

(Preliminary Subject to Change)



**Employees Retirement System** 

City of Philadelphia Employees Retirement System Executive Summary September 30, 2018 **Total Fund Composite** 

#### Ending September 30, 2018 3 Mo Net Cash Flows (\$) % of Portfolio Market Value Policy Difference Asset Class Policy % (\$) (\$) **Total Fund Composite** 5,117,868,351 -183,066,734 100.0 100.0 0 Total Fund w/o Alternative Assets 3,880,734,770 -156,261,403 75.8 72.9 149,808,742 Investment Grade Fixed Income Composite 644,949,456 -40,000,000 12.6 14.0 -71,552,113 Brandywine Global Investment Management **Global Fixed Income** 134,505,720 -25,000,000 2.6 0 3.2 Garcia Hamilton & Associates Int. Govt. Fixed Income 164,445,220 Logan Circle 0 0.9 Core Plus Fixed Income 43,808,064 Longfellow Core Plus Fixed Income 155,506,627 0 3.0 -15,000,000 Rhumbline Core Bond Index Core Fixed Income 146,683,825 2.9 **Opportunistic Fixed Income Composite** 285,249,907 5.6 6.0 -21,822,194 -7,303,040 Opportunistic Fixed Apollo Franklin Partnership, L.P. 16,712,346 -1,363,636 0.3 Income Opportunistic Fixed 0.5 Avenue Coppers Opportunity Fund LP 25,269,905 -3,722,628 Income Opportunistic Fixed KKR-PBPR Capital Partners LP 71,923,508 -2,191,9241.4 Income EM Fixed Income 69,793,703 0 1.4 Logan Circle - EMD 0 2.0 Strategic Income Management High Yield Fixed Income 101,258,122 U.S. Equity Composite 1,580,260,810 -105,000,000 30.9 29.8 55,136,041 Rhumbline Russell 1000 Index Large-Cap Core 1,075,636,954 -95.000.000 21.0 Aronson+Johnson+Ortiz LP 46.798.071 0 0.9 Large-Cap Value Large-Cap Value 29,955,519 0 0.6 O'Shaughnessy Asset Management Rhumbline MidCap Index Mid-Cap Core 152,713,149 -10,006,667 3.0 Rhumbline Russell 2000 Index Small-Cap Core 44,442,761 -1,732 0.9 **Emerald Advisors** Small-Cap Growth 84,644,752 0 1.7 Fisher Asset Management Small-Cap Value 60,376,682 0 1.2 Fiera Capital Smid-Cap Growth 28,547,111 0 0.6 Ariel Smid-Cap Value 57,073,526 0 1.1 Non-U.S. Equity Developed Composite 1,026,573,576 -40,013,630 20.1 16.8 166,771,693 Non-U.S. Large-Cap Causeway Capital Management 116,574,836 0 2.3 Core Non-U.S. Large-Cap Northern Trust MSCI EAFE+Canada 702,901,619 -40,000,330 13.7 Core Non-U.S. Small-Cap Northern Trust International Small Cap 105,758,854 13,817 2.1 Core Non-U.S. Small-Cap Strategic Global Advisors 33,602,412 2,778 0.7 Core Non-U.S. Small-Cap Investors Group 63,763,416 -29,895 1.2 Core Non-U.S. Equity Emerging Composite 216,138,319 -35,000,056 4.2 5.2 -49,990,835 4.2 Rhumbline Emerging Markets Index **Emerging Markets** 216,135,214 -35,000,056

