



MONTHLY GROSS PERFORMANCE REPORT

BOSTON RETIREMENT SYSTEM

APRIL 30, 2021

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PROPRIETARY & CONFIDENTIAL

CALENDAR YEAR INDEX PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Apr	YTD
S&P 500	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	5.3%	11.8%
Russell 1000	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	5.4%	11.6%
Russell 2000	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	2.1%	15.1%
Russell 2500	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	4.0%	15.4%
MSCI EAFE	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	3.0%	6.6%
MSCI EM	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	2.5%	4.8%
MSCI ACWI	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	4.4%	9.1%
Private Equity	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	38.2%	-	-
BC TIPS	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	1.4%	-0.1%
BC Municipal	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	0.8%	0.5%
BC Muni High Yield	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	1.5%	3.6%
BC US Corporate HY	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	1.1%	1.9%
BC US Agg Bond	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	0.8%	-2.6%
BC Global Agg	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	1.3%	-3.3%
BC Long Treasuries	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	2.3%	-11.5%
BC US Long Credit	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	1.7%	-6.8%
BC US STRIPS 20+ Yr	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	3.3%	-15.8%
JPM GBI -EM Global Div	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	2.3%	-4.6%
JPM EMBI Glob Div	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	2.2%	-2.4%
CS Hedge Fund	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	-	2.9%
BBG Commodity	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	8.3%	15.8%
Alerian MLP	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	6.6%	-28.7%	7.1%	30.7%
FTSE NAREIT Equity REITs	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	8.1%	17.6%

Source: FactSet, Barclays, Thomson One

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag



Boston Retirement System

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	6,403,417,391	100.0	100.0	2.5	6.4	6.4	30.1	9.4	10.5	7.8	8.2	Aug-94
Allocation Index				2.4	6.0	6.2	28.9	9.5	10.2	7.5	--	Aug-94
Policy Index				2.2	5.5	5.6	28.2	10.2	10.7	7.9	--	Aug-94
PRIT Core Fund/Teachers*	2,067,507,503	32.3		2.7	7.3	7.2	28.2	11.1	11.3	9.0	10.4	Jul-10
Total Equity	3,439,595,687	53.7	48.0	4.1	10.1	10.3	52.2	12.5	14.4	--	--	Dec-04
MSCI ACWI				4.4	9.6	9.1	45.7	13.3	13.9	9.2	8.0	Dec-04
Large Cap Comp	1,277,239,555	19.9	17.0	4.8	10.7	10.7	53.7	21.0	19.8	15.5	11.4	Dec-04
Rhumblin Advisors	319,497,784	5.0		5.3	13.0	11.8	45.9	18.6	17.4	14.1	10.8	Aug-94
DE Shaw Core Enhanced	427,009,007	6.7		5.3	12.9	11.8	47.9	19.6	18.3	15.1	15.7	Oct-09
Russell 1000				5.4	12.5	11.6	49.5	19.2	17.8	14.2	15.1	Oct-09
Aristotle Value	184,472,394	2.9		4.0	14.3	14.3	53.2	--	--	--	25.5	Nov-19
Columbia Threadneedle	179,135,490	2.8		3.8	17.8	19.2	58.2	14.3	16.2	13.3	10.5	Jan-97
Russell 1000 Value				4.0	16.8	15.7	45.9	12.3	12.2	11.1	8.8	Jan-97
Zeavenbergen Capital	166,704,662	2.6		4.7	-6.6	-3.8	78.7	41.5	35.9	21.0	15.0	Aug-94
Russell 1000 Growth				6.8	8.6	7.8	51.4	25.4	22.9	17.0	11.3	Aug-94
Small Cap Comp	509,577,769	8.0	6.0	3.9	13.3	13.5	67.7	16.6	18.3	13.0	11.4	Dec-04
Westfield Capital Management	142,820,302	2.2		5.7	11.5	10.1	68.8	21.3	21.7	14.4	13.1	Sep-03
Russell 2000 Growth				2.2	2.2	7.2	69.2	18.0	18.9	12.9	11.1	Sep-03
Bernzott	167,234,759	2.6		3.7	14.6	14.5	71.9	16.8	18.4	--	16.2	Nov-15
Russell 2000 Value				2.0	17.4	23.6	79.0	11.7	13.5	10.1	12.5	Nov-15
Aristotle Small Cap	199,336,780	3.1		2.8	13.5	15.3	62.7	12.4	14.9	--	13.4	Nov-15
Russell 2000				2.1	9.6	15.1	74.9	15.2	16.5	11.6	14.5	Nov-15

