

(Preliminary Subject to Change)



**Employees Retirement System** 

City of Philadelphia Employees Retirement System Executive Summary March 31, 2018 Total Fund Composite

#### Market Value: \$5,303.5 Million and 100.0% of Fund

Ending	March	31.	2018
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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		5,303,498,808	348,904,802	100.0	100.0	0
Total Fund w/o Alternative Assets		4,102,844,514	47,763,040	77.4	79.4	-108,133,539
Investment Grade Fixed Income Composite		695,983,855	49,803	13.1	19.0	-311,680,919
Brandywine Global Investment Management	Global Fixed Income	171,282,812	50,021	3.2		
Garcia Hamilton & Associates	Int. Govt. Fixed Income	163,720,491	0	3.1		
Logan Circle	Core Plus Fixed Income	43,731,996	-219	0.8		
Longfellow	Core Plus Fixed Income	155,388,651	0	2.9		
Rhumbline Core Bond Index	Core Fixed Income	161,859,904	0	3.1		
Opportunistic Fixed Income Composite		312,909,179	-17,978,559	5.9	7.5	-84,853,232
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	18,826,634	-6,000,000	0.4		
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	35,044,085	-1,904,225	0.7		
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	88,757,398	-10,014,334	1.7		
Logan Circle - EMD	EM Fixed Income	73,820,822	-60,000	1.4		
Strategic Income Management	High Yield Fixed Income	96,208,792	0	1.8		
U.S. Equity Composite		1,584,830,967	-12,000,000	29.9	29.8	4,388,322
Rhumbline Russell 1000 Index	Large-Cap Core	1,099,807,454	-12,000,000	20.7		
Aronson+Johnson+Ortiz LP	Large-Cap Value	44,041,131	0	0.8		
O'Shaughnessy Asset Management	Large-Cap Value	27,792,050	0	0.5		
Rhumbline MidCap Index	Mid-Cap Core	165,136,000	0	3.1		
Rhumbline Russell 2000 Index	Small-Cap Core	39,809,167	0	0.8		
Emerald Advisors	Small-Cap Growth	72,315,447	0	1.4		
Fisher Asset Management	Small-Cap Value	55,025,104	0	1.0		
Fiera Capital	Smid-Cap Growth	26,543,956	0	0.5		
Ariel	Smid-Cap Value	54,313,360	0	1.0		
Non-U.S. Equity Developed Composite		1,067,537,037	45,000,000	20.1	16.8	176,549,237
Causeway Capital Management	Non-U.S. Large-Cap Core	188,490,753	0	3.6		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	737,285,385	-15,000,000	13.9		
Northern Trust International Small Cap	Non-U.S. Small-Cap Core	60,000,000	60,000,000	1.1		
Strategic Global Advisors	Non-U.S. Small-Cap Core	25,880,688	0	0.5		
Investors Group	Non-U.S. Small-Cap Core	51,728,324	0	1.0		
Non-U.S. Equity Emerging Composite		277,488,190	-3,000,000	5.2	5.2	1,706,252
Rhumbline Emerging Markets Index	Emerging Markets	277,484,997	-3,000,000	5.2		

Total Fund Composite

Market Value: \$5,303.5 Million and 100.0% of Fund

	Ending March 31, 2018											
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)						
Cash Composite		164,095,286	35,691,797	3.1	1.1	105,756,800						
Cash	Cash & Equivalents	163,368,194	35,710,492	3.1								
Directed Commissions	Cash & Equivalents	727,092	-18,696	0.0								
Absolute Return		39,291,537	-2,478,001	0.7	0.5	12,774,043						
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	2,834,858	0	0.1								
Elizabeth Park Capital Management	Long/Short Hedge Fund	30,337,346	0	0.6								
Archview Offshore Fund. LTD	Credit Hedge Fund	5,589,475	-2,478,001	0.1								
Real Assets Composite		761,809,731	316,291,000	14.4	9.1	279,191,339						
Real Assets - Public Real Estate Composite		91,423,330	0	1.7	1.4	17,174,347						
Rhumbline FTSE NAREIT	Real Assets	91,423,330	0	1.7								
Real Assets - Open-End Real Estate Composite		365,261,354	233,888,860	6.9	1.7	275,101,874						
UBS Trumbull Fund	Core Real Estate	284,673,854	153,941,360	5.4								
Clarion Lion Properties Fund	Core Real Estate	80,587,500	79,947,500	1.5								
Real Assets - Infrastructure Composite		183,356,643	81,989,304	3.5	3.4	3,037,684						
Rhumbline Infrastructure Index	Publicly-Traded Infrastructure	128,356,643	27,000,000	2.4								
Rreef Global Infrastructure	Global Infrastructure	55,000,000	55,000,000	1.0								
Real Assets - Private Real Estate Composite		114,170,281	-447,602	2.2	2.6	-23,720,688						
Real Assets - Private Energy/Infrastructure Composite		7,598,122	866,533	0.1		7,598,122						
Private Assets Composite		399,553,026	-12,688,028	7.5	11.0	-183,831,843						
Private Assets - Private Equity	U.S. Private Equity FoF	388,894,768	-11,611,489	7.3								
Private Assets - Private Debt	Mezz. Private Equity	10,658,258	-1,076,539	0.2								



