

(Preliminary Subject to Change)



**Employees Retirement System** 

City of Philadelphia Employees Retirement System Executive Summary March 31, 2017 Total Fund Composite

Ending	March 31	l, 2017
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		-		, 2011		
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		4,821,157,781	318,999,445	100.0	100.0	0
Total Fund w/o Alternative Assets		3,811,079,886	189,973,690	79.0	79.4	-16,919,392
Investment Grade Fixed Income Composite		672,584,862	0	14.0	19.0	-243,435,117
Brandywine Global Investment Management	Global Fixed Income	155,843,371	0	3.2		
Garcia Hamilton & Associates	Int. Govt. Fixed Income	162,177,129	0	3.4		
Logan Circle	Core Plus Fixed Income	42,548,839	0	0.9		
Longfellow	Core Plus Fixed Income	152,054,719	0	3.2		
Rhumbline Core Bond Index	Core Fixed Income	159,960,804	0	3.3		
Opportunistic Fixed Income Composite		381,455,836	-15,648,767	7.9	7.5	19,869,002
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	35,529,399	-11,727,274	0.7		
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	54,023,672	-49,336,400	1.1		
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	106,190,860	-4,205,542	2.2		
Logan Circle - EMD	EM Fixed Income	75,684,616	25,000,000	1.6		
Strategic Income Management	High Yield Fixed Income	109,841,664	25,000,000	2.3		
U.S. Equity Composite		1,470,093,043	44,337,548	30.5	29.8	33,388,024
Rhumbline Russell 1000 Index	Large-Cap Core	1,036,727,307	0	21.5		
Aronson+Johnson+Ortiz LP	Large-Cap Value	39,864,787	26,597	0.8		
O'Shaughnessy Asset Management	Large-Cap Value	27,314,268	0	0.6		
Rhumbline MidCap Index	Mid-Cap Core	147,239,857	0	3.1		
Apex Capital Management	Smid-Cap Growth	21,395,499	25,741	0.4		
Rhumbline Russell 2000 Index	Small-Cap Core	35,518,840	27,767	0.7		
Emerald Advisors	Small-Cap Growth	59,925,978	17,500,000	1.2		
Fisher Asset Management	Small-Cap Value	52,702,018	17,500,000	1.1		
Ariel	Smid-Cap Value	49,357,295	9,543,024	1.0		
Non-U.S. Equity Developed Composite		882,046,607	94,876,916	18.3	16.8	72,092,099
Causeway Capital Management	Non-U.S. Large-Cap Core	218,472,397	0	4.5		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	659,360,612	95,000,000	13.7		
Non-U.S. Equity Emerging Composite		241,737,096	16,979,837	5.0	5.2	-8,963,109
Rhumbline Emerging Markets Index	Emerging Markets	241,725,050	16,999,981	5.0		
Cash Composite		163,162,443	49,623,009	3.4	1.1	110,129,707
Cash	Cash & Equivalents	162,376,144	49,631,659	3.4		
Directed Commissions	Cash & Equivalents	786,299	-8,650	0.0		

Total Fund Composite

		E	nding March 31	, <b>201</b> 7		
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Absolute Return		100,446,011	-59,154,692	2.1	0.5	76,340,222
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	29,953,709	-14,636,367	0.6		
Axonic Capital LLC	Credit Hedge Fund	2,831,377	0	0.1		
Blue Harbour Strategic Value Partners Master Fund, LP	Long Only Hedge Fund	10,662,683	-44,518,325	0.2		
Elizabeth Park Capital Management	Long/Short Hedge Fund	27,299,927	0	0.6		
Archview Offshore Fund. LTD	Credit Hedge Fund	29,698,315	0	0.6		
Real Assets Composite		494,495,556	189,318,903	10.3	9.1	55,770,198
Real Assets - MLPs Composite		91,388,031	0	1.9	1.9	-213,967
Harvest Fund Advisors LLC	MLP	44,964,378	0	0.9		
Tortoise Capital Advisors LLC	MLP	46,423,652	0	1.0		
Real Assets - Public Real Estate Composite		109,277,507	50,000,000	2.3	1.4	41,781,298
Rhumbline FTSE NAREIT	Real Assets	109,277,507	50,000,000	2.3		
Real Assets - Open-End Real Estate Composite		75,900,000	75,000,000	1.6	1.7	-6,059,682
UBS Trumbull Fund	Core Real Estate	75,900,000	75,000,000	1.6		
Real Assets - Infrastructure Composite		75,236,407	74,993,730	1.6	1.5	2,919,040
Rhumbline Infrastructure Index	Publicly-Traded Infrastructure	75,236,407	75,000,000	1.6		
Real Assets - Private Real Estate Composite		138,092,725	-11,109,527	2.9	2.6	12,742,623
Real Assets - Private Energy/Infrastructure Composite		4,600,886	434,700	0.1		4,600,886
Private Assets Composite		415,136,329	-1,139,600	8.6	11.0	-115,191,027
Private Assets - Private Equity	U.S. Private Equity FoF	399,146,082	1,794,133	8.3		
Private Assets - Private Debt	Mezz. Private Equity	15,990,246	-2,933,733	0.3		



