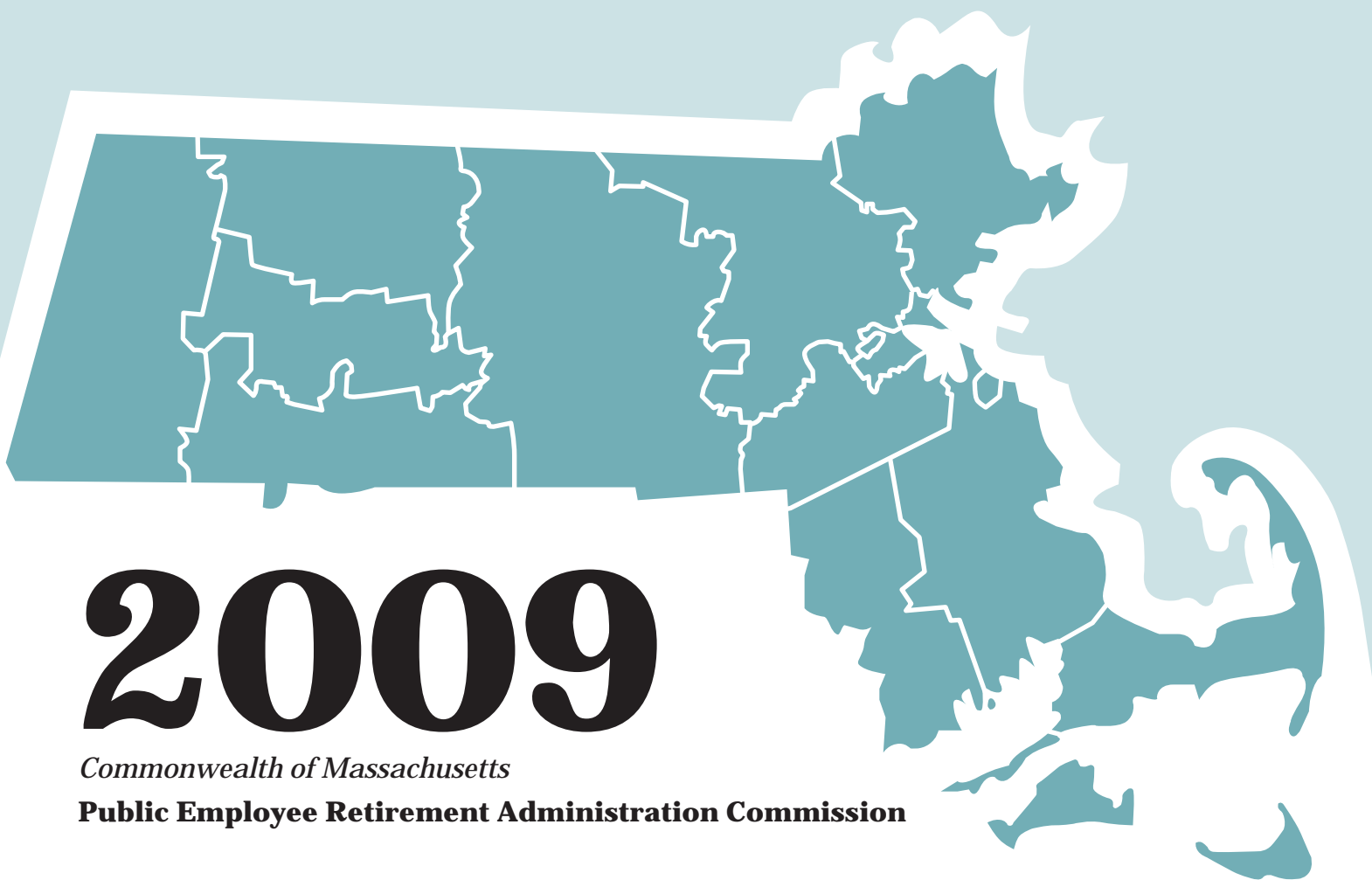


# Investment Report



# 2009

*Commonwealth of Massachusetts*

**Public Employee Retirement Administration Commission**

**The Honorable Domenic J. F. Russo**  
*Chairman*

**The Honorable A. Joseph DeNucci**  
Auditor of the Commonwealth  
*Vice Chairman*

**The Honorable Paul V. Doane**  
Investment Professional

**James M. Machado**  
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Fall River Police Department

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**Joseph E. Connarton**  
*Executive Director*



