



2008 INVESTMENT REPORT

COMMONWEALTH OF MASSACHUSETTS

*Public Employee Retirement
Administration Commission*



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Joseph E. Connarton
Executive Director



Commonwealth of Massachusetts

Public Employee Retirement Administration Commission

Five Middlesex Avenue, Suite 304 | Somerville, MA 02145

Phone 617 666 4446 Fax 617 628 4002

TTY 617 591 8917 Web www.mass.gov/perac

LETTER FROM THE EXECUTIVE DIRECTOR

June 4, 2009

We are pleased to release this Investment Report for 2008. Since the adoption of Chapter 68 of the Acts of 2007, the Public Employee Retirement Administration Commission (PERAC) has issued an Investment Report, containing investment and funding results, prior to issuance of our Annual Report that includes a more exhaustive analysis of the activities of the Massachusetts public pension systems. Chapter 68 mandates that systems which do not meet certain investment and funding standards must transfer assets to the Pension Reserves Investment Trust Fund (PRIT) to be invested by the Pension Reserves Investment Management Board (PRIM). In light of the impact that these results may have on some systems, the Commission believes that it is imperative that this data be disseminated as soon as possible. The market conditions that prevailed in 2008 also underscore the need to release this data. We anticipate that the full Annual Report for 2008 will be ready for distribution in the near future.

The two comparative components established under Chapter 68 are funded ratio and 10-year investment performance. The funded ratio standard is 65% and, based on investment performance results for 2008, the investment standard is 2.65% (PRIM 10-year return 4.65% minus 2.00%).

PERAC, in Memo #35, 2007, outlined the principles that it would apply in conducting analysis pursuant to that law.

PERAC has completed its analysis of system funded status and investment performance in accordance with Chapter 68 of the Acts of 2007. Applying the tests set forth in that statute, PERAC has determined that **no** retirement board will be ordered to transfer its assets to the Pension Reserves Investment Trust Fund (PRIT) based on 2008 results.

This report delineates investment returns for several periods: 2008, 2004-2008 inclusive, 1999-2008 inclusive, and since inception through 2008. The funded ratios are as of the date of the most recent valuation available to PERAC.

This Report is the result of the efforts of the PERAC Investment Unit which includes Director Bob Dennis, Vicky Marcorelle, Veronica Colon and Rose Cipriani. As usual, they have accomplished a difficult task in a professional and efficient manner and we commend them.

I hope you find this Report informative and helpful as you assess the state of our retirement systems.

Sincerely,



Joseph E. Connarton
Executive Director

PERFORMANCE REVIEW AND ANALYSIS

As of December 31, 2008, the composite asset allocation for the 55 local systems that invested predominantly on their own was: 31.9% Domestic Equity, 11.9% International Equity, 1.7% Emerging Markets, 25.7% Fixed Income (Domestic and International, including TIPS), 2.7% High Yield, 9.6% Real Estate, 0.6% Timber, 4.7% Alternative Investments, 5.4% Hedge Funds, 0.9% Balanced Funds, 2.1% PRIT Core, and 2.7% Cash. Assets in these systems totaled about \$10.5 billion.

The composite asset allocation of these systems is similar to average asset allocations reported

in national surveys of state and local pension plans. Nevertheless, there is a wide divergence in our local systems' asset allocations compared to the composite levels.

For instance, allocations to domestic equity ranged from 9% to 58%, and allocations to international equity ranged from zero (2 systems) to 28%. While 25 systems had allocations in excess of 10% in real estate, ten systems had no explicit exposure to this asset class (some of these had modest exposure through a partial investment in the PRIT Core Fund.) Thirty-three of the 55 systems had at least some exposure to alternative investments (and seven others had exposure through partial investment in the PRIT Core Fund), while allocations within these systems ranged from less than 1% to 9%. Thirty-two systems invest in absolute return (hedge funds). Fifteen systems had allocations to emerging markets, 19 systems had explicit allocations to high yield fixed income, and 8 systems invested in timber.

