



MONTHLY GROSS PERFORMANCE REPORT

BOSTON RETIREMENT SYSTEM

SEPTEMBER 30, 2021

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PROPRIETARY & CONFIDENTIAL

CALENDAR YEAR INDEX PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Sep	YTD
S&P 500	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	-4.7%	15.9%
Russell 1000	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	-4.6%	15.2%
Russell 2000	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	-2.9%	12.4%
Russell 2500	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	-3.1%	13.8%
MSCI EAFE	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	-2.9%	8.3%
MSCI EM	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-4.0%	-1.2%
MSCI ACWI	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	-4.1%	11.1%
Private Equity	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	38.2%	-	9.7%
BBG TIPS	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	-0.7%	3.5%
BBG Municipal	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	-0.7%	0.8%
BBG Muni High Yield	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	-0.7%	6.5%
BBG US Corporate HY	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	0.0%	4.5%
BBG US Agg Bond	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-0.9%	-1.6%
BBG Global Agg	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-1.8%	-4.1%
BBG Long Treasuries	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-2.9%	-7.5%
BBG US Long Credit	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-2.0%	-2.7%
BBG US STRIPS 20+ Yr	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-3.8%	-10.1%
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%	-3.4%	-6.4%
JPM EMBI Glob Div	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-2.1%	-1.4%
CS Hedge Fund	0.5%	5.9%	10.0%	5.4%	0.2%	-0.6%	7.2%	-1.1%	6.3%	4.1%	0.9%	11.3%
BBG Commodity	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	5.0%	29.1%
Alerian Midstream	-	-	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	4.1%	38.9%
FTSE NAREIT Equity REITs	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	-5.4%	23.1%

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One



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	6,505,035,391	100.0	100.0	-0.9	0.6	9.6	21.3	9.7	10.1	9.4	8.2	Aug-94
Allocation Index				-0.6	0.6	9.6	21.5	9.9	9.9	9.0	--	Aug-94
Policy Index				-0.2	1.1	9.8	21.7	10.6	10.5	9.5	--	Aug-94
PRIT Core Fund/Teachers*	2,126,784,431	32.7		-0.1	1.9	13.7	24.7	11.9	11.5	10.7	10.6	Jul-10
Total Equity	3,272,254,119	50.3	48.0	-3.7	-1.6	10.7	30.0	11.7	13.2	12.6	--	Dec-04
MSCI ACWI				-4.1	-1.1	11.1	27.4	12.6	13.2	11.9	8.0	Dec-04
Large Cap Comp	1,152,479,243	17.7	17.0	-4.6	-0.9	12.7	29.7	17.3	18.6	18.0	11.3	Dec-04
Rhumblin Advisors	283,084,839	4.4		-4.6	0.6	15.9	30.0	16.0	16.9	16.6	10.7	Aug-94
DE Shaw Core Enhanced	362,144,453	5.6		-4.7	-0.3	14.5	29.5	16.1	17.4	17.3	15.4	Oct-09
Russell 1000				-4.6	0.2	15.2	31.0	16.4	17.1	16.8	14.8	Oct-09
Aristotle Value	164,442,285	2.5		-4.7	0.0	16.9	35.5	--	--	--	20.9	Nov-19
Columbia Threadneedle	175,687,521	2.7		-2.8	-3.0	17.1	37.9	11.3	14.0	15.8	10.2	Jan-97
Russell 1000 Value				-3.5	-0.8	16.1	35.0	10.1	10.9	13.5	8.7	Jan-97
Zevenbergen Capital	166,645,537	2.6		-6.1	-4.1	-3.6	18.6	33.2	33.2	24.6	14.7	Aug-94
Russell 1000 Growth				-5.6	1.2	14.3	27.3	22.0	22.8	19.7	11.4	Aug-94
Small Cap Comp	477,397,835	7.3	6.0	-2.5	-1.1	12.1	41.0	11.8	16.4	16.1	11.0	Dec-04
Westfield Capital Management	146,578,587	2.3		-1.5	2.5	13.4	38.5	18.8	20.8	17.9	13.0	Sep-03
Russell 2000 Growth				-3.8	-5.7	2.8	33.3	11.7	15.3	15.7	10.6	Sep-03
Bernzott	133,734,783	2.1		-3.3	-3.2	8.5	35.4	8.8	15.4	--	13.9	Nov-15
Russell 2000 Value				-2.0	-3.0	22.9	63.9	8.6	11.0	13.2	11.4	Nov-15
Aristotle Small Cap	196,815,390	3.0		-2.7	-2.2	14.1	48.0	8.1	13.0	--	12.2	Nov-15
Russell 2000				-2.9	-4.4	12.4	47.7	10.5	13.4	14.6	12.9	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	1,642,377,041	25.2	25.0	-3.4	-2.3	8.7	27.4	7.3	8.3	7.5	6.5	Aug-94
International Equity	1,116,320,297	17.2	17.0	-3.2	-0.7	9.9	27.5	6.5	8.3	8.1	6.5	Dec-10
Todd	330,101,811	5.1		-1.7	-1.9	9.5	31.7	9.0	9.9	--	9.3	Apr-16
MSCI ACWI ex USA				-3.2	-3.0	5.9	23.9	8.0	8.9	7.5	9.3	Apr-16
Panagora Asset Management	329,570,009	5.1		-2.9	-0.4	10.9	29.4	6.6	8.1	9.2	6.2	Aug-94
Walter Scott International Equity	317,338,187	4.9		-4.7	0.5	7.7	19.6	--	--	--	19.6	Oct-20
MSCI EAFE				-2.9	-0.4	8.3	25.7	7.6	8.8	8.1	25.7	Oct-20
Segall Bryant Hamill	139,083,487	2.1		-4.2	-0.9	13.4	31.1	2.4	--	--	0.9	Nov-17
MSCI EAFE Small Cap				-3.6	0.9	10.0	29.0	9.0	10.4	10.7	7.4	Nov-17
Emerging Markets	526,056,745	8.1	8.0	-3.7	-5.7	6.2	27.2	8.9	8.5	6.2	4.4	Dec-10
Columbia Emerging Markets Equity	117,280,610	1.8		-5.2	--	--	--	--	--	--	--	Aug-21
Polunin	151,930,012	2.3		-2.8	-1.6	9.1	41.1	12.5	12.7	--	9.5	Oct-13
SSgA Emerging Markets	114,301,880	1.8		-3.2	-4.6	7.9	24.5	5.8	8.1	--	3.9	Oct-13
MSCI Emerging Markets				-4.0	-8.1	-1.2	18.2	8.6	9.2	6.1	5.5	Oct-13
Lazard	142,544,243	2.2		-3.7	-6.6	14.6	32.3	9.1	5.6	--	4.4	Oct-13
MSCI Emerging Markets Small Cap				-2.0	-2.2	17.2	43.2	13.1	9.8	7.2	6.5	Oct-13
Total Fixed Income	1,677,316,912	25.8	26.0									
Core Fixed Income	1,046,063,518	16.1	16.0	-0.6	0.5	0.9	3.1	6.1	4.1	3.9	4.9	Dec-04
Wells Asset Management	346,410,174	5.3		-0.8	0.2	-1.2	-0.1	6.1	3.5	3.8	5.1	May-05
BlackRock SIO	368,628,242	5.7		-0.3	0.1	1.7	6.0	5.8	4.9	--	4.3	Aug-15
Bloomberg US Aggregate TR				-0.9	0.1	-1.6	-0.9	5.4	2.9	3.0	3.3	Aug-15
IR&M	331,025,102	5.1		-0.6	1.2	2.3	3.7	6.5	3.8	--	4.3	Jul-15
IR&M Custom Benchmark				-0.6	1.0	1.8	3.0	6.0	3.3	3.2	3.7	Jul-15

