

(Preliminary Subject to Change)



Employees Retirement System

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

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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		5,078,196,924	-105,992,413	100.0	100.0	0
Total Fund w/o Alternative Assets		4,179,619,773	-74,430,600	82.3	79.4	147,531,415
Investment Grade Fixed Income Composite		696,830,585	-219	13.7	19.0	-268,026,830
Brandywine Global Investment Management	Global Fixed Income	171,812,483	0	3.4		
Garcia Hamilton & Associates	Int. Govt. Fixed Income	163,451,808	0	3.2		
Logan Circle	Core Plus Fixed Income	43,851,254	-219	0.9		
Longfellow	Core Plus Fixed Income	155,588,358	0	3.1		
Rhumbline Core Bond Index	Core Fixed Income	162,126,683	0	3.2		
Opportunistic Fixed Income Composite		335,487,626	-7,478,400	6.6	7.5	-45,377,143
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	24,359,908	-1,454,545	0.5		
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	36,696,402	-2,417,445	0.7		
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	100,434,495	-3,426,140	2.0		
Logan Circle - EMD	EM Fixed Income	74,654,528	-50,000	1.5		
Strategic Income Management	High Yield Fixed Income	99,066,861	0	2.0		
U.S. Equity Composite		1,683,734,654	-25,000,000	33.2	29.8	170,431,970
Rhumbline Russell 1000 Index	Large-Cap Core	1,179,058,194	-25,000,000	23.2		
Aronson+Johnson+Ortiz LP	Large-Cap Value	46,847,482	0	0.9		
O'Shaughnessy Asset Management	Large-Cap Value	29,495,449	0	0.6		
Rhumbline MidCap Index	Mid-Cap Core	172,171,109	0	3.4		
Rhumbline Russell 2000 Index	Small-Cap Core	40,853,577	0	0.8		
Emerald Advisors	Small-Cap Growth	75,102,063	0	1.5		
Fisher Asset Management	Small-Cap Value	56,396,429	0	1.1		
Fiera Capital	Smid-Cap Growth	26,719,248	0	0.5		
Ariel	Smid-Cap Value	57,047,688	0	1.1		
Non-U.S. Equity Developed Composite		1,088,751,908	25,142,639	21.4	16.8	235,614,825
Causeway Capital Management	Non-U.S. Large-Cap Core	202,598,622	-49,857,361	4.0		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	800,962,012	0	15.8		
Strategic Global Advisors	Non-U.S. Small-Cap Core	26,997,110	25,000,000	0.5		
Investors Group	Non-U.S. Small-Cap Core	54,019,929	50,000,000	1.1		
Non-U.S. Equity Emerging Composite		299,314,730	0	5.9	5.2	35,248,490
Rhumbline Emerging Markets Index	Emerging Markets	299,311,231	0	5.9		

Total Fund Composite

Market Value 3 Mo Net % of Policy Difference Asset Class Policy % Cash Flows (\$) Portfolio (\$) (\$) **Cash Composite** 75,500,269 -67,094,620 1.5 1.1 19,640,103 Cash Cash & Equivalents 74,760,967 -67,079,626 1.5 **Directed Commissions** Cash & Equivalents 739,302 -14,994 0.0 Absolute Return 39,957,995 0.5 14,567,011 -2,478,001 0.8 **Relative Value Hedge** 400 Capital Credit Opportunity Fund 0 2,834,858 0.1 Fund Elizabeth Park Capital Management Long/Short Hedge Fund 30,862,703 0 0.6 Archview Offshore Fund. LTD Credit Hedge Fund 5,730,577 -2,478,001 0.1 Real Assets Composite 446,378,101 9.1 -15,737,819 -9,923,148 8.8 **Real Assets - Public Real Estate Composite** 95,037,026 0 1.9 1.4 23,942,269 Rhumbline FTSE NAREIT **Real Assets** 95,037,026 0 1.9 1.7 40,944,555 Real Assets - Open-End Real Estate Composite 127,273,903 -1,313,767 2.5 **UBS Trumbull Fund** Core Real Estate 127,273,903 -1,313,767 2.5 **Real Assets - Infrastructure Composite** 0 2.1 3.4 -65,932,631 106,726,065 Publicly-Traded Rhumbline Infrastructure Index 106,726,065 0 2.1 Infrastructure Real Assets - Private Real Estate Composite 110,609,519 -9,072,110 2.2 2.6 -21,423,601 Real Assets - Private Energy/Infrastructure 0.1 6,731,589 462,728 ---6,731,589 Composite 412.241.055 -19,160,665 8.1 11.0 -146,360,607 **Private Assets Composite** Private Assets - Private Equity U.S. Private Equity FoF 400,506,258 -15,403,110 7.9 Private Assets - Private Debt Mezz. Private Equity 11,734,797 -3,757,554 0.2

