MONTHLY GROSS PERFORMANCE REPORT

BOSTON RETIREMENT SYSTEM

JULY 31, 2021

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PROPRIETARY & CONFIDENTIAL

CALENDAR YEAR INDEX PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Jul	YTD
S&P 500	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	2.4%	18.0%
Russell 1000	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	2.1%	17.3%
Russell 2000	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	-3.6%	13.3%
Russell 2500	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	-1.8%	14.9%
MSCI EAFE	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	0.8%	9.6%
MSCI EM	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-6.7%	0.2%
MSCI ACWI	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	0.7%	13.1%
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%	2.7%	4.4%
BC Municipal	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	0.8%	1.9%
BC Muni High Yield	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	1.2%	7.4%
BC US Corporate HY	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	0.4%	4.0%
BC US Agg Bond	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	1.1%	-0.5%
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%	-1.9%
BC Long Treasuries	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	3.6%	-4.6%
BC US Long Credit	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	2.2%	-0.3%
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%	4.9%	-6.4%
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%	-0.4%	-3.8%
JPM EMBI Glob Div	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	0.4%	-0.3%
CS Hedge Fund	0.5%	5.9%	10.0%	5.4%	0.2%	-0.6%	7.2%	-1.1%	6.3%	4.1%	-0.7%	10.0%
BBG Commodity	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	1.8%	23.4%
Alerian Midstream	-	-	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	-3.7%	35.5%
FTSE NAREIT Equity REITs	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	4.8%	27.8%

*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	**6,528,767,950**	**100.0**	**100.0**	**0.2**	**2.7**	**9.2**	**23.1**	**9.8**	**10.4**	**8.3**	**8.2**	**Aug-94**
Allocation Index				*-0.1*	*2.5*	*8.8*	*23.0*	*9.9*	*10.1*	*8.1*	*--*	*Aug-94*
Policy Index				*0.0*	*2.8*	*8.6*	*23.2*	*10.6*	*10.6*	*8.4*	*--*	*Aug-94*
PRIT Core Fund/Teachers*	2,117,463,649	32.4		0.8	4.8	12.4	27.1	12.0	11.5	9.6	10.6	Jul-10
Total Equity	**3,504,580,051**	**53.7**	**48.0**	**0.0**	**2.0**	**12.5**	**35.1**	**12.6**	**13.9**	**10.7**	**--**	**Dec-04**
MSCI ACWI				*0.7*	*3.6*	*13.1*	*33.2*	*13.7*	*13.8*	*10.2*	*8.2*	*Dec-04*
Large Cap Comp	**1,327,228,853**	**20.3**	**17.0**	**1.2**	**4.0**	**15.1**	**37.1**	**19.7**	**19.3**	**16.6**	**11.5**	**Dec-04**
Rhumbline Advisors	336,966,644	5.2		2.4	5.5	18.0	36.4	18.1	17.3	15.3	10.9	Aug-94
DE Shaw Core Enhanced	446,877,440	6.8		2.0	4.7	17.0	36.2	18.6	18.0	16.0	15.8	Oct-09
Russell 1000				*2.1*	*5.1*	*17.3*	*38.0*	*18.6*	*17.6*	*15.4*	*15.2*	*Oct-09*
Aristotle Value	192,924,009	3.0		2.3	4.7	19.6	42.7	--	--	--	24.7	Nov-19
Columbia Threadneedle	179,240,747	2.7		-1.0	0.2	19.5	43.0	12.4	14.9	14.3	10.4	Jan-97
Russell 1000 Value				*0.8*	*2.0*	*18.0*	*39.3*	*11.3*	*11.4*	*12.1*	*8.8*	*Jan-97*
Zevenbergen Capital	170,782,849	2.6		-1.7	2.6	-1.3	30.5	39.0	34.7	22.3	14.9	Aug-94
Russell 1000 Growth				*3.3*	*8.3*	*16.7*	*36.7*	*25.3*	*23.3*	*18.4*	*11.5*	*Aug-94*
Small Cap Comp	**508,958,614**	**7.8**	**6.0**	**0.2**	**0.1**	**13.6**	**43.5**	**13.6**	**17.0**	**13.9**	**11.2**	**Dec-04**
Westfield Capital Management	144,955,553	2.2		1.3	1.8	12.1	42.3	19.4	20.7	15.3	13.0	Sep-03
Russell 2000 Growth				*-3.6*	*-2.0*	*5.0*	*41.0*	*13.9*	*16.4*	*13.6*	*10.8*	*Sep-03*
Bernzott	164,748,553	2.5		0.9	-1.2	13.1	42.5	12.4	17.0	--	15.2	Nov-15
Russell 2000 Value				*-3.6*	*-1.2*	*22.2*	*63.7*	*8.3*	*11.6*	*10.8*	*11.7*	*Nov-15*
Aristotle Small Cap	199,068,581	3.0		-1.2	-0.1	15.2	45.1	9.3	13.5	--	12.8	Nov-15
Russell 2000				*-3.6*	*-1.5*	*13.3*	*52.0*	*11.5*	*14.3*	*12.3*	*13.5*	*Nov-15*