- IR&M Custom Benchmark reflects Bloomberg Agg since inception through 04/30/2017, as of 05/01/2017 forward it reflects 40% Bloomberg Agg/60% Bloomberg 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	631,253,394	9.7	10.0	-0.9	0.2	3.7	11.4	6.5	6.0	4.9	--	
High Yield Income	376,488,135	5.8	6.0	0.3	1.4	7.6	15.1	7.1	7.1	7.3	7.2	Jan-06
Crescent Capital	120,825,656	1.9		0.1	0.8	5.2	11.6	6.3	5.9	--	5.9	May-15
50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield				0.3	1.0	4.5	9.8	5.5	5.6	6.2	5.1	May-15
DDJ	122,763,738	1.9		0.4	1.8	8.5	16.6	7.3	8.4	--	7.3	May-15
75% BC HY 25% S&P Leverage Loan				0.2	0.9	4.5	10.6	6.2	6.0	--	5.5	May-15
GoldenTree Multi Sector Opp Credit	131,922,117	2.0		0.5	1.5	9.2	17.2	7.7	--	--	7.3	Dec-16
Blended Index				0.1	0.7	4.6	9.7	5.5	5.3	--	5.4	Dec-16
S&P/LSTA Leveraged Loan TR				0.6	1.1	4.4	8.4	4.1	4.6	4.9	4.5	Dec-16
Emerging Market Debt	254,765,259	3.9	4.0	-2.7	-1.6	-2.1	6.0	5.5	4.3	--	1.1	Nov-11
Aberdeen EMD Plus	254,764,946	3.9		-2.7	-1.6	-2.1	6.0	--	--	--	6.8	Dec-18
JP Morgan EMBI Global Diversified				-2.1	-0.7	-1.4	4.4	5.7	3.9	5.8	7.0	Dec-18
Total Alternative Assets	1,496,532,725	23.0	26.0									
Hedge Fund Composite	308,968,550	4.7	5.0	1.2	3.0	7.2	14.1	6.9	5.4	4.6	4.0	Nov-04
EnTrust Peruvian Bonds	4,734,351	0.1		0.8	1.8	0.6	3.0	-2.7	--	--	-2.7	Jan-18
Blackstone	141,901,976	2.2		0.8	1.5	7.0	12.1	6.8	--	--	6.4	Feb-18
Grosvenor	161,090,702	2.5		1.6	4.4	7.5	16.6	8.4	7.5	--	5.9	Jul-13
HFRI Fund of Funds Composite Index				0.1	0.7	5.7	14.3	6.5	5.8	4.5	4.5	Jul-13
Hedge Fund Transition Account	1,241,521	0.0										
Real Estate Composite	555,626,490	8.5	10.0	4.9	4.9	8.7	9.8	6.9	7.8	9.7	--	
Private Equity & Debt	631,937,685	9.7	11.0	9.0	9.0	31.0	37.7	12.9	12.7	9.6	--	
Cash	58,931,635	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.5	0.3	1.1	Oct-04

- Real Estate and Private Equity & Debt report on a quarterly basis, and are lagged one quarter.
- 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 June 30, 2021						
	Committed Capital	Cummulative Distribution	Contributed Capital	QTR	Last Year	Valuation
Private Equity & Debt IRR	\$1,317,360,846	\$676,267,404	\$894,693,991	9.0%	37.7%	\$631,937,685
Private Equity	\$799,382,345	\$510,419,415	\$574,703,352			\$327,531,332
Private Debt	\$517,978,501	\$165,847,989	\$319,990,639			\$304,406,353
Real Estate IRR	\$1,089,867,880	\$844,893,654	\$913,138,908	4.9%	9.8%	\$555,626,490



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





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