

FLASH REPORT (GROSS)

Boston Retirement System

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

CALENDAR YEAR INDEX PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Feb	YTD
S&P 500	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	2.8%	1.7%
Russell 1000	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	2.9%	2.1%
Russell 2000	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	6.2%	11.6%
Russell 2500	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	6.5%	9.1%
MSCI EAFE	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	2.2%	1.2%
MSCI EM	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	0.8%	3.9%
MSCI ACWI	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	2.3%	1.9%
Private Equity	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	13.7%*	-	-
BC TIPS	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	-1.6%	-1.3%
BC Municipal	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	-1.6%	-1.0%
BC Muni High Yield	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	-1.0%	1.0%
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%	0.7%
BC US Agg Bond	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.4%	-2.2%
BC Global Agg	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-1.7%	-2.6%
BC Long Treasuries	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-5.6%	-9.0%
BC US Long Credit	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-3.3%	-5.8%
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%	-7.6%	-12.5%
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%	-2.7%	-3.7%
JPM EMBI Glob Div	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-2.6%	-3.6%
CS Hedge Fund	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	-0.2%	-0.2%
BBG Commodity	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	6.5%	9.3%
Alerian MLP	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	6.6%	-28.7%	7.8%	14.1%
FTSE NAREIT Equity REITs	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	4.0%	4.1%

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 (%)	Fiscal YTD (%)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	6,124,098,365	100.0	100.0	1.9	1.8	5.8	19.6	7.7	10.8	7.8	8.1	Aug-94
Allocation Index				1.5	1.7	5.9	19.3	8.0	10.6	7.4	--	Aug-94
Policy Index				1.2	1.3	5.7	19.3	8.8	11.2	7.9	--	Aug-94
PRIT Core Fund/Teachers*	1,995,797,199	32.6		1.2	1.1	5.6	17.8	9.1	11.2	8.8	10.0	Jul-10
Total Equity	3,196,320,847	52.2	48.0	3.6	3.8	9.5	34.2	9.9	15.0	--	--	Dec-04
MSCI ACWI				2.3	1.9	6.6	30.2	10.3	14.2	8.8	7.7	Dec-04
Large Cap Comp	1,189,559,679	19.4	17.0	3.1	3.1	7.7	41.5	17.5	19.9	15.1	11.1	Dec-04
Rhumblin Advisors	290,611,346	4.7		2.8	1.7	5.6	31.2	14.1	16.8	13.4	10.4	Aug-94
DE Shaw Core Enhanced	387,001,939	6.3		2.3	1.3	5.6	32.4	15.1	17.7	14.3	15.0	Oct-09
Russell 1000				2.9	2.1	6.4	34.3	15.0	17.4	13.6	14.4	Oct-09
Aristotle Value	171,605,669	2.8		6.3	6.3	11.4	35.4	--	--	--	22.3	Nov-19
Columbia Threadneedle	162,268,581	2.6		6.7	8.0	12.1	35.4	10.5	15.9	12.5	10.1	Jan-97
Russell 1000 Value				6.0	5.1	9.1	22.2	8.2	12.0	10.4	8.4	Jan-97
Zevenbergen Capital	177,670,278	2.9		-0.7	2.3	9.4	104.4	44.6	39.6	22.5	15.3	Aug-94
Russell 1000 Growth				0.0	-0.8	3.8	44.3	21.0	22.2	16.4	11.0	Aug-94
Small Cap Comp	480,627,615	7.8	6.0	6.7	7.0	15.3	44.1	14.7	19.4	13.1	11.1	Dec-04
Westfield Capital Management	134,783,738	2.2		5.2	3.9	12.5	50.3	19.7	23.2	14.7	12.9	Sep-03
Russell 2000 Growth				3.3	8.3	18.4	58.9	18.9	21.1	13.8	11.3	Sep-03
Bernzott	157,279,568	2.6		7.6	7.5	15.3	40.4	14.2	19.3	--	15.4	Nov-15
Russell 2000 Value				9.4	15.2	24.3	41.1	10.1	14.2	9.7	11.4	Nov-15
Aristotle Small Cap	188,391,012	3.1		7.0	8.8	17.4	41.5	10.8	15.7	--	12.6	Nov-15
Russell 2000				6.2	11.6	21.2	51.0	14.9	17.9	11.9	14.3	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 (%)	Fiscal YTD (%)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Non-US Equity	1,526,133,553	24.9	25.0	3.0	3.4	9.2	25.0	3.1	10.3	4.6	6.4	Aug-94
International Equity	1,020,337,528	16.7	17.0	2.9	2.2	7.5	21.7	2.5	9.0	4.8	6.1	Dec-10
Todd	323,123,317	5.3		7.1	7.0	12.7	32.0	7.0	--	--	10.0	Apr-16
<i>MSCI ACWI ex USA</i>				2.0	2.2	7.7	26.2	5.4	11.2	4.8	9.7	Apr-16
Panagora Asset Management	303,393,897	5.0		2.7	1.9	7.2	22.7	2.3	8.8	6.1	6.0	Aug-94
Walter Scott International Equity	267,135,413	4.4		-1.5	-2.8	1.0	--	--	--	--	7.9	Oct-20
<i>MSCI EAFE</i>				2.2	1.2	5.9	22.5	4.6	9.7	5.0	17.4	Oct-20
Segall Bryant Hamill	126,449,918	2.1		2.6	2.6	10.2	16.2	-3.9	--	--	-2.0	Nov-17
<i>MSCI EAFE Small Cap</i>				2.6	2.3	9.2	31.2	5.2	11.7	7.8	6.4	Nov-17
Emerging Markets	505,796,025	8.3	8.0	3.3	5.7	12.9	32.2	4.3	13.0	4.5	4.6	Dec-10
Vontobel	132,176,933	2.2		0.0	4.2	10.7	33.6	7.8	13.0	7.8	10.9	Oct-05
Polunin	146,882,799	2.4		5.8	4.9	14.1	46.0	7.1	17.1	--	9.7	Oct-13
SSgA Emerging Markets	113,987,151	1.9		2.2	7.6	14.3	29.0	2.5	12.7	--	4.1	Oct-13
<i>MSCI Emerging Markets</i>				0.8	3.9	11.5	36.0	6.4	15.2	4.4	6.6	Oct-13
Lazard	112,749,142	1.8		5.5	6.7	12.5	18.9	-0.7	8.5	--	3.8	Oct-13
<i>MSCI Emerging Markets Small Cap</i>				6.0	6.0	14.2	41.8	4.2	11.4	3.6	5.6	Oct-13
Total Fixed Income	1,542,612,025	25.2	26.0	-0.8	-1.0	-0.2	4.9	5.6	4.6	4.4	4.9	Dec-04
Core Fixed Income	955,093,220	15.6	16.0	-1.6	-2.4	-2.1	2.9	5.9	4.1	4.4	5.2	May-05
Wells Asset Management	318,191,787	5.2		0.5	0.6	1.9	7.5	5.3	5.6	--	4.6	Aug-15
BlackRock SIO	316,456,655	5.2		-1.4	-2.2	-2.0	1.4	5.3	3.6	3.6	3.6	Aug-15
<i>BBgBarc US Aggregate TR</i>				-1.2	-1.1	-0.2	4.8	5.6	4.1	--	4.1	Jul-15
IR&M	320,444,778	5.2		-1.0	-0.9	-0.1	4.1	5.3	3.5	3.5	3.6	Jul-15
<i>IR&M Custom Benchmark</i>												