Market Value: \$5,117.9 Million and 100.0% of Fund

Total Fund Composite

Market Value: \$5,117.9 Million and 100.0% of Fund

		End	ing September	30, 2018		
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Cash Composite		127,562,702	71,055,322	2.5	1.1	71,266,150
Cash	Cash & Equivalents	126,857,762	71,066,707	2.5		
Directed Commissions	Cash & Equivalents	704,940	-11,385	0.0		
Absolute Return		34,568,491	-651,697	0.7	0.5	8,979,149
Elizabeth Park Capital Management	Long/Short Hedge Fund	31,459,399	0	0.6		
Archview Offshore Fund. LTD	Credit Hedge Fund	3,109,092	-651,697	0.1		
Real Assets Composite		769,317,568	-23,828,588	15.0	15.6	-29,069,895
Real Assets - Public Real Estate Composite		54,893,587	-45,000,000	1.1	1.4	-16,756,570
Rhumbline FTSE NAREIT	Real Assets	54,893,587	-45,000,000	1.1		
Real Assets - Open-End Real Estate Composite		398,759,260	21,810,337	7.8	7.6	9,801,266
UBS Trumbull Fund	Core Real Estate	289,454,037	-2,959,651	5.7		
Clarion Lion Properties Fund	Core Real Estate	109,305,223	24,769,988	2.1		
Real Assets - Infrastructure Composite		185,160,595	0	3.6	4.0	-19,554,139
Rhumbline Infrastructure Index	Publicly-Traded Infrastructure	133,126,975	0	2.6		
Rreef Global Infrastructure	Global Infrastructure	52,033,619	0	1.0		
Real Assets - Private Real Estate Composite		119,296,443	-1,006,887	2.3	2.6	-13,768,134
Real Assets - Private Energy/Infrastructure Composite		11,207,683	367,962	0.2	-	11,207,683
Private Assets Composite		433,247,522	-2,325,046	8.5	11.0	-129,717,996
Private Assets - Private Equity	U.S. Private Equity FoF	422,506,772	-1,857,567	8.3		
Private Assets - Private Debt	Mezz. Private Equity	10,740,750	-467,479	0.2		



# Annualized Performance (Net of Fees)

Market Value: \$5,117.9 Million and 100.0% of Fund

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	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
otal Fund Composite	0.1%	2.3%	2.9%	2.3%	7.1%	9.9%	9.0%	5.5%	6.4%	8.2%	7.0%	7.6%	Jul-88
Total Fund Policy Benchmark	0.1%	2.4%	3.4%	2.4%	7.7%	9.6%	9.5%	6.3%	7.0%	9.2%	8.2%	8.4%	Jul-88
Total Fund w/o Alternative Assets	0.1%	2.8%	2.6%	2.8%	6.9%	10.4%	9.9%	5.6%				6.2%	Jan-14
Investment Grade Fixed Income Composite	-0.2%	-0.1%	-1.5%	-0.1%	-1.3%	0.1%	2.2%	1.2%	1.9%	2.1%	3.8%	6.0%	Jul-88
BBgBarc US Aggregate TR	-0.6%	0.0%	-1.6%	0.0%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%	6.1%	Jul-88
Brandywine Global Investment Management	1.0%	-0.7%	-3.4%	-0.7%	-3.5%	1.1%	4.1%	1.2%	2.2%	3.1%		6.7%	Jan-09
FTSE WGBI TR	-1.0%	-1.6%	-2.5%	-1.6%	-1.5%	-2.1%	1.7%	0.3%	0.2%	-0.1%	2.2%	1.9%	Jan-09
Garcia Hamilton & Associates	-0.4%	0.1%	-0.2%	0.1%	-0.1%	0.2%	1.4%	1.9%	2.4%	3.2%	4.7%	5.1%	Aug-00
BBgBarc US Govt/Credit Int TR	-0.4%	0.2%	-0.8%	0.2%	-1.0%	-0.4%	0.9%	1.3%	1.5%	1.6%	3.2%	4.2%	Aug-00
Logan Circle	-0.5%	0.3%	-1.0%	0.3%	-0.5%	0.6%	2.4%	2.3%				2.1%	Oct-14
BBgBarc US Aggregate TR	-0.6%	0.0%	-1.6%	0.0%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%	1.5%	Oct-14
Longfellow	-0.6%	0.1%	-1.2%	0.1%	-0.6%	0.3%	1.7%	2.0%				2.0%	Sep-14
BBgBarc US Aggregate TR	-0.6%	0.0%	-1.6%	0.0%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%	1.7%	Sep-14
Rhumbline Core Bond Index	-0.7%	-0.1%	-1.5%	-0.1%	-1.2%	-0.6%	1.1%	1.4%	1.9%	1.7%	3.5%	3.7%	Jun-07
BBgBarc US Aggregate TR	-0.6%	0.0%	-1.6%	0.0%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%	3.9%	Jun-07
Opportunistic Fixed Income Composite	0.9%	0.7%	0.8%	0.7%	1.7%	4.1%	4.3%	2.2%	3.4%			3.5%	Dec-12
Opportunistic Fixed Income Benchmark	0.6%	2.1%	3.3%	2.1%	4.1%	5.6%	6.7%	4.7%	4.8%	6.5%		4.9%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	2.9%	7.2%	2.9%	5.5%	0.3%	-1.4%	-5.4%	-3.5%			-2.8%	May-13
50% BarCap HY / 50% CSFB Lev Loans	0.6%	2.2%	3.5%	2.2%	4.3%	5.7%	6.8%	4.8%	5.0%	6.6%	7.7%	4.7%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	-2.4%	-2.2%	-2.4%	-0.6%	2.4%	1.6%	1.5%				2.8%	Dec-13
Actuarial Rate	0.6%	1.9%	5.7%	1.9%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Dec-13
KKR-PBPR Capital Partners LP	0.0%	0.1%	3.9%	0.1%	4.5%	5.6%	6.4%	4.1%	5.0%			6.4%	Jun-12
Actuarial Rate	0.6%	1.9%	5.7%	1.9%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	2.7%	0.9%	-4.9%	0.9%	-4.0%	2.7%	7.6%					4.6%	Feb-15
JP Morgan EMBI Global TR	1.8%	1.9%	-3.5%	1.9%	-2.9%	0.5%	5.7%	3.7%	4.6%	5.4%	7.3%	4.2%	Feb-15
Strategic Income Management	0.8%	1.6%	3.0%	1.6%	4.7%	6.8%						9.6%	Mar-16
ICE BofAML US High Yield TR	0.5%	2.4%	2.5%	2.4%	2.9%	5.9%	8.2%	5.1%	5.5%	7.6%	9.4%	9.5%	Mar-16

