Commonwealth of Massachusetts

Public Employee Retirement Administration Commission

State of the Pension System

2009

Commonwealth of Massachusetts
Public Employee Retirement Administration Commission

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INTRODUCTION

The purpose of this report is to provide an overview of the public pension systems in Massachusetts, particularly in relation to the funding, investment, and benefit structure under which those systems operate. Perhaps most importantly at the outset we have attempted to place the impact of the investment experience in 2008 in context and to set forth the condition of the systems as that year began, as well as to estimate the state of the systems in the wake of that unprecedented calamity. The final sections of the report are devoted to addressing some of the myths that persist with respect to the level of benefits and financing of Massachusetts retirement systems. It is our hope that this report will provide a dispassionate and sober basis for policy makers, interested observers, and the public as the issue of public pension reform is discussed in the weeks and months ahead.

2008 – THE HARD REALITY

The starting point for our analysis of the impact of the events of 2008 on the financial condition of the Massachusetts Public Pension Systems is a review of the investment environment that has brought about the most severe losses in the history of these systems and consequently reversed an encouraging trend towards full funding of pension obligations.

As the US — and most of the world — fell deeper into recession and interest rates on short Treasury securities approached zero, stocks tumbled to multi-year lows in one of the market's worst, and most volatile, years ever. Several of the nation's largest financial institutions either failed or were taken over and the government resorted to unprecedented measures in a frantic effort to forestall an even worse economic debacle.

The final quarter of the year saw all the ingredients of the downturn on display. The hotly debated $700 billion rescue plan approved by Congress was signed by the President, the market followed with its worst week ever and then its single largest daily gain ever, the jobless rate rose to a 15-year high, consumer prices saw their biggest decline in over 60 years, stocks broke through their previous bear market lows, the government pledged to pump another $800 billion into ailing credit markets, industrial output registered its biggest decline in almost thirty years, the government stepped in to stabilize Citigroup and then to shore up General Motors and Chrysler, mortgage rates declined to their lowest levels in decades, and the Fed cut interest rates to historic lows. And to complete the nightmarish quarter, financier Bernard Madoff was arrested in December on charges of orchestrating a massive multi-billion dollar investment fraud.

After declining more than 20% during the fourth quarter, US stocks finished with their third worst year ever and worst since the Great Depression. The Dow Jones Industrial Average, off 33.8% for the year, had its worst year since 1931 and the S&P 500 (large cap) index, off 38.5%, had its worst year since 1937. The NASDAQ Composite fell 40.5%, registering its worst year ever, even surpassing the decline suffered after the tech stock bubble burst in 2000. The broad market Dow Jones Wilshire 5000 suffered a 37.3% decline.

The pain of the year's losses was sharpened by gut-wrenching volatility during the final months of the year. The Dow saw four of the largest one day losses as well as two of the biggest one day gains in its 113-year history. Average swings between intraday highs and lows on the S&P 500 were 6.9% in October and 5.4% in November, representing the two most volatile months ever. Before recovering at year end, US stocks — at their November lows — were down about 54% from their October 2007 record highs, representing a loss of about $10 trillion in market value. At the November lows, stocks were at their lowest level in six years.

One theme heard throughout the year was that there was virtually no place to hide during 2008. This was certainly true of foreign stock markets as no region of the world was able to "decouple" itself from the US' problems. Europe appeared to be mired in a recession even more severe than the US, Asia's export economies were battered by evaporating demand in the West, and slumping commodity prices contributed to the woes of Latin America. The surprising strength of the dollar (up 8.6% in 2008 in the Fed's

trade-weighted index) served to worsen losses for US investors. The MSCI-EAFE Index was down 20% for the fourth quarter and 43.4% for the year. MSCI's Emerging Markets index was down 27.6% for the quarter and 53.3% for the year.

The credit markets were the major drivers behind most of 2008's historic events. The Fed cut the Fed Funds rate seven times during 2008, from 4.25% at the start of the year to the record low 0-0.25% range set at its December meeting. Holders of Treasury securities enjoyed capital appreciation during 2008 as the yield on the ten-year note declined from 4.033% to 2.25% and the yield on the 30-year bond dropped from 4.457% to 2.671%. Both levels represented historic lows. However, investors in investment-grade corporate bonds suffered losses as the yield differential between these bonds and Treasuries tripled from about 2% to 6% during the year. High yield "junk" bonds suffered their worst year ever as their yield spread to Treasuries generally tripled from about 6% to over 18% during the year. Performance of the Treasury's inflation-protected securities (TIPS) suffered as investors began to focus more on the threat of deflation than inflation. Investment grade bond issuance fell 35% during the year while junk bond issuance plummeted by 75%. Overall, the Barclay's (formerly Lehman Brothers) Aggregate Bond Index rose 5.2% in 2008, while indices for investment grade corporate and junk bonds showed losses of about 7% and 26%, respectively.