**Commonwealth of Massachusetts**

**Public Employee Retirement Administration Commission**

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# LETTER FROM THE EXECUTIVE DIRECTOR

May 26, 2010

We are pleased to release this Investment Report for 2009. 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 the 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. We anticipate that the full Annual Report for 2009 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 2009, the investment standard is 2.15% (PRIM 10-year return 4.15% minus 2.00%).

PERAC, in Memo #35 of 2007, outlined the principles that it would apply in conducting analysis pursuant to Chapter 68.

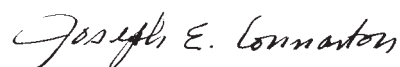
PERAC has completed its analysis of the systems' funded status and investment performance in accordance with Chapter 68. Applying the tests set forth in that statute, PERAC has determined that no retirement board will be ordered to transfer its assets to PRIT based on the 2009 results.

This report delineates investment returns for four periods: 2009; 2005-2009 inclusive; 2000-2009 inclusive; and 1985-2009 inclusive (MWRA: 1986-2009). 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 Robert Dennis, Victoria 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 & ANALYSIS

As of December 31, 2009, the composite asset allocation of the 52 systems that invested predominantly on their own was: 37.1% Domestic Equity, 14.6% International Equity, 2.9% Emerging Markets Equity, 22.0% Fixed Income (Domestic and International, including TIPS), 4.2% Opportunistic Fixed Income (high yield, et al), 5.6% Real Estate, 0.6% Timber, 3.8% Alternative Investments (venture capital, private equity), 5.2% Hedge Funds, 1.2% Balanced Funds (domestic and global), 1.9% PRIT Core Fund, and 0.8% Cash. Assets of these systems totaled \$11.7 billion. The major changes in composite asset allocation over that of year-end 2008 reflected higher market valuation of equities and lower market valuations of real estate investments.

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 allocation compared to the composite levels. For instance, allocations to domestic equity ranged from 12% to 61% and allocations to international equity ranged from zero (one system) to 25%. Forty-two of the 52 systems had allocations to real estate but only 23 had allocations of 5% or more while 10 systems had zero exposure (some of these had modest exposure through partial investment in the PRIT Core Fund). Thirty-three systems had some exposure to alternative investments, but only nine had allocations of 5% or more and 19 systems had no allocations at all (a few of these had modest allocation as a result of partial investment in the PRIT Core Fund). Thirty-one of these systems invested in hedge funds, 19 invested in emerging market equity, 23 had allocations to high yield bonds

or other forms of opportunistic fixed income, and eight invested in timber.

At the beginning of 2009, 49 local systems invested all (or essentially all) of their assets in the PRIT Core Fund. During the year, two additional systems joined PRIT. Assets of these 51 systems totaled \$5.1 billion at year-end. The asset allocation of that \$42.7 billion fund as of December 31, 2009, was 20.4% Domestic Equity, 21.4% International Equity, 5.8%

Emerging Markets Equity, 12.2% Core Fixed Income, 6.5% Value Added Fixed Income, 9.5% Private Equity, 9.5% Real Estate, 4.1% Timber/ Natural Resources, 5.0% Hedge Funds, and 5.5% Portable Alpha Wind Down. Compared to public funds nationwide, PRIT has had below average allocation to domestic equity and above average allocation to nontraditional asset classes. In addition to the 51 systems that invested essentially all their assets in the PRIT Core Fund at year-end, 12 systems had

partial investments (ranging from 1% to 49% of their total portfolio) and 40 systems participated in one or more of the PRIT Fund's segmentation offerings.

Performance for 2009 among the 103 local systems ranged from 8.6% to 29.5%. The median return was 17.8% and the composite return was 18.22%. For the 52 systems that invested on their own throughout 2009, the median return was 20.3%.

