

(Preliminary Subject to Change)



Employees Retirement System

City of Philadelphia
Employees Retirement System
Executive Summary

September 30, 2017

Total Fund Composite

Market Value: \$4,786.9 Million and 100.0% of Fund

Ending September 30, 2017

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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)				
Total Fund Composite		4,786,930,967	-178,842,197	100.0	100.0	0				
Total Fund w/o Alternative Assets		3,884,417,135	-108,539,694	81.1	79.4	83,593,947				
Investment Grade Fixed Income Composite		692,524,232	-3,589,210	14.5	19.0	-216,992,651				
Brandywine Global Investment Management	Global Fixed Income	164,586,345	-3,500,000	3.4						
Garcia Hamilton & Associates	Int. Govt. Fixed Income	164,329,721	0	3.4						
Logan Circle	Core Plus Fixed Income	43,923,187	0	0.9						
Longfellow	Core Plus Fixed Income	156,084,500	-89,210	3.3						
Rhumbline Core Bond Index	Core Fixed Income	163,600,480	0	3.4						
Opportunistic Fixed Income Composite		342,789,624	-42,534,103	7.2	7.5	-16,230,199				
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	26,973,517	-6,272,727	0.6						
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	37,699,913	-8,373,649	0.8						
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	109,129,887	-1,891,096	2.3						
Logan Circle - EMD	EM Fixed Income	72,515,453	-8,500,000	1.5						
Strategic Income Management	High Yield Fixed Income	96,271,507	-17,500,000	2.0						
U.S. Equity Composite		1,531,853,312	-49,996,899	32.0	29.8	105,347,884				
Rhumbline Russell 1000 Index	Large-Cap Core	1,074,871,419	-42,000,000	22.5						
Rhumbline Russell 2000 Index	Small-Cap Core	38,526,265	0	0.8						
Aronson+Johnson+Ortiz LP	Large-Cap Value	42,414,718	28,428	0.9						
O'Shaughnessy Asset Management	Large-Cap Value	25,600,913	-4,500,000	0.5						
Rhumbline MidCap Index	Mid-Cap Core	156,411,892	0	3.3						
Apex Capital Management	Smid-Cap Growth	23,342,565	0	0.5						
Emerald Advisors	Small-Cap Growth	68,229,334	0	1.4						
Fisher Asset Management	Small-Cap Value	52,715,365	-3,500,000	1.1						
Ariel	Smid-Cap Value	49,705,377	0	1.0						
Non-U.S. Equity Developed Composite		976,312,892	-13,080,654	20.4	16.8	172,108,489				
Causeway Capital Management	Non-U.S. Large-Cap Core	237,155,876	-10,000,000	5.0						
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	734,969,313	-3,000,000	15.4						
Non-U.S. Equity Emerging Composite		255,605,565	-25,029,715	5.3	5.2	6,685,154				
Rhumbline Emerging Markets Index	Emerging Markets	255,602,509	-25,000,000	5.3						
Cash Composite		85,331,510	25,668,004	1.8	1.1	32,675,270				
Cash	Cash & Equivalents	84,576,062	25,682,877	1.8						
Directed Commissions	Cash & Equivalents	755,448	-14,874	0.0						

Total Fund Composite

Market Value: \$4,786.9 Million and 100.0% of Fund

Ending September 30, 2017

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Absolute Return		47,731,270	-20,238,483	1.0	0.5	23,796,615
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	2,834,858	-12,840,012	0.1		
Elizabeth Park Capital Management	Long/Short Hedge Fund	28,932,910	0	0.6		
Archview Offshore Fund. LTD	Credit Hedge Fund	15,433,645	-7,398,470	0.3		
Real Assets Composite		434,841,922	-44,086,835	9.1	9.1	-768,796
Real Assets - Public Real Estate Composite		95,480,787	-17,500,000	2.0	1.4	28,463,754
Rhumbline FTSE NAREIT	Real Assets	95,480,787	-17,500,000	2.0		
Real Assets - Open-End Real Estate Composite		101,682,203	-1,052,331	2.1	1.7	20,304,376
UBS Trumbull Fund	Core Real Estate	101,682,203	-1,052,331	2.1		
Real Assets - Infrastructure Composite		105,969,186	24,991,188	2.2	3.4	-56,786,467
Rhumbline Infrastructure Index	Publicly-Traded Infrastructure	105,969,186	25,000,000	2.2		
Real Assets - Private Real Estate Composite		125,718,561	-15,675,223	2.6	2.6	1,258,356
Real Assets - Private Energy/Infrastructure Composite		5,991,185	0	0.1		5,991,185
Private Assets Composite		419,940,640	-5,977,185	8.8	11.0	-106,621,766
Private Assets - Private Equity	U.S. Private Equity FoF	405,196,180	-5,897,231	8.5		
Private Assets - Private Debt	Mezz. Private Equity	14,744,460	-79,954	0.3		

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$4,786.9 Million and 100.0% of Fund

Ending September 30, 2017

Inception

	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	1.4%	3.5%	11.2%	3.5%	12.3%	9.8%	4.8%	6.1%	7.1%	7.3%	4.6%	7.6%	Jul-88
Total Fund Policy Benchmark	1.2%	2.8%	9.2%	2.8%	10.7%	10.0%	5.6%	6.7%	7.6%	7.8%	5.7%	8.4%	Jul-88
Total Fund w/o Alternative Assets	1.7%	4.2%	13.3%	4.2%	14.0%	11.5%	5.2%					5.9%	Jan-14
Investment Grade Fixed Income Composite	-0.4%	1.3%	5.2%	1.3%	1.6%	4.0%	2.0%	2.7%	1.8%	3.0%	4.4%	6.2%	Jul-88
