



NEPC, LLC

YOU DEMAND MORE. *So do we.*SM

Boston Retirement System

April Flash Report (Gross)

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

Index Performance Summary as of 04/28/2017

	2009	2010	2011	2012	2013	2014	2015	2016	Jan	Feb	Mar	Q1	April	YTD
EM Equity	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	5.5%	3.1%	2.5%	11.4%	2.2%	13.9%
Int'l Developed Equity	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	2.9%	1.4%	2.8%	7.2%	2.5%	10.0%
EM Local Credit	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	2.3%	1.8%	2.3%	6.5%	1.2%	7.7%
US Large Cap	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	1.9%	4.0%	0.1%	6.1%	1.0%	7.2%
US Small/Mid Cap	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	1.4%	2.4%	-0.1%	3.8%	0.8%	4.6%
US High Yield	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	1.5%	1.5%	-0.2%	2.7%	1.2%	3.9%
US Long Treasuries	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	0.4%	1.6%	-0.6%	1.4%	1.5%	3.0%
Global Credit	-6.5%	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	1.1%	0.5%	0.2%	1.8%	1.1%	2.9%
US Credit	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	0.2%	0.7%	-0.1%	0.8%	0.8%	1.6%
Commodities	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	0.1%	0.2%	-2.7%	-2.3%	-1.5%	-3.8%

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

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



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 (%)	Return (%)	Since
Total Composite*	4,489,522,847	100.0	100.0	1.4	4.5	6.7	12.9	5.5	7.6	5.1	7.9	Aug-94
Allocation Index				1.2	4.2	6.0	12.0	5.2	7.2	4.6	--	Aug-94
Policy Index				1.2	4.3	6.0	12.4	5.6	7.6	5.0	--	Aug-94
PRIT Core Fund/Teachers*	1,537,574,128	34.2		1.3	4.4	6.2	11.7	6.7	9.0	--	9.9	Jul-10
Total Equity	2,440,244,182	54.4	52.0	2.1	7.0	10.7	19.0	6.3	10.0	--	--	
Large Cap Comp	930,682,098	20.7	19.0	1.3	5.6	8.4	20.8	11.2	14.7	7.9	8.9	Dec-04
Rhumblin Advisors	118,260,913	2.6		1.0	5.1	7.1	17.9	10.4	13.6	7.2	9.7	Aug-94
DE Shaw Core Enhanced	209,067,616	4.7		1.1	5.4	7.3	18.7	11.0	14.1	--	14.5	Oct-09
JP Morgan 130/30	171,622,228	3.8		1.0	5.4	8.6	22.2	11.5	15.4	--	14.6	Oct-09
S&P 500				1.0	5.2	7.2	17.9	10.5	13.7	7.2	13.7	Oct-09
DE Shaw 130/30	182,574,725	4.1		1.0	5.8	8.3	21.5	12.4	14.9	--	15.9	Oct-09
Russell 1000				1.1	5.0	7.1	18.0	10.2	13.6	7.3	13.8	Oct-09
J&W Seligman	114,075,262	2.5		0.9	3.4	4.0	22.6	9.5	14.9	8.4	9.7	Jan-97
Russell 1000 Value				-0.2	2.3	3.1	16.6	8.3	13.3	5.5	8.3	Jan-97
Zevenbergen Capital	82,387,929	1.8		3.7	8.6	17.2	26.6	10.5	14.6	10.6	11.3	Aug-94
Intech	52,693,426	1.2		2.4	8.5	11.9	18.0	12.0	13.7	8.3	8.6	Oct-06
Russell 1000 Growth				2.3	7.8	11.4	19.5	12.1	13.9	8.9	9.6	Oct-06
Small Cap Comp	302,825,953	6.7	6.0	2.1	6.4	10.1	23.6	7.8	12.6	9.0	9.6	Dec-04
Westfield Capital Management	119,535,571	2.7		2.0	8.0	12.9	21.8	6.9	12.1	10.3	10.8	Sep-03
Russell 2000 Growth				1.8	5.6	7.3	24.1	9.3	12.9	8.0	9.3	Sep-03
Bernzott	90,189,259	2.0		2.0	4.5	9.1	22.9	--	--	--	13.2	Nov-15
Russell 2000 Value				0.4	1.0	0.3	27.2	8.7	13.0	6.0	18.3	Nov-15
Aristotle	93,093,142	2.1		2.5	6.4	7.6	26.8	--	--	--	17.0	Nov-15
Russell 2000				1.1	3.2	3.6	25.6	9.0	13.0	7.0	14.9	Nov-15

- DE Shaw 130/30 and DE Shaw Core Enhanced are preliminary.

Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.



NEPC, LLC

April 30, 2017

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 (%)	Return (%)	Since
Total Non-US Equity	1,206,736,131	26.9	27.0	2.7	8.2	12.8	16.5	2.3	5.6	2.1	6.4	Aug-94
International Equity	786,554,347	17.5	19.0	2.8	7.4	11.1	14.3	1.3	7.1	--	6.2	Dec-10
Todd	236,678,106	5.3		1.8	6.0	10.5	10.8	--	--	--	10.4	Apr-16
MSCI ACWI ex USA Gross				2.2	6.6	10.4	13.1	1.3	5.6	1.6	14.9	Apr-16
Panagora Asset Management	301,347,517	6.7		2.4	7.1	10.3	14.1	3.6	9.4	3.1	6.2	Aug-94
Fisher	248,039,457	5.5		4.1	9.2	12.8	18.0	3.0	7.1	3.1	4.6	Feb-06
MSCI EAFE				2.5	6.9	10.0	11.3	0.9	6.8	0.9	3.1	Feb-06
Emerging Markets	420,181,784	9.4	8.0	2.7	9.9	16.1	21.0	4.5	2.5	--	2.6	Dec-10
Vontobel	92,425,456	2.1		3.0	12.1	16.5	14.1	4.2	3.6	7.4	10.9	Oct-05
Polunin	103,517,753	2.3		2.5	5.8	15.9	27.5	8.7	--	--	8.3	Oct-13
SSgA Emerging Markets	122,589,694	2.7		2.4	9.1	14.9	20.9	0.8	--	--	0.6	Oct-13
MSCI Emerging Markets				2.2	8.0	13.9	19.1	1.8	1.5	2.5	2.0	Oct-13
Lazard	101,648,881	2.3		3.0	13.5	17.3	21.4	5.5	--	--	4.8	Oct-13
MSCI Emerging Markets Small Cap				1.1	9.2	14.3	14.1	1.9	3.5	3.3	3.1	Oct-13

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	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fixed Income	1,029,380,344	22.9	24.0									
Core Fixed Income	457,198,816	10.2	11.0	0.6	1.4	1.8	3.0	3.3	3.0	5.2	5.0	Dec-04
Wells Asset Management	156,818,857	3.5		0.8	1.5	1.8	1.6	3.2	3.1	5.7	5.4	May-05
BlackRock SIO	157,702,828	3.5		0.2	1.3	1.9	5.8	--	--	--	2.9	Aug-15
IR&M	142,677,131	3.2		0.8	1.5	1.8	1.7	--	--	--	3.6	Jul-15
<i>BBgBarc US Aggregate TR</i>				0.8	1.4	1.6	0.8	2.7	2.3	4.3	2.7	Jul-15
Value Added Fixed Income	572,181,528	12.7	13.0	1.2	3.2	4.8	10.7	2.5	3.3	--	--	
High Yield Income	378,924,446	8.4	9.0	1.1	2.4	3.8	12.0	5.1	6.4	7.2	7.4	Jan-06
Crescent Capital	129,333,598	2.9		1.1	2.0	3.0	10.3	--	--	--	6.8	May-15
<i>50/50 S&P/LSTA Leveraged Loan/BBgBarc High Yield</i>				0.8	1.7	2.7	10.7	4.2	5.7	6.0	4.9	May-15
DDJ	139,312,325	3.1		1.5	3.7	6.0	19.2	--	--	--	7.4	May-15
<i>75% BC HY 25% S&P Leverage Loan</i>				1.0	2.1	3.3	12.0	--	--	--	5.4	May-15
GoldenTree Multi Spec Opp Credit	108,437,800	2.4		0.8	1.6	2.7	--	--	--	--	3.6	Dec-16
<i>3-Month LIBOR + 7%</i>				0.7	2.0	2.7	8.0	7.6	7.5	8.1	3.3	Dec-16
<i>S&P/LSTA U.S. Leveraged Loan</i>				0.4	1.0	1.6	8.1	3.7	4.5	4.5	2.8	Dec-16
Loomis Sayles Bank Loan	555,700	0.0		0.0	0.7	0.9	5.6	3.6	4.1	--	4.8	Sep-08
<i>S&P/LSTA U.S. Leveraged Loan</i>				0.4	1.0	1.6	8.1	3.7	4.5	4.5	5.6	Sep-08
Perella Weinberg*	1,263,742	0.0		0.0	-9.7	-9.7	-28.2	-13.0	-1.8	--	6.3	Jul-10
<i>HFRI RV: Fixed Income-Asset Backed</i>				0.4	1.8	3.1	9.3	4.9	7.9	8.1	8.4	Jul-10
Emerging Market Debt	170,956,775	3.8	4.0	1.4	5.1	7.2	9.4	-2.7	-1.9	--	-0.9	Nov-11
Loomis Sayles Emerging Debt & Currencies	170,956,775	3.8		1.4	5.1	7.2	9.4	-2.7	-1.9	--	-0.9	Nov-11
<i>Custom EMD</i>				1.4	4.7	6.7	6.3	-2.8	-1.7	3.8	-0.9	Nov-11
Global Fixed Income	22,300,308	0.5	0.0	1.1	2.0	3.6	-0.1	0.4	1.0	4.4	5.3	Jul-95
Loomis Sayles	22,300,308	0.5		1.1	2.0	3.6	-0.1	0.4	1.0	4.4	5.9	Nov-99
<i>Citi WGBI</i>				1.3	1.8	2.9	-3.6	-1.1	-0.6	3.1	4.2	Nov-99