For real estate, 2008 was the year when things went from bad to worse, when the residential housing market had its worst year ever and when troubles began spilling over to the commercial market as a result of the weakening economy and the worsening credit crunch that ground new deals to a virtual halt. It was difficult to obtain a reliable gauge as to just how far commercial property values have fallen since there have been so few actual transactions, but the 38% drop (all of which occurred in the fourth quarter) in the NAREIT Index of publicly traded real estate investment trusts offered an ominous clue. Weakness in both consumer and corporate spending was having obvious effects on the valuation of shopping malls, warehouses, office buildings, and hotels.

Reporting of composite returns for alternative investments is significantly lagged, but, with activity in the mergers and acquisitions markets as well as in the initial public offerings market grinding to an essential halt in 2008 and with the historic declines in the public equity markets, it would be unrealistic to expect favorable returns from either buyouts or venture capital, although, as always, performance will vary widely among managers in these areas.

As widely noted, there was no place to hide in 2008 and, to the dismay of many, this also applied to hedge funds, which suffered through the worst year by far in the industry's relatively short history. Hedge funds could not escape the huge decline in stock prices and the collapse of most areas of the credit markets, and when they were forced to sell assets as part of deleveraging or to meet redemptions, the fact that so many hedge funds owned the same or similar assets further aggravated the losses. The fact that composite hedge fund losses were significantly less than those of stocks and also better than many other asset classes including publicly traded real estate and junk bonds was of little solace to many investors.

For the public pension plans and those who invest the assets of those plans, what this has meant is that in 2008 traditional diversification provided little protection as every asset class and every investment strategy suffered significant loss. The impact of these losses on finances was magnified by the fact that in conducting actuarial valuations and developing funding schedules retirement boards assume an investment return of between 7.75% and 8.50%.

However, there are several things that one must not lose sight of as we seek to manage this present crisis. The Massachusetts Public Pension Systems have been investing under the Prudent Expert Rule applicable to private pension plans since 1985. The Composite Annualized Return for the period 1985-2007 for these systems was 10.96%, substantially above the assumed rates. The Pension Reserves Investment Trust Fund (PRIT) which manages money for the State and Teachers Systems and many local systems achieved an annualized return of 11.52% over that time. In fact, only one system had a return less than 8.00% and only six systems had a return of between 8.00% and 9.00% during that time. One system

achieved a return in excess of 12% and seventeen systems returned between 11% and 12%. There were thirty-nine systems with a return between 10% and 11%. Finally, forty systems returned between 9.00% and 10.00%. Thus ninety-seven of the local public pension systems had a long-term investment performance as 2008 began that comfortably exceeded investment assumptions and many exceeded that assumption by a significant margin.

Although final performance calculations are not yet available for 2008, if we assume a negative 30% return for each system, the 1985-2008 estimated annualized returns break down as follows: (1) 9.00% or greater – 14 systems; (2) 8.50% - 9.00% - 14 systems; (3) 8.00% - 8.50% - 26 systems; (4) 7.50% - 8.00% - 27 systems; (5) 7.00% - 7.50% - 16 systems and (6) 6.00% - 7.00% - 7 systems. The PRIT Fund annualized return for the 1985-2008 period, using negative 30% as an estimate for 2008 performance, is 9.38%. The composite return for that period using that estimate is 8.85%. Consequently, although it is too early to assess the long-term returns that include the 2008 experience, the data outlined indicates that, in many cases, in spite of the 2008 losses the long-term return of these funds will match or still exceed the actuarial assumptions. This should not only act as a reminder that pension plans are long-term investors but also provides a caution against any changes in the statutes governing the investment of these funds which may, in the interests of reducing risk, in fact increase risk.

In addressing the crisis that exists due to the 2008 experience, this history must be kept in mind. The actuarial investment return assumption is a long-term (40-50 years) assumption. Massachusetts public pension plans have used the range of assumption set forth above (7.75%-8.50%) for actuarial valuations and the development of funding schedules since the mid 1980's. It could be argued that the record cited for the years before 2008 indicates that these systems took advantage of the positive investment environment that existed during that period and that 2008 represented a validation of the long-term assumption, albeit in a one year period rather than over several years as might have been expected.