BBgBarc US Aggregate TR	-0.5%	0.8%	3.1%	0.8%	0.1%	2.6%	2.7%	3.0%	2.1%	3.0%	4.3%	6.4%	Jul-88
Brandywine Global Investment Management	-0.4%	3.1%	12.7%	3.1%	5.9%	8.2%	2.9%	3.6%	2.8%	4.6%		8.0%	Jan-09
Citi WGBI	-1.2%	1.8%	6.4%	1.8%	-2.7%	3.3%	0.9%	0.6%	-0.4%	0.8%	3.0%	2.3%	Jan-09
Garcia Hamilton & Associates	-0.4%	0.4%	2.0%	0.4%	0.4%	2.2%	2.6%	3.0%	2.6%	3.4%	5.1%	5.4%	Aug-00
BBgBarc US Govt/Credit Int TR	-0.5%	0.6%	2.3%	0.6%	0.2%	1.9%	2.1%	2.1%	1.6%	2.3%	3.6%	4.5%	Aug-00
Logan Circle	-0.3%	1.2%	4.5%	1.2%	1.6%	3.9%	3.2%					3.0%	Oct-14
BBgBarc US Aggregate TR	-0.5%	0.8%	3.1%	0.8%	0.1%	2.6%	2.7%	3.0%	2.1%	3.0%	4.3%	2.4%	Oct-14
Longfellow	-0.5%	1.0%	3.6%	1.0%	1.1%	2.9%	2.8%	-				2.8%	Sep-14
BBgBarc US Aggregate TR	-0.5%	0.8%	3.1%	0.8%	0.1%	2.6%	2.7%	3.0%	2.1%	3.0%	4.3%	2.7%	Sep-14
Rhumbline Core Bond Index	-0.5%	0.8%	3.2%	0.8%	-0.2%	2.2%	2.3%	2.7%	1.6%	2.6%	4.1%	4.2%	Jun-07
BBgBarc US Aggregate TR	-0.5%	0.8%	3.1%	0.8%	0.1%	2.6%	2.7%	3.0%	2.1%	3.0%	4.3%	4.4%	Jun-07
Opportunistic Fixed Income Composite	0.7%	2.0%	5.8%	2.0%	6.3%	5.5%	2.3%	3.8%		-	-	3.8%	Dec-12
Opportunistic Fixed Income Benchmark	0.6%	1.5%	5.0%	1.5%	7.1%	8.1%	4.9%	5.0%	5.2%	6.1%		5.0%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	4.5%	0.3%	4.5%	-2.0%	-3.3%	-7.9%	-4.9%				-4.0%	May-13
50% BarCap HY / 50% CSFB Lev Loans	0.7%	1.5%	5.0%	1.5%	7.1%	8.1%	4.9%	5.1%	5.4%	6.2%	6.2%	4.8%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	0.3%	1.2%	0.3%	3.0%	1.6%	1.3%		-	-		3.1%	Dec-13
Actuarial Rate 7.70%	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%	0.3%	6.3%	0.3%	6.4%	7.3%	3.8%	5.1%	6.4%			6.7%	Jun-12
Actuarial Rate 7.70%	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	0.5%	4.0%	12.3%	4.0%	9.9%	13.9%						8.2%	Feb-15
JP Morgan EMBI Global TR	0.0%	2.4%	8.7%	2.4%	4.2%	10.3%	6.1%	6.6%	4.3%	6.1%	7.3%		Feb-15
Strategic Income Management	1.8%	2.2%	6.0%	2.2%	9.1%							13.2%	Mar-16
BofA Merrill Lynch US High Yield Master II TR	0.9%	2.0%	7.0%	2.0%	9.1%	10.9%	5.9%	6.2%	6.4%	7.3%	7.7%	14.1%	Mar-16

