. Total Stock Market
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	3.1	3.9
Materials	6.3	2.9
Industrials	13.3	8.8
Consumer Discretionary	11.2	11.9
Consumer Staples	4.4	5.6
Health Care	12.8	13.4
Financials	9.7	11.7
Information Technology	23.7	27.1
Communication Services	7.4	8.5
Utilities	1.8	2.6
Real Estate	3.0	3.5
Unclassified	1.1	0.0

#### **Largest Holdings**

	Ena weight	Return
APPLE INC	4.7	-1.5
MICROSOFT CORP	4.0	-8.1
AMAZON.COM INC	2.5	-2.2
TESLA INC	1.6	2.0
ALPHABET INC	1.5	-4.0

#### **Top Contributors**

Beg Wgt	Return	Contribution
0.9	18.0	0.2
0.4	36.5	0.2
0.4	40.2	0.1
0.3	46.2	0.1
0.9	15.2	0.1
	0.4 0.4 0.3	0.9 18.0 0.4 36.5 0.4 40.2 0.3 46.2

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
META PLATFORMS INC	1.3	-33.9	-0.4
MICROSOFT CORP	4.2	-8.1	-0.3
HOME DEPOT INC. (THE)	0.7	-27.4	-0.2
EAGLE MATERIALS INC	0.8	-22.7	-0.2
NETFLIX INC	0.4	-37.8	-0.2

#### **Market Capitalization**

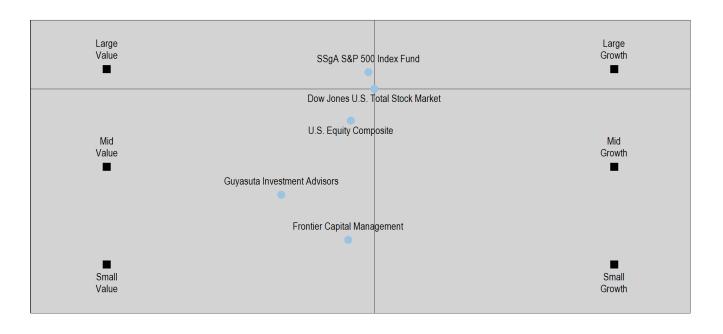
	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
U.S. Equity Composite	10.9%	14.9%	15.3%	20.7%	38.2%
Dow Jones U.S. Total Stock Market	6.1%	7.7%	15.8%	27.3%	43.2%
Weight Over/Under	4.9%	7.2%	-0.5%	-6.6%	-5.0%



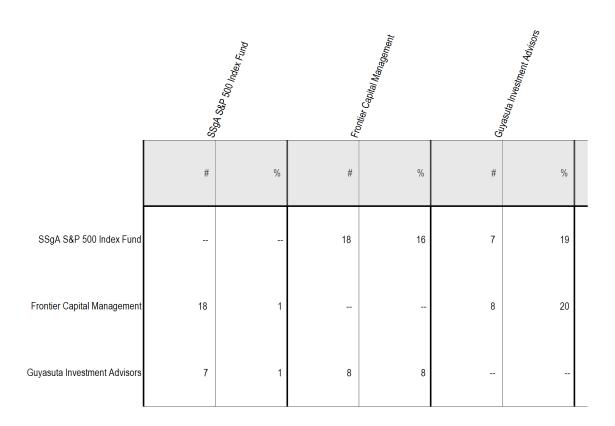
Market Value: \$283.4 Million and 27.8% of Fund

As of March 31, 2022

U.S. Equity Style Map 5 Years Ending March 31, 2022



#### **Common Holdings Matrix**



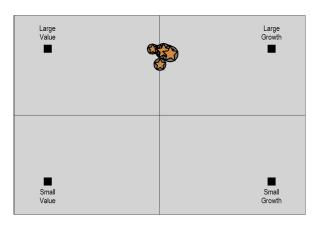
## SSgA S&P 500 Index Fund

As of March 31, 2022

### Characteristics

Market Value: \$189.0 Million and 18.5% of Fund

#### Style Drift - 5 Years



SSgA S&P 500 Index Fund

#### S&P 500

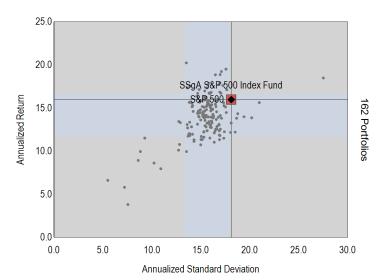
#### **Characteristics**

	Portfolio	S&P 500
Number of Holdings	504	505
Weighted Avg. Market Cap. (\$B)	640.3	646.0
Median Market Cap. (\$B)	32.0	32.0
Price To Earnings	22.7	22.8
Price To Book	4.5	4.5
Price To Sales	3.1	3.1
Return on Equity (%)	30.9	30.8
Yield (%)	1.4	1.4
Beta	1.0	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	S&P 500
INDUSTRY SECTOR DISTRIBUTION (% Eq	juity)	
Energy	3.9	3.7
Materials	2.6	2.5
Industrials	7.7	7.8
Consumer Discretionary	12.0	12.7
Consumer Staples	6.1	6.5
Health Care	13.6	13.3
Financials	11.1	11.4
Information Technology	27.9	27.4
Communication Services	9.3	9.5
Utilities	2.7	2.6
Real Estate	2.7	2.6
Unclassified	0.0	0.0

#### Risk / Return - 5 Years



#### **Largest Holdings**

	End Weight	Return
APPLE INC	7.0	-1.5
MICROSOFT CORP	6.0	-8.1
AMAZON.COM INC	3.7	-2.2
TESLA INC	2.3	2.0
ALPHABET INC	2.2	-4.0

#### **Top Contributors**

	Beg Wgt	Return	Contribution
BERKSHIRE HATHAWAY INC	1.4	18.0	0.2
EXXON MOBIL CORP	0.6	36.5	0.2
CHEVRON CORP	0.6	40.2	0.2
ABBVIE INC	0.6	21.0	0.1
CONOCOPHILLIPS	0.2	39.2	0.1

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
META PLATFORMS INC	2.0	-33.9	-0.7
MICROSOFT CORP	6.3	-8.1	-0.5
HOME DEPOT INC. (THE)	1.1	-27.4	-0.3
NETFLIX INC	0.7	-37.8	-0.2
PAYPAL HOLDINGS INC	0.5	-38.7	-0.2

#### **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
SSgA S&P 500 Index Fund	0.0%	1.5%	14.4%	28.7%	55.3%
S&P 500	0.1%	1.7%	15.4%	30.6%	52.2%
Weight Over/Under	-0.1%	-0.2%	-1.0%	-1.9%	3.1%

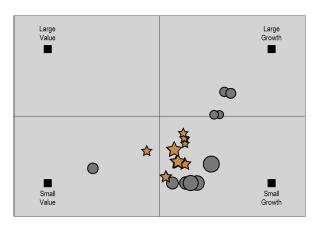
## Frontier Capital Management

Characteristics

Market Value: \$48.5 Million and 4.7% of Fund

As of March 31, 2022

#### Style Drift - 5 Years



Frontier Capital Management

Russell 2500

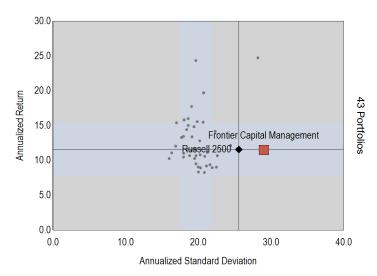
#### **Characteristics**

	Portfolio	Russell 2500
Number of Holdings	140	2,517
Weighted Avg. Market Cap. (\$B)	8.0	8.0
Median Market Cap. (\$B)	4.8	1.7
Price To Earnings	19.4	16.6
Price To Book	2.8	2.8
Price To Sales	1.4	1.7
Return on Equity (%)	10.1	9.8
Yield (%)	0.6	1.3
Beta	1.2	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	Russell 2500
INDUSTRY SECTOR DISTRIBUTION (% Eq	uity)	
Energy	2.4	5.7
Materials	8.5	6.2
Industrials	21.2	16.4
Consumer Discretionary	13.0	10.8
Consumer Staples	0.0	3.1
Health Care	13.7	12.8
Financials	13.9	14.8
Information Technology	16.4	16.0
Communication Services	2.3	2.7
Utilities	0.0	2.7
Real Estate	2.2	8.9
Unclassified	5.1	0.0