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	**1,668,392,584**	**25.6**	**25.0**	**-0.9**	**1.0**	**10.3**	**31.1**	**6.8**	**9.2**	**5.3**	**6.6**	**Aug-94**
International Equity	**1,131,092,795**	**17.3**	**17.0**	**0.5**	**2.6**	**11.3**	**32.2**	**6.3**	**8.9**	**5.8**	**6.7**	**Dec-10**
Todd	329,487,903	5.0		-2.1	-1.9	9.2	32.2	8.1	10.2	--	9.6	Apr-16
MSCI ACWI ex USA				*-1.6*	*0.8*	*7.4*	*27.8*	*7.9*	*9.6*	*5.4*	*9.9*	*Apr-16*
Panagora Asset Management	333,876,991	5.1		0.8	3.3	12.1	34.2	6.5	8.9	7.1	6.3	Aug-94
Walter Scott International Equity	324,660,470	5.0		2.6	6.6	10.0	--	--	--	--	22.2	Oct-20
MSCI EAFE				*0.8*	*2.9*	*9.6*	*30.3*	*7.7*	*9.4*	*6.1*	*27.2*	*Oct-20*
Segall Bryant Hamill	142,835,907	2.2		1.6	2.6	16.3	41.5	2.4	--	--	1.6	Nov-17
MSCI EAFE Small Cap				*1.7*	*2.0*	*10.9*	*38.7*	*8.8*	*11.1*	*8.7*	*8.0*	*Nov-17*
Emerging Markets	**537,299,789**	**8.2**	**8.0**	**-3.8**	**-2.0**	**8.2**	**28.8**	**8.1**	**9.6**	**4.1**	**4.7**	**Dec-10**
Polunin	151,291,543	2.3		-2.1	-2.8	8.4	38.3	11.6	13.4	--	9.6	Oct-13
SSgA Emerging Markets	115,350,975	1.8		-3.8	-2.5	8.9	26.7	5.5	8.8	--	4.1	Oct-13
MSCI Emerging Markets				*-6.7*	*-4.4*	*0.2*	*20.6*	*7.9*	*10.4*	*3.6*	*5.8*	*Oct-13*
Lazard	148,539,262	2.3		-2.6	3.4	19.4	34.0	7.1	7.5	--	5.0	Oct-13
MSCI Emerging Markets Small Cap				*-1.3*	*3.5*	*18.2*	*47.9*	*11.4*	*10.6*	*4.2*	*6.8*	*Oct-13*
Total Fixed Income	**1,583,669,321**	**24.3**	**26.0**									
Core Fixed Income	**976,963,127**	**15.0**	**16.0**	**1.0**	**1.9**	**1.4**	**4.0**	**6.3**	**4.3**	**4.2**	**4.9**	**Dec-04**
Wells Asset Management	324,799,670	5.0		1.1	2.2	-0.3	0.3	6.5	3.7	4.1	5.2	May-05
BlackRock SIO	318,727,552	4.9		0.0	0.7	1.5	7.0	5.8	5.1	--	4.4	Aug-15
Bloomberg US Aggregate TR				*1.1*	*2.2*	*-0.5*	*-0.7*	*5.7*	*3.1*	*3.3*	*3.6*	*Aug-15*
IR&M	333,435,904	5.1		1.9	3.0	3.0	4.9	6.7	4.0	--	4.5	Jul-15
IR&M Custom Benchmark				*1.8*	*2.9*	*2.6*	*4.2*	*6.3*	*3.4*	*3.5*	*3.9*	*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	**606,706,194**	**9.3**	**10.0**	**0.2**	**2.1**	**3.7**	**12.3**	**6.5**	**6.5**	**4.5**	**--**	
High Yield Income	**372,622,010**	**5.7**	**6.0**	**0.3**	**2.4**	**6.5**	**16.0**	**7.1**	**7.4**	**6.7**	**7.2**	**Jan-06**
Crescent Capital	120,205,342	1.8		0.2	2.2	4.5	11.7	6.6	6.2	--	6.0	May-15
50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield				*0.2*	*1.5*	*3.6*	*10.1*	*5.7*	*5.8*	*5.5*	*5.1*	*May-15*
