



# MONTHLY GROSS PERFORMANCE REPORT

BOSTON RETIREMENT SYSTEM

AUGUST 31, 2021

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PROPRIETARY & CONFIDENTIAL

# CALENDAR YEAR INDEX PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Aug	YTD
<b>S&amp;P 500</b>	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	3.0%	21.6%
<b>Russell 1000</b>	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	2.9%	20.7%
<b>Russell 2000</b>	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	2.2%	15.8%
<b>Russell 2500</b>	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	2.3%	17.5%
<b>MSCI EAFE</b>	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	1.8%	11.6%
<b>MSCI EM</b>	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	2.6%	2.8%
<b>MSCI ACWI</b>	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	2.5%	15.9%
<b>Private Equity</b>	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	38.2%	-	9.7%
<b>BBG TIPS</b>	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	-0.2%	4.3%
<b>BBG Municipal</b>	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	-0.4%	1.5%
<b>BBG Muni High Yield</b>	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	-0.2%	7.2%
<b>BBG US Corporate HY</b>	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	0.5%	4.5%
<b>BBG US Agg Bond</b>	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-0.2%	-0.7%
<b>BBG Global Agg</b>	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-0.4%	-2.3%
<b>BBG Long Treasuries</b>	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-0.2%	-4.8%
<b>BBG US Long Credit</b>	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-0.4%	-0.7%
<b>BBG US STRIPS 20+ Yr</b>	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-0.2%	-6.6%
<b>JPM GBI-EM Global Div</b>	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	0.8%	-3.0%
<b>JPM EMBI Glob Div</b>	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	1.0%	0.7%
<b>CS Hedge Fund</b>	0.5%	5.9%	10.0%	5.4%	0.2%	-0.6%	7.2%	-1.1%	6.3%	4.1%	0.3%	10.3%
<b>BBG Commodity</b>	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	-0.3%	23.0%
<b>Alerian Midstream</b>	-	-	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	-1.6%	33.4%
<b>FTSE NAREIT Equity REITs</b>	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	1.8%	30.2%