Ending January 31, 2018

Investment Manager

Annualized Performance (Net of Fees)

					Endin	g Janu	ary 31,	2018	,			Incep	otion
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Total Fund Composite	3.1%	5.6%	3.1%	10.6%	17.2%	15.2%	7.6%	7.1%	7.7%	7.5%	5.8%	7.7%	Jul-88
Total Fund Policy Benchmark	2.7%	4.6%	2.7%	9.0%	14.5%	14.8%	7.8%	7.6%	8.0%	7.6%	6.8%	8.5%	Jul-88
Total Fund w/o Alternative Assets	3.8%	6.8%	3.8%	12.7%	20.2%	16.8%	8.2%	7.5%				7.5%	Jan-14
Investment Grade Fixed Income Composite	0.3%	1.0%	0.3%	1.9%	5.1%	4.0%	1.3%	2.7%	1.8%	3.3%	3.9%	6.2%	Jul-88
BBgBarc US Aggregate TR	-1.2%	-0.8%	-1.2%	0.1%	2.1%	1.8%	1.1%	2.5%	2.0%	3.0%	3.7%	6.3%	Jul-88
Brandywine Global Investment Management	4.4%	6.6%	4.4%	7.5%	15.0%	10.5%	3.7%	4.9%	2.9%	5.4%		8.2%	Jan-09
Citi WGBI	1.6%	3.2%	1.6%	4.6%	8.2%	4.6%	2.4%	1.3%	0.7%	1.4%	2.5%	2.5%	Jan-09
Garcia Hamilton & Associates	-0.7%	-0.6%	-0.7%	-0.2%	1.3%	1.1%	1.3%	2.4%	2.2%	3.3%	4.5%	5.2%	Aug-00
BBgBarc US Govt/Credit Int TR	-0.9%	-1.1%	-0.9%	-0.5%	1.0%	1.0%	0.9%	1.6%	1.4%	2.3%	3.0%	4.4%	Aug-00
Logan Circle	-0.8%	-0.4%	-0.8%	1.0%	3.8%	3.7%	2.0%					2.6%	Oct-14
BBgBarc US Aggregate TR	-1.2%	-0.8%	-1.2%	0.1%	2.1%	1.8%	1.1%	2.5%	2.0%	3.0%	3.7%	2.0%	Oct-14
Longfellow	-1.0%	-0.5%	-1.0%	0.6%	2.9%	2.2%	1.7%					2.4%	Sep-14
BBgBarc US Aggregate TR	-1.2%	-0.8%	-1.2%	0.1%	2.1%	1.8%	1.1%	2.5%	2.0%	3.0%	3.7%	2.2%	Sep-14
Rhumbline Core Bond Index	-1.2%	-0.9%	-1.2%	-0.1%	2.0%	1.4%	0.8%	2.2%	1.6%	2.7%	3.5%	4.0%	Jun-07
BBgBarc US Aggregate TR	-1.2%	-0.8%	-1.2%	0.1%	2.1%	1.8%	1.1%	2.5%	2.0%	3.0%	3.7%	4.2%	Jun-07
Opportunistic Fixed Income Composite	0.8%	2.0%	0.8%	4.4%	7.6%	9.2%	4.0%	3.5%	3.8%			4.0%	Dec-12
Opportunistic Fixed Income Benchmark	0.8%	1.1%	0.8%	3.1%	5.6%	10.7%	5.5%	4.6%	4.8%	5.6%		5.0%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	-2.2%	0.0%	0.0%	-4.0%	-1.2%	-5.8%	-6.8%				-4.7%	May-13
50% BarCap HY / 50% CSFB Lev Loans	0.8%	1.1%	0.8%	3.2%	5.7%	10.7%	5.6%	4.7%	5.0%	5.7%	6.7%	4.8%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	0.9%	0.0%	3.9%	4.5%	6.6%	3.7%	3.8%				3.7%	Dec-13
Actuarial Rate 7.70%	0.6%	1.9%	0.6%	4.4%	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%	2.2%	0.0%	2.9%	8.9%	9.8%	5.5%	4.7%	6.3%			6.8%	Jun-12
Actuarial Rate 7.70%	0.6%	1.9%	0.6%	4.4%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	2.0%	3.2%	2.0%	7.0%	13.2%	15.5%						8.3%	Feb-15
JP Morgan EMBI Global TR	-0.2%	0.2%	-0.2%	2.7%	7.6%	9.8%	6.6%	6.7%	4.0%	6.5%	6.9%	6.4%	Feb-15
Strategic Income Management	1.1%	2.1%	1.1%	5.0%	7.3%							12.2%	Mar-16
BofA Merrill Lynch US High Yield Master II TR	0.6%	0.7%	0.6%	3.1%	6.7%	13.6%	6.4%	5.4%	5.6%	6.7%	8.1%	12.0%	Mar-16
U.S. Equity Composite	4.9%	9.3%	4.9%	16.5%	24.6%	23.1%	13.1%	12.4%	14.5%	13.1%	9.7%	9.9%	Jul-88
Russell 3000	5.3%	9.6%	5.3%	17.1%	25.2%	23.4%	14.1%	13.8%	15.5%	14.0%	9.8%	10.7%	Jul-88
Rhumbline Russell 1000 Index	5.5%	9.7%	5.5%	17.3%	25.8%	23.5%	14.3%	14.1%	15.7%	13.9%	9.8%	8.4%	May-07
Rhumbline Russell 1000 Custom Benchmark	5.5%	9.8%	5.5%	17.4%	25.9%	23.4%	14.3%	14.2%	15.8%				May-07