At the beginning of 2008, 41 local systems invested all (or essentially all) of their assets in the PRIT Core Fund. During the

year, another eight systems joined PRIT, either voluntarily or as a result of Chapter 68. Assets of these 49 systems totaled nearly \$4.4 billion at year-end. The asset allocation of that \$37.8 billion fund as of December 31, 2008, was 20.5% Domestic Equity (19.7% conventional and 5.8% portable alpha), 17.6% International Equity, 3.7% Emerging Markets, 12.6% Fixed Income (10.1% US Bonds and 2.5% TIPS and other real return investments), 7.1% High Yield, 12.1% Real Estate, 4.3% Timber, 11.4% Alternative Investments,

5.6% Absolute Return (Hedge Funds).

Compared to public funds nationwide, PRIT has below-average allocation to domestic equity and above-average exposure to nontraditional asset classes.

In addition to the 49 systems that invested essentially all their assets in the PRIT Core Fund at year-end, 12 systems had partial investments in the PRIT Core Fund (in some cases, representing a significant portion of total assets) and nearly 40 systems participated in one or more of the PRIT Fund's segmentation options.

Performance for 2008 among the 104

local systems ranged from -19.3% to -33.1%. The median return was -28.0% and the composite return was -28.6%. For the 63 systems that began 2008 investing on their own, the median return was -26.6%. Eight of these systems joined the PRIT Fund at various times during 2008. For the 55 systems that still invested on their own at year-end, the median return was -26.3%.

The median return for the 41 local systems that invested totally with PRIT for the entire year was -29.3%, slightly better than that of the PRIT Fund itself (-29.5%). Internal cash positions or cash flows, as well as returns from

The composite asset allocation of these systems is similar to average asset allocations reported in national surveys of state and local pension plans.

remaining investment partnerships, may have enhanced or subtracted from the returns of individual systems relative to PRIT's basic return. Up until 2008, a fundamental fact of institutional investing involving endowment funds, foundations, and public and private pension funds was that larger entities had been performing decisively better than smaller ones in recent years. For several years, the PRIT Fund's size had enabled it to invest meaningfully and efficiently in a wider range of asset classes than many of the local systems, and its clout enabled it to gain access to the top tier of managers in these nontraditional asset classes, particularly in alternative investments. 2008 was a trend-changing year, however, as smaller and mid-sized funds generally held up better than their larger counterparts. Thus, while the PRIT Fund's performance in past years was enhanced by its holdings in several asset classes — such as Alternative Investments, Timber, Emerging Markets, Hedge Funds, and Real Estate — that provided strong diversification benefits, 2008 was a year when nearly all asset classes were down. PRIT's Core Fixed Income portfolio was slightly positive for the year, but returns from Real Estate (-15.8%), Timber (-17.2%), Absolute Return (19.0% net), and High Yield Bonds (-23.1%) were very disappointing while International Equity (-42.3%) and Emerging Markets Equity (-55.5%) were major contributors to the Fund's below-average peer performance. Since hedge funds had a rare year of negative returns, PRIT's Portable Alpha strategy served to detract from rather than enhance domestic equity performance.

As has typically been the case over the years, the performance of the local systems that invest on their own has been in line with national public fund medians. The 2008 median return (-26.3%) for the non-PRIT local systems was within the range of the following public fund universe medians: New England Pension Consultants/ICC, -24.8%; Wilshire/TUCS, -24.9% (-26.2% for funds with

assets greater than \$5 billion); Mellon Analytical Solutions, -26.8%; and Northern Trust, -26.6%.

The ten local systems with the best performance last year registered losses of between -19.3% and -22.5%. They were all among the commonwealth's smaller systems; portfolio asset sizes ranged from \$7.5 million to \$130 million. Five of these systems do not employ an investment consultant and utilize only one investment manager for substantially all their equity and fixed income assets. These systems generally had well-above-average cash positions, several in the range of 20% and one as high as 26%. In several cases, the systems made strategic moves during the course of the year to decrease their exposure to risky assets and increase their holdings of cash. These systems generally also had above average allocations to investment-grade fixed income, as much as 42% of total portfolio assets in some cases. Some of these systems also benefited from their investment managers registering strong investment performance relative to their market benchmarks.