#### Risk / Return - 5 Years



#### **Largest Holdings**

	End Weight	Return
KBR INC	2.2	15.2
BUILDERS FIRSTSOURCE INC	1.9	-24.7
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	1.8	-23.5
LPL FINANCIAL HOLDINGS INC	1.8	14.3
INSULET CORP	1.5	0.1

#### **Top Contributors**

	Beg Wgt	Return	Contribution
MRC GLOBAL INC	0.8	73.1	0.6
ALLEGHENY TECHNOLOGIES INC	0.7	68.5	0.5
MERITOR INC	0.7	43.5	0.3
DEVON ENERGY CORP	0.8	36.5	0.3
KBR INC	1.8	15.2	0.3

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
BUILDERS FIRSTSOURCE INC	3.0	-24.7	-0.7
TREX CO INC	1.1	-51.6	-0.6
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	2.2	-23.5	-0.5
DANA INC	1.7	-22.6	-0.4
INTEGRAL AD SCIENCE HLDG CORP COM	0.8	-37.9	-0.3

#### **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Frontier Capital Management	38.0%	40.9%	21.1%	0.0%	0.0%
Russell 2500	36.2%	48.5%	15.3%	0.0%	0.0%
Weight Over/Under	1.8%	-7.6%	5.8%	0.0%	0.0%

## Frontier Capital Management

### Attribution

As of March 31, 2022 Market Value: \$48.5 Million and 4.7% 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	1.4%	3.8%	-2.4%	36.9%	40.5%	-3.5%	-1.1%	0.0%	-1.2%	1.8%	0.6%
Materials	9.3%	5.5%	3.8%	4.8%	6.8%	-2.0%	0.5%	-0.2%	0.3%	0.7%	1.0%
Industrials	23.4%	16.6%	6.8%	-1.9%	-7.4%	5.5%	-0.1%	1.3%	1.2%	-0.3%	0.9%
Consumer Discretionary	13.3%	11.9%	1.3%	-11.2%	-15.1%	3.9%	-0.1%	0.5%	0.4%	-1.1%	-0.7%
Consumer Staples	0.0%	3.1%	-3.1%		-3.9%		-0.1%	0.0%	-0.1%	0.1%	0.0%
Health Care	14.3%	14.0%	0.2%	-1.5%	-14.9%	13.4%	0.0%	1.9%	1.9%	-1.3%	0.6%
Financials	14.2%	14.3%	-0.1%	0.2%	-3.6%	3.8%	0.0%	0.5%	0.5%	0.3%	0.9%
Information Technology	20.0%	16.9%	3.1%	-12.1%	-9.8%	-2.4%	-0.1%	-0.5%	-0.6%	-0.7%	-1.3%
Communication Services	1.9%	2.6%	-0.7%	-26.5%	-2.6%	-23.9%	0.0%	-0.4%	-0.5%	0.1%	-0.4%
Utilities	0.0%	2.5%	-2.5%		2.4%		-0.2%	0.0%	-0.2%	0.2%	0.0%
Real Estate	2.3%	8.7%	-6.4%	-0.9%	-3.7%	2.9%	-0.1%	0.1%	-0.1%	0.2%	0.1%
Total				-4.1%	-5.8%	1.7%	-1.4%	3.2%	1.7%	0.0%	1.7%

#### Performance Attribution vs. Russell 2500

	Total	Selection	Allocation	Interaction
	Effects	Effect	Effect	Effects
Energy	-1.0%	-0.1%	-1.0%	0.1%
Materials	0.1%	-0.1%	0.2%	-0.1%
Industrials	0.8%	0.9%	-0.5%	0.4%
Consumer Discretionary	0.3%	0.5%	-0.2%	0.0%
Consumer Staples	0.1%		0.1%	
Health Care	1.9%	1.9%	0.0%	0.0%
Financials	0.5%	0.5%	0.0%	0.0%
Information Technology	-0.7%	-0.4%	-0.3%	-0.1%
Communication Services	-0.4%	-0.6%	0.0%	0.2%
Utilities	-0.1%		-0.1%	
Real Estate	0.3%	0.2%	0.2%	-0.2%
Cash	0.0%	0.0%	0.0%	0.0%
Portfolio	1.8% =	2.8% +	-1.3% +	0.3%

#### Market Cap Attribution vs. Russell 2500

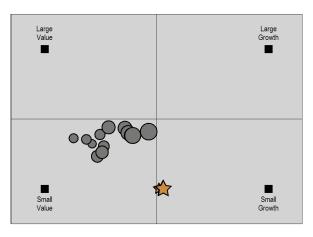
	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Market Cap. Quintile (\$Bil)											
1) Above 12.34	26.1%	19.8%	6.3%	-5.0%	-4.7%	-0.3%	0.1%	-0.1%	0.0%	0.2%	0.2%
2) 7.90 - 12.34	11.2%	20.3%	-9.1%	-9.4%	-6.2%	-3.2%	0.0%	-0.4%	-0.3%	-0.1%	-0.4%
3) 4.94 - 7.90	23.8%	20.0%	3.9%	-5.3%	-5.0%	-0.3%	0.0%	-0.1%	0.0%	0.2%	0.1%
4) 2.48 - 4.94	14.8%	20.0%	-5.2%	-4.6%	-5.3%	0.8%	0.0%	0.1%	0.1%	0.1%	0.2%
5) 0.00 - 2.48	24.0%	19.9%	4.1%	0.9%	-7.9%	8.8%	-0.1%	2.1%	2.0%	-0.4%	1.6%
Total				-4.1%	-5.8%	1.7%	0.0%	1.7%	1.7%	0.0%	1.7%

## Guyasuta Investment Advisors

### Characteristics

As of March 31, 2022 Market Value: \$45.9 Million and 4.5% of Fund

#### Style Drift - 5 Years



Guyasuta Investment Advisors

Russell 2000

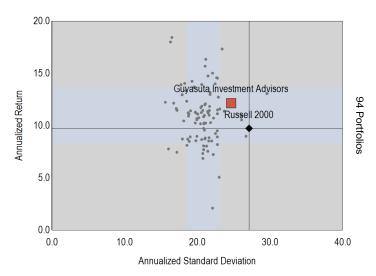
#### **Characteristics**

	Portfolio	Russell 2000
Number of Holdings	43	2,017
Weighted Avg. Market Cap. (\$B)	13.9	3.4
Median Market Cap. (\$B)	6.2	1.2
Price To Earnings	20.1	15.5
Price To Book	3.0	2.5
Price To Sales	1.2	1.6
Return on Equity (%)	20.8	4.7
Yield (%)	0.9	1.2
Beta	0.9	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	Russell
INDUSTRY SECTOR DISTRIBUTION (% Ec	nuitv)	2000
Energy	1.0	6.7
Materials	19.3	4.0
Industrials	27.6	15.5
Consumer Discretionary	6.1	10.2
Consumer Staples	2.1	3.5
Health Care	8.6	16.7
Financials	0.0	15.9
Information Technology	13.8	13.8
Communication Services	5.1	3.1
Utilities	0.0	3.0
Real Estate	4.9	7.8
Unclassified	1.4	0.0

