

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

#### NOVEMBER 30, 2023

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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.



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	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	



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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.



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