Annualized Performance (Net of Fees)

										,			
					Endin	g Janua	ary 31,	2018				Incep	otion
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Aronson+Johnson+Ortiz LP	3.4%	7.9%	3.4%	15.7%	18.9%	20.2%	10.3%	10.6%	13.2%	12.7%	8.4%	8.4%	May-01
Russell 1000 Value	3.9%	8.6%	3.9%	12.8%	17.2%	20.9%	11.5%	11.9%	13.5%	12.7%	8.0%	7.3%	May-01
O'Shaughnessy Asset Management	5.9%	13.5%	5.9%	21.1%	30.2%	25.4%	12.1%	12.1%	16.6%			16.9%	Jun-12
Russell 1000 Value	3.9%	8.6%	3.9%	12.8%	17.2%	20.9%	11.5%	11.9%	13.5%	12.7%	8.0%	14.8%	Jun-12
Rhumbline MidCap Index	3.7%	8.3%	3.7%	13.9%	20.1%							20.9%	Dec-16
Rhumbline Russell Mid Cap Custom Benchmark	3.7%	8.3%	3.7%	13.9%	20.1%							21.0%	Dec-16
Rhumbline Russell 2000 Index	2.7%	5.2%	2.7%	12.1%	17.5%							16.4%	Dec-16
Rhumbline Russell 2000 Custom Benchmark	2.7%	5.2%	2.7%	12.2%	17.3%							16.3%	Dec-16
Emerald Advisors	2.0%	8.0%	2.0%	17.2%	28.8%	26.2%	14.9%	11.2%	17.8%	15.6%	12.7%	10.5%	Dec-04
Russell 2000 Growth	3.9%	7.0%	3.9%	15.4%	24.9%	25.9%	12.6%	10.6%	14.6%	13.0%	10.7%	9.2%	Dec-04
Fisher Asset Management	2.4%	4.0%	2.4%	10.1%	17.6%	24.5%	13.0%	12.0%	14.6%	12.2%		10.8%	May-08
Russell 2000 Value	1.2%	3.2%	1.2%	8.6%	10.0%	24.2%	11.6%	9.6%	12.0%	11.0%	8.8%	8.9%	May-08
Fiera Capital	5.0%	10.1%	5.0%	20.0%	29.5%	24.3%	11.5%	11.0%	14.3%	13.7%		16.1%	Dec-09
Russell 2500 Growth	5.0%	8.7%	5.0%	18.1%	27.6%	26.1%	13.3%	11.8%	15.1%	13.6%	11.1%	15.4%	Dec-09
Ariel	6.3%	13.7%	6.3%	14.4%	20.2%	22.1%						22.1%	Jan-16
Russell 2500 Value	1.3%	5.0%	1.3%	9.6%	11.1%	22.1%	10.7%	9.8%	12.1%	11.5%	9.4%	22.1%	Jan-16
Non-U.S. Equity Developed Composite	4.4%	7.4%	4.4%	15.3%	26.6%	19.5%	8.7%	5.9%	7.0%	5.8%	3.2%	6.0%	Jan-89
MSCI EAFE	5.0%	7.8%	5.0%	15.4%	27.6%	19.6%	9.4%	6.8%	7.8%	6.4%	3.4%	5.0%	Jan-89
Causeway Capital Management	3.3%	6.9%	3.3%	16.4%	28.1%	19.0%	8.5%	6.2%	8.6%			11.3%	Nov-11
MSCI EAFE	5.0%	7.8%	5.0%	15.4%	27.6%	19.6%	9.4%	6.8%	7.8%	6.4%	3.4%	9.8%	Nov-11
Northern Trust MSCI EAFE+Canada	4.6%	7.6%	4.6%	15.0%	26.3%	19.7%	9.2%	6.7%	7.4%	6.2%	4.1%	3.9%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	4.6%	7.6%	4.6%	15.0%	26.5%	20.1%	9.6%	7.4%	8.4%	6.9%	4.0%	3.5%	Mar-07
Strategic Global Advisors	4.3%		4.3%									8.0%	Nov-17
MSCI World ex USA Small Cap	4.7%	9.2%	4.7%	18.8%	32.4%	24.4%	15.0%	9.8%	11.3%	8.4%	6.7%	7.7%	Nov-17
Investors Group	4.6%		4.6%									8.0%	Nov-17
MSCI EAFE Small Cap	5.1%	9.6%	5.1%	19.8%	35.0%	24.5%	16.1%	10.9%	12.8%	9.8%	7.4%	7.9%	Nov-17
Non-U.S. Equity Emerging Composite	9.0%	13.4%	9.0%	27.0%	43.2%	33.1%	12.5%	9.8%	6.3%	3.0%		12.0%	Jan-09
MSCI Emerging Markets	8.3%	12.4%	8.3%	25.6%	41.0%	33.0%	11.8%	10.1%	5.7%	4.1%	3.9%	12.7%	Jan-09
Rhumbline Emerging Markets Index	9.0%	13.4%	9.0%	27.0%	43.2%	33.1%	12.4%	10.6%	6.0%			6.0%	Feb-13
MSCI Emerging Markets	8.3%	12.4%	8.3%	25.6%	41.0%	33.0%	11.8%	10.1%	5.7%	4.1%	3.9%	5.7%	Feb-13

Investment Manager

Annualized Performance (Net of Fees)