#### Risk / Return - 5 Years



#### **Largest Holdings**

	End Weight	Return
PROLOGIS INC	4.9	-3.6
BOYD GAMING CORP	3.8	0.6
PERKINELMER INC.	3.7	-13.2
KBR INC	3.7	15.2
APPLIED INDUSTRIAL TECHNOLOGIES INC	3.5	0.3

#### **Top Contributors**

	Beg Wgt	Return	Contribution
CF INDUSTRIES HOLDINGS INC	1.8	46.2	0.8
KBR INC	3.3	15.2	0.5
HELIX ENERGY SOLUTIONS GROUP INC	0.6	53.2	0.3
GREENBRIER COS INC (THE)	2.1	13.0	0.3
ABM INDUSTRIES INC	1.8	13.2	0.2

#### **Bottom Contributors**

	Beg Wgt	Return	Contribution
WATTS WATER TECHNOLOGIES INC	3.5	-28.0	-1.0
EAGLE MATERIALS INC	3.7	-22.7	-0.8
CIENA CORP	3.4	-21.2	-0.7
AVAYA HOLDINGS CORP	2.0	-36.0	-0.7
METTLER-TOLEDO INTERNATIONAL INC	3.0	-19.1	-0.6

#### **Market Capitalization**

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Guyasuta Investment Advisors	32.4%	49.0%	13.1%	5.6%	0.0%
Russell 2000	73.1%	26.0%	0.9%	0.0%	0.0%
Weight Over/Under	-40.7%	23.0%	12.1%	5.6%	0.0%

## Guyasuta Investment Advisors

### Attribution

As of March 31, 2022 Market Value: \$45.9 Million and 4.5% 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	0.7%	4.4%	-3.7%	53.2%	41.9%	11.3%	-1.8%	0.1%	-1.8%	2.2%	0.4%
Materials	23.3%	3.8%	19.4%	-5.0%	-1.6%	-3.5%	1.2%	-0.8%	0.4%	0.2%	0.6%
Industrials	31.2%	15.2%	16.0%	-7.1%	-5.9%	-1.3%	0.3%	-0.4%	-0.1%	0.3%	0.1%
Consumer Discretionary	6.8%	11.4%	-4.6%	-7.7%	-17.2%	9.5%	0.4%	0.6%	1.1%	-1.1%	0.0%
Consumer Staples	2.3%	3.5%	-1.2%	-5.1%	-7.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.1%
Health Care	10.7%	18.0%	-7.3%	-8.6%	-14.6%	6.0%	0.5%	0.6%	1.2%	-1.3%	-0.1%
Financials	0.0%	15.8%	-15.8%		-6.9%		-0.1%	0.0%	-0.1%	0.1%	0.0%
Information Technology	14.1%	14.7%	-0.5%	-12.2%	-13.8%	1.7%	0.0%	0.2%	0.3%	-0.9%	-0.6%
Communication Services	5.7%	3.1%	2.6%	-8.3%	-6.9%	-1.4%	0.0%	-0.1%	-0.1%	0.0%	0.0%
Utilities	0.0%	2.7%	-2.7%		3.2%		-0.3%	0.0%	-0.3%	0.3%	0.0%
Real Estate	5.3%	7.4%	-2.2%	-3.6%	-4.8%	1.2%	-0.1%	0.1%	0.0%	0.2%	0.2%
Total				-7.0%	-7.6%	0.6%	0.2%	0.4%	0.6%	0.0%	0.6%

#### Performance Attribution vs. Russell 2000

	Total	Selection	Allocation	Interaction
	Effects	Effect	Effect	Effects
Energy	-1.5%	0.5%	-1.6%	-0.4%
Materials	-1.0%	-0.1%	-0.3%	-0.6%
Industrials	-1.1%	-0.2%	-0.8%	-0.2%
Consumer Discretionary	1.5%	1.1%	0.9%	-0.5%
Consumer Staples	0.1%	0.1%	0.1%	0.0%
Health Care	1.8%	1.1%	1.2%	-0.5%
Financials	1.1%		1.1%	-
Information Technology	0.5%	0.2%	0.2%	0.0%
Communication Services	-0.2%	0.0%	-0.1%	0.0%
Utilities	-0.1%		-0.1%	
Real Estate	0.2%	0.1%	0.1%	0.0%
Cash	0.0%	0.0%	0.0%	0.0%
Portfolio	1.2% =	2.7% +	0.8% +	-2.3%

#### 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 5.12	72.5%	20.0%	52.5%	-7.8%	-10.3%	2.4%	-1.4%	1.8%	0.3%	-0.5%	-0.2%
2) 3.69 - 5.12	5.8%	20.2%	-14.4%	-7.0%	-6.6%	-0.3%	-0.1%	0.0%	-0.2%	0.2%	0.0%
3) 2.40 - 3.69	10.0%	20.0%	-10.0%	-5.6%	-7.9%	2.3%	0.0%	0.2%	0.3%	-0.1%	0.2%
4) 1.23 - 2.40	9.4%	20.0%	-10.7%	-4.9%	-3.5%	-1.4%	-0.4%	-0.1%	-0.6%	0.8%	0.2%
5) 0.00 - 1.23	2.4%	19.9%	-17.5%	5.5%	-9.6%	15.1%	0.4%	0.4%	0.7%	-0.4%	0.3%
Total				-7.0%	-7.6%	0.6%	-1.6%	2.2%	0.6%	0.0%	0.6%

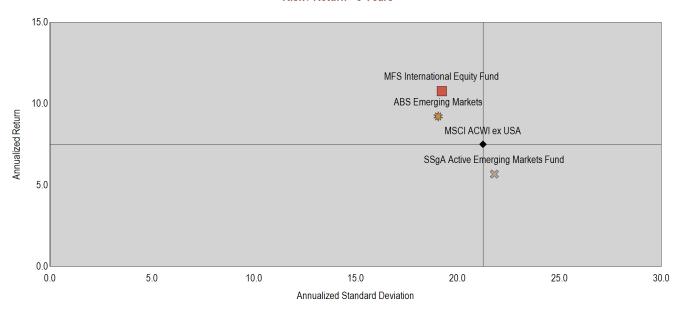
## Non-U.S. Equity Composite

### Characteristics

As of March 31, 2022

Market Value: \$113.5 Million and 11.1% of Fund

#### Risk / Return - 5 Years



#### Characteristics

	Portfolio	MSCI ACWI ex USA
Number of Holdings	334	2,302
Weighted Avg. Market Cap. (\$B)	106.3	94.0
Median Market Cap. (\$B)	11.1	10.0
Price To Earnings	17.1	14.1
Price To Book	2.8	2.5
Price To Sales	1.8	1.4
Return on Equity (%)	18.0	15.3
Yield (%)	2.3	2.8
Beta	0.9	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
North America ex U.S.	4.4%	8.3%
United States	1.2%	0.0%
Europe Ex U.K.	53.0%	31.0%
United Kingdom	8.7%	9.6%
Pacific Basin Ex Japan	4.4%	8.0%
Japan	12.8%	14.1%
Emerging Markets	14.3%	28.3%
Other	1.2%	0.7%
Total	100.0%	100.0%

#### Characteristics

01101101101101101		
	Portfolio	MSCI ACWI ex USA
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	2.7	5.4
Materials	8.1	8.9
Industrials	17.4	12.2
Consumer Discretionary	11.2	11.1
Consumer Staples	12.7	8.4
Health Care	14.7	9.3
Financials	16.7	20.6
Information Technology	11.8	12.2
Communication Services	2.3	6.2
Utilities	1.3	3.2
Real Estate	0.1	2.5
Unclassified	0.0	0.0