# Annualized Performance (Net of Fees)

Market Value: \$5,117.9 Million and 100.0% of Fund

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	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
U.S. Equity Composite	-0.1%	6.6%	10.1%	6.6%	17.2%	18.0%	16.0%	11.5%	12.2%	16.0%	11.7%	9.9%	Jul-88
Russell 3000	0.2%	7.1%	10.6%	7.1%	17.6%	18.1%	17.1%	12.4%	13.5%	16.9%	12.0%	10.6%	Jul-88
Rhumbline Russell 1000 Index	0.4%	7.4%	10.8%	7.4%	17.9%	18.3%	17.2%	12.4%	13.7%	16.7%	12.0%	8.4%	May-07
Rhumbline Russell 1000 Custom Benchmark	0.4%	7.4%	10.7%	7.4%	17.8%	18.3%	17.1%	12.5%	13.7%				<i>May-</i> 07
Aronson+Johnson+Ortiz LP	-0.9%	4.6%	3.0%	4.6%	10.0%	13.9%	11.3%	7.8%	9.7%	14.7%	10.0%	8.0%	May-01
Russell 1000 Value	0.2%	5.7%	3.9%	5.7%	9.5%	12.3%	13.6%	8.8%	10.7%	15.0%	9.8%	7.0%	May-01
O'Shaughnessy Asset Management	-0.6%	5.2%	7.3%	5.2%	16.6%	18.9%	15.7%	9.4%	11.5%			15.2%	Jun-12
Russell 1000 Value	0.2%	5.7%	3.9%	5.7%	9.5%	12.3%	13.6%	8.8%	10.7%	15.0%	9.8%	13.2%	Jun-12
Rhumbline MidCap Index	-0.6%	5.0%	7.6%	5.0%	14.2%							14.9%	Dec-16
Rhumbline Russell Mid Cap Custom Benchmark	-0.6%	5.0%	7.5%	5.0%	14.0%							14.8%	Dec-16
Rhumbline Russell 2000 Index	-2.3%	3.7%	11.7%	3.7%	15.4%							15.3%	Dec-16
Rhumbline Russell 2000 Custom Benchmark	-2.3%	3.7%	11.6%	3.7%	15.4%							15.2%	Dec-16
Emerald Advisors	-2.6%	6.9%	14.5%	6.9%	23.3%	23.4%	16.6%	16.8%	13.5%	20.1%	14.5%	10.9%	Dec-04
Russell 2000 Growth	-2.3%	5.5%	15.8%	5.5%	21.1%	21.0%	18.0%	14.3%	12.1%	17.5%	12.7%	9.6%	Dec-04
Fisher Asset Management	-1.7%	3.0%	9.0%	3.0%	13.6%	18.4%	17.0%	13.5%	12.1%	17.3%	12.1%	10.7%	May-08
Russell 2000 Value	-2.5%	1.6%	7.1%	1.6%	9.3%	14.8%	16.1%	11.4%	9.9%	15.3%	9.5%	8.9%	May-08
Fiera Capital	-1.8%	5.7%	11.6%	5.7%	21.5%	19.1%	14.5%	10.2%	11.5%	17.3%		15.6%	Dec-09
Russell 2500 Growth	-1.5%	7.2%	15.8%	7.2%	23.1%	21.6%	18.0%	14.1%	12.9%	17.7%	13.6%	15.4%	Dec-09
Ariel	0.9%	3.9%	6.1%	3.9%	14.3%	14.3%						16.0%	Jan-16
Russell 2500 Value	-1.6%	2.7%	5.7%	2.7%	10.2%	13.0%	14.5%	10.0%	10.0%	15.3%	10.5%	18.0%	Jan-16
Non-U.S. Equity Developed Composite	0.4%	0.8%	-2.0%	0.8%	2.1%	10.4%	8.8%	3.7%	3.8%	7.6%	5.1%	5.7%	Jan-89
MSCI EAFE	0.9%	1.4%	-1.4%	1.4%	2.7%	10.6%	9.2%	4.5%	4.4%	8.3%	5.4%	4.6%	Jan-89
Causeway Capital Management	1.2%	1.4%	-3.1%	1.4%	1.3%	11.3%	8.3%	3.8%	4.2%			9.1%	Nov-11
MSCI EAFE	0.9%	1.4%	-1.4%	1.4%	2.7%	10.6%	9.2%	4.5%	4.4%	8.3%	5.4%	7.8%	Nov-11
Northern Trust MSCI EAFE+Canada	0.8%	1.5%	-1.1%	1.5%	3.0%	10.6%	9.5%	4.4%	4.3%	8.1%	6.0%	3.2%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	0.7%	1.5%	-1.0%	1.5%	3.1%	10.8%	9.8%	4.7%	5.1%	8.9%	5.9%	2.8%	Mar-07
Northern Trust International Small Cap	-0.6%	-0.7%		-0.7%								-3.6%	Mar-18
Northern Trust EAFE Small Cap Custom Benchmark	-0.7%	-0.8%		-0.8%								-2.9%	Mar-18