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$4,786.9 Million and 100.0% of Fund

Ending September 30, 2017

Inception

	Ending September 30, 2017 inception											ווטוו	
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
U.S. Equity Composite	2.6%	4.4%	13.8%	4.4%	18.8%	15.4%	9.7%	11.0%	13.3%	13.6%	7.4%	9.6%	Jul-88
Russell 3000	2.4%	4.6%	13.9%	4.6%	18.7%	16.8%	10.7%	12.5%	14.2%	14.3%	7.6%	10.4%	Jul-88
Rhumbline Russell 1000 Index	2.1%	4.5%	14.4%	4.5%	18.7%	16.9%	10.7%	12.6%	14.3%	14.1%	7.5%	7.5%	May-07
Rhumbline Russell 1000 Custom Benchmark	2.1%	4.6%	14.4%	4.6%	18.7%	16.8%	10.7%	12.7%	14.3%				<i>May-</i> 07
Rhumbline Russell 2000 Index	6.1%	5.7%	11.2%	5.7%								11.2%	Dec-16
Rhumbline Russell 2000 Custom Benchmark	6.1%	5.6%	10.9%	5.6%								10.9%	Dec-16
Aronson+Johnson+Ortiz LP	3.0%	4.8%	8.2%	4.8%	18.0%	11.9%	7.0%	9.6%	12.7%	13.1%	6.2%	7.9%	May-01
Russell 1000 Value	3.0%	3.1%	7.9%	3.1%	15.1%	15.7%	8.5%	11.0%	13.2%	13.2%	5.9%	6.8%	May-01
O'Shaughnessy Asset Management	3.5%	5.2%	13.7%	5.2%	20.4%	14.9%	6.9%	10.1%	14.5%			14.8%	Jun-12
Russell 1000 Value	3.0%	3.1%	7.9%	3.1%	15.1%	15.7%	8.5%	11.0%	13.2%	13.2%	5.9%	13.9%	Jun-12
Rhumbline MidCap Index	2.7%	3.4%	11.6%	3.4%								11.6%	Dec-16
Rhumbline Russell Mid Cap Custom Benchmark	2.7%	3.5%	11.7%	3.5%								11.7%	Dec-16
Apex Capital Management	3.0%	5.0%	16.8%	5.0%	16.8%	11.1%	6.6%	9.1%	13.2%	13.9%		14.8%	Dec-09
Russell 2500 Growth	4.2%	5.8%	17.0%	5.8%	20.1%	15.5%	11.3%	10.5%	14.5%	14.4%	8.7%	14.4%	Dec-09
Emerald Advisors	5.6%	6.7%	18.9%	6.7%	23.4%	13.3%	14.7%	11.1%	16.4%	16.7%	9.3%	9.9%	Dec-04
Russell 2000 Growth	5.4%	6.2%	16.8%	6.2%	21.0%	16.5%	12.2%	10.0%	14.3%	14.2%	8.5%	8.7%	Dec-04
Fisher Asset Management	4.3%	3.2%	11.4%	3.2%	23.4%	18.7%	13.5%	11.7%	14.9%	13.7%		10.4%	May-08
Russell 2000 Value	7.1%	5.1%	5.7%	5.1%	20.5%	19.7%	12.1%	10.1%	13.3%	12.8%	7.1%	8.9%	May-08
Ariel	3.2%	-0.2%	7.4%	-0.2%	14.4%		-					17.1%	Jan-16
Russell 2500 Value	4.8%	3.8%	5.9%	3.8%	15.7%	16.7%	9.9%	9.9%	13.3%	13.0%	7.6%	23.0%	Jan-16
Non-U.S. Equity Developed Composite	2.9%	6.0%	19.9%	6.0%	19.5%	12.3%	4.3%	4.2%	6.8%	5.8%	1.3%	5.8%	Jan-89
MSCI EAFE	2.5%	5.4%	20.0%	5.4%	19.1%	12.6%	5.0%	4.8%	8.4%	6.4%	1.3%	4.7%	Jan-89
Causeway Capital Management	4.4%	7.7%	21.8%	7.7%	22.2%	11.9%	4.6%	5.0%	8.9%				Nov-11
MSCI EAFE	2.5%	5.4%	20.0%	5.4%	19.1%	12.6%	5.0%	4.8%	8.4%	6.4%	1.3%	8.7%	Nov-11
Northern Trust MSCI EAFE+Canada	2.5%	5.5%	19.4%	5.5%	18.7%	12.9%	4.8%	4.6%	7.9%	6.3%	2.1%	3.2%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	2.5%	5.5%	19.5%	5.5%	18.9%	13.3%	5.2%	5.6%	8.9%	7.0%	2.0%	2.7%	Mar-07
Non-U.S. Equity Emerging Composite	0.4%	8.5%	29.4%	8.5%	22.9%	20.1%	5.4%	4.7%	2.8%	1.2%	-	10.5%	Jan-09
MSCI Emerging Markets	-0.4%	7.9%	27.8%	7.9%	22.5%	19.6%	4.9%	4.8%	4.0%	2.5%	1.3%	11.3%	Jan-09
Rhumbline Emerging Markets Index	0.4%	8.5%	29.4%	8.5%	22.9%	20.1%	5.6%	4.8%		-		2.9%	
MSCI Emerging Markets	-0.4%	7.9%	27.8%	7.9%	22.5%	19.6%	4.9%	4.8%	4.0%	2.5%	1.3%	2.8%	Feb-13

Investment Manager

Annualized Performance (Net of Fees)