### Annualized Performance (Net of Fees)

	Ending March 31, 2017 Incer											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	0.7%	4.2%	4.2%	9.4%	11.4%	3.1%	3.4%	5.5%	6.3%	7.0%	4.6%	7.5%	Jul-88
Total Fund Policy Benchmark	0.5%	3.7%	3.7%	8.9%	12.1%	4.0%	4.8%	6.3%	6.9%	7.0%	5.7%	8.3%	Jul-88
Total Fund w/o Alternative Assets	0.9%	5.0%	5.0%	10.4%	11.7%	3.1%	3.3%				-	4.4%	Jan-14
Investment Grade Fixed Income Composite	0.3%	1.8%	1.8%	-1.1%	0.6%	0.7%	1.5%	1.3%	2.2%	3.5%	4.2%	6.2%	Jul-88
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	-1.7%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	6.4%	Jul-88
Brandywine Global Investment Management	1.2%	4.7%	4.7%	-0.2%	1.0%	0.7%	1.0%	0.9%	2.7%	5.2%		7.5%	Jan-09
Citi WGBI	0.1%	1.6%	1.6%	-6.8%	-3.7%	1.0%	-1.2%	-0.6%	-0.6%	1.3%	3.0%	1.8%	Jan-09
Garcia Hamilton & Associates	0.0%	0.8%	0.8%	-0.7%	0.8%	1.7%	2.7%	2.4%	3.3%	4.0%	5.3%	5.5%	Aug-00
BBgBarc US Govt/Credit Int TR	0.0%	0.8%	0.8%	-1.1%	0.4%	1.2%	2.0%	1.5%	1.9%	2.9%	3.8%	4.5%	Aug-00
Logan Circle	0.0%	1.3%	1.3%	-0.1%	2.5%	1.6%						2.3%	Oct-14
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	-1.7%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	2.0%	Oct-14
Longfellow	0.0%	1.0%	1.0%	-0.9%	1.0%	1.6%						2.4%	Sep-14
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	-1.7%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	2.3%	Sep-14
Rhumbline Core Bond Index	0.0%	0.9%	0.9%	-2.2%	-0.1%	0.7%	2.3%	1.6%	1.9%	3.2%		4.2%	Jun-07
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	-1.7%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	4.4%	Jun-07
Opportunistic Fixed Income Composite	0.3%	1.7%	1.7%	6.9%	10.0%	2.5%	1.8%	2.9%				3.3%	Dec-12
Opportunistic Fixed Income Benchmark	-0.1%	1.9%	1.9%	8.5%	13.0%	5.0%	4.1%	4.5%	5.7%	6.3%		4.9%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	0.3%	0.3%	0.7%	2.5%	-6.1%	-7.9%					-4.6%	May-13
50% BarCap HY / 50% CSFB Lev Loans	-0.1%	1.9%	1.9%	8.5%	13.0%	5.0%	4.2%	4.7%	5.9%	6.4%	5.9%	4.6%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	0.0%	0.0%	6.5%	6.9%	2.2%	3.0%					3.2%	Dec-13
Actuarial Rate 7.75%	0.6%	1.9%	1.9%	5.8%	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%	0.9%	0.9%	5.1%	9.5%	3.8%	2.5%	5.1%				6.3%	Jun-12
Actuarial Rate 7.75%	0.6%	1.9%	1.9%	5.8%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	0.6%	5.0%	5.0%	7.3%	13.0%	7.3%						6.7%	Feb-15
JP Morgan EMBI Global TR	0.3%	3.9%	3.9%	3.2%	8.8%	6.6%	5.7%	4.0%	5.2%	6.8%	6.9%	6.5%	Feb-15
Strategic Income Management	0.2%	2.6%	2.6%	10.1%	16.6%							16.6%	Mar-16
BofA Merrill Lynch US High Yield Master II TR	-0.2%	2.7%	2.7%	10.4%	16.9%	5.9%	4.6%	5.3%	6.8%	7.7%	7.3%	16.9%	Mar-16

