



(Preliminary Subject to Change)



**Employees Retirement System**

City of Philadelphia  
Employees Retirement System  
Executive Summary

**May 31, 2019**

# Total Fund Composite

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
<b>Total Fund Composite</b>		<b>5,503,844,235</b>	<b>474,087,836</b>	<b>100.0</b>	<b>100.0</b>	<b>0</b>
<b>Total Fund w/o Alternative Assets</b>		<b>4,024,868,902</b>	<b>360,594,858</b>	<b>73.1</b>	<b>69.0</b>	<b>227,216,380</b>
<b>Investment Grade Fixed Income Composite</b>		<b>678,333,877</b>	<b>-1,535</b>	<b>12.3</b>	<b>10.0</b>	<b>127,949,453</b>
Brandywine Global Investment Management	Global Fixed Income	137,329,827	0	2.5		
Garcia Hamilton & Associates	Int. Govt. Fixed Income	172,639,133	-704	3.1		
Logan Circle	Core Plus Fixed Income	46,634,014	-148	0.8		
Longfellow	Core Plus Fixed Income	165,683,290	0	3.0		
Rhumblin Core Bond Index	Core Fixed Income	156,047,613	-683	2.8		
<b>Opportunistic Fixed Income Composite</b>		<b>259,286,707</b>	<b>-3,476,672</b>	<b>4.7</b>	<b>4.0</b>	<b>39,132,938</b>
T - Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	11,518,012	-1,090,978	0.2		
T - Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	19,816,196	0	0.4		
T - KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	50,548,410	-2,385,679	0.9		
Logan Circle - EMD	EM Fixed Income	73,478,098	0	1.3		
Strategic Income Management	High Yield Fixed Income	51,449,404	-15	0.9		
Lord Abbett High Yield	High Yield Fixed Income	52,048,885	0	0.9		
<b>U.S. Equity Composite</b>		<b>1,538,903,800</b>	<b>43,381,699</b>	<b>28.0</b>	<b>30.0</b>	<b>-112,249,470</b>
Rhumblin Russell 1000 Index	Large-Cap Core	1,116,729,320	87,931,271	20.3		
O'Shaughnessy Asset Management	Large-Cap Value	27,193,910	0	0.5		
Rhumblin MidCap Index	Mid-Cap Core	146,844,309	-6,059	2.7		
Rhumblin Russell 2000 Index	Small-Cap Core	38,803,243	-1,672	0.7		
Emerald Advisors	Small-Cap Growth	78,499,112	0	1.4		
Fisher Asset Management	Small-Cap Value	52,535,491	0	1.0		
Fiera Capital	Smid-Cap Growth	26,891,374	0	0.5		
Ariel	Smid-Cap Value	51,307,155	0	0.9		
<b>Non-U.S. Equity Developed Composite</b>		<b>1,044,305,965</b>	<b>83,999,582</b>	<b>19.0</b>	<b>21.0</b>	<b>-111,501,324</b>
Causeway Capital Management	Non-U.S. Large-Cap Core	104,839,357	0	1.9		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	752,159,675	84,000,000	13.7		
Northern Trust International Small Cap	Non-U.S. Small-Cap Core	96,167,534	0	1.7		
Strategic Global Advisors	Non-U.S. Small-Cap Core	30,267,530	341	0.5		
Mackenzie Investments	Non-U.S. Small-Cap Core	57,059,302	0	1.0		
<b>Non-U.S. Equity Emerging Composite</b>		<b>207,911,839</b>	<b>1,774</b>	<b>3.8</b>	<b>4.0</b>	<b>-12,241,931</b>
Rhumblin Emerging Markets Index	Emerging Markets	207,907,487	1,774	3.8		