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



Boston Retirement System

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	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	1,652,778,363	25.8	25.0	3.5	8.8	9.1	46.5	5.4	9.5	4.6	6.6	Aug-94
International Equity	1,103,948,136	17.2	17.0	3.2	9.2	8.5	43.3	4.8	8.6	5.0	6.6	Dec-10
Todd	336,304,803	5.3		2.2	11.4	11.4	53.5	9.0	10.6	--	10.5	Apr-16
MSCI ACWI ex USA				2.9	6.3	6.5	43.0	7.0	9.8	4.7	10.2	Apr-16
Panagora Asset Management	323,142,616	5.0		3.1	9.4	8.5	43.9	4.6	8.2	6.2	6.3	Aug-94
Walter Scott International Equity	304,786,606	4.8		3.6	4.5	3.1	--	--	--	--	14.6	Oct-20
MSCI EAFE				3.0	7.7	6.6	39.9	6.3	8.9	5.2	23.7	Oct-20
Segall Bryant Hamill	139,479,741	2.2		5.0	13.3	13.4	50.2	-0.6	--	--	1.0	Nov-17
MSCI EAFE Small Cap				4.0	9.1	8.7	52.6	7.2	10.9	7.9	7.9	Nov-17
Emerging Markets	548,830,227	8.6	8.0	4.1	7.9	10.4	53.4	6.6	11.3	3.9	5.0	Dec-10
Vontobel	130,870,093	2.0		1.1	-0.8	3.4	45.5	8.0	10.8	6.5	10.7	Oct-05
Polunin	156,031,858	2.4		7.2	12.5	11.6	67.4	10.2	15.1	--	10.4	Oct-13
SSgA Emerging Markets	118,332,155	1.8		3.0	6.1	11.7	46.6	4.5	10.6	--	4.5	Oct-13
MSCI Emerging Markets				2.5	1.7	4.8	48.7	7.5	12.5	3.6	6.6	Oct-13
Lazard	143,596,120	2.2		4.7	14.1	15.4	51.6	3.1	7.8	--	4.7	Oct-13
MSCI Emerging Markets Small Cap				6.0	14.1	14.2	74.2	7.3	10.6	3.5	6.5	Oct-13
Total Fixed Income	1,554,664,060	24.3	26.0									
Core Fixed Income	959,066,599	15.0	16.0	0.8	-0.3	-0.5	6.2	5.8	4.3	4.3	4.9	Dec-04
Wells Asset Management	318,065,077	5.0		0.9	-1.7	-2.4	1.6	5.9	3.8	4.2	5.2	May-05
BlackRock SIO	317,048,029	5.0		0.5	0.8	0.9	12.4	5.6	5.3	--	4.5	Aug-15
Bloomberg US Aggregate TR				0.8	-1.9	-2.6	-0.3	5.2	3.2	3.4	3.4	Aug-15
IR&M	323,953,492	5.1		1.2	-0.2	0.0	5.5	5.9	3.9	--	4.2	Jul-15
IR&M Custom Benchmark				1.1	-0.3	-0.3	4.2	5.4	3.4	3.5	3.6	Jul-15

- IR&M Custom Benchmark reflects BC Agg since inception through 04/30/2017, as of 05/01/2017 forward it reflects 40% BC Agg/60% BC US TIPS.

