FLASH REPORT (GROSS)

Boston Retirement System

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CALENDAR YEAR INDEX PERFORMANCE

	2010	2011	2012	2013	2014	2015	2016	2017	Q1	Q2	Q3	Oct	YTD
US Large Cap	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-0.8%	3.4%	7.7%	-6.8%	3.0%
US Small/Mid Cap	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-0.2%	5.7%	4.7%	-10.2%	-0.8%
Int'l Developed Equity	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-1.5%	-1.2%	1.4%	-8.0%	-9.3%
Emerging Market Equity	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	1.4%	-8.0%	-1.1%	-8.7%	-15.7%
US Aggregate	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	-1.5%	-0.2%	0.0%	-0.8%	-2.4%
US High Yield	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-0.9%	1.0%	2.4%	-1.6%	0.9%
US Long Treasuries	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-3.3%	0.3%	-2.9%	-3.0%	-8.7%
EM Local Credit	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	4.4%	-10.4%	-1.8%	-2.0%	-9.9%
Global Credit	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	7.4%	1.4%	-2.8%	-0.9%	-1.1%	-3.5%
Commodities	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-0.4%	0.4%	-2.0%	-2.2%	-4.1%
BC TIPS	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-0.8%	0.8%	-0.8%	-1.4%	-2.3%

Source: Bloomberg, Barclays, S&P, Russell, MSCI, JP Morgan, Credit Suisse

S&P 500 = US Large Cap
Russell 2500 = US Small/Mid Cap
MSCI EAFE = International Developed Equity
MSCI EM = Emerging Market Equity
Bloomberg Barclays Aggregate = US Aggregate
Bloomberg Barclays High Yield = US HY
Bloomberg Barclays Long Treasury = US Long Treasuries
GBI-EM Global Diversified = EM Local Credit
Barclays Global Aggregate = Global Credit
Bloomberg Commodity = Commodities
Barclays US TIPS = BC TIPS

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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
Total Composite	**4,765,444,901**	**100.0**	**100.0**	**-5.4**	**-4.6**	**-2.5**	**-0.2**	**6.7**	**5.7**	**8.4**	**7.7**	**Aug-94**
Allocation Index				*-5.2*	*-4.4*	*-2.5*	*0.0*	*6.5*	*5.4*	*7.9*	*--*	*Aug-94*
Policy Index				*-4.7*	*-3.6*	*-1.3*	*1.0*	*7.1*	*5.9*	*8.4*	*--*	*Aug-94*
PRIT Core Fund/Teachers*	1,542,483,999	32.4		-4.2	-2.8	0.1	3.0	8.0	7.4	--	9.4	Jul-10
Total Equity	**2,544,956,926**	**53.4**	**52.0**	**-9.0**	**-8.4**	**-6.1**	**-3.1**	**8.0**	**6.4**	**--**	**--**	**Dec-04**
Large Cap Comp	**919,299,068**	**19.3**	**17.0**	**-8.6**	**-4.7**	**2.4**	**6.9**	**12.2**	**11.9**	**14.3**	**9.2**	**Dec-04**
Rhumbline Advisors	112,881,485	2.4		-6.8	-3.3	3.0	7.3	11.5	11.3	13.2	9.7	Aug-94
DE Shaw Core Enhanced	194,137,712	4.1		-7.3	-3.5	3.3	8.0	12.1	12.0	--	14.0	Oct-09
JP Morgan 130/30	194,751,067	4.1		-9.1	-5.2	0.8	5.4	10.8	11.5	--	13.7	Oct-09
S&P 500				*-6.8*	*-3.3*	*3.0*	*7.3*	*11.5*	*11.3*	*13.2*	*13.3*	*Oct-09*
DE Shaw 130/30	211,154,746	4.4		-8.1	-5.6	0.5	4.6	12.5	12.6	--	15.1	Oct-09
Russell 1000				*-7.1*	*-3.5*	*2.7*	*7.0*	*11.3*	*11.1*	*13.4*	*13.3*	*Oct-09*
Columbia Threadneedle	104,565,214	2.2		-7.7	-6.9	-3.2	3.4	11.5	10.5	13.8	9.6	Jan-97
Russell 1000 Value				*-5.2*	*-3.6*	*-1.5*	*3.0*	*8.9*	*8.6*	*11.3*	*8.2*	*Jan-97*
Zevenbergen Capital	50,113,599	1.1		-14.2	-4.7	15.6	18.3	15.4	12.5	17.5	11.9	Aug-94
Intech	51,695,245	1.1		-9.1	-3.2	5.6	7.7	14.3	13.4	15.4	9.6	Oct-06
Russell 1000 Growth				*-8.9*	*-3.4*	*6.6*	*10.7*	*13.7*	*13.4*	*15.5*	*10.3*	*Oct-06*
Small Cap Comp	**309,273,009**	**6.5**	**6.0**	**-9.8**	**-6.6**	**3.9**	**7.7**	**13.1**	**9.5**	**14.6**	**9.9**	**Dec-04**
Westfield Capital Management	93,684,554	2.0		-11.2	-9.0	2.3	8.7	11.8	9.4	15.3	10.9	Sep-03
Russell 2000 Growth				*-12.7*	*-9.4*	*1.1*	*4.1*	*10.7*	*8.8*	*13.9*	*9.3*	*Sep-03*
Bernzott	113,166,794	2.4		-7.9	-2.5	9.4	12.2	15.6	--	--	15.6	Nov-15
Russell 2000 Value				*-9.0*	*-9.1*	*-2.5*	*-0.6*	*10.5*	*7.2*	*10.9*	*10.5*	*Nov-15*
Aristotle	102,408,450	2.1		-10.1	-7.9	0.2	1.7	12.1	--	--	12.1	Nov-15
Russell 2000				*-10.9*	*-9.3*	*-0.6*	*1.9*	*10.7*	*8.0*	*12.4*	*10.7*	*Nov-15*