## Total Fund Composite

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
<b>Cash Composite</b>		<b>296,126,714</b>	<b>236,690,011</b>	<b>5.4</b>	<b>0.0</b>	<b>296,126,714</b>
Cash	Cash & Equivalents	295,460,947	236,701,331	5.4		
Directed Commissions	Cash & Equivalents	665,767	-11,320	0.0		
<b>Absolute Return</b>		<b>28,061,343</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>28,061,343</b>
Elizabeth Park Capital Management	Long/Short Hedge Fund	26,097,308	0	0.5		
T - Archview Offshore Fund. LTD	Credit Hedge Fund	1,964,035	0	0.0		
<b>Real Assets Composite</b>		<b>983,784,298</b>	<b>122,475,716</b>	<b>17.9</b>	<b>19.0</b>	<b>-61,946,107</b>
<b>Real Assets - Public Real Estate Composite</b>		<b>60,736,399</b>	<b>0</b>	<b>1.1</b>	<b>1.0</b>	<b>5,697,956</b>
Rhumblin FTSE NAREIT	Real Assets	60,736,399	0	1.1		
<b>Real Assets - Open-End Real Estate Composite</b>		<b>552,813,109</b>	<b>68,861,168</b>	<b>10.0</b>	<b>11.0</b>	<b>-52,609,756</b>
UBS Trumbull Fund	Core Real Estate	416,699,152	45,092,607	7.6		
Clarion Lion Properties Fund	Core Real Estate	136,113,957	23,768,561	2.5		
<b>Real Assets - Infrastructure Composite</b>		<b>259,848,934</b>	<b>55,999,984</b>	<b>4.7</b>	<b>5.0</b>	<b>-15,343,278</b>
Rhumblin Infrastructure Index	Publicly-Traded Infrastructure	174,679,287	27,999,984	3.2		
Rreef Global Infrastructure	Global Infrastructure	85,169,647	28,000,000	1.5		
<b>Real Assets - Private Real Estate Composite</b>		<b>97,639,448</b>	<b>-2,953,233</b>	<b>1.8</b>	<b>2.0</b>	<b>-12,437,437</b>
<b>Real Assets - Private Energy/Infrastructure Composite</b>		<b>12,746,408</b>	<b>567,797</b>	<b>0.2</b>	<b>--</b>	<b>12,746,408</b>
<b>Private Assets Composite</b>		<b>467,129,692</b>	<b>-8,982,739</b>	<b>8.5</b>	<b>12.0</b>	<b>-193,331,616</b>
Private Assets - Private Equity	U.S. Private Equity FoF	437,618,186	-8,858,667	8.0		
Private Assets - Private Debt	Mezz. Private Equity	29,511,507	-124,072	0.5		