Finally, although many have suggested that it will take years to absorb and then reverse losses suffered in 2008, it should be noted that just as past positive returns are not predictors of future experience, the same applies to negative returns. In fact, since the reform of investment practices in the mid 1980's, the Massachusetts systems have enjoyed several years when positive returns nearly matched the expected level of loss for 2008. As recently as 2003 the PRIT Fund returned 26.33% and the composite of all systems exceeded 20%. In 1995 those numbers were 24.13% and 23.49%. In 1991, Andover achieved a return of 43.23%; Malden, 36.08%; Marblehead, 35.37%; Lynn, 33.49%; Northampton, 32.38%; North Adams, 31.57% and Swampscott, 30.22%. Earlier, in 1985 Woburn had a return of 32.45%; Cambridge, 31.97%; Somerville, 29.93%; Clinton, 28.89%; Plymouth, 28.43%; Weymouth, 28.18%, Dedham, 27.95% and Boston, 25.65%.

POSSIBLE SOLUTIONS

The challenge presented by the 2008 investment environment and its impact on the funded status of our retirement systems can be addressed if policy makers remain mindful of the fact that the systems are long-term investors and that it is expected that over the life of a funding schedule there will be years of very good returns and years of poor returns. The 2008 experience, one of the most extreme negative periods on record, does not change that simple fact. In spite of this year's results, it is anticipated that most systems will have achieved long-term returns at or near the investment assumption used in their actuarial valuations. In addition, as noted below, the tools exist for many systems to mitigate the impact of the 2008 losses on pension funding while continuing to maintain a responsible and acceptable approach to pension funding.

A responsible funding schedule can employ varying approaches primarily related to the length of the schedule, the investment assumption used in performing the valuation on which the schedule is based, and the characteristics of the future payments to amortize the unfunded liability (level or increasing). The Massachusetts law presently applicable to our public pension plans requires that unfunded liabilities be paid off by 2028 and that annual increases in the amortization component of the schedule be

limited to a maximum of 4.50%. In addition, PERAC prefers the actuarial assumption for investment return to be 8.00% or lower, although several systems do use an 8.50% assumption.

SYSTEM BY SYSTEM ANALYSIS

There are three primary determinants in the funding schedule that each system has adopted to address past unfunded liabilities and to finance accruing benefits. These are (1) the length of the schedule – Massachusetts law requires that unfunded liabilities be amortized by 2028; (2) the annual rate of increase in the amortization component of the schedule – Massachusetts law requires that the maximum rate of increase be 4.50%; and (3) the investment return assumption – PERAC generally prefers an assumption at or below 8.00%. The sooner the date on which the amortization takes place, the lower the rate of annual increase in the amortization payment and the lower the investment assumption, the higher the annual pension appropriation required by the schedule. Thus if a system has a schedule that calls for completing amortization in 2028 with an annual increase in amortization payment of 4.50% and uses an investment assumption greater than 8.00% prior to incorporating the 2008 investment experience into its actuarial valuation, the full impact of the 2008 losses will be felt in the next year's appropriation. On the other hand, a system that is scheduled to pay off its unfunded liability by 2015 with level amortization payments and using a 7.75% investment assumption may, by lengthening the schedule, increasing the annual rate of increase in the amortization payment, and increasing the investment assumption, modify the impact of 2008 losses on the pension appropriation and remain in compliance with the statutory requirements. Obviously the options available to systems will not be known until the actuarial valuations as of 1/1/09 are completed and various scenarios analyzed.

This brings us to the issue of timely actuarial valuations. Although under the law systems need only conduct actuarial valuations once every three years, in order to accurately gauge the dimensions of the financing crisis created by the investment environment of 2008, it is imperative that each system conduct such an actuarial valuation as soon as possible.

Systems that have maximum flexibility in revising pension funding levels to ameliorate the fiscal crisis confronting the governmental units include the three systems presently fully funded (MassPort, Wellesley and Minuteman).

There are seven systems (Adams, Concord, Dedham, Leominster, Lexington, MHFA and Greater Lawrence) that (1) are scheduled to pay off unfunded liabilities prior to 2020, (2) are making level payments with respect to amortization, and (3) use an investment assumption of 8% or less. The flexibility created by the aggressive approach that these systems have used to date may enable them to soften the impact of 2008 losses on the city or agency budget and still remain on track to meet the statutory deadline for funding the system.