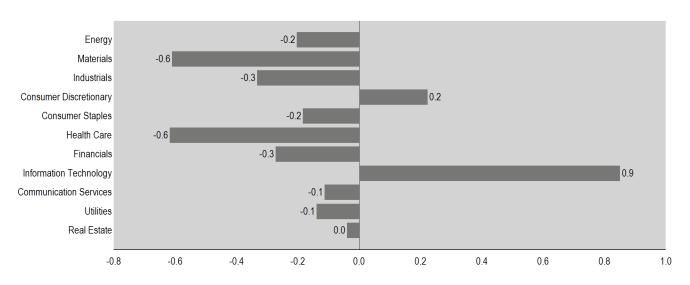
#### **Market Capitalization**

	Small Cap	Mid Cap	Large Cap
Non-U.S. Equity Composite	5.5%	20.4%	74.1%
MSCI ACWI ex USA	13.7%	24.7%	61.6%
Weight Over/Under	-8.2%	-4.3%	12.5%

Market Value: \$113.5 Million and 11.1% of Fund

As of March 31, 2022

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



Non-U.S. Equity Composite

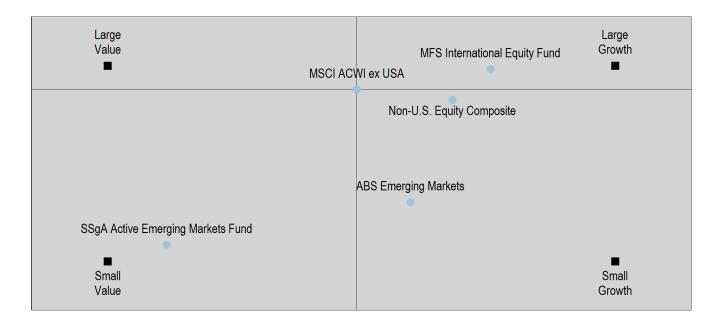
#### Market Cap Attribution vs. MSCI ACWI ex USA

	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 128.35	24.0%	20.0%	4.1%	-7.8%	-9.2%	1.3%	-0.2%	0.2%	0.1%	-0.8%	-0.7%
2) 62.87 - 128.35	24.9%	19.6%	5.3%	-5.0%	-2.4%	-2.7%	0.1%	-0.7%	-0.6%	0.5%	-0.1%
3) 31.44 - 62.87	26.3%	20.3%	6.0%	-9.6%	-4.6%	-4.9%	0.0%	-1.4%	-1.4%	0.1%	-1.3%
4) 13.32 - 31.44	16.3%	20.1%	-3.8%	-8.1%	-3.8%	-4.3%	0.0%	-0.6%	-0.7%	0.2%	-0.5%
5) 0.00 - 13.32	8.6%	20.1%	-11.5%	1.3%	-4.8%	6.1%	0.0%	0.6%	0.7%	0.0%	0.7%
Total				-6.9%	-5.0%	-1.9%	0.0%	-1.9%	-1.9%	0.0%	-1.9%

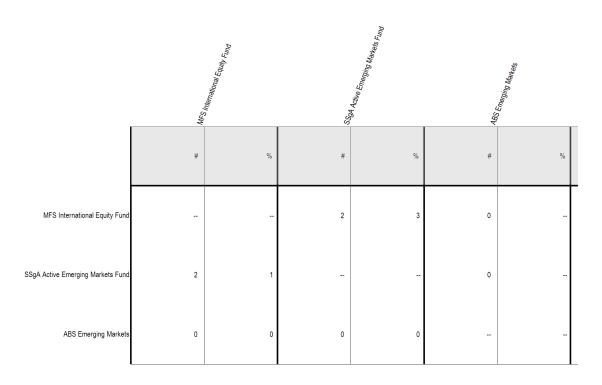
Market Value: \$113.5 Million and 11.1% of Fund

As of March 31, 2022

# Equity Style Map 5 Years Ending March 31, 2022



#### **Common Holdings Matrix**



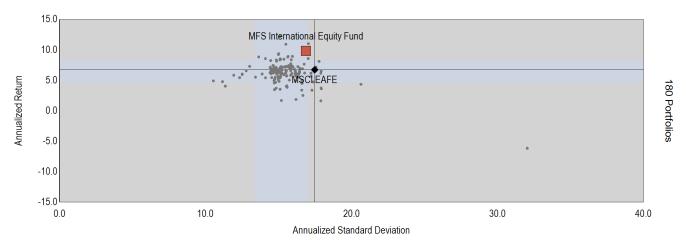
## MFS International Equity Fund

### Characteristics

As of March 31, 2022

Market Value: \$90.4 Million and 8.9% of Fund

#### Risk / Return - 5 Years



#### Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	79	823
Weighted Avg. Market Cap. (\$B)	109.2	84.0
Median Market Cap. (\$B)	49.2	13.3
Price To Earnings	19.7	14.8
Price To Book	3.0	2.5
Price To Sales	2.2	1.4
Return on Equity (%)	18.0	15.6
Yield (%)	2.1	2.9
Beta	0.9	1.0
R-Squared	1.0	1.0

Region	% of Total	% of Bench
North America ex U.S.	4.8%	0.0%
United States	1.3%	0.0%
Europe Ex U.K.	58.9%	49.0%
United Kingdom	9.7%	15.3%
Pacific Basin Ex Japan	4.0%	12.7%
Japan	14.2%	22.3%
Emerging Markets	5.8%	0.0%
Other	1.3%	0.7%
Total	100.0%	100.0%

#### Characteristics

	Portfolio	MSCI EAFE		
INDUSTRY SECTOR DISTRIBUTION (% Equity)				
Energy	2.2	4.1		
Materials	7.8	8.2		
Industrials	18.8	15.4		
Consumer Discretionary	11.3	11.6		
Consumer Staples	13.6	10.2		
Health Care	15.8	13.0		
Financials	16.4	17.7		
Information Technology	10.8	8.6		
Communication Services	1.5	4.8		
Utilities	1.0	3.4		
Real Estate	0.0	2.9		
Unclassified	0.0	0.0		

#### **Market Capitalization**

	Small Cap	Mid Cap	Large Cap
MFS International Equity Fund	1.4%	19.6%	79.0%
MSCI EAFE	8.9%	25.4%	65.7%
Weight Over/Under	-7.5%	-5.8%	13.2%



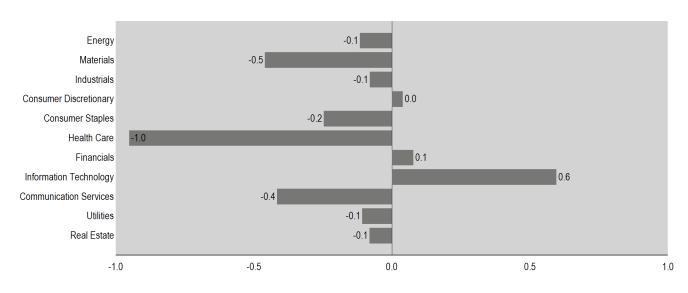
# MFS International Equity Fund

### **Attribution**

As of March 31, 2022

Market Value: \$90.4 Million and 8.9% of Fund

#### **Active Contribution**



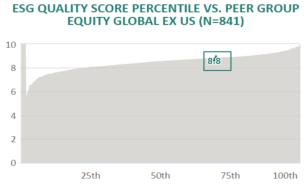
MFS International Equity Fund

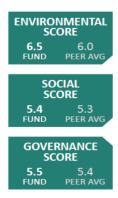
#### **Performance By Characteristic**

					-,						
	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 127.15	26.7%	19.8%	6.9%	-7.6%	-7.9%	0.3%	-0.1%	-0.1%	-0.2%	-0.3%	-0.5%
2) 62.96 - 127.15	24.0%	20.0%	4.0%	-4.7%	-3.6%	-1.1%	0.1%	-0.3%	-0.2%	0.5%	0.3%
3) 36.00 - 62.96	22.1%	19.9%	2.2%	-8.8%	-5.2%	-3.6%	0.0%	-0.8%	-0.8%	0.2%	-0.6%
4) 17.40 - 36.00	20.5%	20.2%	0.3%	-11.8%	-7.8%	-4.0%	0.0%	-0.8%	-0.8%	-0.3%	-1.2%
5) 0.00 - 17.40	6.8%	20.1%	-13.4%	-1.8%	-6.4%	4.6%	0.0%	0.6%	0.7%	0.0%	0.6%
Total				-7.6%	-6.2%	-1.5%	0.0%	-1.5%	-1.5%	0.0%	-1.5%









