

# **FLASH REPORT (GROSS)**

## **Boston Retirement System**

**November 30, 2020**

**Mike Manning, CFA, CAIA, Managing Partner**

**Will Forde, CFA, CAIA, Principal**

**Kiley Fischer, Analyst**



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

# CALENDAR YEAR INDEX PERFORMANCE

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Nov	YTD
<b>S&amp;P 500</b>	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	10.9%	14.0%
<b>Russell 1000</b>	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	11.8%	16.1%
<b>Russell 2000</b>	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	18.4%	10.4%
<b>Russell 2500</b>	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	16.3%	11.5%
<b>MSCI EAFE</b>	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	15.5%	3.0%
<b>MSCI EM</b>	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	9.2%	10.2%
<b>MSCI ACWI</b>	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	12.3%	11.1%
<b>Private Equity</b>	19.8%	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	-	1.8%
<b>BC TIPS</b>	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	1.1%	9.7%
<b>BC Municipal</b>	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	1.5%	4.6%
<b>BC Muni High Yield</b>	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	2.4%	3.0%
<b>BC US Corporate HY</b>	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	4.0%	5.1%
<b>BC US Agg Bond</b>	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	1.0%	7.4%
<b>BC Global Agg</b>	5.5%	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	1.8%	7.7%
<b>BC Long Treasuries</b>	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	1.2%	19.1%
<b>BC US Long Credit</b>	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	5.1%	12.8%
<b>BC US STRIPS 20+ Yr</b>	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	1.8%	26.0%
<b>JPM GBI-EM Global Div</b>	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	5.5%	-0.8%
<b>JPM EMBI Glob Div</b>	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	3.9%	3.3%
<b>CS Hedge Fund</b>	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	-	-0.5%
<b>BBG Commodity</b>	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	3.5%	-7.7%
<b>Alerian MLP</b>	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	6.6%	23.8%	-30.4%
<b>FTSE NAREIT Equity REITs</b>	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	10.9%	-10.9%