- J&W Seligman is now named Columbia Threadneedle.

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
Total Non-US Equity	**1,316,384,848**	**27.6**	**29.0**	**-9.0**	**-11.3**	**-13.7**	**-11.7**	**3.9**	**1.7**	**7.4**	**5.9**	**Aug-94**
International Equity	**919,238,213**	**19.3**	**21.0**	**-9.0**	**-10.6**	**-11.8**	**-10.2**	**2.9**	**1.8**	**--**	**5.1**	**Dec-10**
Todd	239,120,325	5.0		-9.4	-11.4	-10.5	-9.7	--	--	--	5.3	Apr-16
MSCI ACWI ex USA				*-8.1*	*-9.6*	*-11.0*	*-8.2*	*4.4*	*1.6*	*6.9*	*6.9*	*Apr-16*
Panagora Asset Management	304,771,233	6.4		-8.0	-9.4	-10.5	-8.4	4.3	3.4	8.9	5.8	Aug-94
Fisher	254,424,456	5.3		-9.6	-10.9	-11.6	-11.2	4.1	2.9	8.9	4.2	Feb-06
MSCI EAFE				*-8.0*	*-9.0*	*-9.3*	*-6.9*	*3.6*	*2.0*	*6.9*	*3.0*	*Feb-06*
Segall Bryant Hamill	120,527,244	2.5		-9.3	-11.6	-17.3	-12.0	--	--	--	-12.0	Nov-17
MSCI EAFE Small Cap				*-9.6*	*-11.0*	*-11.6*	*-7.8*	*6.6*	*5.2*	*11.6*	*-7.8*	*Nov-17*
Emerging Markets	**397,146,635**	**8.3**	**8.0**	**-9.0**	**-12.8**	**-18.1**	**-15.3**	**5.6**	**1.3**	**--**	**1.5**	**Dec-10**
Vontobel	88,756,969	1.9		-8.0	-12.6	-16.7	-12.7	3.4	1.7	11.1	9.4	Oct-05
Polunin	99,348,445	2.1		-9.5	-11.0	-17.5	-14.6	10.1	5.0	--	5.5	Oct-13
SSgA Emerging Markets	124,551,554	2.6		-9.1	-10.7	-13.7	-12.2	6.9	0.1	--	0.8	Oct-13
MSCI Emerging Markets				*-8.7*	*-11.6*	*-15.7*	*-12.5*	*6.5*	*0.8*	*7.8*	*1.7*	*Oct-13*
Lazard	84,489,668	1.8		-9.3	-17.8	-25.5	-22.7	1.5	-0.9	--	-0.2	Oct-13
MSCI Emerging Markets Small Cap				*-10.5*	*-15.3*	*-21.5*	*-17.2*	*1.5*	*-0.3*	*10.1*	*0.5*	*Oct-13*
Total Fixed Income	**1,187,933,852**	**24.9**	**22.0**									
Core Fixed Income	**690,448,194**	**14.5**	**12.0**	**-0.6**	**-0.5**	**-1.0**	**-0.6**	**2.1**	**2.6**	**5.2**	**4.5**	**Dec-04**
Wells Asset Management	205,335,275	4.3		-0.7	-0.7	-2.2	-1.9	1.4	2.3	5.4	4.8	May-05
BlackRock SIO	222,508,359	4.7		-0.3	-0.1	0.2	0.8	3.1	--	--	2.7	Aug-15
BBgBarc US Aggregate TR				*-0.8*	*-0.8*	*-2.4*	*-2.1*	*1.0*	*1.8*	*3.9*	*1.1*	*Aug-15*
IR&M	262,604,560	5.5		-0.7	-0.7	-1.4	-1.0	1.8	--	--	2.0	Jul-15
IR&M Custom Benchmark				*-1.2*	*-1.4*	*-2.3*	*-1.6*	*0.9*	*1.8*	*3.9*	*1.2*	*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.