### Annualized Performance (Net of Fees)

	Ending March 31, 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
U.S. Equity Composite	0.1%	5.8%	5.8%	16.0%	17.9%	6.8%	8.2%	11.7%	12.0%	12.4%	7.3%	9.5%	Jul-88
Russell 3000	0.1%	5.7%	5.7%	15.0%	18.1%	8.5%	9.8%	12.8%	13.2%	12.9%	7.5%	10.3%	Jul-88
Rhumbline Russell 1000 Index	0.1%	6.1%	6.1%	14.7%	17.7%	8.7%	9.9%	12.9%	13.2%	12.7%		7.1%	May-07
Rhumbline Russell 1000 Custom Benchmark	0.1%	6.1%	6.1%	14.8%	17.5%	8.7%	10.0%	13.0%	13.3%				May-07
Aronson+Johnson+Ortiz LP	-1.5%	2.0%	2.0%	16.3%	15.2%	4.2%	6.2%	10.6%	11.9%	11.9%	6.0%	7.8%	May-01
Russell 1000 Value	-1.0%	3.3%	3.3%	14.0%	19.2%	8.3%	8.7%	11.8%	13.1%	12.2%	5.9%	6.8%	May-01
O'Shaughnessy Asset Management	-0.7%	3.1%	3.1%	16.2%	13.1%	2.9%	4.8%	11.9%				14.1%	Jun-12
Russell 1000 Value	-1.0%	3.3%	3.3%	14.0%	19.2%	8.3%	8.7%	11.8%	13.1%	12.2%	5.9%	14.4%	Jun-12
Rhumbline MidCap Index	-0.2%	5.1%	5.1%									5.1%	Dec-16
Russell MidCap	-0.2%	5.1%	5.1%	13.4%	17.0%	6.0%	8.5%	12.1%	13.1%	13.2%	7.9%	5.1%	Dec-16
Apex Capital Management	0.9%	7.3%	7.3%	14.6%	16.1%	2.1%	5.0%	10.7%	11.1%	14.0%		14.6%	Dec-09
Russell 2500 Growth	0.7%	6.3%	6.3%	16.6%	19.8%	4.1%	7.2%	11.8%	12.2%	13.1%	8.5%	14.0%	Dec-09
Rhumbline Russell 2000 Index	0.2%	2.5%	2.5%									2.5%	Dec-16
Russell 2000	0.1%	2.5%	2.5%	21.6%	26.2%	6.7%	7.2%	11.4%	12.4%	12.3%	7.1%	2.5%	Dec-16
Emerald Advisors	1.4%	4.8%	4.8%	19.6%	22.2%	4.3%	7.2%	13.7%	13.2%	15.2%	8.8%	9.2%	Dec-04
Russell 2000 Growth	1.2%	5.3%	5.3%	19.2%	23.0%	4.1%	6.7%	11.5%	12.1%	12.9%	8.1%	8.2%	Dec-04
Fisher Asset Management	-0.6%	4.9%	4.9%	22.7%	26.2%	9.2%	9.3%	13.2%	13.0%	12.8%		10.3%	May-08
Russell 2000 Value	-0.8%	-0.1%	-0.1%	24.0%	29.4%	9.3%	7.6%	11.2%	12.5%	11.6%	6.1%	8.7%	<i>May-</i> 08
Ariel	1.6%	6.9%	6.9%	23.1%	20.0%							24.8%	Jan-16
Russell 2500 Value	-0.8%	1.6%	1.6%	18.0%	23.1%	8.0%	7.6%	10.9%	12.9%	12.3%	6.8%	29.8%	Jan-16
Non-U.S. Equity Developed Composite	2.9%	7.0%	7.0%	13.5%	12.1%	0.8%	-0.4%	3.7%	4.5%	4.5%	1.1%	5.5%	Jan-89
MSCIEAFE	2.8%	7.2%	7.2%	13.3%	11.7%	1.2%	0.5%	4.5%	5.8%	4.7%	1.1%	4.4%	Jan-89
Causeway Capital Management	4.4%	7.7%	7.7%	15.5%	12.6%	0.5%	0.0%	5.7%	6.6%			9.0%	Nov-11
MSCI EAFE	2.8%	7.2%	7.2%	13.3%	11.7%	1.2%	0.5%	4.5%	5.8%	4.7%	1.1%	7.3%	Nov-11
Northern Trust MSCI EAFE+Canada	2.4%	6.7%	6.7%	12.8%	11.6%	1.3%	0.4%	4.1%	5.5%	4.9%	2.2%	2.2%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	2.5%	6.8%	6.8%	13.0%	12.4%	1.6%	1.2%	5.2%	6.6%	5.4%	1.7%	1.7%	Mar-07
Non-U.S. Equity Emerging Composite	2.5%	11.5%	11.5%	14.4%	15.4%	1.6%	0.6%	0.6%	-0.8%	0.4%		9.1%	Jan-09
MSCI Emerging Markets	2.5%	11.4%	11.4%	16.4%	17.2%	1.5%	1.2%	0.5%	0.8%	1.7%	2.7%	10.1%	Jan-09
Rhumbline Emerging Markets Index	2.5%	11.5%	11.5%	14.4%	15.4%	1.5%	1.1%	0.5%					Feb-13
MSCI Emerging Markets	2.5%	11.4%	11.4%	16.4%	17.2%	1.5%	1.2%	0.5%	0.8%	1.7%	2.7%	-0.2%	Feb-13