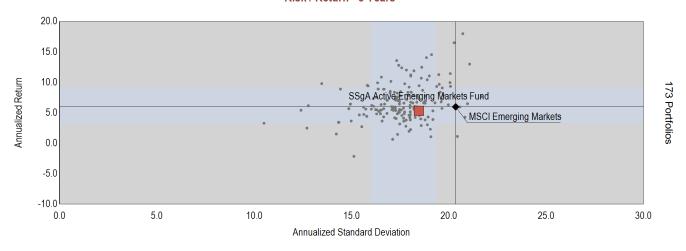
<sup>\*</sup>Sustainability metrics are from data gathered by MSCI

# SSgA Active Emerging Markets Index Fund

### Characteristics

As of March 31, 2022 Market Value: \$10.2 Million and 1.0% of Fund

#### Risk / Return - 5 Years



#### Characteristics

	Portfolio	Emerging Markets
Number of Holdings	258	1,391
Weighted Avg. Market Cap. (\$B)	81.2	126.9
Median Market Cap. (\$B)	5.7	7.1
Price To Earnings	8.6	12.6
Price To Book	2.1	2.6
Price To Sales	0.8	1.3
Return on Equity (%)	16.9	14.9
Yield (%)	4.5	2.6
Beta	0.9	1.0
R-Squared	0.9	1.0

Region	% of Total	% of Bench
EM Asia	67.3%	77.7%
EM Latin America	10.9%	9.1%
EM Europe & Middle East	1.7%	1.4%
EM Africa	4.5%	4.1%
Other	15.6%	7.6%
Total	100.0%	100.0%

#### Characteristics

Onaraotoriotico		
	Portfolio	MSCI Emerging Markets
INDUSTRY SECTOR DISTRIBUTION (% Eq	uity)	
Energy	6.9	4.8
Materials	10.3	9.4
Industrials	5.7	5.4
Consumer Discretionary	10.4	12.3
Consumer Staples	4.6	5.8
Health Care	4.7	3.9
Financials	19.6	22.1
Information Technology	21.2	21.6
Communication Services	9.9	10.1
Utilities	3.6	2.5
Real Estate	0.9	2.1
Unclassified	0.0	0.0

	Small Cap	Mid Cap	Large Cap
SSgA Active Emerging Markets Fund	25.5%	24.8%	49.7%
MSCI Emerging Markets	13.8%	22.0%	64.1%
Weight Over/Under	11.7%	2.8%	-14.4%

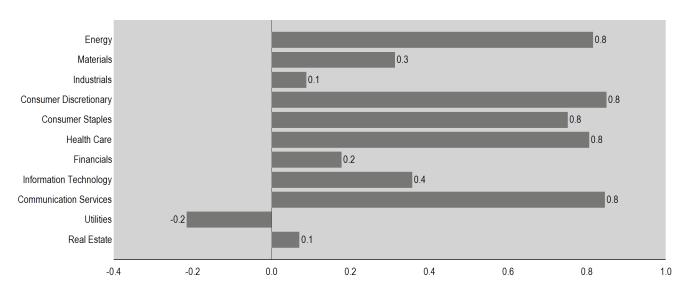


# SSgA Active Emerging Markets Index Fund

Attribution

As of March 31, 2022 Market Value: \$10.2 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 330.70	15.2%	19.1%	-3.9%	-9.7%	-9.3%	-0.3%	0.1%	0.0%	0.1%	-0.8%	-0.7%
2) 51.23 - 330.70	11.6%	20.7%	-9.1%	-3.3%	-5.5%	2.2%	0.1%	0.3%	0.3%	-0.1%	0.2%
3) 18.06 - 51.23	15.5%	20.2%	-4.6%	1.4%	-2.4%	3.9%	-0.1%	0.6%	0.5%	0.5%	1.0%
4) 6.95 - 18.06	23.8%	20.1%	3.7%	2.5%	-0.1%	2.6%	0.2%	0.6%	0.8%	1.0%	1.8%
5) 0.00 - 6.95	33.9%	20.0%	13.9%	3.2%	-7.5%	10.6%	-0.4%	3.7%	3.2%	-0.5%	2.7%
Total				0.0%	-4.9%	5.0%	-0.2%	5.2%	5.0%	0.0%	5.0%

# **ABS Emerging Markets**

### Characteristics

As of March 31, 2022

 Manager:
 ABS Investment Management

 Product:
 ABS Emerging Markets Portfolio

 Strategy:
 Hedge Fund of Fund - Hedged Equity

Market Value: \$12.9 Million and 1.3% of Fund

Date as of: Mar 31st, 2022

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

#### Investment Strategy:

ABS Investment Management 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 glboal 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%	-1.45%										-6.85%
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**



Trailing Returns         YTD         3MO         1YR         3YR         5YR         10YR         INCEPT           Manager         -6.85%         -6.85%         -3.07%         9.07%         7.37%          6.02%           HFRI Equity Hedge (Total) Index         4.13%         -4.13%         0.25%         10.09%         7.77%          6.99%           MSCI Emerging Markets         -6.98%         -6.98%         -11.37%         4.94%         5.98%          4.44%           Calendar Returns         2011         2012         2013         2014         2015         2016         2017         2018         2019         2020         2021	Managor		7 33%	8 10%	2 86%	3 05%	1 36%	26 12%	-13 77%	17 55%	21 61%	7 00%
Manager         -6.85%         -6.85%         -3.07%         9.07%         7.37%          6.02%           HFRI Equity Hedge (Total) Index         -4.13%         -4.13%         0.25%         10.09%         7.77%          6.99%	Calendar Returns	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Manager -6.85% -6.85% -3.07% 9.07% 7.37% 6.02%	MSCI Emerging Markets			-6.98%	-6.98%	-11.37%	4.94%	5.98%		4.44%		
	HFRI Equity Hedge (Total) Index			-4.13%	-4.13%	0.25%	10.09%	7.77%		6.99%		
Trailing Returns YTD 3MO 1YR 3YR 5YR 10YR INCEPT	Manager			-6.85%	-6.85%	-3.07%	9.07%	7.37%		6.02%		
	Trailing Returns			YTD	3МО	1YR	3YR	5YR	10YR	INCEPT		

9										
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	9.07%	10.09%	4.94%	Annualized Return	6.02%	6.99%	4.44%
Standard Deviation	8.32%	6.76%	10.55%	Standard Deviation	6.29%	4.68%	9.04%
Sharpe Ratio	0.50	0.64	0.15	Sharpe Ratio	0.39	0.64	0.17
Skew	-0.90	-0.83	-0.53	Skew	-0.62	-0.72	-0.17
Kurtosis	3.72	3.43	1.06	Kurtosis	3.52	5.38	0.79
Up Capture		107.52%	80.26%	Up Capture		111.33%	65.29%
Down Capture		117.31%	68.61%	Down Capture		128.57%	60.17%

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

	Benchmark1	Benchmark2		Benchmark1	Benchmark2
Alpha	-2.48%	5.32%	Alpha	-2.26%	3.17%
Beta	1.14	0.76	Beta	1.18	0.64
R2	86.47%	92.39%	R2	77.51%	85.31%