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



Boston Retirement System

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	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	595,597,461	9.3	10.0	1.6	1.3	1.6	23.3	5.7	6.6	4.4	--	
High Yield Income	365,107,081	5.7	6.0	1.0	3.0	4.0	25.6	6.7	7.5	6.5	7.2	Jan-06
Crescent Capital	118,342,221	1.8		1.0	2.0	2.2	19.1	6.2	6.3	--	5.8	May-15
50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield				0.8	1.4	2.1	17.9	5.6	6.2	5.3	5.0	May-15
DDJ	118,139,423	1.8		1.0	2.7	4.2	30.1	6.7	9.3	--	7.1	May-15
75% BC HY 25% S&P Leverage Loan				0.9	1.5	2.0	18.8	6.3	6.8	--	5.5	May-15
GoldenTree Multi Sector Opp Credit	127,608,512	2.0		1.1	4.1	5.6	28.2	7.2	--	--	7.2	Dec-16
Blended Index				0.8	1.7	2.6	17.4	5.5	--	--	5.4	Dec-16
S&P/LSTA Leveraged Loan TR				0.5	1.1	2.3	16.1	4.2	5.0	4.2	4.5	Dec-16
Emerging Market Debt	230,490,379	3.6	4.0	2.5	-1.2	-2.1	20.1	3.6	5.0	--	1.1	Nov-11
Aberdeen EMD Plus	230,490,066	3.6		2.5	-1.2	-2.1	20.1	--	--	--	8.1	Dec-18
JP Morgan EMBI Global Diversified				2.2	-1.4	-2.4	16.0	5.3	5.1	5.7	7.7	Dec-18
Total Alternative Assets	1,339,470,907	20.9	26.0									
Hedge Fund Composite	297,173,859	4.6	5.0	2.1	6.2	2.8	18.8	6.0	5.1	3.4	3.8	Nov-04
EnTrust Peruvian Bonds	4,670,853	0.1		-0.2	-0.6	-0.7	0.4	-3.5	--	--	-3.4	Jan-18
Blackstone	138,257,405	2.2		1.7	4.4	3.8	15.2	6.6	--	--	6.3	Feb-18
Grosvenor	153,045,430	2.4		2.6	8.3	2.1	23.4	7.2	7.1	--	5.5	Jul-13
HFRI Fund of Funds Composite Index				2.1	4.9	4.2	22.5	6.2	6.0	3.5	4.5	Jul-13
Hedge Fund Transition Account	1,200,171	0.0										
Real Estate Composite	512,205,271	8.0	10.0	0.0	1.8	1.8	1.7	6.2	7.2	10.0	--	
Private Equity & Debt	530,091,777	8.3	11.0	0.0	8.2	8.2	9.0	8.8	8.5	8.2	--	
Cash	69,686,738	1.1	0.0	0.0	0.0	0.0	0.1	0.9	0.5	0.3	1.1	Oct-04

- Real Estate and Private Equity & Debt report on a quarterly basis, valuations are as of 12/31/2020.
- The Hedge Fund Transition Account is an estimation of the total values redeemed from the hedge fund portfolio and is subject to change.
- The Blended Index Benchmark consists of 30% ML HY II/ 30% S&P LSTA / 25% HFRI RV FI/ 15% BAML ABS.

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



Boston Retirement System

TOTAL FUND PERFORMANCE DETAIL

Private Markets Summary						
Quarter Ending December 31, 2020						
	Committed Capital	Cummulative Distribution	Contributed Capital	QTR	Last Year	Valuation
Private Equity & Debt IRR	\$1,226,045,043	\$631,431,955	\$3,765,973,532	8.2%	9.0%	\$530,091,777
Private Equity	\$769,066,542	\$481,747,533	\$533,371,472			\$251,842,018
Private Debt	\$456,978,501	\$149,684,422	\$3,232,602,060			\$278,249,759
Real Estate IRR	\$1,037,705,453	\$812,718,387	\$871,419,205	1.8%	1.7%	\$512,205,271



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





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