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State-Boston Retirement System **November Flash Report (Gross)**

December, 2015

Mike Manning
Mike Sullivan
Will Forde

255 State Street, Boston, MA 02109 | TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com

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Index Performance Summary as of 11/30/2015

	2008	2009	2010	2011	2012	2013	2014	Q1	Q2	Q3	OCT	NOV	YTD
S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.0%	0.3%	-6.4%	8.4%	0.3%	3.0%
Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	1.6%	0.1%	-6.8%	8.1%	0.3%	2.8%
JPM EMBI Glob Div	-12.0%	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	2.0%	-0.3%	-1.7%	2.7%	-0.1%	2.6%
Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	1.0%	-0.9%	1.7%	0.4%	0.4%	2.6%
Barclays US Agg Interm	4.9%	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.3%	-0.7%	1.1%	0.0%	-0.2%	1.5%
FTSE NAREIT Equity REITs	-37.7%	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	4.8%	-10.0%	2.0%	5.9%	-0.5%	1.3%
Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	5.2%	-0.3%	-10.3%	5.6%	2.0%	1.2%
Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	1.6%	-1.7%	1.2%	0.0%	-0.3%	0.9%
Barc US Gov/Cred 1-3Y	5.0%	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.6%	0.1%	0.3%	0.0%	-0.2%	0.8%
Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	4.3%	0.4%	-11.9%	5.6%	3.3%	0.6%
Credit Suisse Lev Loan	-28.8%	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	2.1%	0.8%	-1.2%	-0.1%	-0.9%	0.6%
MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	4.9%	0.6%	-10.2%	7.8%	-1.6%	0.5%
Credit Suisse Hedge Fund	-19.1%	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	2.5%	-0.5%	-2.5%	0.5%	N/A	-0.1%
MSCI ACWI	-42.2%	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	2.3%	0.3%	-9.4%	7.8%	-0.8%	-0.6%
Barclays US Corp HY	-26.2%	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	2.5%	0.0%	-4.9%	2.7%	-2.2%	-2.0%
Barc US Long Gov/Cred	8.4%	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	3.4%	-7.6%	2.2%	0.4%	-0.6%	-2.5%
Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	3.1%	-7.3%	0.5%	1.0%	-0.4%	-3.4%
Barclays US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	5.5%	-14.3%	7.6%	-0.3%	-1.1%	-4.1%
Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-2.5%	-1.5%	1.7%	0.0%	-2.1%	-4.4%
MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	2.2%	0.7%	-17.9%	7.1%	-3.9%	-13.0%
JPM GBI-EM Glob Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-4.0%	-1.0%	-10.5%	4.5%	-2.2%	-13.0%
Bloomberg Commodity	-35.6%	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-5.9%	4.7%	-14.5%	-0.4%	-7.3%	-22.3%
Alerian MLP	-36.9%	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-5.2%	-6.1%	-22.1%	9.7%	-8.1%	-30.1%

Source: Morningstar Direct

State-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*	4,010,869,485	100.0	100.0	-0.4	1.8	0.5	0.0	7.2	7.7	5.9	7.8	Aug-94
<i>Policy Index</i>				-0.6	1.8	0.6	-0.3	6.9	7.3	5.6	--	Aug-94
PRIT Core Fund/Teachers*	1,374,060,498	34.3		-0.6	2.2	1.7	1.9	9.1	8.7	--	9.9	Jul-10
Total Equity	2,080,985,767	51.9	48.0	-0.5	3.0	0.0	-1.5	10.4	--	--	--	
Large Cap Comp	843,167,398	21.0	17.0	0.6	5.5	4.1	3.9	17.8	15.3	8.1	8.4	Dec-04
Rhumblin Advisors	137,884,111	3.4		0.3	6.0	3.0	2.7	16.0	14.3	7.6	9.5	Aug-94
DE Shaw Core Enhanced	232,092,398	5.8		0.3	5.9	3.6	3.3	16.5	15.2	--	14.8	Oct-09
JP Morgan 130/30	146,418,940	3.7		0.4	4.8	2.4	3.4	18.4	15.5	--	15.0	Oct-09
<i>S&P 500</i>				0.3	6.1	3.0	2.7	16.1	14.4	7.5	14.0	Oct-09
DE Shaw 130/30	152,657,821	3.8		0.5	6.1	8.4	7.6	17.0	16.4	--	16.2	Oct-09
<i>Russell 1000</i>				0.3	5.5	2.8	2.5	16.1	14.3	7.6	14.1	Oct-09
J&W Seligman	76,081,592	1.9		1.5	5.0	-0.8	0.2	17.4	15.4	8.8	9.4	Jan-97
<i>Russell 1000 Value</i>				0.4	4.7	-1.7	-1.1	14.7	13.5	6.5	8.0	Jan-97
Zeavenbergen Capital	52,936,788	1.3		1.9	3.5	8.7	6.0	23.7	13.8	10.7	11.4	Aug-94
Intech	45,095,748	1.1		1.0	5.7	6.2	5.9	16.8	14.8	--	8.1	Oct-06
<i>Russell 1000 Growth</i>				0.3	6.2	7.2	6.1	17.4	15.1	8.7	9.2	Oct-06
Small Cap Comp	246,774,394	6.2	6.0	2.3	1.8	-0.9	1.3	14.2	13.5	8.7	9.2	Dec-04
Westfield Capital Management	104,502,707	2.6		2.3	0.0	-1.1	0.1	14.7	14.2	10.0	10.8	Sep-03
<i>Russell 2000 Growth</i>				3.7	2.6	3.6	6.6	17.3	13.4	8.5	9.2	Sep-03
Bernzott	65,490,905	1.6		0.9	--	--	--	--	--	--	0.9	Nov-15
<i>Russell 2000 Value</i>				2.8	4.8	-2.3	0.4	12.6	10.6	6.1	2.8	Nov-15
Aristotle	76,759,556	1.9		3.4	--	--	--	--	--	--	3.4	Nov-15
<i>Russell 2000</i>				3.3	3.7	0.6	3.5	14.9	12.0	7.3	3.3	Nov-15