#### Crisis Performance

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

#### Investment Terms & Service Providers

Inception Date	7/31/2012
Administrator	Citco
Auditors	KPMG

#### 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%

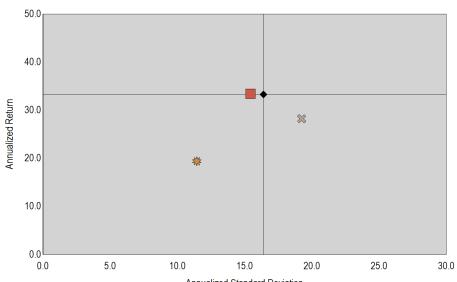


# **Emerging Manager Composite**

# Characteristics

As of March 31, 2022 Market Value: \$10.4 Million and 1.0% of Fund

#### Risk / Return - 2 Years



- Twin Capital
- Columbus Macro
- Emerging Manager Benchmark

Annualized Standard Deviation

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-	II a	ıac	LCI	ເວເ	163

	Portfolio	MSCI ACWI
Number of Holdings	404	2,929
Weighted Avg. Market Cap. (\$B)	398.9	415.1
Median Market Cap. (\$B)	7.4	13.2
Price To Earnings	18.8	18.4
Price To Book	3.3	3.5
Price To Sales	2.1	2.1
Return on Equity (%)	20.5	22.1
Yield (%)	1.2	1.9
Beta	1.1	1.0
R-Squared	1.0	1.0

#### **Largest Holdings**

	Ena weight	Return
APPLE INC	4.7	-1.5
MICROSOFT CORP	4.0	-8.1
AMAZON.COM INC	2.5	-2.2
TESLA INC	1.6	2.0
ALPHABET INC	1.5	-4.0

#### Characteristics

	Portfolio	MSCI ACWI
INDUSTRY SECTOR DISTRIBUTION (% Equity)		
Energy	3.1	4.3
Materials	6.3	5.0
Industrials	13.3	9.5
Consumer Discretionary	11.2	11.7
Consumer Staples	4.4	6.9
Health Care	12.8	11.8
Financials	9.7	14.6
Information Technology	23.7	22.4
Communication Services	7.4	8.1
Utilities	1.8	2.9
Real Estate	3.0	2.7
Unclassified	1.1	0.0

#### Top Contributors

	Beg Wgt	Return	Contribution
BERKSHIRE HATHAWAY INC	0.9	18.0	0.2
EXXON MOBIL CORP	0.4	36.5	0.2
CHEVRON CORP	0.4	40.2	0.1
CF INDUSTRIES HOLDINGS INC	0.3	46.2	0.1
KBR INC	0.9	15.2	0.1

#### **Bottom Contributors**

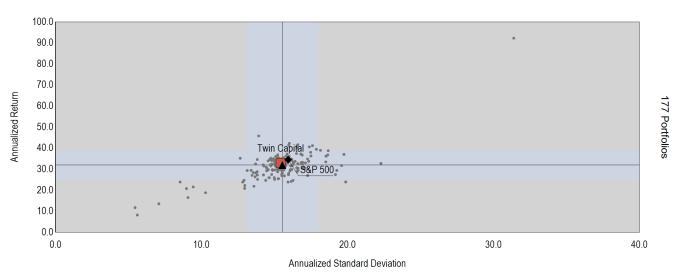
	Beg Wgt	Return	Contribution
META PLATFORMS INC	1.3	-33.9	-0.4
MICROSOFT CORP	4.2	-8.1	-0.3
HOME DEPOT INC. (THE)	0.7	-27.4	-0.2
EAGLE MATERIALS INC	0.8	-22.7	-0.2
NETFLIX INC	0.4	-37.8	-0.2

	Small Cap	Mid Cap	Large Cap
Emerging Manager Composite	39.1%	8.6%	52.4%
MSCI ACWI	6.1%	16.3%	77.6%
Weight Over/Under	33.0%	-7.7%	-25.3%

Market Value: \$4.4 Million and 0.4% of Fund

#### As of March 31, 2022

#### Risk / Return - 2 Years



#### **Characteristics**

	Portfolio	S&P 500
Number of Holdings	183	505
Weighted Avg. Market Cap. (\$B)	656.1	646.0
Median Market Cap. (\$B)	51.9	32.0
Price To Earnings	19.1	22.8
Price To Book	4.0	4.5
Price To Sales	2.5	3.1
Return on Equity (%)	30.9	30.8
Yield (%)	1.4	1.4
Beta	1.0	1.0
R-Squared	1.0	1.0

#### **Characteristics**

	Portfolio	S&P 500
INDUSTRY SECTOR DISTRIBUTION (% Ed	μity)	
Energy	3.8	3.7
Materials	2.6	2.5
Industrials	7.8	7.8
Consumer Discretionary	12.0	12.7
Consumer Staples	6.3	6.5
Health Care	13.3	13.3
Financials	11.1	11.4
Information Technology	27.2	27.4
Communication Services	9.5	9.5
Utilities	3.1	2.6
Real Estate	2.5	2.6
Unclassified	0.0	0.0

#### **Largest Holdings**

End Weight	Return
7.4	-1.5
6.2	-8.1
3.7	-2.2
2.5	-4.0
2.4	2.0
	7.4 6.2 3.7 2.5

#### **Top Contributors**

	End Weight	Return	Contribution
CONOCOPHILLIPS	1.1	39.2	0.4
CHEVRON CORP	1.0	40.2	0.4
EXXON MOBIL CORP	0.9	36.5	0.3
BERKSHIRE HATHAWAY INC	1.6	18.0	0.3
NEWMONT CORPORATION	0.6	29.0	0.2

#### **Bottom Contributors**

	End Weight	Return	Contribution
MICROSOFT CORP	6.2	-8.1	-0.5
META PLATFORMS INC	1.2	-33.9	-0.4
ACCENTURE PLC	1.0	-18.4	-0.2
JPMORGAN CHASE & CO	1.3	-13.4	-0.2
ADVANCED MICRO DEVICES INC	0.6	-24.0	-0.2

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
Twin Capital	0.0%	4.0%	18.5%	23.2%	54.3%
S&P 500	0.1%	1.7%	15.4%	30.6%	52.2%
Weight Over/Under	-0.1%	2.3%	3.1%	-7.4%	2.1%

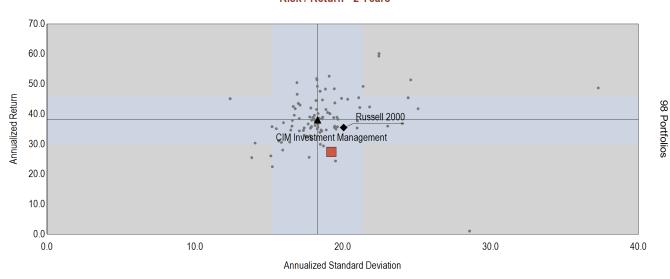


# **CIM Investment Management**

## Characteristics

As of March 31, 2022 Market Value: \$3.1 Million and 0.3% of Fund

#### Risk / Return - 2 Years



#### Characteristics

	Portfolio	Russell 2000
Number of Holdings	222	2,017
Weighted Avg. Market Cap. (\$B)	5.1	3.4
Median Market Cap. (\$B)	3.1	1.2
Price To Earnings	18.3	15.5
Price To Book	2.7	2.5
Price To Sales	1.8	1.6
Return on Equity (%)	4.2	4.7
Yield (%)	1.0	1.2
Beta	1.0	1.0
R-Squared	1.0	1.0

#### Characteristics

	Portfolio	Russell 2000
INDUSTRY SECTOR DISTRIBUTION (% Ed	quity)	
Energy	2.4	6.7
Materials	3.6	4.0
Industrials	15.5	15.5
Consumer Discretionary	9.6	10.2
Consumer Staples	5.5	3.5
Health Care	16.1	16.7
Financials	14.7	15.9
Information Technology	16.6	13.8
Communication Services	2.1	3.1
Utilities	2.7	3.0
Real Estate	6.0	7.8
Unclassified	2.2	0.0

#### Largest Holdings

	End Weight	Return
ISHARES TRUST - ISHARES RUSSELL 2000 ETF	1.9	-7.5
II VI INC	1.4	6.1
IRHYTHM TECHNOLOGIES INC	1.3	33.8
VALLEY NATIONAL BANCORP	1.2	-4.5
BJ'S WHOLESALE CLUB HOLDINGS INC	1.1	1.0