Among the 55 non-PRIT systems as of year-end, seven underperformed the PRIT Fund last year, with returns ranging from -29.8% to -33.1%. These included both small and mid-sized systems, with portfolio sizes ranging from \$17 million to \$209 million. They generally had small, if any, cash positions and several had above-average equity positions, with as much as 48% in domestic equity and 17% in international equity. These systems generally saw investment managers underperform their benchmarks in several, and in some cases all, asset classes. Three of these systems were particularly hurt by investment-grade fixed income managers who trailed their benchmark by as much as 27% as a result of significant overweighting in corporate bonds and underweighting in US Treasuries, the one sector that showed appreciation last year.

2008 Returns & Annualized Past Returns (In Percent)

	Return (2008)	5-Year Return	10-Year Return	Return (Since 1985)
ADAMS	-21.71	0.82	2.90	7.84
AMESBURY	-28.97	1.09	2.49	7.40
ANDOVER	-29.32	-0.73	1.04	7.84
ARLINGTON	-30.99	-0.47	1.27	8.02
ATHOL	-28.1	-0.04	1.49	6.60
ATTLEBORO	-27.42	2.15	3.60	8.31
BARNSTABLE COUNTY	-29.13	1.11	1.96	6.72
BELMONT	-22.54	3.74	4.13	8.81
BERKSHIRE COUNTY	-29.08	3.53	4.66	8.72
BEVERLY	-29.41	-0.04	3.45	8.10
BLUE HILLS REGIONAL	-28.25	3.68	3.47	8.28
BOSTON	-24.21	3.20	3.66	8.71
BRAINTREE	-21.35	2.99	4.39	8.45
BRISTOL COUNTY	-26.22	1.40	3.22	8.39
BROCKTON	-29.26	0.95	3.60	8.44
BROOKLINE	-27.98	1.05	2.96	8.35
CAMBRIDGE	-28.61	1.24	3.69	8.81
CHELSEA	-29.18	2.95	1.18	7.32
CHICOPEE	-29.84	-0.18	1.60	7.54
CLINTON	-31.97	1.30	3.04	7.02
CONCORD	-23.93	2.38	3.38	8.15
DANVERS	-27.15	0.38	2.27	7.43
DEDHAM	-29.42	3.59	4.65	9.35
DUKES COUNTY	-23.83	2.80	2.71	6.94
EASTHAMPTON	-29.32	3.62	3.23	7.74
ESSEX REGIONAL	-33.05	-0.12	2.19	8.09
EVERETT	-29.73	1.98	1.51	7.91
FAIRHAVEN	-29.4	3.52	4.63	9.10
FALL RIVER	-27.55	0.31	1.31	7.92
FALMOUTH	-24.56	1.82	2.99	8.69
FITCHBURG	-27.04	0.65	1.70	7.12
FRAMINGHAM	-29.34	3.62	3.68	9.07
FRANKLIN REGIONAL	-26.82	1.56	2.85	7.63
GARDNER	-29.54	3.55	4.69	9.22
GLOUCESTER	-29.13	1.41	2.57	8.51
GREATER LAWRENCE	-20.13	0.90	2.61	6.61

Funded Ratios

Funded Ratio	Date of Most Recent Valuation
90.4%	1/1/2008
65.3%	1/1/2008
73.0%	1/1/2007
75.3%	1/1/2008
53.3%	1/1/2007
75.5%	1/1/2007
62.6%	1/1/2007
55.3%	1/1/2008
82.0%	1/1/2007
60.6%	1/1/2008
78.0%	1/1/2008
67.6%	1/1/2008
74.7%	1/1/2008
65.8%	1/1/2007
89.7%	1/1/2008
67.3%	1/1/2008
92.0%	1/1/2008
47.6%	1/1/2007
65.7%	1/1/2008
66.3%	1/1/2007
96.1%	1/1/2008
71.3%	1/1/2007
92.0%	1/1/2008
64.6%	1/1/2007
77.7%	1/1/2008
67.7%	1/1/2008
36.9%	1/1/2008
84.2%	1/1/2008
57.1%	1/1/2006
67.6%	1/1/2008
54.8%	1/1/2008
75.3%	1/1/2008
73.5%	1/1/2008
70.6%	1/1/2008
55.8%	1/1/2008
95.3%	1/1/2007