An additional five systems are (1) scheduled to pay off unfunded liabilities prior to 2020, (2) have a slightly increasing annual rate of amortization payment and (3) use an investment return assumption at or below 8%:

AMORTIZATION SCHEDULE

BOARD	YEAR	ANNUAL INCREASE %	INVESTMENT RETURN ASSUMPTION %
Arlington	2019	2.45%	7.75%
Brockton	2018	1.50%	8.00%
Fairhaven	2017	4.15%	8.00%
Montague	2015	1.00%	8.00%
Northbridge	2016	.92%	8.00%

Thirteen systems are (1) scheduled to be fully funded in 2025 or before, (2) are amortizing annual payments at a rate below 4.50% and (3) are using an assumption at or lower than 8.00%:

BOARD	YEAR	ANNUAL INCREASE %	INVESTMENT RETURN ASSUMPTION %
Attleboro	2022	4.30%	8.00%
Blue Hills Regional	2022	Level	8.00%
Chicopee	2021	4.25%	8.00%
Easthampton	2021	Level	8.00%
Gardner	2021	3.09%	8.00%
Hull	2025	2.99%	7.75%
Maynard	2023	3.75%	8.00%
Reading	2024	1.50%	7.75%
Revere	2023	2.60%	8.00%
Stoneham	2020	3.50%	8.00%
Weymouth	2021	1.35%	8.00%
Winchester	2021	1.50%	8.00%
Woburn	2022	4.00%	8.00%

Eleven systems that have flexibility that may assist in ameliorating the impact of 2008 include:

BOARD	YEAR	ANNUAL INCREASE %	INVESTMENT RETURN ASSUMPTION %
Berkshire County	2016	4.50%	8.00%
Braintree	2026	2.00%	7.88%
Cambridge	2013	2.10%	8.50%
Framingham	2026	.25%	8.00%
Marblehead	2019	4.50%	8.00%
Marlborough	2022	2.25%	8.00%
Milton	2016	4.50%	8.25%
Waltham	2019	2.50%	8.50%
Watertown	2017	4.50%	8.00%
Winthrop	2019	2.00%	8.25%
Worcester	2019	4.00%	8.25%

This indicates that forty, or more than one-third of the Massachusetts public pension systems, may have sufficient flexibility to provide relief through lower pension appropriations and yet remain on course to amortize unfunded liabilities by 2028.

An additional sixty systems have more limited flexibility. These include:

BOARD	YEAR	ANNUAL INCREASE %	INVESTMENT RETURN ASSUMPTION %
Amesbury	2025	4.50%	8.25%
Athol	2027	4.50%	8.00%
Andover	2026	2.30%	8.00%
Barnstable County	2028	4.50%	8.25%
Belmont	2025	4.50%	8.00%
Beverly	2023	4.50%	8.00%
Boston	2023	4.50%	8.00%
Bristol County	2023	4.50%	8.50%
Brookline	2025	4.00%	8.25%
Chelsea	2025	3.50%	8.25%
Clinton	2028	3.00%	8.00%
Danvers	2024	3.50%	8.25%
Dukes County	2023	4.50%	8.00%
Everett	2026	4.50%	8.25%
Fall River	2028	4.50%	8.25%
Falmouth	2028	4.50%	8.00%
Fitchburg	2028	3.93%	7.88%
Franklin Regional	2026	2.38%	8.00%
Gloucester	2028	3.49%	7.88%
Greenfield	2026	4.50%	8.25%
Hampden Cnty. Reg.	2024	4.50%	8.50%
Hampshire County	2025	3.50%	8.25%
Hingham	2028	4.50%	8.00%
Holyoke	2025	Level	8.25%
Lawrence	2028	3.26%	8.00%
Lowell	2028	4.50%	8.25%
Lynn	2027	4.50%	8.25%
Malden	2028	2.00%	8.00%
Mass Turnpike	2028	4.50%	8.25%
Medford	2028	4.00%	8.00%
Melrose	2024	4.00%	8.00%
Methuen	2028	4.50%	8.00%
Middlesex County	2028	4.50%	8.25%
Milford	2028	4.50%	8.00%
MWRA	2024	4.50%	8.00%
Natick	2026	4.50%	8.00%
Needham	2021	4.50%	8.25%

BOARD	YEAR	ANNUAL INCREASE %	INVESTMENT RETURN ASSUMPTION %
New Bedford	2026	4.50%	8.38%
Newburyport	2027	1.50%	8.00%
Newton	2028	4.50%	8.00%
Norfolk County	2022	4.50%	8.50%
North Adams	2028	3.50%	8.00%
Northampton	2028	3.61%	7.75%
North Attleboro	2025	4.50%	8.00%
Peabody	2028	3.60%	8.25%
Pittsfield	2025	2.31%	8.25%
Plymouth	2022	3.94%	8.25%
Plymouth County	2025	4.30%	8.50%
Quincy	2023	0.51%	8.25%
Salem	2025	3.50%	8.25%
Saugus	2022	3.00%	8.25%
Shrewsbury	2022	4.50%	8.50%
Somerville	2022	4.00%	8.25%
Southbridge	2026	4.50%	8.00%
Swampscott	2028	4.50%	8.00%
Taunton	2022	4.50%	8.00%
Wakefield	2023	4.50%	8.00%
Webster	2026	4.50%	8.00%
Westfield	2024	4.50%	8.00%
West Springfield	2026	3.83%	8.00%

In most cases, in order to soften the impact of the economic downturn on local budgets these systems may need to employ a combination of funding schedule or assumption modification and legislative relief.