\*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
<b>Total Fund</b>	<b>6,607,473,228</b>	<b>100.0</b>	<b>100.0</b>	<b>1.3</b>	<b>3.1</b>	<b>10.7</b>	<b>21.2</b>	<b>10.2</b>	<b>10.5</b>	<b>9.0</b>	<b>8.2</b>	<b>Aug-94</b>
Allocation Index				1.4	2.8	10.3	21.0	10.3	10.3	8.6	--	Aug-94
Policy Index				1.3	3.1	10.0	21.3	11.0	10.8	9.0	--	Aug-94
PRIT Core Fund/Teachers*	2,129,441,975	32.2		1.3	5.1	13.8	25.7	12.3	11.7	10.2	10.6	Jul-10
<b>Total Equity</b>	<b>3,501,756,406</b>	<b>53.0</b>	<b>48.0</b>	<b>2.1</b>	<b>2.7</b>	<b>14.9</b>	<b>31.4</b>	<b>13.2</b>	<b>14.2</b>	<b>11.9</b>	<b>--</b>	<b>Dec-04</b>
MSCI ACWI				2.5	4.6	15.9	28.6	14.3	14.3	11.3	8.3	Dec-04
<b>Large Cap Comp</b>	<b>1,311,909,758</b>	<b>19.9</b>	<b>17.0</b>	<b>2.6</b>	<b>6.6</b>	<b>18.2</b>	<b>31.7</b>	<b>19.4</b>	<b>19.9</b>	<b>17.6</b>	<b>11.6</b>	<b>Dec-04</b>
Rhumblin Advisors	296,879,594	4.5		3.0	7.9	21.5	31.1	18.0	18.0	16.3	11.0	Aug-94
DE Shaw Core Enhanced	458,684,564	6.9		2.6	6.9	20.1	30.4	18.2	18.6	17.0	16.0	Oct-09
Russell 1000				2.9	7.7	20.7	32.3	18.4	18.2	16.4	15.4	Oct-09
Aristotle Value	197,662,473	3.0		2.5	6.0	22.6	39.4	--	--	--	25.2	Nov-19
Columbia Threadneedle	180,761,972	2.7		0.8	-3.1	20.5	37.9	12.5	14.8	15.2	10.4	Jan-97
Russell 1000 Value				2.0	1.6	20.3	36.4	11.5	11.7	13.0	8.8	Jan-97
Zevenbergen Capital	177,454,373	2.7		3.9	15.0	2.6	24.7	36.4	35.4	24.0	15.0	Aug-94
Russell 1000 Growth				3.7	13.9	21.1	28.5	24.6	24.4	19.4	11.6	Aug-94
<b>Small Cap Comp</b>	<b>489,528,360</b>	<b>7.4</b>	<b>6.0</b>	<b>1.2</b>	<b>1.7</b>	<b>15.0</b>	<b>40.4</b>	<b>12.4</b>	<b>16.9</b>	<b>15.1</b>	<b>11.2</b>	<b>Dec-04</b>
Westfield Capital Management	148,867,256	2.3		2.7	6.7	15.2	40.4	19.1	21.1	16.7	13.2	Sep-03
Russell 2000 Growth				1.8	2.7	6.9	35.6	12.3	16.6	14.8	10.9	Sep-03
Bernzott	138,242,258	2.1		-0.9	-1.3	12.2	34.9	10.3	16.1	--	14.8	Nov-15
Russell 2000 Value				2.7	-1.6	25.4	59.5	8.4	11.7	12.1	12.0	Nov-15
Aristotle Small Cap	202,220,704	3.1		1.8	0.6	17.2	44.9	8.4	13.8	--	12.9	Nov-15
Russell 2000				2.2	0.5	15.8	47.1	10.7	14.4	13.6	13.7	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
<b>Total Non-US Equity</b>	<b>1,700,318,288</b>	<b>25.7</b>	<b>25.0</b>	<b>2.0</b>	<b>0.2</b>	<b>12.5</b>	<b>28.7</b>	<b>8.6</b>	<b>9.4</b>	<b>6.5</b>	<b>6.6</b>	<b>Aug-94</b>
<b>International Equity</b>	<b>1,154,195,055</b>	<b>17.5</b>	<b>17.0</b>	<b>2.1</b>	<b>1.4</b>	<b>13.6</b>	<b>28.6</b>	<b>8.0</b>	<b>9.3</b>	<b>7.2</b>	<b>6.8</b>	<b>Dec-10</b>
Todd	335,870,452	5.1		1.9	-2.6	11.4	29.9	10.1	10.6	--	9.8	Apr-16
MSCI ACWI ex USA				1.9	-0.4	9.4	24.9	9.4	9.9	6.6	10.1	Apr-16
Panagora Asset Management	339,346,377	5.1		1.8	1.2	14.1	29.8	8.1	9.2	8.4	6.4	Aug-94
Walter Scott International Equity	333,446,059	5.0		2.7	5.9	13.0	--	--	--	--	25.5	Oct-20
MSCI EAFE				1.8	1.4	11.6	26.1	9.0	9.7	7.3	29.5	Oct-20
Segall Bryant Hamill	145,302,266	2.2		1.8	1.2	18.4	35.1	3.9	--	--	2.0	Nov-17
MSCI EAFE Small Cap				2.9	2.9	14.1	32.8	10.1	11.8	9.9	8.6	Nov-17
<b>Emerging Markets</b>	<b>546,123,232</b>	<b>8.3</b>	<b>8.0</b>	<b>1.8</b>	<b>-2.2</b>	<b>10.2</b>	<b>29.1</b>	<b>9.9</b>	<b>9.5</b>	<b>5.1</b>	<b>4.8</b>	<b>Dec-10</b>
Columbia Emerging Markets Equity	123,659,422	1.9		--	--	--	--	--	--	--	--	Aug-21
Polunin	156,375,564	2.4		3.4	-0.3	12.2	40.1	13.6	13.7	--	10.0	Oct-13
SSgA Emerging Markets	118,034,911	1.8		2.3	-1.4	11.4	27.8	6.9	9.0	--	4.3	Oct-13