### Annualized Performance (Net of Fees)

	Ending March 31, 2017											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
Absolute Return	-0.5%	1.1%	1.1%	10.8%	11.6%	1.0%	0.7%	3.0%	3.4%	2.9%	2.0%	2.9%	Sep-05
HFRI Fund of Funds Composite Index	0.4%	2.3%	2.3%	5.6%	6.2%	0.0%	1.8%	2.8%	3.2%	2.5%	1.2%	2.4%	Sep-05
400 Capital Credit Opportunity Fund	0.0%	2.3%	2.3%	10.0%	12.0%	0.1%	3.5%					4.6%	Jun-13
HFRI ED: Distressed/Restructuring Index	-0.7%	1.7%	1.7%	13.2%	19.0%	3.3%	1.1%	3.8%	4.9%	4.9%	3.6%	3.0%	Jun-13
HFRX Distressed Securities Index	-0.9%	1.6%	1.6%	13.3%	23.5%	3.7%	1.6%	3.1%	1.8%	1.3%	-2.7%	2.5%	Jun-13
Axonic Capital LLC	0.0%	0.0%	0.0%	-0.2%	1.8%	-1.3%	1.7%	4.0%				4.9%	Jan-13
HFRI ED: Distressed/Restructuring Index	-0.7%	1.7%	1.7%	13.2%	19.0%	3.3%	1.1%	3.8%	4.9%	4.9%	3.6%	4.1%	Jan-13
Blue Harbour Strategic Value Partners Master Fund, LP	0.0%	2.0%	2.0%	13.7%	10.3%	1.3%	2.2%					4.0%	Jan-14
HFRX Event Driven Index	0.3%	3.0%	3.0%	10.8%	15.8%	2.4%	-0.2%	2.5%	3.1%	2.2%	0.9%	0.6%	Jan-14
Elizabeth Park Capital Management	-0.8%	2.4%	2.4%	28.1%	30.9%	14.0%						11.5%	May-14
HFRX Event Driven Index	0.3%	3.0%	3.0%	10.8%	15.8%	2.4%	-0.2%	2.5%	3.1%	2.2%	0.9%	-0.2%	May-14
Archview Offshore Fund. LTD	-0.9%	-0.8%	-0.8%	8.2%	13.7%	-2.2%	-0.6%					-0.3%	Mar-14
HFRI ED: Distressed/Restructuring Index	-0.7%	1.7%	1.7%	13.2%	19.0%	3.3%	1.1%	3.8%	4.9%	4.9%	3.6%	1.2%	Mar-14
Real Assets Composite	0.0%	1.9%	1.9%	4.7%	14.9%	0.6%	2.8%	5.4%				6.9%	Dec-12
Real Assets Benchmark	-0.7%	2.2%	2.2%	4.2%	20.7%	-6.1%	-2.7%	-0.1%				2.0%	Dec-12
Real Assets - MLPs Composite	-0.6%	4.7%	4.7%	10.5%	29.4%	-6.5%	-2.9%	1.7%	6.3%			8.9%	Sep-11
Alerian MLP Index	-1.3%	3.9%	3.9%	7.2%	28.3%	-6.5%	-5.2%	-1.9%	2.6%	7.5%	7.1%	5.6%	Sep-11
Harvest Fund Advisors LLC	0.0%	4.2%	4.2%	10.9%	31.6%	-6.0%	-1.6%	2.5%	7.3%			9.3%	Sep-11