Those systems which have no flexibility due to the extreme nature of their existing schedule and investment assumption include:

BOARD	YEAR	ANNUAL INCREASE %	INVESTMENT RETURN ASSUMPTION %
Essex Regional	2028	4.50%	8.50%
Worcester Regional	2028	4.50%	8.50%
Norwood	2028	4.50%	8.50%
Haverhill	2028	4.50%	8.25%
Springfield	2028	4.50%	8.50%

The initial step in assessing possible relief is the updated actuarial valuation to accurately determine the dimensions of the problem. Armed with that information, adjustments to funding schedules, particularly in systems that have adopted responsible past practices, may ease the burden on local and agency budgets which are also by-products of the economic environment. For systems with few or no options, other solutions may be necessary. In some cases, a combination of schedule adjustment and relief through legislative action may suffice while those systems that are now on the "minimum" schedule may be required to rely solely on legislative relief.

The approach will vary from system to system and board to board. Any legislative solution should provide the maximum flexibility to enable an assessment of individual circumstances and to tailor separate strategies to deal with each unique situation. In any event, all parties must recognize that anticipated 30% to 50% increases in appropriation levels that are possible in some systems are not realistic in light of the fact that local budgets are also suffering in the current economic environment.

The goal of this process should be to provide fiscal relief for local and agency budgets while retaining the existing statutory structure, if possible. Systems that are able to achieve the budgetary goal through changes in the existing schedule that are consistent with the overall pension funding framework in Chapter 32 will be poised to resume the march to full funding when general economic and market conditions stabilize.

HISTORICAL CONTEXT

The increasing focus on the public pension system in Massachusetts and across the country has brought forward many opinions about the fiscal condition, benefit structure, administrative, and investment performance of the trustees responsible for the management of those systems. An equal number of "solutions" to the "crisis" in public pension plans have been put forth, sometimes by well-meaning policy analysts and sometimes by those with preconceived conclusions based on principles that are not relevant to the subject at hand.

Reports assessing the performance and condition of the Massachusetts plans often have leaned to the "half-empty" rather than "half-full" characterization of the situation. For reasons that will be detailed, the statutory history of these systems mandates that in many respects the glass be half-full at this point in time. Prior to 2008 significant progress had been made in finances since the late 1980's when boards were authorized to begin the transition to actuarial funding. That progress had been generally acceptable from an actuarial point of view and in some cases, extraordinary.

Too often the overall circumstances of all 106 retirement systems have been described on the basis of the circumstances of a limited number of systems. And in that case, frequently the poor relative fiscal condition of those systems is one component of a breakdown in all of the functions of a particular jurisdiction. For example, it should not be a shock that retirement systems in jurisdictions that have been under the statutory jurisdiction of a Financial Control Board due to general conditions also have a financial problem in the retirement area.

Similarly, the impression of an overly generous benefit structure for the average employee is fostered by emphasis on anomalies and anachronisms in the law which appear to favor certain employees.

Finally, the investment returns of most retirement systems in Massachusetts have been competitive with similar entities across the country. The extraordinary performance of the Pension Reserves Investment Trust Fund (PRIT) has tended to obscure that fact.

One of the most serious distortions in discussion of the condition of the Massachusetts' Public Pension System that has taken place in the last several years is the lack of perspective and context that often accompanies assertions about the system's shortcomings. This lack of perspective and context is particularly evident when comparisons are made to the private sector, Social Security, and other public plans

across the country. Any rational discussion of public pension issues and possible policy changes must take place with an accurate awareness of the history of the Massachusetts' Public Pension System and how it truly compares to other retirement programs, governmental and private.

The first and perhaps most fundamental fact that has been ignored to date is that Massachusetts is not a "Social Security" state. Public employees in Massachusetts rely solely on the public pension plan and are not eligible to participate in Social Security. Most other public employees in the country are covered by Social Security and thus the pension plan that is sponsored by the local government supplements Social Security. However, in spite of the supplemental nature of the locally funded and determined benefit in those jurisdictions, Massachusetts benefit structure is not overly generous in comparison and the funded status of the majority of Massachusetts systems compares well with that of those systems.