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Ending September 30, 2017

Inception

	Ending September 30, 2017 Inception										otion		
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Absolute Return	3.6%	3.1%	7.4%	3.1%	13.4%	5.6%	2.6%	4.0%	4.6%	3.8%	2.4%	3.4%	Sep-05
HFRI Fund of Funds Composite Index	0.5%	2.3%	5.6%	2.3%	6.5%	3.4%	2.2%	3.2%	3.9%	2.9%	1.1%	2.6%	Sep-05
400 Capital Credit Opportunity Fund	0.0%	0.0%	7.1%	0.0%	10.6%	2.6%	2.6%	5.7%				5.2%	Jun-13
HFRI ED: Distressed/Restructuring Index	0.9%	1.7%	4.9%	1.7%	10.7%	8.1%	2.2%	3.4%	5.4%	5.1%	3.7%	3.4%	Jun-13
HFRX Distressed Securities Index	0.2%	-0.1%	2.4%	-0.1%	8.0%	7.0%	2.0%	2.4%	2.4%	1.5%	-2.7%	2.4%	Jun-13
Elizabeth Park Capital Management	4.4%	3.9%	8.5%	3.9%	25.1%	16.0%	13.7%					11.7%	May-14
HFRX Event Driven Index	0.8%	1.9%	6.6%	1.9%	10.5%	8.5%	1.4%	2.1%	4.0%	2.8%	0.9%	0.8%	May-14
Archview Offshore Fund. LTD	2.9%	2.7%	2.6%	2.7%	5.0%	2.2%	0.0%					0.7%	Mar-14
HFRI ED: Distressed/Restructuring Index	0.9%	1.7%	4.9%	1.7%	10.7%	8.1%	2.2%	3.4%	5.4%	5.1%	3.7%	1.9%	Mar-14
Real Assets Composite	-0.2%	1.2%	4.6%	1.2%	5.7%	8.5%	0.2%	5.1%	-			6.6%	Dec-12
Real Assets Benchmark	-0.3%	0.8%	0.9%	0.8%	3.4%	5.7%	-5.5%	-0.8%				1.6%	Dec-12
Real Assets - Public Real Estate Composite	-0.8%	1.1%	6.3%	1.1%	2.9%	11.6%	10.3%	10.8%	-		-	9.5%	Jan-13
FTSE NAREIT All Equity REIT	-0.8%	1.1%	6.0%	1.1%	2.6%	11.4%	10.2%	10.9%	10.0%	11.7%	6.1%	9.2%	Jan-13
Rhumbline FTSE NAREIT	-0.8%	1.1%	6.3%	1.1%	2.9%	11.6%	10.3%	11.0%				7.4%	May-13
FTSE NAREIT All Equity REIT	-0.8%	1.1%	6.0%	1.1%	2.6%	11.4%	10.2%	10.9%	10.0%	11.7%	6.1%	7.2%	May-13
Real Assets - Open-End Real Estate Composite	1.5%	1.3%		1.3%								3.4%	Jan-17
NFI	0.5%	1.6%	4.7%	1.6%	6.7%	7.9%	9.8%	10.2%	10.6%	11.5%	4.1%	4.2%	Jan-17
UBS Trumbull Fund	1.5%	1.3%	-	1.3%	-		-	-	-			3.4%	Jan-17
NFI	0.5%	1.6%	4.7%	1.6%	6.7%	7.9%	9.8%	10.2%	10.6%	11.5%	4.1%	4.2%	Jan-17
Real Assets - Infrastructure Composite	-1.3%	3.5%	-	3.5%	-	-	-	-	-	-	-	7.5%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	-1.0%	2.2%	12.4%	2.2%	7.4%	11.1%	2.5%	7.1%	8.4%	10.5%	7.3%	4.9%	Mar-17
Rhumbline Infrastructure Index	-1.3%	3.5%		3.5%								7.5%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	-1.0%	2.2%	12.4%	2.2%	7.4%	11.1%	2.5%	7.1%	8.4%	10.5%	7.3%	4.9%	Mar-17
Real Assets - Private Real Estate Composite	0.0%	0.0%	4.4%	0.0%	6.6%	8.7%	8.8%	10.5%	11.2%	11.4%	1.6%	3.6%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	4.4%	0.0%	6.6%	8.7%	8.8%	10.6%	11.3%				<i>May-</i> 06
Real Assets - Private Energy/Infrastructure Composite	0.0%	0.0%	2.4%	0.0%	6.3%	-5.7%	-18.4%	0.6%	3.0%		-	2.2%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	0.0%	2.4%	0.0%	6.3%	-5.7%	-18.4%	0.6%	3.0%			2.2%	May-12
Private Assets Composite	0.0%	0.0%	1.9%	0.0%	3.9%	5.7%				-			Mar-87