The median return for the 51 systems that invested totally (or predominantly) with PRIT for the entire year was 17.5%, in line with the return of the PRIT Fund itself. However, this statistic doesn't reflect that fact that many PRIT systems had returns significantly lower than PRIT as a result of residual real estate

**Some systems  
had total equity  
allocations  
higher than  
60% and one  
had 73%.**

and alternative investments partnerships that lost money in 2009. In addition, internal cash flows or cash positions may enhance or subtract from the returns of individual systems relative to PRIT.

If there's such a thing as a truism in investing, it's that no trend lasts indefinitely and that, over time, the returns of all asset classes revert to their historical mean. This is essentially what happened to PRIT over the past two years. For several years, the fund's size enabled it to invest meaningfully and efficiently in a wider range of asset classes than most local systems and its clout enabled it to gain access to the top tier of managers in nontraditional asset classes such as real estate and private equity. For several years in the latter part of the previous decade, PRIT outperformed most local systems as these alternative asset classes enjoyed spectacular above-average returns well in excess of returns from traditional equities. This trend began to reverse in the historic bear market year of 2008 when these other asset classes began to correct and fall back to their norms. They not only failed to provide diversification benefits but instead added to the fund's losses. Thus, PRIT lagged behind most local systems in 2008 and that trend continued in 2009. Last year, the Fund was hurt both by its below average allocation to basic equities and also by its ample holdings of real estate and private equity, both of which lost about 7.3% as they continued their downward revaluation toward historical norms.

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 2009 median return (20.3%) for the non-PRIT local systems actually exceeded the return of the following public fund

universe medians: State Street Universe, 18.4%; ICC, 18.5%; Wilshire TUCS, 19.8%. Among major state pension funds, CalPERS returned only 11.8% as it was badly battered by losses in commercial real estate.

Recurring themes among the best performing local systems last year were healthy allocations to and good performance from equities and strong returns from fixed income. Some systems had total equity allocations higher than 60% and one had 73%. Within equities, meaningful allocations to emerging markets, which returned nearly 80% last year, were particularly helpful. Several systems were able to achieve fixed income returns above 20% by having impactful positions in high yield debt, which returned nearly 60%, and above-average holdings in investment grade corporate bonds. One system profited from the comeback in distressed credits by enjoying a 36.5% return from a structured credit fund over the second half of the year. Some systems enjoyed strong returns from real return and global tactical asset allocation funds. Some benefited from sustaining relatively little damage from real estate.

Among the worst performing local systems, several started the year with allocations of more than 10% in real estate but suffered losses of between 30% and 40% in this asset class. Some were negatively impacted by having above-average allocations (as high as 43%) to bonds in a year when equities were by far the superior performers. Some had reasonable asset allocations but simply had very bad relative performance by their equity managers as well as mediocre returns from fixed income. While some systems had little or no exposure to real estate, they also had no exposure to emerging markets equity and high yield debt, two of 2009's most explosive performers.

## 2009 Returns & Annualized Past Returns (In Percent)

	Return (2009)	5-Year Return	10-Year Return	25-Year Return
ADAMS	18.21	2.69	4.46	8.24
AMESBURY	17.70	2.35	2.58	7.79
ANDOVER	17.68	1.32	1.84	8.22
ARLINGTON	14.80	0.05	1.23	8.29
ATHOL	17.42	2.36	2.62	7.01
ATTLEBORO	20.45	3.32	4.64	8.77
BARNSTABLE COUNTY	16.76	2.04	2.44	7.11
BELMONT	26.20	6.10	5.56	9.46
BERKSHIRE COUNTY	17.71	4.19	4.22	9.07
BEVERLY	17.73	0.75	3.75	8.46
BLUE HILLS REGIONAL	17.46	4.28	4.82	8.63
BOSTON	19.65	4.57	3.83	9.13
BRAINTREE	20.63	4.37	5.02	8.91
BRISTOL COUNTY	22.38	3.58	3.85	8.92
BROCKTON	23.60	2.60	4.28	9.00
BROOKLINE	22.90	3.10	4.02	8.90
CAMBRIDGE	20.45	3.16	4.10	9.25
CHELSEA	17.80	3.87	2.63	7.72
CHICOPEE	29.50	3.11	3.11	8.34
CLINTON	18.43	1.98	2.99	7.45
CONCORD	17.16	3.60	4.05	8.50
DANVERS	26.07	3.33	3.56	8.12
DEDHAM	17.83	4.20	4.18	9.68
DUKES COUNTY	15.84	3.90	3.06	7.29
EASTHAMPTON	17.55	4.15	4.36	8.11
ESSEX REGIONAL	22.20	2.09	2.95	8.62
EVERETT	18.04	3.59	2.44	8.30
FAIRHAVEN	17.74	4.11	4.19	9.43
FALL RIVER	16.64	1.85	1.74	8.26
FALMOUTH	14.01	2.47	3.96	8.89
FITCHBURG	14.73	1.92	2.32	7.41
FRAMINGHAM	17.58	4.17	3.71	9.40
FRANKLIN REGIONAL	18.20	3.26	3.90	8.03
GARDNER	17.64	4.12	4.21	9.55
GLOUCESTER	17.50	2.53	3.32	8.86
GREATER LAWRENCE	25.33	4.26	3.63	7.30