The second element that has been missing in the discussion of the Massachusetts systems is the historical context for the policy approach adopted to address long-term funding needs. From inception until the early 1980's, the Massachusetts Public Pension System was financed primarily on a pay-as-you-go basis. Annual appropriations by the governmental unit were set by the cost of the benefits to be paid in that year. Consequently, in the early years this short sighted approach greatly benefited the governmental unit as few members were eligible for retirement and costs were artificially kept low. The poor overall fiscal condition of the systems was further exacerbated by withdrawing so-called "excess earnings" from the system to actually reduce the amount committed by the governmental unit. Thus, employer contributions to the retirement system often did not even match the amount being paid to retired members in benefits. In fact, for most of the period from 1945 – 1983, retirement boards were legally barred from attempting to secure actuarial forward funding as was required by the ERISA statute for private sector plans.

In the late 1980's, legislation was adopted that revised the method for funding our pension systems. The goal was twofold: (1) create a mechanism to transition to the amortization of the unfunded liabilities that had accrued under the pay-as-you-go method and (2) immediately commence funding current benefits on an actuarial basis.

In the wake of the adoption of funding legislation in the late 1980's, state and local officials took actions that, although perhaps necessitated by the general fiscal condition, impeded the transition to actuarial funding.

Following passage of the reforms that required a phase-in of actuarial funding, several jurisdictions sought and received Home Rule Petitions that enabled them to avoid making the full appropriations necessary under the new law. This led to a reduction in funding status and a delay in the transition period.

In 1997, legislation transferred financial responsibility for the cost of cost-of-living-adjustments to local retirees from the Commonwealth to the retirement systems and governmental units.

Early retirement incentives, pension holidays, and other local option statutes often adopted at the behest of municipal officials increased the liabilities of the retirement systems.

These actions reflect the fact that the retirement boards do not operate in a vacuum. Public officials have used the retirement system to transfer costs from the operating budget to the pension budget, manipulate the pension appropriation and, in some instances, solved personnel problems through disability retirement. Thus, one element of the difficulties we face is the use of the retirement system for unrelated purposes, some of which are supportable as public policy and some of which clearly are not.

APPLES TO APPLES COMPARISON

The fact that Massachusetts public employees do not participate in the Social Security System has significant implications not only in terms of the benefit structure, but also on the fiscal condition of the retirement systems and the obliga-

tion of the employing governmental units (primarily the state and its cities and towns) to appropriate funds for those benefits. The "normal cost" paid by Massachusetts public employers to cover employee benefits as they accrue is substantially less than the percentage of payroll that, in the absence of the Chapter 32 system, would be paid to Social Security. Furthermore, comparisons between the fiscal condition, benefit structure, and viability of the Massachusetts systems and public and private retirement systems elsewhere must account for the lack of Social Security coverage for Massachusetts public employees. This difference makes any comparison between pension plans that incorporate Social Security and the Chapter 32 system a comparison of apples and oranges.

NON SOCIAL SECURITY SYSTEMS

The financial condition of the Massachusetts systems must be put into the context of similar systems nationwide. This chart is the result of a survey conducted by the Wisconsin Legislative Council in 2006 entitled "2006 Comparative Study of Major Public Employee Retirement Systems." Although the survey included nearly 100 pension systems, these are the systems that are stand alone - that is their members are not covered by Social Security.

The first observation that should be made is that the Massachusetts State Retirement System (MSERS), with a funded ratio of 81.5% (as of 1/1/06), was one of the better funded of the similarly situated funds surveyed. Out of the 17 funds, surveyed the MSERS placed fifth in terms of the ratio of assets to liabilities. The Massachusetts Teachers System did not fare as well, placing 13th with a ratio of 67.2%. However, that ratio is not dramatically below the average funded ratio of 74.1%, particularly in light of the fact that the actuarial valuation of the Massachusetts systems uses the "Entry Age" method which generally results in greater liabilities than the "Projected Unit Credit" method used in the Louisiana TRSL and Kentucky TRS, plans with ratios above that of the Massachusetts Teachers.

The Massachusetts State Employees Retirement

STATE NAME	METHOD	FUNDING RATIO %
Texas TRS	Entry Age	87.3%
Ohio STRS	Entry Age	75.0%
Ohio PERS	Entry Age	93.0%
Nevada PERS	Entry Age	74.9%
Missouri PSRS	Entry Age	82.6%
Maine SRS	Entry Age	77.1%
Louisiana TRSL	Projected Unit Credit	67.5%
Louisiana SERS	Projected Unit Credit	63.9%
Kentucky TRS	Projected Unit Credit	73.1%
Illinois TRS	Projected Unit Credit	62.0%
Connecticut TRS	Entry Age	68.4%
Colorado PERA	Entry Age	73.3%
California TRS	Entry Age	86.0%
Alaska TRS	Projected Unit Credit	60.9%
Alaska PERS	Projected Unit Credit	65.7%
Massachusetts SERS	Entry Age	81.5%
Massachusetts TRS	Entry Age	67.2%

System Funded Ratio improved further through 2007. As of 1/1/08, that funded ratio was 89.4% on an actuarial value basis and 98.8% on a market value basis.