## Investment Manager

## Annualized Performance (Net of Fees)

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
<b>Total Fund Composite</b>	<b>-3.0%</b>	<b>-0.4%</b>	<b>6.6%</b>	<b>0.3%</b>	<b>1.2%</b>	<b>5.3%</b>	<b>7.7%</b>	<b>4.4%</b>	<b>4.3%</b>	<b>7.0%</b>	<b>8.0%</b>	<b>7.4%</b>	<b>Jul-88</b>
<i>Total Fund Policy Benchmark</i>	<i>-2.9%</i>	<i>-0.3%</i>	<i>6.5%</i>	<i>1.2%</i>	<i>2.3%</i>	<i>5.6%</i>	<i>7.9%</i>	<i>5.0%</i>	<i>5.1%</i>	<i>7.8%</i>	<i>9.0%</i>	<i>8.2%</i>	<i>Jul-88</i>
<b>Total Fund w/o Alternative Assets</b>	<b>-4.0%</b>	<b>-0.9%</b>	<b>7.8%</b>	<b>-0.5%</b>	<b>-0.9%</b>	<b>4.1%</b>	<b>7.2%</b>	<b>4.0%</b>	<b>3.8%</b>	<b>--</b>	<b>--</b>	<b>4.7%</b>	<b>Jan-14</b>
<b>Investment Grade Fixed Income Composite</b>	<b>1.4%</b>	<b>2.8%</b>	<b>4.1%</b>	<b>4.9%</b>	<b>4.6%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.4%</b>	<b>1.8%</b>	<b>2.4%</b>	<b>3.8%</b>	<b>6.0%</b>	<b>Jul-88</b>
<i>Fixed Income Custom Benchmark</i>	<i>1.8%</i>	<i>3.4%</i>	<i>4.3%</i>	<i>6.1%</i>	<i>5.9%</i>	<i>2.7%</i>	<i>2.3%</i>	<i>2.5%</i>	<i>2.6%</i>	<i>2.4%</i>	<i>3.8%</i>	<i>6.2%</i>	<i>Jul-88</i>
Brandywine Global Investment Management	0.8%	0.6%	2.9%	0.9%	-0.1%	1.4%	2.9%	2.2%	1.1%	3.0%	5.4%	6.5%	Jan-09
<i>FTSE WGBI TR</i>	<i>1.7%</i>	<i>2.5%</i>	<i>3.0%</i>	<i>3.1%</i>	<i>2.8%</i>	<i>2.4%</i>	<i>1.5%</i>	<i>2.8%</i>	<i>0.5%</i>	<i>0.6%</i>	<i>2.0%</i>	<i>2.2%</i>	<i>Jan-09</i>
Garcia Hamilton & Associates	1.2%	2.4%	3.5%	5.0%	5.0%	2.5%	2.3%	2.5%	2.5%	3.2%	4.4%	5.1%	Aug-00
<i>BBgBarc US Govt/Credit Int TR</i>	<i>1.3%</i>	<i>2.9%</i>	<i>3.9%</i>	<i>5.8%</i>	<i>5.7%</i>	<i>2.5%</i>	<i>2.1%</i>	<i>2.1%</i>	<i>2.2%</i>	<i>2.0%</i>	<i>3.2%</i>	<i>4.3%</i>	<i>Aug-00</i>
Logan Circle	1.7%	3.8%	5.5%	6.7%	6.4%	3.5%	3.5%	3.2%	--	--	--	3.2%	Oct-14
<i>BBgBarc US Aggregate TR</i>	<i>1.8%</i>	<i>3.8%</i>	<i>4.8%</i>	<i>6.5%</i>	<i>6.4%</i>	<i>3.0%</i>	<i>2.5%</i>	<i>2.6%</i>	<i>2.7%</i>	<i>2.4%</i>	<i>3.8%</i>	<i>2.7%</i>	<i>Oct-14</i>
Longfellow	1.8%	3.8%	5.0%	6.5%	6.3%	3.4%	3.0%	2.9%	--	--	--	3.0%	Sep-14