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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund</b>	<b>5,753,361,831</b>	<b>100.0</b>	<b>100.0</b>	<b>7.1</b>	<b>5.4</b>	<b>8.1</b>	<b>10.9</b>	<b>6.6</b>	<b>8.3</b>	<b>8.0</b>	<b>7.9</b>	<b>Aug-94</b>
Allocation Index				7.3	5.3	7.6	10.2	6.6	8.3	7.6	--	Aug-94
Policy Index				7.2	5.7	8.0	10.6	7.5	8.9	8.1	--	Aug-94
PRIT Core Fund/Teachers*	1,780,408,118	30.9		6.1	5.8	7.8	10.1	7.9	9.3	9.0	9.6	Jul-10
<b>Total Equity</b>	<b>2,979,005,631</b>	<b>51.8</b>	<b>48.0</b>	<b>12.7</b>	<b>8.3</b>	<b>10.8</b>	<b>15.1</b>	<b>7.7</b>	<b>10.6</b>	<b>--</b>	<b>--</b>	<b>Dec-04</b>
MSCI ACWI				12.3	6.1	11.1	15.0	9.0	10.8	9.4	7.4	Dec-04
<b>Large Cap Comp</b>	<b>1,181,101,957</b>	<b>20.5</b>	<b>17.0</b>	<b>12.3</b>	<b>6.6</b>	<b>22.3</b>	<b>26.2</b>	<b>15.8</b>	<b>16.0</b>	<b>15.7</b>	<b>10.7</b>	<b>Dec-04</b>
Rhumblin Advisors	313,988,181	5.5		10.9	3.9	14.0	17.5	13.1	13.9	14.1	10.3	Aug-94
DE Shaw Core Enhanced	404,863,746	7.0		11.3	4.1	15.0	18.4	14.0	14.8	15.0	14.8	Oct-09
Russell 1000				11.8	5.1	16.1	19.4	13.7	14.2	14.3	14.2	Oct-09
Aristotle Value	154,187,133	2.7		10.8	8.5	9.5	12.9	--	--	--	16.0	Nov-19
Columbia Threadneedle	144,938,593	2.5		15.2	10.2	4.3	8.0	6.6	10.9	13.1	9.7	Jan-97
Russell 1000 Value				13.5	9.2	-1.0	1.7	5.3	8.4	10.9	8.1	Jan-97
Zevenbergen Capital	162,685,256	2.8		16.8	13.7	109.8	118.1	46.0	32.1	22.6	15.1	Aug-94
Russell 1000 Growth				10.2	1.5	32.4	36.4	21.5	19.6	17.3	11.0	Aug-94
<b>Small Cap Comp</b>	<b>417,460,803</b>	<b>7.3</b>	<b>6.0</b>	<b>13.4</b>	<b>13.3</b>	<b>11.6</b>	<b>14.9</b>	<b>10.2</b>	<b>12.6</b>	<b>13.1</b>	<b>10.3</b>	<b>Dec-04</b>
Westfield Capital Management	120,084,306	2.1		12.2	12.7	24.4	27.2	17.0	16.0	15.1	12.3	Sep-03
Russell 2000 Growth				17.6	16.0	23.1	25.9	12.8	13.2	13.3	10.4	Sep-03
Bernzott	136,404,861	2.4		11.9	12.2	8.4	11.9	9.6	13.0	--	13.0	Nov-15
Russell 2000 Value				19.3	17.8	-3.0	0.3	0.8	6.8	8.7	7.3	Nov-15
Aristotle Small Cap	160,818,210	2.8		15.5	14.6	3.5	6.7	4.4	9.2	--	9.8	Nov-15
Russell 2000				18.4	16.9	10.4	13.6	7.1	10.3	11.1	10.8	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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Non-US Equity</b>	<b>1,380,442,871</b>	<b>24.0</b>	<b>25.0</b>	<b>12.7</b>	<b>8.3</b>	<b>1.4</b>	<b>6.3</b>	<b>1.3</b>	<b>6.2</b>	<b>4.9</b>	<b>6.1</b>	<b>Aug-94</b>
<b>International Equity</b>	<b>931,786,719</b>	<b>16.2</b>	<b>17.0</b>	<b>13.6</b>	<b>7.7</b>	<b>-0.2</b>	<b>3.6</b>	<b>1.0</b>	<b>4.9</b>	<b>5.5</b>	<b>5.5</b>	<b>Dec-10</b>
Todd	268,590,162	4.7		14.8	10.7	4.9	9.4	3.8	--	--	7.8	Apr-16
MSCI ACWI ex USA				13.5	8.3	5.0	9.5	3.8	7.4	5.2	8.5	Apr-16
Panagora Asset Management	283,133,523	4.9		15.0	8.0	1.3	4.6	1.0	5.2	6.8	5.8	Aug-94
Walter Scott International Equity	264,828,600	4.6		11.8	--	--	--	--	--	--	6.9	Oct-20
MSCI EAFE				15.5	8.0	3.0	6.4	3.3	6.2	5.9	10.9	Oct-20
Segall Bryant Hamill	114,999,468	2.0		11.9	6.2	-10.2	-5.6	-5.9	--	--	-5.2	Nov-17
MSCI EAFE Small Cap				13.7	9.0	5.2	9.8	3.5	8.1	8.3	3.9	Nov-17
<b>Emerging Markets</b>	<b>448,656,152</b>	<b>7.8</b>	<b>8.0</b>	<b>10.9</b>	<b>9.7</b>	<b>4.8</b>	<b>12.2</b>	<b>1.9</b>	<b>8.7</b>	<b>3.5</b>	<b>3.5</b>	<b>Dec-10</b>
Vontobel	119,663,961	2.1		7.8	8.9	10.1	16.5	5.5	9.3	6.7	10.3	Oct-05
Polunin	129,045,525	2.2		16.8	14.8	10.1	17.4	4.6	12.7	--	8.0	Oct-13
SSgA Emerging Markets	99,722,365	1.7		7.3	8.0	1.0	8.5	0.4	7.7	--	2.3	Oct-13
MSCI Emerging Markets				9.2	9.7	10.2	18.4	4.9	10.7	3.6	5.2	Oct-13
Lazard	100,224,301	1.7		11.4	6.2	-3.1	5.3	-3.4	4.6	--	2.2	Oct-13
MSCI Emerging Markets Small Cap				14.1	11.6	10.7	17.5	1.4	6.6	2.1	3.9	Oct-13
<b>Total Fixed Income</b>	<b>1,530,279,138</b>	<b>26.6</b>	<b>26.0</b>									