2008 Returns & Annualized Past Returns (In Percent)

	Return (2008)	5-Year Return	10-Year Return	Return (Since 1985)
GREENFIELD	-28.01	1.68	2.71	7.96
HAMPDEN COUNTY REG.	-25.06	1.13	2.93	8.30
HAMPSHIRE COUNTY	-23.7	2.20	2.95	7.86
HAVERHILL	-26.23	2.81	6.67	9.91
HINGHAM	-29.39	3.56	4.68	9.04
HOLYOKE	-32.51	-1.23	1.98	8.40
HULL	-29.26	3.31	3.21	7.27
LAWRENCE	-29.16	0.26	0.86	7.10
LEOMINSTER	-28.88	1.95	3.94	7.92
LEXINGTON	-32.83	1.69	2.61	8.42
LOWELL	-29.27	3.14	3.63	8.90
LYNN	-27.11	1.93	2.43	7.65
MALDEN	-20.47	3.72	4.90	9.58
MARBLEHEAD	-29.44	3.58	4.68	8.98
MARLBOROUGH	-20.53	2.93	3.94	8.18
MASS HOUSING FINANCE	-24.64	1.10	2.39	7.01
MASSPORT	-26.57	2.06	3.27	8.63
MASS TURNPIKE	-27.75	0.84	2.56	7.84
MASS WATER RESOURCES	-22.29	2.89	4.24	7.47
MAYNARD	-26.86	0.86	3.11	7.23
MEDFORD	-22.47	2.39	4.45	8.65
MELROSE	-26.81	2.11	2.83	8.11
METHUEN	-26.2	0.12	2.29	7.42
MIDDLESEX COUNTY	-24.5	2.50	2.77	8.15
MILFORD	-31.79	-0.03	2.82	7.72
MILTON	-29.23	3.09	4.39	9.18
MINUTEMAN REGIONAL	-29.7	3.56	4.68	9.34
MONTAGUE	-29.35	3.61	4.71	8.87
NATICK	-31.94	-1.27	-0.32	7.31
NEEDHAM	-28.98	3.61	4.71	9.60
NEW BEDFORD	-26.95	2.78	4.20	7.45
NEWBURYPORT	-29.2	3.35	3.26	7.69
NEWTON	-27.72	1.63	3.14	8.28
NORFOLK COUNTY	-28.7	1.11	3.19	8.13
NORTH ADAMS	-21.2	3.69	4.78	9.28
NORTH ATTLEBORO	-24.21	0.81	3.11	7.92

Funded Ratios

Funded Ratio	Date of Most Recent Valuation
67.5%	1/1/2007
66.5%	1/1/2008
63.4%	1/1/2007
60.8%	1/1/2008
80.1%	1/1/2008
66.0%	1/1/2007
51.5%	1/1/2008
48.9%	1/1/2008
83.5%	1/1/2008
100.5%	1/1/2008
58.8%	1/1/2007
48.1%	1/1/2007
73.3%	1/1/2008
89.9%	1/1/2008
64.5%	1/1/2007
94.4%	1/1/2007
110.6%	1/1/2008
77.4%	1/1/2008
82.7%	1/1/2007
75.1%	1/1/2007
69.1%	1/1/2008
64.6%	1/1/2008
56.6%	1/1/2008
50.7%	1/1/2008
73.5%	1/1/2007
80.5%	1/1/2007
118.3%	1/1/2007
84.3%	1/1/2008
69.2%	1/1/2008
79.5%	1/1/2007
44.9%	1/1/2007
65.0%	1/1/2008
67.1%	1/1/2008
65.7%	1/1/2008
67.1%	1/1/2007
82.9%	1/1/2008