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
Value Added Fixed Income	**497,485,658**	**10.4**	**10.0**	**-1.1**	**-1.2**	**-1.1**	**-0.1**	**5.6**	**2.7**	**--**	**--**	
High Yield Income	**308,729,232**	**6.5**	**6.0**	**-0.7**	**0.4**	**3.1**	**3.4**	**7.0**	**5.3**	**10.3**	**7.1**	**Jan-06**
Crescent Capital	101,573,966	2.1		-0.9	0.5	1.7	1.6	5.9	--	--	5.2	May-15
50/50 S&P/LSTA Leveraged Loan/BBgBarc High Yield				*-0.8*	*0.4*	*2.5*	*2.7*	*6.0*	*4.3*	*9.5*	*4.3*	*May-15*
DDJ	100,381,359	2.1		-0.6	0.4	3.5	3.7	9.8	--	--	6.9	May-15
75% BC HY 25% S&P Leverage Loan				*-1.2*	*0.0*	*1.7*	*1.9*	*6.3*	*--*	*--*	*4.5*	*May-15*
GoldenTree Multi Spec Opp Credit	105,178,980	2.2		-0.5	0.2	3.6	4.6	--	--	--	6.1	Dec-16
Blended Index				*-0.8*	*0.0*	*1.8*	*2.3*	*--*	*--*	*--*	*4.5*	*Dec-16*
S&P/LSTA Leveraged Loan TR				*0.0*	*1.1*	*4.0*	*4.5*	*5.4*	*4.0*	*7.7*	*4.9*	*Dec-16*
Emerging Market Debt	**166,336,321**	**3.5**	**4.0**	**-1.9**	**-3.8**	**-8.1**	**-6.0**	**3.2**	**-2.4**	**--**	**-1.1**	**Nov-11**
Loomis Sayles Emerging Debt & Currencies	166,336,321	3.5		-1.9	-3.8	-8.1	-6.0	3.2	-2.4	--	-1.1	Nov-11
Custom EMD				*-2.1*	*-4.0*	*-7.7*	*-5.8*	*3.0*	*-2.6*	*4.1*	*-1.1*	*Nov-11*
Global Fixed Income	**22,420,104**	**0.5**	**0.0**	**-1.3**	**-1.8**	**-3.4**	**-2.1**	**2.5**	**1.0**	**5.1**	**5.0**	**Jul-95**
Loomis Sayles	22,420,104	0.5		-1.3	-1.8	-3.4	-2.1	2.5	1.0	5.2	5.5	Nov-99
FTSE WGBI TR				*-1.1*	*-2.3*	*-3.6*	*-2.1*	*1.3*	*-0.2*	*2.3*	*3.9*	*Nov-99*
Total Alternative Assets	**996,596,686**	**20.9**	**26.0**									
Hedge Fund Composite	**238,772,268**	**5.0**	**5.0**	**-1.0**	**-0.7**	**0.2**	**0.8**	**1.0**	**1.4**	**3.6**	**3.2**	**Nov-04**
Permal	73,333,753	1.5		-0.7	-1.3	-3.5	-2.4	0.8	1.1	5.4	3.5	Nov-07
EnTrust Peruvian Bonds	5,188,834	0.1		-0.3	-0.6	-2.2	--	--	--	--	-2.2	Jan-18
Blackstone	76,282,472	1.6		-0.4	0.7	--	--	--	--	--	--	Jan-18
Grosvenor	80,257,522	1.7		-1.9	-1.5	1.9	3.4	3.3	3.3	--	4.0	Jul-13
HFRI Fund of Funds Composite Index				*-3.0*	*-3.0*	*-2.1*	*-1.2*	*1.9*	*2.3*	*2.9*	*2.7*	*Jul-13*
Hedge Fund Transition Account	3,647,171	0.1										
Real Estate Composite	**458,979,448**	**9.6**	**10.0**	**0.0**	**1.7**	**6.9**	**9.9**	**9.5**	**10.9**	**4.1**	**--**	
Private Equity & Debt	**298,844,970**	**6.3**	**11.0**	**0.0**	**4.6**	**11.8**	**15.6**	**7.9**	**9.3**	**7.2**	**--**	
Cash	**35,957,438**	**0.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**1.1**	**Oct-04**

- Real Estate and Private Equity & Debt report on a quarterly basis, valuations are as of 6/30/2018.
- 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

PE/RE Summary

Quarter Ending June 30, 2018

Target Weight	Weight in Fund		Committed Capital	Cumulative Distribution	Contributed Capital	QTR	Last Year	Valuation
11%	5.9%	Private Equity & Debt IRR	$853,759,223	$539,907,969	$613,330,128	4.6%	15.6%	$298,844,970
10%	9.1%	Real Estate IRR	$900,283,614	$701,587,013	$773,023,469	1.7%	9.9%	$458,979,448

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- 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.
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