<b>Core Fixed Income</b>	<b>957,452,892</b>	<b>16.6</b>	<b>16.0</b>	<b>1.6</b>	<b>1.4</b>	<b>7.7</b>	<b>8.3</b>	<b>5.5</b>	<b>4.7</b>	<b>4.3</b>	<b>5.0</b>	<b>Dec-04</b>
Wells Asset Management	325,421,959	5.7		1.1	0.9	9.1	9.1	6.1	4.9	4.6	5.5	May-05
BlackRock SIO	310,902,371	5.4		2.9	2.9	6.5	7.7	5.2	4.8	--	4.4	Aug-15
BBgBarc US Aggregate TR				1.0	0.5	7.4	7.3	5.5	4.3	3.7	4.1	Aug-15
IR&M	321,128,562	5.6		0.9	0.3	7.9	8.4	5.3	4.5	--	4.4	Jul-15
IR&M Custom Benchmark				0.9	0.2	7.2	7.6	5.0	3.9	3.5	3.8	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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Value Added Fixed Income</b>	<b>572,826,245</b>	<b>10.0</b>	<b>10.0</b>	<b>4.3</b>	<b>4.3</b>	<b>4.7</b>	<b>7.1</b>	<b>4.7</b>	<b>6.5</b>	<b>4.7</b>	--	
<b>High Yield Income</b>	<b>343,988,417</b>	<b>6.0</b>	<b>6.0</b>	<b>3.9</b>	<b>5.0</b>	<b>5.3</b>	<b>7.7</b>	<b>5.3</b>	<b>6.8</b>	<b>6.6</b>	<b>6.9</b>	<b>Jan-06</b>
Crescent Capital	114,039,875	2.0		3.5	4.0	4.2	5.7	4.9	6.2	--	5.5	May-15
<i>50/50 S&amp;P/LSTA Leveraged Loan/BBgBarc High Yield</i>				3.1	3.3	3.4	5.3	4.7	6.2	5.6	4.7	May-15
DDJ	110,927,895	1.9		3.2	6.5	6.7	10.3	5.3	8.3	--	6.4	May-15
<i>75% BC HY 25% S&amp;P Leverage Loan</i>				3.5	3.3	4.3	6.3	5.2	6.9	--	5.2	May-15
GoldenTree Multi Sector Opp Credit	118,039,968	2.1		4.9	4.6	5.3	7.4	5.4	--	--	5.9	Dec-16
<i>Blended Index</i>				2.8	3.0	3.6	5.2	4.4	--	--	4.9	Dec-16
<i>S&amp;P/LSTA Leveraged Loan TR</i>				2.2	3.1	1.8	3.4	3.7	4.7	4.3	4.0	Dec-16
<b>Emerging Market Debt</b>	<b>228,837,828</b>	<b>4.0</b>	<b>4.0</b>	<b>5.0</b>	<b>3.0</b>	<b>2.5</b>	<b>5.1</b>	<b>3.5</b>	<b>5.8</b>	<b>--</b>	<b>1.1</b>	<b>Nov-11</b>
Aberdeen EMD Plus	228,837,515	4.0		5.0	3.0	2.5	5.1	--	--	--	9.4	Dec-18
<i>JP Morgan EMBI Global Diversified</i>				3.9	1.9	3.3	5.4	4.6	6.4	6.0	9.7	Dec-18
<b>Total Alternative Assets</b>	<b>1,214,883,772</b>	<b>21.1</b>	<b>26.0</b>									
<b>Hedge Fund Composite</b>	<b>281,023,583</b>	<b>4.9</b>	<b>5.0</b>	<b>2.8</b>	<b>3.7</b>	<b>8.3</b>	<b>9.5</b>	<b>4.2</b>	<b>2.9</b>	<b>3.3</b>	<b>3.5</b>	<b>Nov-04</b>
EnTrust Peruvian Bonds	4,530,761	0.1		-0.2	-1.8	-3.8	-6.6	--	--	--	-4.9	Jan-18
Blackstone	130,323,888	2.3		1.8	1.8	3.8	4.7	--	--	--	4.8	Feb-18
Grosvenor	144,792,991	2.5		3.8	5.9	13.4	15.2	6.3	5.1	--	5.0	Jul-13
<i>HFRI Fund of Funds Composite Index</i>				3.9	4.1	6.9	8.7	3.9	3.7	3.2	3.7	Jul-13
Hedge Fund Transition Account	1,375,943	0.0										
<b>Real Estate Composite</b>	<b>507,748,596</b>	<b>8.8</b>	<b>10.0</b>	<b>0.0</b>	<b>-1.0</b>	<b>1.5</b>	<b>3.4</b>	<b>6.9</b>	<b>7.9</b>	<b>10.8</b>	--	
<b>Private Equity &amp; Debt</b>	<b>426,111,593</b>	<b>7.4</b>	<b>11.0</b>	<b>0.0</b>	<b>7.1</b>	<b>-1.7</b>	<b>-0.5</b>	<b>6.6</b>	<b>5.6</b>	<b>7.8</b>	--	
<b>Cash</b>	<b>29,193,291</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.4</b>	<b>0.5</b>	<b>0.9</b>	<b>0.5</b>	<b>0.3</b>	<b>1.2</b>	<b>Oct-04</b>

- Real Estate and Private Equity & Debt report on a quarterly basis, valuations are as of 6/30/2020.
- 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 & Real Estate Summary						
Quarter Ending June 30, 2020						
	Committed Capital	Cumulative Distribution	Contributed Capital	QTR	Last Year	Valuation
<b>Private Equity &amp; Debt IRR</b>	<b>\$1,061,871,623</b>	<b>\$614,141,318</b>	<b>\$799,319,547</b>	<b>7.1%</b>	<b>-0.5%</b>	<b>\$426,111,593</b>
Private Equity	\$604,893,122	\$469,822,949	\$516,285,075			\$217,786,033
Private Debt	\$456,978,501	\$144,318,369	\$283,034,472			\$208,325,560
<b>Real Estate IRR</b>	<b>\$1,037,176,734</b>	<b>\$782,609,965</b>	<b>\$851,209,177</b>	<b>-1.0%</b>	<b>3.4%</b>	<b>\$507,748,596</b>



## **Information Disclaimer**

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

## **Reporting Methodology**

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

