



**FINAL
MONTHLY GROSS
PERFORMANCE REPORT**
BOSTON RETIREMENT SYSTEM

NOVEMBER 30, 2022

Mike Manning, CFA, CAIA, Managing Partner
Will Forde, CFA, CAIA, Partner
Kiley Fischer, Analyst



TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Allocation			Performance (%)								
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	6,157,269,860	100.0	100.0	4.7	2.0	-8.0	-5.1	6.2	5.5	7.1	7.6	Aug-94
Allocation Index				4.6	1.2	-8.7	-5.9	5.8	5.4	6.9		
Policy Index				5.1	1.4	-8.9	-6.0	6.0	6.0	7.3		
PRIT Core Fund/Teachers*	1,956,558,595	31.8		3.8	0.6	-10.3	-7.6	7.2	7.1	8.5	9.0	Jul-10
Total Equity	2,905,682,388	47.2	49.0	8.5	4.6	-15.0	-11.8	6.0	5.3	8.7	8.6	Dec-10
MSCI AC World Index (Net)				7.8	3.3	-15.0	-11.6	6.6	6.4	8.7	8.2	
Large Cap Comp	1,059,963,800	17.2	18.0	5.6	4.2	-14.5	-12.1	11.1	11.0	14.1	10.0	Dec-04
Rhumblin Advisors	273,044,530	4.4		5.6	3.6	-13.1	-9.2	10.9	11.0	13.3	10.1	Aug-94
DE Shaw Core Enhanced	352,046,238	5.7		5.4	3.6	-12.2	-8.4	11.2	11.4	13.8	13.7	Oct-09
S&P 500 Index				5.6	3.6	-13.1	-9.2	10.9	11.0	13.3	13.0	
Aristotle Value	159,449,818	2.6		6.0	5.9	-10.0	-6.0	10.3			11.5	Nov-19
Columbia Threadneedle	195,065,471	3.2		7.9	11.6	2.0	7.9	13.5	10.4	13.9	10.2	Jan-97
Russell 1000 Value Index				6.2	6.9	-3.7	2.4	8.4	7.9	11.0	8.4	
Zevenbergen Capital	80,020,544	1.3		0.0	-9.0	-48.9	-52.8	2.7	9.1	14.2	11.2	Aug-94
Russell 1000 Growth Index				4.6	-0.1	-23.3	-21.6	11.8	12.9	15.0	10.2	
Small Cap Comp	431,505,532	7.0	6.0	4.2	5.2	-12.7	-8.4	8.1	8.0	11.5	9.7	Dec-04
Westfield Capital Management	120,569,280	2.0		4.4	2.8	-19.0	-16.1	9.2	10.4	12.5	11.1	Sep-03
Russell 2000 Growth Index				1.6	1.3	-21.3	-21.0	3.7	4.9	10.2	8.5	
Bernzott	115,393,589	1.9		5.0	3.6	-17.0	-11.3	4.1	5.8		9.3	Nov-15
Russell 2000 Value Index				3.1	4.2	-8.5	-4.7	8.3	5.3		8.8	
Aristotle Small Cap	195,272,591	3.2		3.6	7.8	-5.3	-0.9	9.3	6.9		10.0	Nov-15
Russell 2000 Index				2.3	2.7	-14.9	-13.0	6.4	5.4		8.5	

Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.



TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Allocation			Performance (%)								
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Non-US Equity	1,414,213,056	23.0	25.0	12.4	4.8	-16.1	-12.5	1.4	0.4	4.0	5.6	Aug-94
International Equity	976,452,055	15.9	17.0	12.0	6.2	-14.8	-10.4	1.8	0.9	4.9	4.7	Dec-10
Todd	303,668,003	4.9		13.5	9.0	-10.1	-6.3	5.3	3.6		6.4	Apr-16
<i>MSCI ACWI ex USA</i>				11.8	3.6	-15.4	-11.9	1.8	1.5		5.2	
Panagora Asset Management	290,834,263	4.7		10.5	6.2	-14.2	-9.4	2.5	1.2	5.7	5.5	Aug-94
Walter Scott International Equity	259,814,945	4.2		11.6	4.3	-21.3	-17.3				-0.5	Oct-20
<i>MSCI EAFE (Net)</i>				11.3	6.3	-14.5	-10.1				4.7	
Segall Bryant Hamill	121,907,811	2.0		12.4	3.7	-12.3	-6.8	0.6	-2.1		-1.7	Nov-17
<i>MSCI EAFE Small Cap (Net)</i>				9.9	1.4	-22.2	-18.8	0.1	0.3		0.6	
Emerging Markets	437,761,001	7.1	8.0	13.2	1.7	-18.8	-16.9	0.5	-0.9	1.9	2.0	Dec-10
ABS Emerging Markets Strategic Portfolio	90,396,989	1.5		12.7	-1.0	-20.9	-19.1				-19.8	Nov-21
Columbia Emerging Markets Equity	96,016,423	1.6		13.8	-1.4	-29.6	-29.8				-28.3	Aug-21
Polunin	121,545,879	2.0		14.0	4.2	-16.4	-13.6	4.0	1.9		5.7	Oct-13
<i>MSCI Emerging Markets (Net)</i>				14.8	-1.8	-19.0	-17.4	0.1	-0.4		2.2	
Lazard	129,801,711	2.1		12.4	3.8	-10.4	-7.2	5.0	-0.2		2.8	Oct-13
<i>MSCI Emerging Markets Small Cap (Net)</i>				9.4	-1.6	-17.2	-13.7	7.6	2.0		3.6	
Total Fixed Income	1,565,108,669	25.4	25.0	3.2	-0.9	-9.8	-9.2	0.3	1.7	2.3	3.2	Dec-10
Core Fixed Income	990,658,334	16.1	16.0	2.7	-1.7	-9.5	-9.4	-0.1	1.6	2.1	4.0	Dec-04
AFL-CIO H.I.T.	43,359,446	0.7		3.6	-2.6	-12.8	-13.0				-13.0	Dec-21
BlackRock SIO	347,009,127	5.6		1.7	-0.9	-5.2	-4.8	1.7	2.6		2.9	Aug-15
Wells Asset Management	301,809,624	4.9		3.8	-2.0	-12.7	-12.9	-2.0	0.6	1.5	4.0	May-05
<i>Blmbg. U.S. Aggregate Index</i>				3.7	-2.1	-12.6	-12.8	-2.6	0.2	1.1	3.0	
IR&M	298,480,137	4.8		2.7	-2.4	-10.3	-10.3	0.3	1.7		2.2	Jul-15
<i>IR&M Custom Benchmark</i>				2.7	-2.4	-10.3	-10.2	-0.1	1.4		1.7	