### Annualized Performance (Net of Fees)

Market Value: \$5,303.5 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
Total Fund Composite	-0.7%	-0.7%	-0.7%	6.7%	9.9%	10.9%	5.5%	5.1%	6.5%	6.5%	5.5%	7.6%	Jul-88
Total Fund Policy Benchmark	-0.8%	-0.6%	-0.6%	5.6%	8.3%	10.6%	5.7%	5.9%	6.9%	6.7%	6.5%	8.4%	Jul-88
Total Fund w/o Alternative Assets	-1.1%	-0.6%	-0.6%	7.8%	11.6%	11.7%	5.9%	5.3%				6.1%	Jan-14
Investment Grade Fixed Income Composite	0.8%	0.2%	0.2%	1.7%	3.8%	2.2%	1.7%	2.1%	1.8%	3.2%	3.9%	6.2%	Jul-88
BBgBarc US Aggregate TR	0.6%	-1.5%	-1.5%	-0.2%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%	6.2%	Jul-88
Brandywine Global Investment Management	1.4%	3.9%	3.9%	7.0%	11.8%	6.2%	4.3%	3.6%	3.0%	5.0%		8.0%	Jan-09
Citi WGBI	1.5%	2.5%	2.5%	5.4%	8.5%	2.2%	3.5%	1.1%	1.2%	1.5%	2.0%	2.5%	Jan-09
Garcia Hamilton & Associates	0.5%	-0.5%	-0.5%	0.0%	0.8%	0.8%	1.4%	2.2%	2.1%	3.3%	4.4%	5.2%	Aug-00
BBgBarc US Govt/Credit Int TR	0.4%	-1.0%	-1.0%	-0.6%	0.4%	0.4%	0.9%	1.6%	1.2%	2.3%	2.9%	4.3%	Aug-00
Logan Circle	0.6%	-1.1%	-1.1%	0.7%	2.5%	2.5%	1.9%					2.4%	Oct-14
BBgBarc US Aggregate TR	0.6%	-1.5%	-1.5%	-0.2%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%	1.8%	Oct-14
Longfellow	0.6%	-1.1%	-1.1%	0.4%	2.0%	1.5%	1.7%					2.3%	Sep-14
BBgBarc US Aggregate TR	0.6%	-1.5%	-1.5%	-0.2%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%	2.0%	Sep-14
Rhumbline Core Bond Index	0.6%	-1.3%	-1.3%	-0.2%	1.2%	0.6%	0.9%	2.0%	1.5%	2.6%	3.4%	3.9%	Jun-07
BBgBarc US Aggregate TR	0.6%	-1.5%	-1.5%	-0.2%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%	4.1%	Jun-07
Opportunistic Fixed Income Composite	-0.5%	-0.2%	-0.2%	2.9%	4.5%	7.4%	3.3%	2.6%	3.3%	-	-	3.6%	Dec-12
Opportunistic Fixed Income Benchmark	-0.2%	0.3%	0.3%	2.6%	4.1%	8.5%	4.7%	4.1%	4.5%	5.3%		4.7%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	1.8%	1.8%	1.9%	-0.6%	-0.1%	-4.9%	-6.6%				-4.1%	May-13
50% BarCap HY / 50% CSFB Lev Loans	-0.1%	0.4%	0.4%	2.7%	4.2%	8.5%	4.8%	4.2%	4.6%	5.4%	6.8%	4.5%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	0.2%	0.2%	4.5%	9.2%	6.2%	3.3%	3.6%				3.7%	Dec-13
Actuarial Rate 7.70%	0.6%	1.9%	1.9%	5.7%	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%	0.2%	0.2%	1.3%	2.4%	7.9%	4.6%	3.5%	5.4%			6.3%	Jun-12
Actuarial Rate 7.70%	0.6%	1.9%	1.9%	5.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	0.3%	0.8%	0.8%	5.8%	8.8%	10.9%	7.8%					7.4%	Feb-15
JP Morgan EMBI Global TR	0.4%	-1.8%	-1.8%	1.1%	3.3%	6.0%	5.5%	5.1%	3.9%	6.0%	6.8%	5.5%	Feb-15
Strategic Income Management	-1.9%	-1.9%	-1.9%	1.9%	3.1%	9.5%						9.5%	Mar-16
ICE BofAML US High Yield Master II TR	-0.6%	-0.9%	-0.9%	1.5%	3.7%	10.1%	5.2%	4.4%	5.0%	6.2%	8.1%	10.1%	Mar-16