MSCI Emerging Markets				2.6	-4.1	2.8	21.1	9.9	10.4	4.9	6.1	Oct-13
Lazard	148,053,336	2.2		-0.3	-0.5	19.0	33.3	9.2	6.6	--	4.9	Oct-13
MSCI Emerging Markets Small Cap				1.2	2.2	19.6	43.7	12.6	10.5	5.6	6.8	Oct-13
<b>Total Fixed Income</b>	<b>1,664,726,687</b>	<b>25.2</b>	<b>26.0</b>									
<b>Core Fixed Income</b>	<b>1,052,590,637</b>	<b>15.9</b>	<b>16.0</b>	<b>0.1</b>	<b>1.6</b>	<b>1.5</b>	<b>3.7</b>	<b>6.2</b>	<b>4.3</b>	<b>4.0</b>	<b>4.9</b>	<b>Dec-04</b>
Wells Asset Management	349,445,812	5.3		-0.1	1.9	-0.4	0.7	6.2	3.7	4.0	5.2	May-05
BlackRock SIO	370,048,859	5.6		0.5	0.7	2.0	6.4	6.0	5.1	--	4.4	Aug-15
Bloomberg US Aggregate TR				-0.2	1.6	-0.7	-0.1	5.4	3.1	3.2	3.5	Aug-15
IR&M	333,095,965	5.0		-0.1	2.2	2.9	4.1	6.5	4.0	--	4.5	Jul-15
IR&M Custom Benchmark				-0.2	2.0	2.4	3.4	6.0	3.4	3.3	3.8	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
<b>Value Added Fixed Income</b>	<b>612,136,051</b>	<b>9.3</b>	<b>10.0</b>	<b>0.9</b>	<b>2.1</b>	<b>4.6</b>	<b>11.7</b>	<b>7.2</b>	<b>6.4</b>	<b>4.7</b>	--	
<b>High Yield Income</b>	<b>375,378,888</b>	<b>5.7</b>	<b>6.0</b>	<b>0.8</b>	<b>2.5</b>	<b>7.3</b>	<b>15.0</b>	<b>7.2</b>	<b>7.3</b>	<b>7.1</b>	<b>7.2</b>	<b>Jan-06</b>
Crescent Capital	120,800,315	1.8		0.5	2.3	5.1	11.0	6.5	6.0	--	6.0	May-15
<i>50/50 S&amp;P/LSTA Leveraged Loan/Bloomberg High Yield</i>				0.5	1.5	4.2	9.3	5.6	5.6	6.0	5.1	May-15
DDJ	122,318,408	1.9		0.8	3.4	8.2	17.9	7.4	8.6	--	7.3	May-15
<i>75% BC HY 25% S&amp;P Leverage Loan</i>				0.5	1.9	4.3	9.7	6.4	6.2	--	5.6	May-15
GoldenTree Multi Sector Opp Credit	131,283,542	2.0		0.9	1.8	8.6	16.3	7.7	--	--	7.3	Dec-16
<i>Blended Index</i>				0.5	1.3	4.5	9.5	5.6	5.4	--	5.4	Dec-16
<i>S&amp;P/LSTA Leveraged Loan TR</i>				0.5	0.8	3.8	8.4	4.2	4.6	4.9	4.4	Dec-16
<b>Emerging Market Debt</b>	<b>236,757,163</b>	<b>3.6</b>	<b>4.0</b>	<b>1.1</b>	<b>1.4</b>	<b>0.6</b>	<b>6.6</b>	<b>7.2</b>	<b>5.1</b>	<b>--</b>	<b>1.3</b>	<b>Nov-11</b>
Aberdeen EMD Plus	236,756,849	3.6		1.1	1.4	0.6	6.6	--	--	--	8.1	Dec-18
<i>JP Morgan EMBI Global Diversified</i>				1.0	2.1	0.7	4.6	6.9	4.4	5.6	8.0	Dec-18
<b>Total Alternative Assets</b>	<b>1,397,365,449</b>	<b>21.1</b>	<b>26.0</b>									
<b>Hedge Fund Composite</b>	<b>305,520,019</b>	<b>4.6</b>	<b>5.0</b>	<b>1.2</b>	<b>3.0</b>	<b>5.9</b>	<b>13.3</b>	<b>6.6</b>	<b>5.2</b>	<b>4.2</b>	<b>3.9</b>	<b>Nov-04</b>
EnTrust Peruvian Bonds	4,698,064	0.1		1.1	0.9	-0.1	2.1	-3.0	--	--	-2.9	Jan-18
Blackstone	140,971,518	2.1		0.6	1.8	6.2	11.1	6.8	--	--	6.4	Feb-18
Grosvenor	158,612,006	2.4		1.7	4.2	5.9	16.0	7.9	7.2	--	5.7	Jul-13
<i>HFRI Fund of Funds Composite Index</i>				1.3	1.2	5.6	14.0	6.4	5.9	4.2	4.5	Jul-13
Hedge Fund Transition Account	1,238,431	0.0										
<b>Real Estate Composite</b>	<b>506,849,981</b>	<b>7.7</b>	<b>10.0</b>	<b>0.0</b>	<b>1.8</b>	<b>3.6</b>	<b>3.6</b>	<b>5.8</b>	<b>7.1</b>	<b>9.8</b>	--	
<b>Private Equity &amp; Debt</b>	<b>584,995,449</b>	<b>8.9</b>	<b>11.0</b>	<b>0.0</b>	<b>11.1</b>	<b>20.2</b>	<b>35.4</b>	<b>11.4</b>	<b>11.1</b>	<b>9.0</b>	--	
<b>Cash</b>	<b>43,624,687</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.9</b>	<b>0.5</b>	<b>0.3</b>	<b>1.1</b>	<b>Oct-04</b>

- 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.

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.

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







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