#### **Top Contributors**

	End Weight	Return	Contribution
IRHYTHM TECHNOLOGIES INC	1.3	33.8	0.5
CHESAPEAKE ENERGY CORP	0.8	37.6	0.3
MATADOR RESOURCES CO	0.6	43.6	0.3
APPHARVEST INC COMMON STOCK	0.6	38.2	0.2
PDC ENERGY INC	0.4	49.5	0.2

#### **Bottom Contributors**

	End Weight	Return	Contribution
AMBARELLA INC	0.5	-48.3	-0.2
VIVINT SMART HOME INC	0.7	-30.9	-0.2
PACIFIC BIOSCIENCES OF CALIFORNIA INC	0.3	-55.5	-0.2
M.D.C. HOLDINGS INC.	0.6	-32.2	-0.2
ARROWHEAD PHARMACEUTICALS INC	0.6	-30.6	-0.2

	Small Cap	Small/ Mid	Mid Cap	Mid/ Large	Large Cap
CIM Investment Management	58.4%	39.5%	0.0%	2.1%	0.0%
Russell 2000	73.1%	26.0%	0.9%	0.0%	0.0%
Weight Over/Under	-14.7%	13.5%	-0.9%	2.1%	0.0%

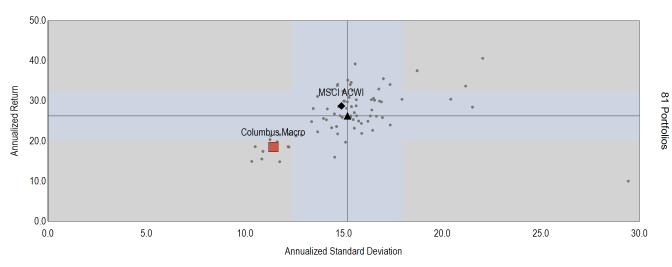
# Columbus Macro

## Characteristics

Market Value: \$2.9 Million and 0.3% of Fund

As of March 31, 2022

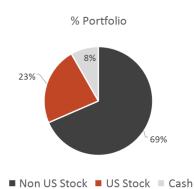
#### Risk / Return - 2 Years



	<u>Portfolio</u>	MSCI ACWI
Characteristics		
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 December 31, 2021

#### Characteristics

	ABS Investment Management
Product Assets	\$1,030.0
# Underlying Managers	29
% of Portfolio in Top 3 Funds	16.4%
Aggregate Portfolio Leverage	0.0%
# Managers Hired Over Quarter	0
# Managers Fired Over Quarter	2
Total Outflows from the Fund	\$18.6
Pending Outflows	\$0.0
Total Inflows to the Fund	\$0.3
% of Fund Liquid in 6Months	89.4%
% of Fund Liquid in 12Months	99.4%
% of Fund Liquid in 24Months	100.0%

#### Strategy Breakdown

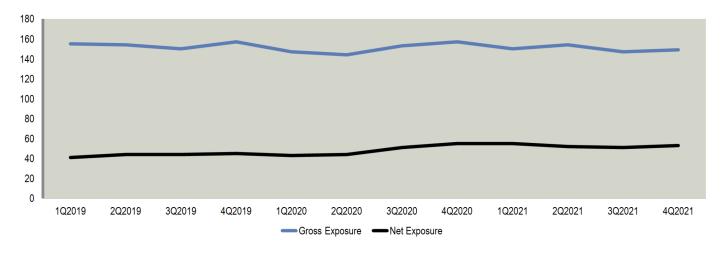
	Weight(%)	Attribution(%)
Credit	0.0%	0.0%
Event Driven	0.0%	0.0%
Global Macro/CTA	0.0%	0.0%
Multi-Strategy	0.0%	0.0%
Hedged Equity	100.0%	-0.3%
Relative Value	0.0%	0.0%
Short Selling	0.0%	0.0%
Other	0.0%	0.0%
Total	100.0%	-0.3%

Security Geographic Exposure	Weight(%)
US Exposure	65.9%
International Exposure	33.5%
Cash	0.6%

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

Fund	Туре	Fair Market Value (\$M)	Weight %	Quarter Return
Seligman Tech	Hedged Equity	\$58.8	5.6%	23.9%
Antero Peak	Hedged Equity	\$58.0	5.5%	10.4%
One01	Hedged Equity	\$55.6	5.3%	-5.4%
TPG PEP	Hedged Equity	\$55.5	5.3%	4.8%
Toronado	Hedged Equity	\$51.3	4.9%	11.7%
Energy Dynamics	Hedged Equity	\$48.6	4.6%	0.5%
Sagil	Hedged Equity	\$47.9	4.6%	0.0%
Ivy Rock	Hedged Equity	\$46.5	4.4%	-3.7%
140 Summer	Hedged Equity	\$45.1	4.3%	-0.6%
Azora	Hedged Equity	\$43.0	4.1%	-2.6%
Fund	Fund Size (\$M)	Fund Inception	Investment Inception	SEC Registered
Fund Seligman Tech	Fund Size (\$M) \$1,200.0	Fund Inception 1-Jul	Investment Inception 15-Feb	SEC Registered Yes
	· · · ·	•	·	•
Seligman Tech	\$1,200.0	1-Jul	15-Feb	Yes
Seligman Tech Antero Peak	\$1,200.0 \$1,207.0	1-Jul 17-Nov	15-Feb 19-Jan	Yes Yes
Seligman Tech Antero Peak One01	\$1,200.0 \$1,207.0 \$536.8	1-Jul 17-Nov 17-Nov	15-Feb 19-Jan 20-Jul	Yes Yes Yes
Seligman Tech Antero Peak One01 TPG PEP	\$1,200.0 \$1,207.0 \$536.8 \$2,879.0	1-Jul 17-Nov 17-Nov 13-Sep	15-Feb 19-Jan 20-Jul 15-Jun	Yes Yes Yes
Seligman Tech Antero Peak One01 TPG PEP Toronado	\$1,200.0 \$1,207.0 \$536.8 \$2,879.0 \$414.0	1-Jul 17-Nov 17-Nov 13-Sep 13-Jun	15-Feb 19-Jan 20-Jul 15-Jun 18-Aug	Yes Yes Yes Yes
Seligman Tech Antero Peak One01 TPG PEP Toronado Energy Dynamics	\$1,200.0 \$1,207.0 \$536.8 \$2,879.0 \$414.0 \$1,364.0	1-Jul 17-Nov 17-Nov 13-Sep 13-Jun 15-Jan	15-Feb 19-Jan 20-Jul 15-Jun 18-Aug 18-Apr	Yes Yes Yes Yes Yes
Seligman Tech Antero Peak One01 TPG PEP Toronado Energy Dynamics Sagil	\$1,200.0 \$1,207.0 \$536.8 \$2,879.0 \$414.0 \$1,364.0 \$530.0	1-Jul 17-Nov 17-Nov 13-Sep 13-Jun 15-Jan 9-Jul	15-Feb 19-Jan 20-Jul 15-Jun 18-Aug 18-Apr 17-Mar	Yes Yes Yes Yes Yes Yes Yes Yes

