

FINAL MONTHLY GROSS PERFORMANCE REPORT BOSTON RETIREMENT SYSTEM

NOVEMBER 30, 2023

Mike Manning, CFA, CAIA, Managing Partner Mike Sullivan, Partner Kiley Murphy, Sr. Consulting Analyst



PROPRIETARY & CONFIDENTIAL

Boston Retirement System TOTAL FUND PERFORMANCE DETAIL (GROSS)

	A	Allocation				Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date		
Total Fund	6,507,077,358	100.0	100.0	5.1	7.5	5.9	4.6	6.9	6.2	7.6	Aug-94		
Allocation Index				5.3	6.8	5.3	4.2	6.5	6.0				
Policy Index				5.5	7.4	5.9	4.5	6.9	6.5				
PRIT Core Fund/Teachers*	2,083,883,617	32.0		4.8	8.2	6.4	6.4	8.1	7.7	8.9	Jul-10		
Total Equity	3,159,497,217	48.6	47.0	8.7	12.6	9.1	4.1	7.9	7.1	8.7	Dec-10		
MSCI AC World Index (Net)				9.2	16.6	12.0	5.7	9.1	7.6	8.5			
Large Cap Comp	1,169,817,037	18.0	17.0	9.1	17.6	10.5	6.2	12.1	11.8	10.0	Dec-04		
Rhumbline Advisors	310,698,407	4.8		9.1	20.8	13.8	9.7	12.5	11.8	10.3	Aug-94		
DE Shaw Core Enhanced	394,417,656	6.1		8.6	19.3	12.1	9.2	12.6	12.1	13.6	Oct-09		
S&P 500 Index				9.1	20.8	13.8	9.8	12.5	11.8	13.1			
Aristotle Value	170,446,545	2.6		9.8	12.7	6.9	8.4			10.3	Nov-19		
Columbia Threadneedle	186,674,298	2.9		6.1	0.2	-4.3	9.0	9.3	9.5	9.6	Jan-97		
Russell 1000 Value Index				7.5	5.6	1.4	8.3	7.5	8.1	8.1			
Zevenbergen Capital	107,077,493	1.6		15.4	55.2	35.0	-12.5	12.3	12.3	11.9	Aug-94		
Russell 1000 Growth Index				10.9	36.6	26.2	8.9	16.4	14.7	10.8			
Small Cap Comp	411,861,378	6.3	6.0	7.1	1.8	-3.6	1.9	6.3	7.5	8.9	Dec-04		
Aristotle Small Cap	181,310,386	2.8		5.8	-2.4	-7.2	4.3	5.0		7.7	Nov-15		
Russell 2000 Index				9.1	4.2	-2.6	1.1	4.8		7.1			
Westfield Capital Management	121,760,735	1.9		8.9	7.6	1.8	1.4	9.7	9.3	10.6	Sep-03		
Russell 2000 Growth Index				9.1	6.0	-0.8	-4.3	4.2	6.2	8.1			
Mesirow Small Cap Value	108,502,266	1.7		7.4						2.5	May-23		
Russell 2000 Value Index				9.0						5.3			

- The Total Fund value does not include PRIT Core Fund/Teachers.



November 30, 2023

Boston Retirement System TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Al	Performance (%)									
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Non-US Equity	1,577,818,802	24.2	24.0	8.8	12.2	11.9	3.1	5.1	3.5	5.8	Aug-94
International Equity	1,091,293,801	16.8	16.0	8.7	12.2	12.1	4.5	5.6	3.6	5.2	Dec-10
Todd	330,614,753	5.1		6.8	10.1	8.9	5.1	7.5		6.7	Apr-16
MSCI ACWI ex USA				9.0	10.1	9.3	1.7	5.1		5.7	
PanAgora Asset Management	332,739,722	5.1		9.0	13.8	14.4	5.6	6.0	4.5	5.8	Aug-94
Walter Scott International Equity	292,064,306	4.5		10.5	13.4	13.2	1.6			3.6	Oct-20
MSCI EAFE (Net)				9.3	12.3	12.4	3.8			7.0	
Segall Bryant Hamill	135,628,610	2.1		8.9	11.2	12.2	6.6	3.8		0.4	Nov-17
MSCI EAFE Small Cap (Net)				10.1	5.5	6.6	-0.8	3.7		1.5	
Emerging Markets	486,525,000	7.5	8.0	9.0	12.1	11.4	0.2	3.9	3.3	2.7	Dec-10
ABS Emerging Markets Strategic Portfolio	95,464,572	1.5		7.5	7.9	5.6				-8.5	Nov-21
Columbia Emerging Markets Equity	99,212,338	1.5		8.8	6.7	3.3				-16.1	Aug-21
Polunin	132,606,888	2.0		8.8	9.2	10.1	1.8	6.1	5.9	6.2	Oct-13
MSCI Emerging Markets (Net)				8.0	5.7	4.2	-4.0	2.3	2.1	2.4	
Lazard	159,241,202	2.4		10.1	21.4	22.7	10.5	8.8	4.4	4.6	Oct-13
MSCI Emerging Markets Small Cap (Net)				9.6	18.7	17.4	7.6	8.6	4.8	4.9	