Absolute Return HFRI Fund of Funds Composite Index 400 Capital Credit Opportunity Fund HFRI ED: Distressed/Restructuring Index HFRX Distressed Securities Index	1 Mo 3.4% 2.4% 0.0% 1.3% 1.5% 4.0% 1.8%	3 Mo 5.6% 3.2% 0.0% 3.1% 2.9%	YTD 3.4% 2.4% 0.0% 1.3% 1.5%	Fiscal YTD 9.3% 6.8% 0.0% 4.8%	1 Yr 12.9% 9.1% 5.9%	2 Yrs 11.5% 6.7% 6.1%	3 Yrs 5.4% 3.3%	4 Yrs 4.5% 3.5%	5 Yrs 5.5% 4.0%	7 Yrs 4.0% 3.0%	10 Yrs 3.1% 1.6%		Since Sep-05
 HFRI Fund of Funds Composite Index 400 Capital Credit Opportunity Fund HFRI ED: Distressed/Restructuring Index 	2.4% 0.0% 1.3% 1.5% 4.0%	3.2% 0.0% 3.1%	2.4% 0.0% 1.3%	6.8% 0.0%	9.1%	6.7%							
400 Capital Credit Opportunity Fund HFRI ED: Distressed/Restructuring Index	0.0% 1.3% 1.5% 4.0%	0.0% 3.1%	0.0% 1.3%	0.0%			3.3%	3.5%	4.0%	3.0%	1.6%	2.0%	Son_05
HFRI ED: Distressed/Restructuring Index	1.3% 1.5% 4.0%	3.1%	1.3%		5.9%	6 1%						2.370	0ep-00
Index	1.5% 4.0%			4.8%		0.170	2.3%	4.4%				4.8%	Jun-13
HERY Distressed Securities Index	4.0%	2.9%	1 50/		6.0%	13.3%	5.2%	3.0%	4.7%	4.6%	4.4%	3.8%	Jun-13
The Tox Distressed Securities index			1.570	2.1%	4.3%	13.9%	4.2%	2.6%	3.2%	1.0%	-2.4%	2.7%	Jun-13
Elizabeth Park Capital Management	1.8%	6.2%	4.0%	10.8%	14.0%	20.8%	15.6%					12.5%	May-14
HFRX Event Driven Index	1.070	1.8%	1.8%	3.6%	7.2%	11.9%	4.4%	1.7%	3.4%	2.9%	1.7%	1.2%	May-14
Archview Offshore Fund. LTD	2.7%	5.9%	2.7%	9.3%	8.2%	9.4%	2.4%					2.2%	Mar-14
HFRI ED: Distressed/Restructuring Index	1.3%	3.1%	1.3%	4.8%	6.0%	13.3%	5.2%	3.0%	4.7%	4.6%	4.4%	2.5%	Mar-14
Real Assets Composite	-0.6%	0.7%	-0.6%	1.9%	4.3%	11.5%	1.7%	4.1%	5.7%			6.3%	Dec-12