#### **Gross/Net Positioning**

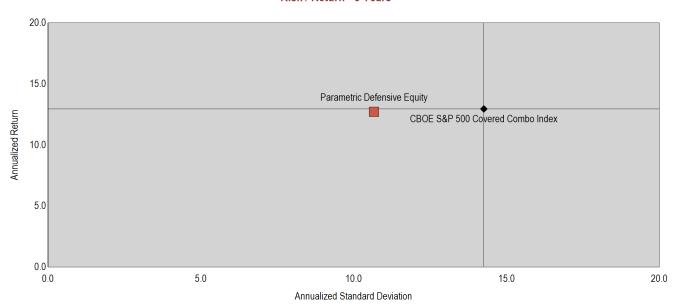


# Parametric Defensive Equity

Characteristics

As of December 31, 2021

Risk / Return - 3 Years



#### **Characteristics**

#### Parametric Defensive Equity

Portfolio Value	\$6.99 billion
Standard Deviation	7.6%
Sharpe Ratio	1.2

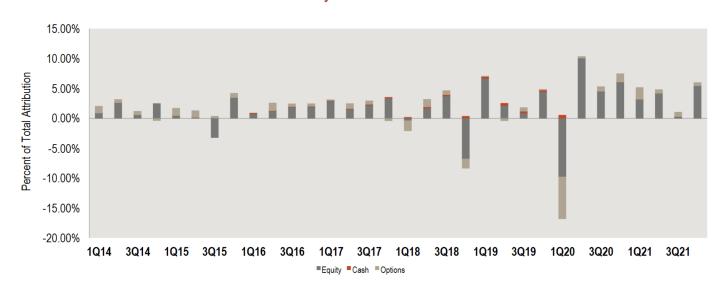
#### **Strategy Breakdown**

#### 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 December 31, 2021

#### Market Value: \$24.2 Million and 2.3% of Fund

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Fund GAV (\$MM)	\$18,135.5
Fund NAV (\$MM)	\$15,027.5
Cash (% of NAV)	1.7%
# of Investments	126
% in Top 10 by NAV	24.2%
Leverage %	20.4%
Occupancy	95.1%
# of MSAs	34
1-Year Dividend Yield	3.4%
As of Date	31-Dec-21

#### Strategy Breakdown

	% of Portfolio	Top Five Metro Areas	% of NAV
Pre-Development		San Francisco, CA	10.4%
Development	2.9%	Los Angeles, CA	10.0%
Initial Leasing		New York, NY	8.5%
Operating	97.1%	Boston, MA	8.3%
Re-Development		Seattle, WA	7.4%
Other			
Outside Inc		Outros Outr	

Queue In:
Contribution Queue (\$MM) \$163.79
Anticipated Drawdown (Months) 6

Queue Out:\$0.00Redemption Queue (\$MM)\$0.00Anticipated Payout (Months)6

Top Ten Holdings Investment Detail

	rop ren notatings investment betain						
#	Property	Туре	Location	% of Fund NAV			
1	Riverfront Office Park	Office	Cambridge, MA	5.4%			
2	Fullerton Crossroads	Industrial	Fullerton, CA	3.1%			
3	Manhattan Village	Retail	Manhattan Beach, CA	2.4%			
4	222 Broadway	Office	New York, NY	2.3%			
5	New Jersey Port Industrial	Industrial	Jersey City, NJ	2.2%			
6	222 South Riverside	Office	Chicago, IL	1.8%			
7	Sharon Green Apartments	Apartment	Menlo Park, CA	1.8%			
8	Brea Distribution Center	Industrial	Brea, CA	1.8%			
9	Centergate King Farm	Apartment	Rockville, MD	1.7%			
10	Harris Business Center	Industrial	City of Commerce, CA	1.7%			
Total				24.2%			

#### 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**

30-Sep-21

### Characteristics

Anticipated Payout (Months)

As of December 31, 2021

As of Date

Characteristics		Strategy Breakdown			
			% of Portfolio	Top Five Metro Areas	% of NAV
Fund GAV (\$MM)	\$3,756.6	Pre-Development	0.5%	Los Angeles, CA	18.4%
Fund NAV (\$MM)	\$2,772.0	Development		New York - Northern NJ	16.7%
Cash (% of NAV)	0.5%	Initial Leasing	3.3%	Dallas-Ft Worth, TX	12.5%
# of Investments	44	Operating	95.6%	West Palm Beach, FL	7.4%
% in Top 10 by NAV	41.3%	Re-Development		Denver, CO	5.5%
Leverage %	24.6%	Other	0.6%		
Occupancy	92.0%				
# of MSAs	20	Queue In:		Queue Out:	
1-Year Dividend Yield	3.6%	Contribution Queue (\$MM)	\$0.00	Redemption Queue (\$MM)	\$125.13

Top Ten Holdings Investment Detail

Anticipated Drawdown (Months)

	Top Ton Holanigo Introdunone Botan					
#	Property	Туре	Location	% of Fund NAV		
1	100 Wall Street	Office	New York, NY	5.9%		
2	Boca Center Office	Office	Boca Raton, FL	5.1%		
3	33 New Montgomery	Office	San Francisco, CA	4.9%		
4	Riello	Apartment	Edgewater, NJ	4.1%		
5	Water Tower Flats	Apartment	Arvada, CO	4.1%		
6	801 South Figueroa	Office	Los Angeles, CA	4.0%		
7	Ridge	Apartment	Waltham, MA	3.7%		
8	Triangle	Apartment	Redmond, WA	3.5%		
9	Promenade at Town Center	Retail	Valencia, CA	3.2%		
10	Jupiter Road Industrial Park	Industrial	Garland, TX	3.0%		
Total				41.3%		

#### 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: \$1,020.0 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% \$15,428	0.47%
Core Fixed Income	Federated Investors	0.25% on the Balance	0.25% \$157,750	0.30%
Core Fixed Income	BlackRock Total Return Fund	0.40% on the Balance	0.40% \$88,445	0.56%
Large-Cap Core	SSgA S&P 500 Index Fund	0.04% on the Balance	0.04% \$75,612	0.02%
Large-Cap Core	Twin Capital	0.35% on the first \$50 million 0.20% on the Balance	0.35% \$15,546	0.55%
Smid-Cap Core	Frontier Capital Management	0.75% on the Balance	0.75% \$363,385	0.80%
Small-Cap Core	Guyasuta Investment Advisors	0.45% on the Balance	0.45% \$206,505	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	0.68% \$21,211	0.85%
Global Core Equity	Columbus Macro	0.70% on the Balance	0.70% \$20,040	0.71%
Global Core Equity	Federated Hermes Global Equity	0.74% on the Balance	0.74% \$69,369	0.85%
Non-U.S. Large-Cap Core	MFS International Equity Fund	0.69% on the Balance	0.69% \$623,782	0.85%
Emerging Markets	SSgA Active Emerging Markets Fund	0.75% on the Balance	0.75% \$76,613	0.90%
Emerging Markets	ABS Emerging Markets	0.80% on the Balance	0.80% \$102,895	1.00%
Hedged Equity Hedge FoF	ABS Offshore SPC Global	1.00% on the Balance	1.00% \$168,651	1.00%
Multi-Strat. Hedge Fund	Entrust Three Rivers Partners	1.25% on the Balance	1.250% \$333,807	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% \$49,001	0.70%
Core Real Estate	Rreef America II	0.95% on the Balance	0.95% \$246,868	1.00%

## Fee Schedule

Market Value: \$1,020.0 Million and 100.0% of Fund

#### **Characteristics**

#### Parametric Defensive Equity

Portfolio Value	\$6.99 billion
Standard Deviation	7.6%
Sharpe Ratio	1.2

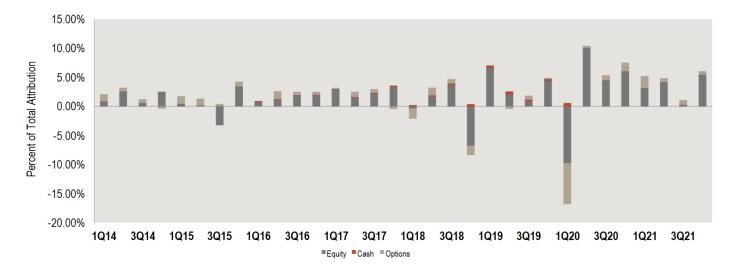
#### Strategy Breakdown

#### 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**



### **DISCLOSURE**

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