Alerian MLP Index	-1.3%	3.9%	3.9%	7.2%	28.3%	-6.5%	-5.2%	-1.9%	2.6%	7.5%	7.1%	4.7%	Sep-11
Tortoise Capital Advisors LLC	-1.1%	5.2%	5.2%	10.7%	29.5%	-4.2%	-1.7%	3.7%	7.7%			6.9%	Feb-12
Alerian MLP Index	-1.3%	3.9%	3.9%	7.2%	28.3%	-6.5%	-5.2%	-1.9%	2.6%	7.5%	7.1%	1.8%	Feb-12
Real Assets - Public Real Estate Composite	-1.3%	2.9%	2.9%	-1.7%	5.6%	5.2%	11.0%	9.0%				9.8%	Jan-13
FTSE NAREIT All Equity REIT	-1.6%	2.5%	2.5%	-2.0%	5.3%	5.0%	10.6%	8.7%	10.3%	12.5%	5.0%	9.4%	Jan-13
Rhumbline FTSE NAREIT	-1.3%	2.9%	2.9%	-1.7%	5.6%	5.2%	10.7%					7.5%	May-13
FTSE NAREIT All Equity REIT	-1.6%	2.5%	2.5%	-2.0%	5.3%	5.0%	10.6%	8.7%	10.3%	12.5%	5.0%	7.2%	May-13
Real Assets - Open-End Real Estate Composite	1.2%											1.2%	Jan-17
NFI	0.5%	1.5%	1.5%	5.4%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	1.0%	Jan-17
UBS Trumbull Fund	1.2%											1.2%	Jan-17
NFI	0.5%	1.5%	1.5%	5.4%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	1.0%	Jan-17

### Annualized Performance (Net of Fees)

	Ending March 31, 2017											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
Real Assets - Infrastructure Composite													Mar-17
Dow Jones Brookfield Global Infrastructure Index	2.6%	7.2%	7.2%	4.4%	13.4%	2.0%	4.1%	6.2%	8.9%	11.0%	7.3%		Mar-17
Rhumbline Infrastructure Index													Mar-17
Dow Jones Brookfield Global Infrastructure Index	2.6%	7.2%	7.2%	4.4%	13.4%	2.0%	4.1%	6.2%	8.9%	11.0%	7.3%		Mar-17
Real Assets - Private Real Estate Composite	0.0%	0.0%	0.0%	4.5%	6.8%	9.5%	10.1%	11.9%	11.3%	11.4%	-2.5%	3.5%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	0.0%	4.5%	6.8%	9.5%	10.1%	11.9%					May-06
Real Assets - Private Energy/Infrastructure Composite	0.0%	0.0%	0.0%	-3.8%	15.0%	-13.6%	-10.3%	2.0%				1.2%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	0.0%	0.0%	-3.8%	15.0%	-13.6%	-10.3%	2.0%				1.2%	May-12
Private Assets Composite	0.0%	0.0%	0.0%	3.8%	5.9%	5.7%							Mar-87