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

- PRIT Core Fund valuation is based off the Policy Index as of 11/30/2015.

- Aristotle and Bernzott were funded on 10/27/2015.

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

State-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	991,043,976	24.7	25.0	-1.9	1.2	-3.0	-6.3	3.7	3.6	4.1	6.1	Aug-94
International Equity	656,889,820	16.4	16.0	-1.4	1.3	1.6	-1.6	7.7	6.1	--	6.1	Dec-10
The Boston Company Int'l	198,344,229	4.9		-2.8	-2.0	-1.5	-5.3	5.9	3.1	2.8	3.5	Jun-05
Panagora Asset Management	251,889,203	6.3		-0.5	2.8	4.3	1.7	9.4	8.4	5.9	6.0	Aug-94
Fisher	206,656,388	5.2		-1.1	2.7	1.4	-1.8	7.3	6.6	--	4.0	Feb-06
<i>MSCI EAFE</i>				-1.6	0.8	0.5	-2.9	6.6	5.5	3.6	2.6	Feb-06
Emerging Markets	334,154,156	8.3	9.0	-3.0	1.2	-10.9	-14.3	-4.1	-1.5	--	-1.5	Dec-10
Vontobel	79,982,998	2.0		-2.9	2.3	-6.7	-11.8	-1.3	4.0	10.4	10.8	Oct-05
Polunin	76,338,608	1.9		-3.1	0.4	-13.0	-14.1	--	--	--	-2.2	Oct-13
SSgA Emerging Markets	97,677,616	2.4		-4.3	-1.7	-16.0	-20.0	--	--	--	-9.0	Oct-13
<i>MSCI Emerging Markets</i>				-3.9	-0.1	-13.0	-17.0	-4.6	-3.0	4.4	-6.4	Oct-13
Lazard	80,154,929	2.0		-1.5	4.5	-6.2	-9.1	--	--	--	-3.1	Oct-13
<i>MSCI Emerging Markets Small Cap</i>				-2.6	3.2	-6.9	-9.6	-0.1	-2.2	6.8	-2.2	Oct-13
Total Fixed Income	978,736,262	24.4	24.0	-0.2	0.3	1.1	1.2	1.8	3.9	5.4	5.1	Dec-04
Core Fixed Income	455,688,100	11.4	10.0	-0.2	0.3	1.1	1.2	1.8	3.9	5.4	5.1	Dec-04
Wells Asset Management	179,715,107	4.5		-0.2	0.5	1.4	1.4	2.0	4.2	6.0	5.7	May-05
BlackRock SIO	120,177,563	3.0		-0.1	-0.2	--	--	--	--	--	-0.6	Aug-15
IR&M	155,824,844	3.9		-0.2	0.4	--	--	--	--	--	1.4	Jul-15
<i>Barclays Aggregate</i>				-0.3	0.4	0.9	1.0	1.5	3.1	4.6	1.0	Jul-15
Value Added Fixed Income	523,048,162	13.0	--	-1.1	-0.9	-4.0	-6.3	-0.8	2.9	--	--	--
High Yield Income	306,081,816	7.6	8.0	-0.7	-0.9	0.6	-0.5	3.9	6.4	--	7.0	Jan-06
High Yield Transition Account	39,817,573	1.0		-0.9	0.3	--	--	--	--	--	-4.6	Apr-15
<i>Barclays High Yield</i>				-2.2	-2.1	-2.0	-3.4	3.1	6.0	7.3	-4.4	Apr-15
Crescent Capital	54,862,844	1.4		-0.3	-0.5	--	--	--	--	--	0.0	May-15
<i>Barclays High Yield B</i>				-2.2	-2.6	-2.3	-3.9	2.6	5.7	6.1	-6.1	May-15
DDJ	95,160,852	2.4		-0.4	-1.3	--	--	--	--	--	-5.1	May-15
<i>Barclays High Yield B</i>				-2.2	-2.6	-2.3	-3.9	2.6	5.7	6.1	-6.1	May-15
Loomis Sayles Bank Loan	114,175,089	2.8		-1.0	-1.3	1.9	0.9	2.9	4.1	--	4.6	Sep-08
<i>S&P/LSTA Leveraged Loan Index</i>				-0.9	-1.7	0.4	-0.9	2.7	3.9	4.5	5.2	Sep-08
Perella Weinberg*	2,065,447	0.1		0.0	-2.3	1.1	3.7	12.0	12.6	--	18.2	Jul-10
<i>HFRI RV: Fixed Income-Asset Backed</i>				0.2	-0.4	2.4	2.6	7.3	8.7	8.5	9.2	Jul-10