Real Assets Benchmark	-0.7%	0.3%	-0.7%	1.4%	-1.1%	11.0%	-4.2%	-1.5%	0.5%			1.6%	Dec-12
Real Assets - Public Real Estate Composite	-2.9%	-0.6%	-2.9%	0.6%	5.3%	9.0%	3.5%	9.8%	8.6%			8.6%	Jan-13
FTSE NAREIT All Equity REIT	-2.9%	-0.7%	-2.9%	0.6%	5.3%	9.0%	3.5%	9.9%	8.4%	9.9%	7.6%	8.4%	Jan-13
Rhumbline FTSE NAREIT	-2.9%	-0.6%	-2.9%	0.6%	5.3%	9.0%	3.6%	9.9%				6.7%	May-13
FTSE NAREIT All Equity REIT	-2.9%	-0.7%	-2.9%	0.6%	5.3%	9.0%	3.5%	9.9%	8.4%	9.9%	7.6%	6.5%	May-13
Real Assets - Open-End Real Estate Composite	0.0%	2.2%	0.0%	3.3%	5.5%							5.5%	Jan-17
NFI	0.0%	1.2%	0.0%	3.5%	6.1%	6.9%	9.0%	9.7%	10.3%	10.8%	4.0%	6.1%	Jan-17
UBS Trumbull Fund	0.0%	2.2%	0.0%	3.3%	5.5%							5.5%	Jan-17
NFI	0.0%	1.2%	0.0%	3.5%	6.1%	6.9%	9.0%	9.7%	10.3%	10.8%	4.0%	6.1%	Jan-17
Real Assets - Infrastructure Composite	0.0%	0.8%	0.0%	4.2%								8.2%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	0.0%	0.6%	0.0%	3.8%	14.3%	14.4%	3.9%	6.8%	7.8%	10.1%	7.5%	7.7%	Mar-17
Rhumbline Infrastructure Index	0.0%	0.8%	0.0%	4.2%								8.2%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	0.0%	0.6%	0.0%	3.8%	14.3%	14.4%	3.9%	6.8%	7.8%	10.1%	7.5%	7.7%	Mar-17
Real Assets - Private Real Estate Composite	0.0%	0.0%	0.0%	0.1%	4.5%	5.7%	8.5%	9.5%	10.5%	10.2%	1.4%	3.5%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	0.0%	0.1%	4.5%	5.7%	8.5%	9.5%	10.5%				May-06
Real Assets - Private Energy/Infrastructure Composite	0.0%	2.4%	0.0%	4.5%	7.0%	6.5%	-6.2%	1.0%	4.5%	-		2.9%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	2.4%	0.0%	4.5%	7.0%	6.5%	-6.2%	1.0%	4.5%			2.9%	May-12
Private Assets Composite	0.0%	0.0%	0.0%	1.6%	6.0%	8.0%	7.4%	-					Mar-87