## 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
42.0%	1/1/2009
69.3%	1/1/2010
53.8%	1/1/2009
55.3%	1/1/2008
75.1%	1/1/2009
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
45.6%	1/1/2009
61.7%	1/1/2008
57.2%	1/1/2009
96.1%	1/1/2008
59.4%	1/1/2009
92.0%	1/1/2008
61.9%	1/1/2009
77.7%	1/1/2008
67.7%	1/1/2008
36.9%	1/1/2008
84.2%	1/1/2008
45.7%	1/1/2009
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
86.4%	1/1/2009

## 2009 Returns & Annualized Past Returns (In Percent)

	Return (2009)	5-Year Return	10-Year Return	25-Year Return
GREENFIELD	18.42	3.10	3.45	8.36
HAMPDEN COUNTY REG.	15.11	2.12	2.93	8.56
HAMPSHIRE COUNTY	20.17	3.82	3.14	8.33
HAVERHILL	19.90	4.16	5.76	10.29
HINGHAM	17.75	4.19	4.21	9.38
HOLYOKE	27.37	1.86	3.41	9.10
HULL	17.68	4.19	3.92	7.67
LAWRENCE	17.71	1.75	1.40	7.50
LEOMINSTER	20.81	3.45	5.21	8.41
LEXINGTON	25.26	3.80	4.06	9.05
LOWELL	16.62	3.84	2.73	9.20
LYNN	10.85	1.58	1.90	7.77
MALDEN	16.62	5.48	3.76	9.86
MARBLEHEAD	17.80	4.18	4.20	9.32
MARLBOROUGH	17.05	3.81	4.58	8.52
MASS HOUSING FINANCE	17.95	2.30	2.86	7.43
MASSPORT	23.14	4.09	3.94	9.17
MASS TURNPIKE	16.78	2.20	3.16	8.19
MASS WATER RESOURCES	22.59	5.01	4.73	8.07
MAYNARD	17.09	1.98	4.09	7.61
MEDFORD	22.01	4.18	5.64	9.16
MELROSE	14.22	2.85	3.64	8.35
METHUEN	11.44	0.59	2.19	7.57
MIDDLESEX COUNTY	12.82	2.83	2.88	8.33
MILFORD	17.17	0.91	3.86	8.08
MILTON	17.79	3.79	4.01	9.51
MINUTEMAN REGIONAL	17.75	4.13	4.19	9.67
MONTAGUE	17.46	4.13	4.22	9.20
NATICK	18.78	0.76	1.17	7.75
NEEDHAM	17.09	4.13	4.19	9.89
NEW BEDFORD	20.05	4.05	4.72	7.93
NEWBURYPORT	17.49	4.10	4.92	8.07
NEWTON	16.03	2.23	2.96	8.58
NORFOLK COUNTY	20.31	2.81	4.05	8.60
NORTH ADAMS	17.86	5.74	4.15	9.62
NORTH ATTLEBORO	19.21	2.21	4.06	8.35