- Perella Weinberg valued as of 09/30/2015.

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

State-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
Emerging Market Debt	138,306,648	3.4	4.0	-1.8	-1.2	-13.1	-17.9	-8.7	--	--	-4.5	Nov-11
Loomis Sayles Emerging Debt & Currencies	138,306,648	3.4		-1.8	-1.2	-13.1	-17.9	-8.7	--	--	-4.5	Nov-11
JP Morgan GBI - EM Diversified				-2.2	-0.8	-13.0	-18.1	-8.6	-2.4	4.7	-4.5	Nov-11
Global Fixed Income	78,659,698	2.0	2.0	-1.6	-0.8	-3.6	-4.4	-2.0	1.6	4.9	5.3	Jul-95
Loomis Sayles	78,659,698	2.0		-1.6	-0.8	-3.6	-4.4	-2.0	1.6	4.9	6.0	Nov-99
Citi WGBI				-2.1	-1.4	-4.4	-5.1	-3.3	0.1	3.5	4.2	Nov-99
Risk Parity	--	--	3.0									
Total Alternative Assets	939,444,236	23.4	25.0									
Hedge Fund Composite	328,324,323	8.2	8.0	-0.1	-2.2	-2.4	-2.7	4.7	3.7	3.3	3.8	Nov-04
Mesirow Absolute Return Class J	63,452,567	1.6		0.0	-4.0	-4.5	-4.9	5.2	4.0	3.3	4.0	Nov-04
Federal Street Offshore LTD	1,021,787	0.0										
GAM	53,162,407	1.3		0.3	-1.5	0.1	-0.1	5.4	4.2	--	0.7	Nov-07
Permal	71,266,501	1.8		-0.4	-1.5	-2.1	-2.5	4.7	4.1	--	4.5	Nov-07
Entrust	66,553,770	1.7		-0.6	-3.4	-5.5	-6.3	2.7	--	--	2.9	Apr-12
Grosvenor	72,867,291	1.8		0.1	-0.9	0.5	0.8	--	--	--	4.8	Jul-13
HFRI Fund of Funds Composite Index				0.4	-0.6	0.3	0.7	4.6	2.7	2.5	3.7	Jul-13
Real Estate Composite	416,024,956	10.4	10.0	0.0	4.2	8.0	13.2	13.1	13.9	4.4	--	
Private Equity	195,094,957	4.9	7.0	0.0	2.8	8.5	11.3	8.4	9.4	8.6	--	
Cash	11,703,220	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.5	Oct-04

- Perella Weinberg, PE & RE report on a quarterly basis; Perella Weinberg valued as of 09/30/2015.
- Real Estate and Private Equity valuations are as of 06/30/2015
- Mesirow Absolute Return Class J market value is carried over from prior month.
- Entrust market value and return is preliminary.

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

Total Fund Performance Detail

PE/RE Summary

Quarter Ending June 30, 2015

Target Weight	Weight in Fund		Committed Capital	Cumulative Distribution	Contributed Capital	QTR	Last Year	Valuation
7.0%	5.0%	Private Equity IRR	\$621,498,267	\$427,257,198	\$450,691,034	2.8%	11.3%	\$195,094,957
10.0%	10.7%	Real Estate IRR	\$773,730,143	\$546,759,642	\$703,322,076	4.2%	13.2%	\$416,024,956