### Annualized Performance (Net of Fees)

Market Value: \$5,303.5 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
U.S. Equity Composite	-1.7%	-0.5%	-0.5%	10.5%	13.9%	15.9%	9.1%	9.6%	12.1%	11.5%	9.5%	9.7%	Jul-88
Russell 3000	-2.0%	-0.6%	-0.6%	10.5%	13.8%	15.9%	10.2%	10.8%	13.0%	12.4%	9.6%	10.4%	Jul-88
Rhumbline Russell 1000 Index	-2.3%	-0.6%	-0.6%	10.6%	14.0%	15.9%	10.4%	10.9%	13.1%	12.3%	9.5%	7.7%	May-07
Rhumbline Russell 1000 Custom Benchmark	-2.3%	-0.6%	-0.6%	10.6%	14.1%	15.8%	10.4%	11.0%	13.2%				May-07
Aronson+Johnson+Ortiz LP	-0.6%	-2.9%	-2.9%	8.7%	10.1%	12.6%	6.1%	7.2%	10.5%	10.8%	8.4%	7.9%	May-01
Russell 1000 Value	-1.8%	-2.8%	-2.8%	5.5%	6.9%	12.9%	7.9%	8.2%	10.8%	11.0%	7.8%	6.8%	May-01
O'Shaughnessy Asset Management	-1.8%	-0.3%	-0.3%	14.0%	19.6%	16.6%	8.4%	8.5%	13.6%			15.1%	Jun-12
Russell 1000 Value	-1.8%	-2.8%	-2.8%	5.5%	6.9%	12.9%	7.9%	8.2%	10.8%	11.0%	7.8%	13.1%	Jun-12
Rhumbline MidCap Index	0.1%	-0.5%	-0.5%	9.2%	12.2%							14.0%	Dec-16
Rhumbline Russell Mid Cap Custom Benchmark	0.1%	-0.5%	-0.5%	9.2%	12.2%							14.1%	Dec-16
Rhumbline Russell 2000 Index	1.3%	0.1%	0.1%	9.2%	12.1%							11.7%	Dec-16
Rhumbline Russell 2000 Custom Benchmark	1.3%	0.0%	0.0%	9.2%	11.9%							11.6%	Dec-16
Emerald Advisors	-0.7%	-1.8%	-1.8%	12.7%	19.9%	21.2%	9.3%	10.3%	14.9%	13.0%	12.7%	10.0%	Dec-04
Russell 2000 Growth	1.3%	2.3%	2.3%	13.6%	18.6%	20.8%	8.8%	9.6%	12.9%	11.3%	11.0%	9.0%	Dec-04
Fisher Asset Management	1.0%	-0.3%	-0.3%	7.3%	10.5%	18.1%	9.6%	9.6%	12.7%	10.6%		10.3%	May-08
Russell 2000 Value	1.2%	-2.6%	-2.6%	4.4%	5.1%	16.6%	7.9%	7.0%	10.0%	9.4%	8.6%	8.3%	May-08
Fiera Capital	1.2%	4.2%	4.2%	19.1%	23.4%	19.7%	8.8%	9.3%	13.2%	12.3%		15.6%	Dec-09
Russell 2500 Growth	0.8%	2.4%	2.4%	15.2%	19.9%	19.8%	9.1%	10.3%	13.4%	11.8%	11.2%	14.7%	Dec-09
Ariel	-2.1%	1.1%	1.1%	8.8%	9.5%	14.7%						17.5%	Jan-16
Russell 2500 Value	1.1%	-2.7%	-2.7%	5.4%	5.7%	14.1%	7.3%	7.1%	9.9%	9.9%	9.3%	18.1%	Jan-16
Non-U.S. Equity Developed Composite	-1.5%	-2.0%	-2.0%	8.2%	14.4%	13.3%	5.1%	3.1%	5.7%	4.6%	2.5%	5.8%	Jan-89
MSCI EAFE	-1.8%	-1.5%	-1.5%	8.2%	14.8%	13.2%	5.6%	3.9%	6.5%	5.3%	2.7%	4.7%	Jan-89
Causeway Capital Management	-1.2%	-3.9%	-3.9%	8.2%	13.6%	13.1%	4.7%	3.3%	7.2%			9.7%	Nov-11
MSCI EAFE	-1.8%	-1.5%	-1.5%	8.2%	14.8%	13.2%	5.6%	3.9%	6.5%	5.3%	2.7%	8.5%	Nov-11
Northern Trust MSCI EAFE+Canada	-1.7%	-1.8%	-1.8%	7.9%	14.4%	13.0%	5.5%	3.8%	6.1%	4.9%	3.4%	3.2%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	-1.7%	-1.8%	-1.8%	7.9%	14.4%	13.4%	5.8%	4.4%	7.0%	5.7%	3.3%	2.8%	Mar-07
Northern Trust International Small Cap													Mar-18
MSCI World ex USA Small Cap	-1.1%	-0.5%	-0.5%	12.9%	21.2%	16.3%	11.3%	7.0%	9.7%	7.3%	5.8%		Mar-18

### Annualized Performance (Net of Fees)

Market Value: \$5,303.5 Million and 100.0% of Fund

### Ending March 31, 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	0.0%	0.0%	0.0%									2.5%	Nov-17
MSCI World ex USA Small Cap	-1.1%	-0.5%	-0.5%	12.9%	21.2%	16.3%	11.3%	7.0%	9.7%	7.3%	5.8%	2.4%	Nov-17
Investors Group	-1.5%	0.2%	0.2%									3.5%	Nov-17
MSCI EAFE Small Cap	-1.1%	0.2%	0.2%	14.2%	23.5%	17.1%	12.3%	8.2%	11.1%	8.7%	6.5%	2.9%	Nov-17
Non-U.S. Equity Emerging Composite	-1.8%	2.1%	2.1%	19.0%	27.3%	21.2%	9.5%	6.7%	5.5%	1.6%		11.0%	Jan-09
MSCI Emerging Markets	-1.9%	1.4%	1.4%	17.6%	24.9%	21.0%	8.8%	6.7%	5.0%	2.5%	3.0%	11.6%	Jan-09
Rhumbline Emerging Markets Index	-1.8%	2.1%	2.1%	19.0%	27.3%	21.2%	9.4%	7.1%	5.3%			4.4%	Feb-13
MSCI Emerging Markets	-1.9%	1.4%	1.4%	17.6%	24.9%	21.0%	8.8%	6.7%	5.0%	2.5%	3.0%	4.2%	Feb-13