# Annualized Performance (Net of Fees)

Market Value: \$5,117.9 Million and 100.0% of Fund

#### Ending September 30, 2018

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Strategic Global Advisors	-1.9%	-3.5%	-5.7%	-3.5%								-3.3%	Nov-17
MSCI World ex USA Small Cap	-0.7%	-0.9%	-2.3%	-0.9%	3.4%	11.6%	12.2%	8.0%	7.1%	10.3%	9.0%	0.6%	Nov-17
Investors Group	-1.3%	-3.3%	-3.5%	-3.3%								-0.3%	Nov-17
MSCI EAFE Small Cap	-0.7%	-0.9%	-2.2%	-0.9%	3.7%	12.4%	12.4%	9.2%	8.0%	11.5%	9.7%	0.4%	Nov-17
Non-U.S. Equity Emerging Composite	-0.2%	-0.9%	-7.8%	-0.9%	-1.0%	10.3%	12.6%	3.8%	3.5%	3.8%		9.2%	Jan-09
MSCI Emerging Markets	-0.5%	-1.1%	-7.7%	-1.1%	-0.8%	10.2%	12.4%	3.4%	3.6%	5.0%	5.4%	9.9%	Jan-09
Rhumbline Emerging Markets Index	-0.2%	-0.9%	-7.8%	-0.9%	-1.0%	10.3%	12.6%	3.9%	3.6%			2.2%	Feb-13
MSCI Emerging Markets	-0.5%	-1.1%	-7.7%	-1.1%	-0.8%	10.2%	12.4%	3.4%	3.6%	5.0%	5.4%	2.1%	Feb-13