The Massachusetts Teachers Retirement System Funded Ratio also improved since the Wisconsin Study. In the 1/1/08 Actuarial Valuation, the Teachers Funded Ratio was 73.9% on an actuarial basis and 81.9% on a market value basis.

Time has passed since this Study was undertaken and the devastating consequences of 2008 have not yet been calculated; however, on a relative basis there is no reason to believe that the positions of the Massachusetts State Employees System and the Massachusetts Teachers System have deteriorated. As noted below, local and agency systems also compare well with this group as ninety-nine systems prior to 2008 had a funded ratio above 50% with thirty-eight achieving a funded level above 75% and only seven with a funded ratio below 50%. The sample cited in the Wisconsin Study was limited to state and teacher funds primarily and Massachusetts local systems would compare even more favorably with municipal systems elsewhere in the nation.

In this context, perspective can be further gleaned from an observation that "...public sector experts, union officials and advocates believe, according to the GAO, that 80% is a responsible funded ratio for public pension systems."

FUNDING HISTORY

Legislation in 1987 for the first time allowed retirement boards to seek financing on an actuarial basis. The unfunded liability confronting the systems at that time was not the responsibility of the retirement board or the benefit structure in place; it was entirely due to the method of financing that had for years artificially masked the true cost of the pension systems. This failure to finance pension costs properly for the shortsighted temporary freeing of resources for use on other priorities, regardless of the value of those expenditures, is the true cause of the financial crisis that culminated in the reforms in funding and investment. Reform legislation recognized the financial impossibility of an immediate commencement of actuarial funding on a level amortization payment basis. For the same reasons, the law called for a maximum time period in which systems must retire unfunded liabilities. This responsible approach ensured that systems would ultimately adopt a full funding approach while providing the flexibility for systems on a case by case basis to be as aggressive as circumstances of the individual governmental units allowed. The mandate that full funding be achieved by 2028 and the authorization of a 4.5% annually increasing amortization payment reflects the clear expectation that a transition period would be necessary to commence full funding.

For many systems, prior to 2008, the transition period was coming to an end. Based on pre-2008 schedules, sixty-three would have experienced a decline in unfunded liability as a result of appropriation immediately and by FY 2013, nearly all systems would begin seeing such a decline. This was precisely the process envisioned in 1987 when funding legislation was adopted.

One hundred of the one hundred and six Massachusetts' public pension funds were less than 50% funded in 1987. At that time, only 2 had a funded ratio above 75% and the additional 4 were funded at a level greater than 50% but less than 75%.

Prior to the 2008 market collapse, the situation had essentially reversed with 99 systems funded at a ratio greater than 50% and 38 funded at a level above 75%. Only 7 systems were funded at a ratio below 50%.

Fifty of the Massachusetts' public pension plans including several of the largest (Boston, Cambridge, State and Teachers) would have been fully funded within 15 years, well before the maximum time period allowed by law (2028).

Obviously 2008 has now made the achievement of the full funding goal on the timetable outlined less likely. However, as solutions are crafted to address the economic and budgetary crisis confronting

the Commonwealth and its cities and towns, one goal should be to assure that when the economy rebounds, re-establishment of the responsible and timely meeting of our pension obligations takes place smoothly and, as far as practicable, on the same basis as was the case when the crisis hit.

COMPARISON TO ACTIONS OF OTHER JURISDICTIONS

In Massachusetts, several benefit structure changes have taken place that added liability to the pension system while contributing to other governmental goals. These have included early retirement incentive programs, Retirement Plus, and pension holiday legislation. However, in comparison to the action of other jurisdictions, the Massachusetts' experience has been one of restraint and measured progress.

As noted above, the Wisconsin Study reviewed 85 public pension plans, 68 of which also participate in Social Security. Benefit comparisons with Massachusetts systems must recognize that fact. The benefit formula is Years of Service x Formula Multiplier x Final Average Salary. In Massachusetts for a Group 1 employee retiring at 65, the multiplier is 2.5%. It is reduced .1% for each year between age 55 and 65. However, it is critical that policy makers understand that, in the traditional plans that also provide Social Security, the Formula Multiplier varies from 1.3% to over 2.1%. About 30 of those plans provide a Multiplier of 1.9% or greater. Thus the benefit provided prior to adding Social Security in those plans is virtually as generous as the benefit provided without Social Security to the average Massachusetts employee at age 60.