<i>BBgBarc US Aggregate TR</i>	<i>1.8%</i>	<i>3.8%</i>	<i>4.8%</i>	<i>6.5%</i>	<i>6.4%</i>	<i>3.0%</i>	<i>2.5%</i>	<i>2.6%</i>	<i>2.7%</i>	<i>2.4%</i>	<i>3.8%</i>	<i>2.9%</i>	<i>Sep-14</i>
Rhumblin Core Bond Index	1.8%	3.6%	4.5%	6.3%	6.1%	2.8%	2.3%	2.4%	2.5%	2.1%	3.7%	4.0%	Jun-07
<i>BBgBarc US Aggregate TR</i>	<i>1.8%</i>	<i>3.8%</i>	<i>4.8%</i>	<i>6.5%</i>	<i>6.4%</i>	<i>3.0%</i>	<i>2.5%</i>	<i>2.6%</i>	<i>2.7%</i>	<i>2.4%</i>	<i>3.8%</i>	<i>4.2%</i>	<i>Jun-07</i>
<b>Opportunistic Fixed Income Composite</b>	<b>-0.4%</b>	<b>0.4%</b>	<b>3.5%</b>	<b>0.1%</b>	<b>-0.4%</b>	<b>1.7%</b>	<b>4.1%</b>	<b>2.1%</b>	<b>1.8%</b>	<b>--</b>	<b>--</b>	<b>3.0%</b>	<b>Dec-12</b>
<i>Opportunistic FI Custom Benchmark</i>	<i>-0.4%</i>	<i>1.4%</i>	<i>6.7%</i>	<i>4.6%</i>	<i>4.9%</i>	<i>4.1%</i>	<i>6.2%</i>	<i>4.6%</i>	<i>4.1%</i>	<i>5.5%</i>	<i>--</i>	<i>4.7%</i>	<i>Dec-12</i>
T - Apollo Franklin Partnership, L.P.	0.0%	2.0%	3.9%	-0.4%	1.4%	0.7%	-0.1%	-3.5%	-5.0%	--	--	-3.0%	May-13
<i>50% BarCap HY / 50% CSFB Lev Loans</i>	<i>-0.7%</i>	<i>1.2%</i>	<i>6.3%</i>	<i>4.5%</i>	<i>4.8%</i>	<i>4.1%</i>	<i>6.2%</i>	<i>4.6%</i>	<i>4.2%</i>	<i>5.6%</i>	<i>8.0%</i>	<i>4.5%</i>	<i>May-13</i>
T - Avenue Coppers Opportunity Fund LP	0.0%	-0.5%	-1.0%	-12.0%	-12.7%	-3.8%	-1.1%	-1.5%	-0.6%	--	--	0.5%	Dec-13
<i>Actuarial Rate</i>	<i>0.6%</i>	<i>1.9%</i>	<i>3.1%</i>	<i>7.0%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>Dec-13</i>
T - KKR-PBPR Capital Partners LP	0.0%	-2.3%	-2.1%	-7.5%	-7.4%	-1.1%	2.8%	2.2%	1.8%	--	--	4.6%	Jun-12
<i>Actuarial Rate</i>	<i>0.6%</i>	<i>1.9%</i>	<i>3.1%</i>	<i>7.0%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>7.7%</i>	<i>Jun-12</i>
Logan Circle - EMD	0.1%	0.5%	6.3%	5.9%	3.9%	2.6%	6.5%	5.1%	--	--	--	5.1%	Feb-15
<i>JP Morgan EMBI Global TR</i>	<i>0.6%</i>	<i>2.2%</i>	<i>7.3%</i>	<i>8.0%</i>	<i>6.9%</i>	<i>2.5%</i>	<i>4.9%</i>	<i>4.8%</i>	<i>4.0%</i>	<i>5.0%</i>	<i>7.2%</i>	<i>5.0%</i>	<i>Feb-15</i>
Strategic Income Management	-1.4%	1.4%	5.2%	3.3%	4.1%	4.2%	6.8%	--	--	--	--	8.1%	Mar-16
<i>ICE BofAML US High Yield TR</i>	<i>-1.3%</i>	<i>1.1%</i>	<i>7.5%</i>	<i>5.0%</i>	<i>5.4%</i>	<i>3.8%</i>	<i>7.1%</i>	<i>5.0%</i>	<i>4.4%</i>	<i>6.3%</i>	<i>9.3%</i>	<i>8.3%</i>	<i>Mar-16</i>