Investment Manager

### Annualized Performance (Net of Fees)

Market Value: \$5,303.5 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
Absolute Return	-0.7%	1.9%	1.9%	7.7%	10.7%	11.8%	4.6%	3.4%	4.7%	3.6%	3.0%	3.6%	Sep-05
HFRI Fund of Funds Composite Index	0.0%	0.9%	0.9%	5.4%	6.2%	6.2%	2.1%	2.9%	3.5%	2.7%	1.6%	2.7%	Sep-05
400 Capital Credit Opportunity Fund	0.0%	0.0%	0.0%	0.0%	3.6%	8.3%	1.6%	3.8%				4.6%	Jun-13
HFRI ED: Distressed/Restructuring Index	-0.3%	0.5%	0.5%	3.6%	4.1%	11.8%	3.9%	2.0%	4.0%	4.2%	4.4%	3.4%	Jun-13
HFRX Distressed Securities Index	-5.8%	-5.4%	-5.4%	-4.9%	-4.0%	8.9%	1.1%	0.2%	1.6%	0.0%	-3.0%	1.2%	Jun-13
Elizabeth Park Capital Management	-0.6%	2.2%	2.2%	8.9%	11.1%	20.6%	13.0%					11.4%	May-14
HFRX Event Driven Index	-2.2%	-4.8%	-4.8%	-3.1%	-1.5%	6.8%	1.1%	-0.6%	1.7%	1.7%	1.0%	-0.6%	May-14
Archview Offshore Fund. LTD	-2.0%	1.3%	1.3%	7.9%	8.5%	11.1%	1.2%	1.6%				1.8%	Mar-14
HFRI ED: Distressed/Restructuring Index	-0.3%	0.5%	0.5%	3.6%	4.1%	11.8%	3.9%	2.0%	4.0%	4.2%	4.4%	2.1%	Mar-14
Real Assets Composite	1.6%	-1.9%	-1.9%	1.4%	2.0%	8.8%	1.1%	2.7%	4.7%			6.0%	Dec-12
Real Assets Benchmark	1.1%	-2.8%	-2.8%	0.3%	-1.2%	9.4%	-4.5%	-2.3%	-0.4%			1.3%	Dec-12
Real Assets - Public Real Estate Composite	3.7%	-6.6%	-6.6%	-3.2%	-1.0%	2.0%	2.9%	7.8%	6.8%			7.5%	Jan-13
FTSE NAREIT All Equity REIT Custom Benchmark	3.7%	-6.7%	-6.7%	-3.3%	-1.1%	2.0%	2.9%	7.5%					Jan-13
Rhumbline FTSE NAREIT	3.7%	-6.6%	-6.6%	-3.2%	-1.0%	2.0%	2.9%	7.5%				5.6%	May-13
FTSE NAREIT All Equity REIT Custom Benchmark	3.7%	-6.7%	-6.7%	-3.3%	-1.1%	2.0%	2.9%	7.5%				5.6%	May-13
Real Assets - Open-End Real Estate Composite	2.0%	2.0%	2.0%	5.3%	6.3%							6.4%	Jan-17
NFI	0.0%	0.0%	0.0%	3.5%	5.0%	6.2%	8.3%	9.3%	10.0%	10.5%	4.0%	5.2%	Jan-17
UBS Trumbull Fund	1.9%	1.9%	1.9%	5.2%	6.2%							6.4%	Jan-17
NFI	0.0%	0.0%	0.0%	3.5%	5.0%	6.2%	8.3%	9.3%	10.0%	10.5%	4.0%	5.2%	Jan-17
Clarion Lion Properties Fund	2.4%											2.4%	Feb-18
NFI	0.0%	0.0%	0.0%	3.5%	5.0%	6.2%	8.3%	9.3%	10.0%	10.5%	4.0%	0.0%	Feb-18
Real Assets - Infrastructure Composite	1.3%	-5.0%	-5.0%	-1.1%	2.7%							2.7%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	1.1%	-5.3%	-5.3%	-1.6%	2.0%	6.8%	2.2%	4.0%	5.7%	8.4%	7.1%	2.0%	Mar-17
Rhumbline Infrastructure Index	1.3%	-5.1%	-5.1%	-1.1%	2.7%							2.7%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	1.1%	-5.3%	-5.3%	-1.6%	2.0%	6.8%	2.2%	4.0%	5.7%	8.4%	7.1%	2.0%	Mar-17
Rreef Global Infrastructure													Mar-18
Dow Jones Brookfield Global Infrastructure Index	1.1%	-5.3%	-5.3%	-1.6%	2.0%	6.8%	2.2%	4.0%	5.7%	8.4%	7.1%		Mar-18

### Annualized Performance (Net of Fees)

Market Value: \$5,303.5 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%	0.0%	3.5%	5.0%	7.5%	8.3%	9.1%	10.7%	10.2%	1.8%	3.7%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	0.0%	3.5%	5.0%	7.5%	8.3%	9.1%	10.7%				<i>May-</i> 06
Real Assets - Private Energy/Infrastructure Composite	0.0%	0.0%	0.0%	4.5%	12.7%	13.0%	-6.1%	-5.4%	3.7%			2.8%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	0.0%	0.0%	4.5%	12.7%	13.0%	-6.1%	-5.4%	3.7%			2.8%	May-12
Private Assets Composite	0.0%	0.0%	0.0%	1.6%	4.0%	7.0%	6.5%		-			-	Mar-87