- 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 (%)	Fiscal YTD (%)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Value Added Fixed Income	587,518,804	9.6	10.0	-0.1	0.2	2.6	7.6	5.0	7.4	4.6	--	
High Yield Income	358,772,619	5.9	6.0	1.2	2.2	4.4	10.3	6.2	8.1	6.5	7.1	Jan-06
Crescent Capital	116,776,374	1.9		0.7	0.9	2.5	7.7	5.7	6.8	--	5.8	May-15
<i>50/50 S&P/LSTA Leveraged Loan/BBgBarc High Yield</i>				0.5	1.2	2.9	7.6	5.4	7.4	5.4	5.0	May-15
DDJ	116,016,387	1.9		0.9	2.3	4.7	11.4	6.0	10.2	--	7.0	May-15
<i>75% BC HY 25% S&P Leverage Loan</i>				0.4	1.0	2.7	8.5	6.0	8.2	--	5.5	May-15
GoldenTree Multi Sector Opp Credit	124,956,685	2.0		1.9	3.4	5.9	12.0	6.7	--	--	6.9	Dec-16
<i>Blended Index</i>				0.7	1.7	3.4	7.6	5.2	--	--	5.4	Dec-16
<i>S&P/LSTA Leveraged Loan TR</i>				0.6	1.8	3.2	5.8	4.2	5.9	4.3	4.5	Dec-16
Emerging Market Debt	228,746,185	3.7	4.0	-2.0	-2.8	0.0	2.3	2.7	6.3	--	1.0	Nov-11
Aberdeen EMD Plus	228,745,872	3.7		-2.0	-2.8	0.0	2.3	--	--	--	8.3	Dec-18
<i>JP Morgan EMBI Global Diversified</i>				-2.6	-3.6	-1.8	0.9	4.5	5.9	5.9	7.8	Dec-18
Total Alternative Assets	1,284,917,730	21.0	26.0									
Hedge Fund Composite	289,848,818	4.7	5.0	3.5	0.2	3.3	12.4	4.9	4.9	3.3	3.7	Nov-04
EnTrust Peruvian Bonds	4,692,221	0.1		-0.2	-0.4	3.7	0.3	-3.5	--	--	-3.4	Jan-18
Blackstone	135,778,070	2.2		2.3	1.7	4.5	8.5	6.1	--	--	5.9	Feb-18
Grosvenor	148,157,388	2.4		4.9	-1.1	2.3	17.1	6.1	6.7	--	5.2	Jul-13
<i>HFRI Fund of Funds Composite Index</i>				2.8	2.1	5.9	14.6	5.3	5.8	3.4	4.4	Jul-13
Hedge Fund Transition Account	1,221,139	0.0										
Real Estate Composite	515,299,143	8.4	10.0	0.0	0.0	1.0	2.5	6.3	7.5	10.5	--	
Private Equity & Debt	479,769,769	7.8	11.0	0.0	0.0	5.1	3.3	7.1	6.8	8.1	--	
Cash	100,247,763	1.6	0.0	0.0	0.0	0.0	0.2	0.9	0.5	0.3	1.2	Oct-04

- Real Estate and Private Equity & Debt report on a quarterly basis, valuations are as of 9/30/2020.
- 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 Summary						
Quarter Ending September 30, 2020						
	Committed Capital	Cumulative Distribution	Contributed Capital	QTR	Last Year	Valuation
Private Equity & Debt IRR	\$1,181,018,410	\$619,748,160	\$835,245,737	5.1%	3.3%	\$479,769,769
Private Equity	\$724,039,909	\$472,854,874	\$521,976,607			\$232,545,995
Private Debt	\$456,978,501	\$146,893,286	\$313,269,130			\$247,223,774
Real Estate IRR	\$1,037,176,734	\$782,609,965	\$851,209,177	1.0%	2.5%	\$515,299,143



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