2008 Returns & Annualized Past Returns (In Percent)

	Return (2008)	5-Year Return	10-Year Return	Return (Since 1985)
NORTHAMPTON	-19.32	4.13	4.98	9.11
NORTHBRIDGE	-29.53	3.56	4.71	9.13
NORWOOD	-20.57	2.83	4.60	8.78
PEABODY	-29.43	0.20	2.00	8.18
PITTSFIELD	-27.45	0.44	1.75	7.74
PLYMOUTH	-27.88	1.43	2.41	8.16
PLYMOUTH COUNTY	-29.07	1.51	3.76	8.77
PRIM	-29.5	3.50	4.65	9.41
QUINCY	-24.69	1.72	3.45	7.95
READING	-29.42	3.60	4.65	9.03
REVERE	-28.46	3.42	4.53	7.95
SALEM	-28.94	0.55	2.04	7.72
SAUGUS	-29.32	3.53	4.68	8.96
SHREWSBURY	-27.58	1.61	3.09	8.57
SOMERVILLE	-26.27	2.47	3.85	8.21
SOUTHBRIDGE	-30.35	-0.40	1.97	7.70
SPRINGFIELD	-28.57	2.04	2.15	7.98
STATE	-29.55	3.56	4.66	9.26
STATE TEACHERS	-29.55	3.56	4.66	9.27
STONEHAM	-29.28	3.58	4.11	8.42
SWAMPSCOTT	-23.19	3.04	3.96	9.00
TAUNTON	-24.31	1.89	3.84	9.28
WAKEFIELD	-29.5	3.54	4.67	9.53
WALTHAM	-24.67	2.25	2.42	8.48
WATERTOWN	-26.16	1.79	3.78	7.86
WEBSTER	-27.2	1.90	2.71	7.31
WELLESLEY	-29.36	1.97	3.31	9.93
WEST SPRINGFIELD	-21.9	1.94	3.16	7.68
WESTFIELD	-24.96	1.26	2.04	8.02
WEYMOUTH	-27.95	2.23	4.14	9.64
WINCHESTER	-25.72	3.52	4.45	9.15
WINTHROP	-28.05	3.22	2.32	8.35
WOBURN	-26.63	2.05	3.48	8.91
WORCESTER	-27.28	2.52	3.79	8.60
WORCESTER REGIONAL	-26.65	0.83	2.60	7.87
COMPOSITE	-28.61	3.13	4.25	8.94

Funded Ratios

Funded Ratio	Date of Most Recent Valuation
66.0%	1/1/2008
84.8%	1/1/2008
89.7%	1/1/2007
60.3%	1/1/2008
55.6%	1/1/2007
68.7%	1/1/2008
61.4%	1/1/2007
Not Applicable	Not Applicable
65.0%	1/1/2007
75.7%	7/1/2007
59.4%	1/1/2008
55.7%	1/1/2008
66.3%	1/1/2007
77.0%	1/1/2008
62.9%	1/1/2007
58.6%	1/1/2008
42.4%	1/1/2008
89.4%	1/1/2008
73.9%	1/1/2008
68.2%	1/1/2007
51.6%	1/1/2008
68.1%	1/1/2008
80.6%	1/1/2008
64.4%	1/1/2008
69.0%	1/1/2008
49.4%	1/1/2008
106.1%	1/1/2008
67.2%	1/1/2008
74.0%	1/1/2007
71.9%	1/1/2007
81.5%	1/1/2007
69.4%	1/1/2007
77.9%	1/1/2008
85.3%	1/1/2008
56.3%	1/1/2007
Not Applicable	Not Applicable

NOTES:



Commonwealth of Massachusetts
Public Employee Retirement Administration Commission
Five Middlesex Avenue, Suite 304 | Somerville, MA 02145
Phone 617 666 4446 *Fax* 617 628 4002
TTY 617 591 8917 *Web* www.mass.gov/perac