The Study also underscores the difference between our system and those surveyed in employee contribution rates, limitations on benefits, vesting, and COLAs. Again, keep in mind that most of the systems surveyed provide Social Security coverage as well as the defined benefit.

The Massachusetts contribution rate for new hires is greater than that of all systems surveyed with the exception of Missouri PSRS (12%) and Illinois TRS (9.4%). Florida FRS, Michigan SERS, Missouri SERS, Tennessee CRS, Utah SRS, and Milwaukee County require no employee contribution. Twenty-eight of the plans require a contribution rate that is at or below the level made by Massachusetts employees hired prior to 1975 (5%).

The effect of the high employee contribution rates is that in Group 1 (general employees), an individual hired after 1996 is in fact financing most or all of his or her entire superannuation (normal) retirement benefit. For example, based on plan assumptions for a member hired after 1996 at age 25 with a starting salary of $30,000, contributions plus earnings will have accumulated to nearly $1.8 million to cover a benefit at 65 valued at approximately $1.5 million. The difference of $300,000 accrues to cover other plan costs of the employer. In other Groups, individuals hired after that date will pay for a significant percentage of their benefit. In reality, for these employees, the Massachusetts pension plan is a defined contribution plan with respect to funding and a defined benefit plan as far as the benefit structure is concerned. Policy makers must keep in mind, as they contemplate actions with respect to financing, that we actually have two plans, one for employees with longer service and one for recent hires. The fiscal burden that is associated with unfunded liabilities will ease as the percentage of the workforce hired after 1996 and contributing the maximum increases. The challenge is to maintain the commitment to our employee base while the natural transition to this defined contribution/defined benefit hybrid plan takes place.

In addition, in some jurisdictions such as Wisconsin, although members are required to contribute 3% and 5% (substantially less than most Massachusetts' employees), in almost all cases the employer covers the cost of those contributions.

Massachusetts caps the retirement benefit at 80% of Final Average Salary. In the majority of plans surveyed in the Wisconsin Study there is no maximum benefit limit imposed. In fourteen systems the limit is 100% of the Final Average Salary.

In order to be eligible for a retirement benefit (vest) in Massachusetts an employee must have 10 years of creditable service. In the systems surveyed sixty-seven of the eighty-five have vesting requirements lower than that of Massachusetts and sixty-three have a requirement of 5 years or less.

Another element of the plan in which Massachusetts is dramatically less generous than most other systems is cost-of-living-adjustments (COLAs) after retirement. Again, the Social Security component of the benefit in sixty-eight of the plans surveyed will receive a COLA under Social Security. Thirty-eight of the eighty-five plans provide an automatic COLA indexed to the CPI. Another twenty-three plans have an automatic increase. In Massachusetts, a COLA is ad hoc based on the annual actions of the Legislature or the retirement board. However, most significantly in Massachusetts, the COLA is capped at a maximum of 3% of the first $12,000 in the retiree's benefit. According to the Study, Massachusetts is the only plan with such a limit.

CONCLUSION

The assertion that public employee pension benefits are too generous in Massachusetts is now so commonplace in our public discourse as to possess a credibility that is not warranted. New employees in the most common group classification finance their own benefit over their working lives. In other groups, a significant percentage of the benefit for new members is self financed. The total percentage of salary available to Massachusetts public retirees is capped at 80%. This maximum is not supplemented by Social Security. This contrasts with a retiree from other jurisdictions such as New York which provide a defined benefit plan in conjunction with Social Security. In that system, a 30-40 year employee receives a state pension between 60% and 75% of salary in addition to Social Security. As a result, many employees retire with a benefit in excess of the salary they received while working.

As noted, in aspects of the benefit plan from member contribution rates to cost-of-living allowances for retirees, the Massachusetts' plan lags that available in other states and localities. This does not argue for enhancing these benefits, but serves as a reminder that it would be tragic from a fiscal and human point of view to tear up this system and put in its place an alternative that is neither affordable nor sufficient to meet the needs of retired employees. The Social Security alternative would substantially increase costs to the state and other public employers while diminishing the benefit to retirees. The defined contribution alternative must be deemed virtually ludicrous in the wake of the 2008 investment experience. Today the Massachusetts plan is transitioning to an employee funded defined benefit plan. In the years ahead, as we recover from the 2008 experience, the wisdom of holding firm will be rewarded with a resumption of progress towards full funding and a reduction in the level of public resources that must be used to pay pension costs.

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