November 30, 2023

Boston Retirement System TOTAL FUND PERFORMANCE DETAIL (GROSS)

	AI	Performance (%)									
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	1,646,132,328	25.3	27.0	3.8	5.5	5.5	-0.5	2.9	2.9	3.4	Dec-10
Core Fixed Income	1,016,322,804	15.6	18.0	3.7	3.1	2.9	-1.8	2.2	2.5	3.9	Dec-04
AFL-CIO H.I.T.	43,556,690	0.7		4.4	1.3	0.8				-6.4	Dec-21
BlackRock SIO	362,176,628	5.6		2.9	4.8	4.9	0.8	3.4		3.1	Aug-15
Allspring Global	307,154,889	4.7		4.7	2.4	1.9	-4.2	1.2	1.8	3.8	May-05
Blmbg. U.S. Aggregate Index				4.5	1.6	1.2	-4.5	0.7	1.4	2.9	
IR&M	303,434,598	4.7		3.4	2.2	1.7	-1.8	2.1		2.1	Jul-15
IR&M Custom Benchmark				3.5	1.9	1.3	-2.1	1.8		1.6	
Value Added Fixed Income	629,809,524	9.7	9.0	4.0	9.6	9.9	1.5	3.9	3.3	3.9	Dec-10
High Yield Income	401,083,307	6.2	5.0	2.8	10.1	10.2	4.7	5.4	5.2	6.6	Jan-06
Crescent Capital	120,149,092	1.8		3.0	9.3	8.9	2.5	4.2		4.5	May-15
50% Blmbg. High Yield / 50% Morningstar Leveraged Loan				2.9	10.5	10.3	3.5	4.6		4.3	
Polen Capital	103,907,131	1.6		2.3	11.9	11.9	5.1	5.5		6.0	May-15
75% Blmbg. High Yield / 25% Morningstar Leveraged Loan				3.7	9.9	9.5	2.5	4.4		4.3	
GoldenTree Multi Sector Opp Credit	176,354,762	2.7		2.9	9.8	10.3	6.3	6.5		6.1	Dec-16
Blended Index				2.6	10.3	10.4	4.0	4.7		4.5	
Morningstar LSTA US Leveraged Loan				1.2	11.5	11.9	5.7	4.9		4.7	
Emerging Market Debt	228,726,217	3.5	4.0	6.3	8.8	9.5	-3.3	1.6	-0.1	0.0	Nov-11
Aberdeen EMD Plus	228,725,898	3.5		6.3	8.8	9.5	-3.3	1.6		1.6	Dec-18
JP Morgan EMBI Global Diversified				5.7	6.1	6.4	-4.4	1.0		1.0	
Total Alternative Assets	1,694,172,881	26.0	26.0	0.2	0.7	0.6	11.3	8.6	7.9	8.4	Dec-10
Hedge Fund Composite	319,796,054	4.9	5.0	1.2	7.0	6.5	5.0	5.5	3.1	3.8	Nov-04
Blackstone	155,535,200	2.4		1.1	7.0	7.7	7.2	6.6		6.0	Feb-18
Grosvenor	163,564,000	2.5		1.3	7.1	8.3	4.1	5.9	4.3	4.8	Jul-13
HFRI Fund of Funds Composite Index				2.1	3.9	4.3	2.7	4.3	3.1	3.4	
Hedge Fund Transition Account	386,592	0.0	0.0								
Real Estate Composite	638,139,751	9.8	10.0	0.0	-8.2	-8.0	8.5	7.3	9.1	7.4	Sep-04
Private Equity & Debt	736,237,076	11.3	11.0	0.0	6.7	6.6	17.6	11.2	10.3	9.1	Jun-04
Cash	7,274,933	0.1	0.0	0.4	4.1	4.1	1.6	1.5	0.7	1.2	Oct-04

- IR&M Custom Benchmark consists of 60% Blmbg Aggregate /40% Blmbg Intermediate TIPS. Prior to 10/1/21, Index was 60% Blmbg Intermediate TIPS/40% Blmbg Aggregate. Prior to 5/8/17, the Index was the Blmbg Aggregate Index.

- The Blended Index consists of 40% Morningstar LSTA/40% BofA ML HY Index/20% JPM CLOIE A.

- Real Estate and Private Equity & Debt are reported on a quarterly basis. Valuations are as of 06/30/2023.

- The Hedge Fund Composite includes the remaining value from EnTrust Peruvian Bonds.



November 30, 2023

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