## Investment Manager

## Annualized Performance (Net of Fees)

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Lord Abbett High Yield	-0.9%	1.9%	--	--	--	--	--	--	--	--	--	3.5%	Jan-19
ICE BofAML US High Yield TR	-1.3%	1.1%	7.5%	5.0%	5.4%	3.8%	7.1%	5.0%	4.4%	6.3%	9.3%	2.8%	Jan-19
<b>U.S. Equity Composite</b>	<b>-6.6%</b>	<b>-1.7%</b>	<b>11.6%</b>	<b>0.9%</b>	<b>1.6%</b>	<b>8.2%</b>	<b>11.3%</b>	<b>7.6%</b>	<b>8.3%</b>	<b>12.4%</b>	<b>13.6%</b>	<b>9.5%</b>	<b>Jul-88</b>
U.S. Equity Custom Benchmark	-6.6%	-2.1%	11.0%	1.9%	2.5%	8.6%	11.6%	8.6%	9.3%	13.3%	13.9%	10.2%	Jul-88
Rhumbline Russell 1000 Index	-6.4%	-0.9%	11.1%	2.8%	3.5%	9.0%	11.9%	8.9%	9.5%	13.5%	13.8%	7.5%	May-07
Rhumbline Russell 1000 Custom Benchmark	-6.4%	-0.9%	11.1%	2.8%	3.5%	9.0%	11.8%	8.9%	9.5%	13.6%	--	--	May-07
O'Shaughnessy Asset Management	-8.7%	-3.7%	9.5%	-4.7%	-5.6%	6.5%	10.5%	5.4%	6.0%	--	--	12.0%	Jun-12
Russell 1000 Value	-6.4%	-2.5%	8.5%	1.2%	1.4%	4.8%	8.0%	5.9%	6.5%	11.8%	12.3%	11.1%	Jun-12
Rhumbline MidCap Index	-6.1%	-1.6%	13.6%	1.0%	1.7%	7.0%	--	--	--	--	--	8.7%	Dec-16
Rhumbline Russell Mid Cap Custom Benchmark	-6.1%	-1.6%	13.7%	1.1%	1.8%	7.1%	--	--	--	--	--	8.8%	Dec-16
Rhumbline Russell 2000 Index	-7.8%	-6.6%	9.2%	-9.4%	-8.9%	5.0%	--	--	--	--	--	4.8%	Dec-16
Rhumbline Russell 2000 Custom Benchmark	-7.8%	-6.6%	9.3%	-9.6%	-9.0%	4.9%	--	--	--	--	--	4.7%	Dec-16
Emerald Advisors	-5.1%	-2.8%	18.8%	-1.3%	0.0%	12.2%	15.7%	8.1%	11.8%	15.1%	16.8%	9.7%	Dec-04
Russell 2000 Growth	-7.4%	-5.9%	11.8%	-7.6%	-6.9%	7.9%	11.7%	6.1%	8.3%	12.5%	13.9%	8.1%	Dec-04
Fisher Asset Management	-10.0%	-8.4%	7.3%	-10.9%	-10.1%	2.1%	8.2%	5.6%	7.2%	11.4%	13.0%	8.6%	May-08
Russell 2000 Value	-8.2%	-7.4%	6.7%	-11.8%	-11.3%	1.6%	7.7%	5.0%	5.0%	10.1%	11.7%	7.0%	May-08
Fiera Capital	-6.4%	-2.4%	15.5%	-0.8%	-1.4%	9.7%	11.7%	5.6%	7.7%	12.6%	--	13.6%	Dec-09
Russell 2500 Growth	-6.6%	-3.6%	15.0%	-1.5%	-0.7%	10.6%	13.0%	7.5%	9.5%	13.4%	15.1%	13.2%	Dec-09
Ariel	-10.2%	-5.5%	10.0%	-6.9%	-5.0%	2.2%	6.7%	--	--	--	--	9.0%	Jan-16
Russell 2500 Value	-7.5%	-5.6%	8.3%	-7.9%	-7.4%	2.7%	6.9%	4.8%	5.1%	10.6%	12.6%	10.5%	Jan-16
<b>Non-U.S. Equity Developed Composite</b>	<b>-4.9%</b>	<b>-2.0%</b>	<b>8.1%</b>	<b>-5.7%</b>	<b>-6.8%</b>	<b>0.7%</b>	<b>5.5%</b>	<b>1.2%</b>	<b>0.6%</b>	<b>6.2%</b>	<b>5.9%</b>	<b>5.3%</b>	<b>Jan-89</b>
Non-U.S. Equity Developed Custom Benchmark	-4.8%	-1.7%	8.1%	-5.6%	-6.8%	1.0%	5.8%	2.0%	1.5%	7.5%	6.6%	--	Jan-89
Causeway Capital Management	-7.4%	-6.7%	5.0%	-9.2%	-10.3%	-1.3%	4.0%	0.0%	0.1%	7.2%	--	6.7%	Nov-11
MSCI EAFE	-4.8%	-1.5%	7.6%	-4.6%	-5.7%	0.9%	5.8%	1.7%	1.3%	7.5%	6.2%	6.3%	Nov-11
Northern Trust MSCI EAFE+Canada	-4.5%	-1.2%	8.7%	-3.4%	-4.5%	1.8%	6.2%	2.1%	1.5%	7.3%	6.6%	2.6%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	-4.5%	-1.1%	8.7%	-3.4%	-4.4%	1.9%	6.5%	2.3%	2.0%	8.1%	7.0%	2.2%	Mar-07

## Investment Manager

## Annualized Performance (Net of Fees)

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Northern Trust International Small Cap	-5.1%	-2.0%	8.2%	-9.7%	-12.2%	--	--	--	--	--	--	-10.7%	Mar-18
<i>Northern Trust EAFE Small Cap Custom Benchmark</i>	-5.1%	-2.0%	8.3%	-9.8%	-11.5%	--	--	--	--	--	--	-10.1%	Mar-18
Strategic Global Advisors	-5.4%	-4.9%	6.8%	-13.5%	-16.2%	--	--	--	--	--	--	-9.1%	Nov-17
<i>MSCI World ex USA Small Cap</i>	-5.2%	-2.7%	8.0%	-10.2%	-11.8%	0.4%	5.2%	3.8%	2.9%	8.6%	8.8%	-6.1%	Nov-17
Mackenzie Investments	-4.0%	-2.4%	5.9%	-14.1%	-16.2%	--	--	--	--	--	--	-8.0%	Nov-17
<i>MSCI EAFE Small Cap</i>	-5.3%	-2.3%	8.0%	-10.2%	-11.9%	0.5%	5.6%	4.3%	3.8%	9.9%	9.4%	-6.1%	Nov-17
<b>Non-U.S. Equity Emerging Composite</b>	<b>-7.7%</b>	<b>-5.1%</b>	<b>3.7%</b>	<b>-4.8%</b>	<b>-8.9%</b>	<b>2.2%</b>	<b>9.7%</b>	<b>2.6%</b>	<b>2.0%</b>	<b>2.8%</b>	<b>4.5%</b>	<b>8.2%</b>	<b>Jan-09</b>
<i>MSCI Emerging Markets</i>	-7.3%	-4.5%	4.1%	-4.7%	-8.7%	2.0%	9.9%	2.2%	1.8%	3.8%	5.0%	8.9%	Jan-09
Rhumblin Emerging Markets Index	-7.7%	-5.1%	3.7%	-4.7%	-8.8%	2.2%	9.7%	2.6%	2.1%	--	--	1.3%	Feb-13
<i>MSCI Emerging Markets</i>	-7.3%	-4.5%	4.1%	-4.7%	-8.7%	2.0%	9.9%	2.2%	1.8%	3.8%	5.0%	1.3%	Feb-13

# Investment Manager

# Annualized Performance (Net of Fees)

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
<b>Absolute Return</b>	<b>-3.5%</b>	<b>-6.0%</b>	<b>2.3%</b>	<b>-16.5%</b>	<b>-17.3%</b>	<b>-3.1%</b>	<b>1.9%</b>	<b>-0.8%</b>	<b>-0.5%</b>	<b>1.8%</b>	<b>2.5%</b>	<b>2.1%</b>	<b>Sep-05</b>
<i>HFRI Fund of Funds Composite Index</i>	-0.9%	1.0%	4.7%	-0.2%	-0.7%	2.4%	3.6%	1.1%	2.1%	3.4%	3.1%	2.4%	Sep-05
Elizabeth Park Capital Management	-3.7%	-6.8%	2.4%	-16.4%	-17.3%	-2.1%	5.3%	5.3%	5.4%	--	--	5.4%	May-14
<i>HFRI Event Driven Index</i>	-0.4%	-1.5%	0.8%	-6.8%	-7.2%	-4.8%	1.1%	-1.1%	-1.8%	1.3%	1.8%	-1.8%	May-14
T - Archview Offshore Fund. LTD	0.0%	4.7%	0.8%	-17.5%	-18.1%	-4.2%	0.0%	-3.7%	-2.2%	--	--	-1.8%	Mar-14
<i>HFRI ED: Distressed/Restructuring Index</i>	-0.2%	0.5%	4.3%	-0.4%	0.8%	2.8%	6.7%	3.1%	1.8%	4.8%	6.4%	2.0%	Mar-14
<b>Real Assets Composite</b>	<b>0.0%</b>	<b>1.8%</b>	<b>5.2%</b>	<b>5.6%</b>	<b>8.1%</b>	<b>5.8%</b>	<b>6.8%</b>	<b>2.6%</b>	<b>3.0%</b>	<b>--</b>	<b>--</b>	<b>6.3%</b>	<b>Dec-12</b>
<i>Real Assets Benchmark</i>	0.0%	1.4%	5.1%	5.7%	7.3%	5.7%	6.8%	0.2%	-0.9%	--	--	2.5%	Dec-12
<b>Real Assets - Public Real Estate Composite</b>	<b>0.6%</b>	<b>4.9%</b>	<b>17.6%</b>	<b>11.4%</b>	<b>16.0%</b>	<b>9.1%</b>	<b>7.7%</b>	<b>8.5%</b>	<b>9.6%</b>	<b>--</b>	<b>--</b>	<b>9.3%</b>	<b>Jan-13</b>
<i>FTSE NAREIT All Equity REIT Custom Benchmark</i>	0.6%	4.9%	17.6%	11.6%	16.2%	9.2%	7.8%	8.6%	8.8%	--	--	--	Jan-13
Rhumblin FTSE NAREIT	0.6%	4.9%	17.6%	11.4%	16.0%	9.1%	7.7%	8.5%	8.8%	--	--	7.8%	May-13
<i>FTSE NAREIT All Equity REIT Custom Benchmark</i>	0.6%	4.9%	17.6%	11.6%	16.2%	9.2%	7.8%	8.6%	8.8%	--	--	7.8%	May-13
<b>Real Assets - Open-End Real Estate Composite</b>	<b>0.0%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>4.0%</b>	<b>5.8%</b>	<b>6.0%</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.6%</b>	<b>Jan-17</b>
<i>NFI</i>	0.0%	0.4%	1.2%	4.7%	5.3%	6.3%	6.6%	7.8%	8.8%	9.5%	8.4%	6.3%	Jan-17
UBS Trumbull Fund	0.0%	0.5%	0.5%	3.3%	5.0%	5.6%	--	--	--	--	--	5.2%	Jan-17
<i>NFI</i>	0.0%	0.4%	1.2%	4.7%	5.3%	6.3%	6.6%	7.8%	8.8%	9.5%	8.4%	6.3%	Jan-17
Clarion Lion Properties Fund	0.0%	1.8%	1.8%	5.9%	8.5%	--	--	--	--	--	--	8.1%	Feb-18
<i>NFI</i>	0.0%	0.4%	1.2%	4.7%	5.3%	6.3%	6.6%	7.8%	8.8%	9.5%	8.4%	5.9%	Feb-18
<b>Real Assets - Infrastructure Composite</b>	<b>-0.1%</b>	<b>3.8%</b>	<b>16.3%</b>	<b>9.1%</b>	<b>12.1%</b>	<b>5.8%</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>7.5%</b>	<b>Mar-17</b>
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-0.2%	3.7%	16.3%	8.6%	11.5%	5.2%	8.1%	4.4%	4.5%	9.0%	11.9%	6.8%	Mar-17
Rhumblin Infrastructure Index	-0.1%	3.9%	16.6%	9.2%	12.2%	5.9%	--	--	--	--	--	7.5%	Mar-17
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-0.2%	3.7%	16.3%	8.6%	11.5%	5.2%	8.1%	4.4%	4.5%	9.0%	11.9%	6.8%	Mar-17
Rreef Global Infrastructure	-0.1%	4.3%	16.4%	9.5%	12.6%	--	--	--	--	--	--	12.0%	Mar-18
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-0.2%	3.7%	16.3%	8.6%	11.5%	5.2%	8.1%	4.4%	4.5%	9.0%	11.9%	11.1%	Mar-18

## Investment Manager

## Annualized Performance (Net of Fees)

Market Value: \$5,503.8 Million and 100.0% of Fund

Ending May 31, 2019

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
<b>Real Assets - Private Real Estate Composite</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>1.9%</b>	<b>3.4%</b>	<b>4.7%</b>	<b>6.5%</b>	<b>6.9%</b>	<b>7.4%</b>	<b>9.5%</b>	<b>7.1%</b>	<b>3.7%</b>	<b>May-06</b>
<i>Real Assets - Private Real Estate Benchmark</i>	<i>0.0%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>1.9%</i>	<i>3.4%</i>	<i>4.7%</i>	<i>6.5%</i>	<i>6.9%</i>	<i>7.4%</i>	<i>9.6%</i>	<i>--</i>	<i>--</i>	<i>May-06</i>
<b>Real Assets - Private Energy/Infrastructure Composite</b>	<b>0.0%</b>	<b>7.0%</b>	<b>7.0%</b>	<b>18.3%</b>	<b>34.3%</b>	<b>29.9%</b>	<b>24.1%</b>	<b>6.2%</b>	<b>3.1%</b>	<b>8.4%</b>	<b>--</b>	<b>8.4%</b>	<b>May-12</b>
<i>Real Assets - Private Energy/Infrastructure Benchmark</i>	<i>0.0%</i>	<i>7.0%</i>	<i>7.0%</i>	<i>18.3%</i>	<i>34.3%</i>	<i>29.9%</i>	<i>24.1%</i>	<i>6.2%</i>	<i>3.1%</i>	<i>8.4%</i>	<i>--</i>	<i>8.4%</i>	<i>May-12</i>
<b>Private Assets Composite</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>-1.6%</b>	<b>8.8%</b>	<b>12.1%</b>	<b>11.4%</b>	<b>9.9%</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>Mar-87</b>

Please note: As of January 1, 2019, the total fund policy index incorporates the adjustments as approved by the Board of Trustees to reflect the fundamental changes adopted as a result of the approved asset allocation. T represents any investment terminated by the Board of Trustees.