- Perella Weinberg final as of 03/31/2017.

- Golden Tree Multi Spec Opps Credit is estimated and preliminary.

Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.



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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 (%)	Return (%)	Since
Total Alternative Assets	987,009,831	22.0	24.0									
Hedge Fund Composite	329,671,427	7.3	7.0	0.6	0.9	1.4	5.1	0.0	3.3	1.8	3.4	Nov-04
Mesirow Absolute Return Class J	60,888,782	1.4		0.9	1.0	1.5	4.0	-1.0	2.0	1.1	3.2	Nov-04
Federal Street Offshore LTD	418,851	0.0										
GAM	53,377,771	1.2		0.0	0.9	1.6	4.8	1.1	4.0	--	0.6	Nov-07
Permal	73,809,827	1.6		0.9	1.0	0.6	6.5	0.4	4.3	--	4.2	Nov-07
Entrust	65,446,049	1.5		0.6	0.6	1.4	2.4	-2.4	1.8	--	1.7	Apr-12
Grosvenor	75,730,147	1.7		0.3	1.2	2.1	7.9	2.3	--	--	4.1	Jul-13
<i>HFRI Fund of Funds Composite Index</i>				0.6	1.9	3.0	6.3	2.2	3.4	1.1	3.1	Jul-13
Real Estate Composite	429,791,903	9.6	10.0	0.0	1.1	1.1	7.4	11.3	11.4	3.7	--	
Private Equity	227,546,501	5.1	7.0	0.0	1.4	1.4	3.0	7.0	7.3	6.0	--	
Cash	32,888,490	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	Oct-04

- Perella Weinberg, PE & RE report on a quarterly basis; Perella Weinberg final as of 03/31/2017.
- Real Estate and Private Equity valuations are as of 12/31/2016.
- Mesirow Absolute Return Class J market value is estimated.
- Entrust market value and return is preliminary.
- Cash value is preliminary.

Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.



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April 30, 2017

PE/RE Summary

Quarter Ending December 31, 2016

Target Weight	Weight in Fund		Committed Capital	Cumulative Distribution	Contributed Capital	QTR	Last Year	Valuation
7.0%	5.1%	Private Equity IRR	\$677,456,812	\$473,861,452	\$529,285,687	1.4%	3.0%	\$227,546,501
10.0%	9.7%	Real Estate IRR	\$808,557,801	\$634,864,296	\$738,613,386	1.1%	7.4%	\$429,791,903

Information Disclaimer and Reporting Methodology

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.
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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.