Investment Manager

#### Annualized Performance (Net of Fees)

Market Value: \$5,117.9 Million and 100.0% of Fund

Absolute Return HFRI Fund of Funds Composite Index Elizabeth Park Capital	1 Mo 0.0% -0.2% 0.0% -0.5%	3 Mo 0.5% 0.3% 0.8%	YTD 5.2% 1.0% 6.0%	Fiscal YTD 0.5%	1 Yr <b>7.8%</b> 3.1%	2 Yrs	3 Yrs 6.4%	4 Yrs 3.9%	5 Yrs 4.7%	7 Yrs 5.2%	10 Yrs 4.3%	Inception 3.7%	Inception Date Sep-05
HFRI Fund of Funds Composite Index Elizabeth Park Capital	-0.2% 0.0% -0.5%	0.3% 0.8%	1.0%				6.4%	3.9%	4.7%	5.2%	4.3%	3.7%	Sep-05
Index Elizabeth Park Capital	0.0% -0.5%	0.8%		0.3%	3.1%	4.00/							
•	-0.5%		6.0%			4.8%	3.3%	2.4%	3.2%	3.6%	2.6%	2.6%	Sep-05
Management		1 40/		0.8%	8.7%	16.6%	13.5%	12.4%				11.0%	May-14
HFRX Event Driven Index		-1.1%	-5.5%	-1.1%	-5.6%	2.1%	3.6%	-0.4%	0.5%	2.8%	2.0%	-0.7%	May-14
Archview Offshore Fund. LTD	0.0%	-2.3%	1.4%	-2.3%	5.0%	5.0%	3.1%	1.2%				1.6%	Mar-14
HFRI ED: Distressed/Restructuring Index	1.1%	1.4%	4.3%	1.4%	6.0%	8.2%	7.3%	3.1%	3.8%	5.8%	5.6%	2.7%	Mar-14
Real Assets Composite	0.1%	0.6%	2.2%	0.6%	4.5%	5.1%	7.2%	1.2%	5.0%			6.2%	Dec-12
Real Assets Benchmark	-0.8%	0.3%	2.2%	0.3%	4.5%	4.1%	5.4%	-3.0%	0.3%			2.1%	Dec-12
Real Assets - Public Real Estate Composite	-2.7%	0.3%	1.5%	0.3%	4.0%	3.3%	8.9%	8.6%	9.4%			8.4%	Jan-13
FTSE NAREIT All Equity REIT Custom Benchmark	-2.7%	0.6%	1.8%	0.6%	4.3%	3.4%	9.0%	8.7%	9.6%				Jan-13
Rhumbline FTSE NAREIT	-2.7%	0.3%	1.5%	0.3%	4.0%	3.3%	8.9%	8.6%	9.5%			6.7%	May-13
FTSE NAREIT All Equity REIT Custom Benchmark	-2.7%	0.6%	1.8%	0.6%	4.3%	3.4%	9.0%	8.7%	9.6%			6.8%	May-13
Real Assets - Open-End Real Estate Composite	1.4%	1.4%	5.1%	1.4%	7.1%							6.3%	Jan-17
NFI	0.6%	1.9%	5.8%	1.9%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%	7.2%	Jan-17
UBS Trumbull Fund	1.2%	1.2%	4.8%	1.2%	6.8%							6.2%	Jan-17
NFI	0.6%	1.9%	5.8%	1.9%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%	7.2%	Jan-17
Clarion Lion Properties Fund	1.9%	1.9%		1.9%								5.9%	Feb-18
NFI	0.6%	1.9%	5.8%	1.9%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%	5.1%	Feb-18
Real Assets - Infrastructure Composite	-1.3%	-0.5%	-1.5%	-0.5%	-0.8%							4.3%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	-1.3%	-0.8%	-2.1%	-0.8%	-1.6%	3.6%	7.4%	2.6%	6.1%	9.2%	9.1%	3.6%	Mar-17
Rhumbline Infrastructure Index	-1.2%	-0.6%	-1.6%	-0.6%	-0.9%							4.3%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	-1.3%	-0.8%	-2.1%	-0.8%	-1.6%	3.6%	7.4%	2.6%	6.1%	9.2%	9.1%	3.6%	Mar-17
Rreef Global Infrastructure	-1.5%	-0.2%		-0.2%								4.1%	Mar-18
Dow Jones Brookfield Global Infrastructure Index	-1.3%	-0.8%	-2.1%	-0.8%	-1.6%	3.6%	7.4%	2.6%	6.1%	9.2%	9.1%	3.3%	Mar-18

#### Annualized Performance (Net of Fees)

Market Value: \$5,117.9 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Real Assets - Private Real Estate Composite	0.0%	0.0%	2.5%	0.0%	6.0%	6.4%	7.8%	8.1%	9.6%	9.6%	2.6%	3.8%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	2.5%	0.0%	6.0%	6.4%	7.8%	8.1%	9.6%				May-06
Real Assets - Private Energy/Infrastructure Composite	-3.3%	-3.3%	14.6%	-3.3%	25.4%	16.6%	4.4%	-8.7%	5.5%			5.9%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	-3.3%	-3.3%	14.6%	-3.3%	25.4%	16.6%	4.4%	-8.7%	5.5%			5.9%	May-12
Private Assets Composite	0.0%	0.0%	4.4%	0.0%	11.1%	9.6%	8.9%		-	-		-	Mar-87