DDJ	121,299,492	1.9		0.6	2.9	7.3	19.2	7.2	9.0	--	7.3	May-15
75% BC HY 25% S&P Leverage Loan				*0.3*	*1.8*	*3.8*	*10.3*	*6.4*	*6.4*	*--*	*5.6*	*May-15*
GoldenTree Multi Sector Opp Credit	130,140,552	2.0		0.1	2.0	7.7	17.3	7.4	--	--	7.2	Dec-16
Blended Index				*0.1*	*1.3*	*4.0*	*10.2*	*5.6*	*5.6*	*--*	*5.4*	*Dec-16*
S&P/LSTA Leveraged Loan TR				*0.0*	*0.9*	*3.3*	*9.5*	*4.1*	*4.7*	*4.4*	*4.4*	*Dec-16*
Emerging Market Debt	**234,084,184**	**3.6**	**4.0**	**-0.1**	**1.6**	**-0.6**	**6.7**	**5.3**	**4.9**	**--**	**1.2**	**Nov-11**
Aberdeen EMD Plus	234,083,871	3.6		-0.1	1.6	-0.6	6.7	--	--	--	7.9	Dec-18
JP Morgan EMBI Global Diversified				*0.4*	*2.2*	*-0.3*	*4.1*	*6.0*	*4.6*	*5.5*	*7.9*	*Dec-18*
Total Alternative Assets	**1,393,899,613**	**21.4**	**26.0**									
Hedge Fund Composite	**302,054,183**	**4.6**	**5.0**	**0.6**	**1.8**	**4.7**	**14.5**	**6.2**	**5.2**	**3.8**	**3.9**	**Nov-04**
EnTrust Peruvian Bonds	4,644,898	0.1		-0.1	-0.5	-1.3	0.8	-3.4	--	--	-3.3	Jan-18
Blackstone	140,222,605	2.1		0.1	1.7	5.6	12.0	6.7	--	--	6.3	Feb-18
Grosvenor	155,930,279	2.4		1.0	1.9	4.1	17.6	7.4	7.2	--	5.6	Jul-13
HFRI Fund of Funds Composite Index				*-0.6*	*0.1*	*4.3*	*15.0*	*6.0*	*5.7*	*3.7*	*4.4*	*Jul-13*
Hedge Fund Transition Account	1,256,401	0.0										
Real Estate Composite	**506,849,981**	**7.8**	**10.0**	**0.0**	**1.8**	**3.6**	**3.6**	**5.8**	**7.1**	**9.8**	**--**	
Private Equity & Debt	**584,995,449**	**9.0**	**11.0**	**0.0**	**11.1**	**20.2**	**35.4**	**11.4**	**11.1**	**9.0**	**--**	
Cash	**46,618,965**	**0.7**	**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 March 31, 2021						
	Committed Capital	Cummulative Distribution	Contributed Capital	QTR	Last Year	Valuation
Private Equity & Debt IRR	**$1,319,637,085**	**$650,123,092**	**$871,929,908**	**11.1%**	**35.5%**	**$584,995,449**
Private Equity	$801,658,584	$494,360,197	$548,450,239			$288,135,825
Private Debt	$517,978,501	$155,762,895	$323,479,669			$296,859,624
Real Estate IRR	**$1,089,579,039**	**$829,331,819**	**$873,650,979**	**1.8%**	**3.5%**	**$506,849,981**

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Past performance is no guarantee of future results.

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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.

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

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