## Funded Ratios

Funded Ratio	Date of Most Recent Valuation
57.3%	1/1/2009
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
41.9%	1/1/2009
73.3%	1/1/2008
89.9%	1/1/2008
62.9%	1/1/2009
65.2%	1/1/2009
91.0%	1/1/2009
77.4%	1/1/2008
73.8%	1/1/2009
65.7%	1/1/2009
69.1%	1/1/2008
64.6%	1/1/2008
56.6%	1/1/2008
50.7%	1/1/2008
58.0%	1/1/2009
73.8%	1/1/2009
99.6%	1/1/2009
84.3%	1/1/2008
69.2%	1/1/2008
73.7%	1/1/2009
38.1%	1/1/2009
65.0%	1/1/2008
56.9%	1/1/2009
65.7%	1/1/2008
67.3%	1/1/2009
82.9%	1/1/2008

## 2009 Returns & Annualized Past Returns (In Percent)

	Return (2009)	5-Year Return	10-Year Return	25-Year Return
NORTHAMPTON	16.88	5.66	4.05	9.42
NORTHBRIDGE	17.64	4.11	4.22	9.46
NORWOOD	23.61	5.23	5.02	9.34
PEABODY	17.74	1.61	2.76	8.55
PITTSFIELD	14.07	1.37	1.99	7.99
PLYMOUTH	22.46	3.35	3.22	8.70
PLYMOUTH COUNTY	20.42	2.89	3.28	9.21
PRIM BOARD	17.55	4.05	4.15	9.73
QUINCY	18.13	3.04	4.02	8.34
READING	17.85	4.21	4.22	9.37
REVERE	16.91	3.98	4.03	8.30
SALEM	15.38	1.53	2.74	8.02
SAUGUS	17.69	4.17	4.20	9.30
SHREWSBURY	20.04	3.23	2.86	9.01
SOMERVILLE	22.63	3.93	5.10	8.75
SOUTHBRIDGE	13.87	0.22	3.07	7.94
SPRINGFIELD	14.38	2.64	2.54	8.23
STATE	17.86	4.17	4.17	9.59
STATE TEACHERS	17.86	4.17	4.17	9.60
STONEHAM	17.67	4.17	4.28	8.78
SWAMPSCOTT	13.39	3.32	3.42	9.17
TAUNTON	20.12	3.29	4.64	9.69
WAKEFIELD	17.76	4.14	4.19	9.85
WALTHAM	8.60	1.71	2.41	8.49
WATERTOWN	17.03	2.62	3.31	8.21
WEBSTER	22.61	3.24	2.91	7.88
WELLESLEY	17.82	2.89	3.84	10.24
WEST SPRINGFIELD	13.72	2.39	4.18	7.91
WESTFIELD	21.53	3.00	3.19	8.53
WEYMOUTH	21.84	3.50	3.89	10.11
WINCHESTER	17.85	4.47	5.05	9.49
WINTHROP	16.89	4.08	4.31	8.68
WOBURN	22.44	3.91	4.38	9.42
WORCESTER	20.23	3.84	3.80	9.04
WORCESTER REGIONAL	13.15	1.47	1.53	8.08
<b>COMPOSITE</b>	<b>18.22</b>	<b>3.97</b>	<b>4.02</b>	<b>9.30</b>

## 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
43.2%	1/1/2009
68.7%	1/1/2008
61.4%	1/1/2007
Not Applicable	Not Applicable
65.0%	1/1/2007
68.2%	7/1/2009
59.4%	1/1/2008
55.7%	1/1/2008
59.9%	1/1/2009
77.0%	1/1/2008
65.5%	1/1/2008
58.6%	1/1/2008
42.4%	1/1/2008
76.5%	1/1/2010
58.2%	1/1/2009
65.5%	1/1/2009
51.6%	1/1/2008
68.1%	1/1/2008
80.6%	1/1/2008
64.4%	1/1/2008
57.3%	1/1/2010
49.4%	1/1/2008
86.7%	1/1/2010
62.2%	1/1/2008
74.0%	1/1/2007
71.9%	1/1/2007
76.0%	1/1/2009
62.9%	1/1/2009
77.9%	1/1/2008
68.0%	1/1/2009
56.3%	1/1/2007
<b>Not Applicable</b>	<b>Not Applicable</b>

# NOTES:



**Commonwealth of Massachusetts**  
**Public Employee Retirement Administration Commission**  
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