- IR&M Custom Benchmark reflects Bloomberg Agg since inception through 04/30/2017, from 05/01/2017 to 9/30/2021 reflects 40% Bloomberg Agg/60% Bloomberg Intermediate TIPS and as of 10/1/2021 reflects 60% Bloomberg Agg/40% Bloomberg Intermediate TIPS.



TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Allocation			Performance (%)								
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Value Added Fixed Income	574,450,335	9.3	9.0	4.0	0.5	-10.4	-9.0	0.6	1.8	2.4	3.5	Dec-10
High Yield Income	365,507,544	5.9	5.0	1.6	-0.3	-6.2	-5.1	3.9	4.0	5.0	6.3	Jan-06
Crescent Capital	110,979,019	1.8		1.8	-0.1	-8.2	-6.9	1.5	2.7		3.9	May-15
50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield				1.7	0.3	-5.9	-4.7	2.0	2.9		3.6	
Polen Capital	93,774,831	1.5		0.4	-2.2	-7.5	-6.7	4.6	3.9		5.2	May-15
75% BC HY 25% S&P Leverage Loan				1.9	0.5	-8.2	-6.8	1.5	2.7		3.6	
GoldenTree Multi Sector Opp Credit	159,916,043	2.6		2.3	0.7	-3.8	-2.6	5.4	5.0		5.4	Dec-16
Blended Index				1.7	0.4	-4.8	-3.9	2.3	3.0		3.5	
Morningstar LSTA US Leveraged Loan				1.2	0.0	-1.0	-0.4	2.9	3.3		3.6	
Emerging Market Debt	208,942,792	3.4	4.0	8.5	2.0	-16.7	-14.9	-4.6	-1.7	-1.8	-0.8	Nov-11
Aberdeen EMD Plus	208,942,477	3.4		8.5	2.0	-16.7	-14.9	-4.6			-0.3	Dec-18
JP Morgan EMBI Global Diversified				7.6	0.9	-18.1	-16.9	-4.8			-0.3	
Total Alternative Assets	1,648,919,380	26.8	26.0	0.1	0.2	9.0	14.0	12.4	10.3	9.0	9.0	Dec-10
Hedge Fund Composite	302,457,721	4.9	5.0	0.6	0.5	-2.1	-2.0	6.0	4.2	3.7	3.6	Nov-04
EnTrust Peruvian Bonds	4,557,404	0.1		-0.1	-0.5	-1.8	-0.5	-1.8			-2.7	Jan-18
Blackstone	146,028,290	2.4		0.6	0.7	3.0	3.1	6.0			5.6	Feb-18
Grosvenor	150,974,260	2.5		0.6	0.2	-6.7	-6.6	6.3	4.6		4.4	Jul-13
HFRI Fund of Funds Composite Index				1.0	-0.2	-5.5	-5.2	4.2	3.1		3.3	
Hedge Fund Transition Account	897,767	0.0	0.0									
Real Estate Composite	675,793,007	11.0	10.0	0.0	3.6	17.9	26.3	12.8	11.1	11.4	8.3	Sep-04
Private Equity & Debt	670,668,652	10.9	11.0	0.0	-3.2	6.2	11.2	15.1	13.1	10.2	9.3	Jun-04
Cash	37,559,423	0.6	0.0	0.0	0.0	0.0	0.7	0.4	0.7	0.3	1.1	Oct-04

- Real Estate and Private Equity & Debt report on a quarterly basis, and are lagged one quarter. Values are as of 09/30/2022.

- The Blended Index Benchmark consists of 30% ML HY II/ 30% S&P LSTA / 25% HFRI RV FI/ 15% BAML ABS.

- DDJ is now Polen Capital



DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv



