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From: PERAC Actuarial Advisory Committee
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Date: July 23, 2009

Re: Pension Funding for Massachusetts Retirement Systems Subject to Chapter 32 of the Massachusetts General Laws

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We, the members of the PERAC Actuarial Advisory Committee, would like to thank you and the Commission for the opportunity to present our comments and recommendations regarding the Massachusetts Contributory Retirement System (MCRS). As consultants who perform actuarial valuations for Massachusetts public sector employers, we have the distinct advantage in recognizing the strengths and limitations of the System.

Overall, it should be noted that the MCRS is built on sound principles. However, the current economic environment brings into focus questions regarding the ability of Massachusetts public employers' continued ability to fund pension benefits. We have presented below:

- background information on the design and funding of the MCRS, and
- our recommendations and supporting rationale regarding approaches that can be used to ease the financial burden on public employers in funding pension benefits, while ensuring that the MCRS continues to be financially viable.

Current Situation

The key goal behind any retirement program, whether in the private or public sector, is to provide individuals with income support during their non-working years. Recent events have called into question whether 401(k) plans that are prevalent in the private sector adequately serve this purpose.

Massachusetts public sector employees benefit from a retirement plan that promises a defined benefit at retirement. These plans provide more retirement security for participants than defined contribution plans, such as a 401(k) plan, because the employer bears the investment risk and promises to provide a definite benefit at retirement.

Public opinion, as well as that of our Governor and legislators, has called for pension reform. Certainly there are areas where pension reform is needed; however, we do not see a need to completely redesign the MCRS. The recent pension legislation addresses both plan design and funding by extending the funding deadline from 2028 to 2030. However, a two year extension of the funding schedule does not provide a long-term solution to the funding of the MCRS. We are confident that our proposed recommendations go a long way to support the strengths and viability of the MCRS well into the future.

At the end of this memo, we have included a one page summary of our recommendations. We believe the material that follows supports these recommendations.

Background

The funding requirements indicated in Chapter 32 were established in 1987 and initially required that each System be fully funded by June 30, 2028, 40 years after the implementation of the law. Recent legislation has lengthened the deadline two years to June 30, 2030. The funded ratio represents the Actuarial Asset Value divided by the Actuarial Accrued Liability. When the funded ratio reaches 100%, a system is said to be "fully funded."

In determining the Actuarial Accrued Liability, the actuary initially determines the present value of all benefits to be paid from the System. This includes expected cost-of-living allowances (COLA) and expected salary increases for active employees. The Actuarial Accrued Liability is an allocation of the present value of benefits to past service as of the valuation date.

The Actuarial Asset Value can be either market value or a market-related value where asset gains and losses are recognized over a number of years. The smoothed market-related approach dampens the impact of investment returns on funding requirements.

The annual appropriation is comprised of the Normal Cost (the cost of benefits expected to be earned in the coming year) plus an amortization cost of the Unfunded Actuarial Accrued Liability (the Actuarial Accrued Liability minus the Actuarial Asset Value). As noted above, the amortization cost is determined such that the unfunded liability is reduced to zero by June 30, 2030 or by an earlier date, as determined by the Retirement Board. The amortization payment can be determined as a level payment or as a payment that increases each year. The law currently limits the annual increase in the amortization payment to 4.5%.

A recent analysis of the funding progress of Massachusetts Retirement Systems prior to the 2008 market collapse is summarized below.

- All but 11 of the 106 Systems used a long-term expected rate of return on assets between 7.75% and 8.25%. This expected rate of return is also used to determine the Actuarial Accrued Liability and Normal Cost of the System.

- 25 of the 106 Systems used the Market Value of Assets to determine the Unfunded Actuarial Accrued Liability and the remaining Systems used a smoothed Actuarial Asset Value.

- 25 of the 106 Systems had a target date to be fully funded in 2028. The remaining Systems had a target date to be fully funded prior to 2028.

- 44 of the 106 Systems calculated amortization payments to increase at the maximum rate of 4.5%.

- At the time of the analysis, four Systems were fully funded.

We provide the following observations regarding the current law and environment.

- The period for amortizing the Unfunded Actuarial Accrued Liability decreases with every passing year. The initial unfunded liability determined in 1987 was amortized over 40 years, starting with Fiscal 1989. As of Fiscal 2011, there are 20 years remaining on the funding schedule. Future gains or losses, assumption changes or plan changes will be amortized over the number of years remaining on the funding schedule and become more expensive as we approach June 30, 2030.

- The current law is silent as to what occurs when the System becomes fully funded. Typically, fully funded systems either set their appropriation equal to the Normal Cost or an amount equal to Normal Cost less an amortization of the excess of the Actuarial Asset Value over the Actuarial Accrued Liability.

- The current law is also silent on how to amortize unfunded liability or surplus after 2030. Absent any changes to the current law, the required appropriation after 2030 would be the Normal Cost plus full recognition of the actuarial gain or loss that occurred since the prior valuation.

- Volatility in annual appropriations is expected to increase from now until 2030 as Systems approach full funding and the amortization period decreases. It will remain extremely volatile after 2030 due to full and immediate recognition of gains or losses.

- Section 2 of Chapter 68 of the Acts of 2007 requires Systems with a funded ratio that is less than 65% and an average 10-year rate of return that is at least 2% less than the PRIT Fund rate of return over the same period to transfer their assets to the PRIT Fund. This law has prompted boards to make decisions that are not in the best interest of the participating employers, taxpayers and participants of the System. Examples are as follows:

(i) shortening the funding period to increase the appropriation, accelerate funding, and increase the likelihood of remaining above the 65% funded level,
(ii) increasing the equity portion of the asset allocation to a level that increases the market risk to an undesirable level in an attempt to match the PRIT Fund return,
(iii) requesting overly aggressive actuarial assumptions and/or methodologies to raise the funded ratio, and
(iv) forgoing an actuarial valuation if it is likely that the funded ratio would fall below 65%.

- Prior to the effective date of the Governmental Accounting Standards Board Statements Number 43 and 45 Other Postemployment Benefits, there was very little competition for dollars to fund retirement benefits. However, the funding of retiree health benefits will be an ongoing and growing concern. Ignoring the funding of these obligations is not in anyone's best interests.

- Since 2000 we have seen examples of events that have an extremely low probability of occurring, and yet they have had dramatic consequences. The events of 9/11 is the first example and the events of the 2008 economic downturn is the most recent example. We expect that these "Black Swan" events will continue in the future. This new world we live in calls for flexibility and adaptability combined with thoughtful and periodic planning in order to survive.

Funding Policy

There are two approaches available for reducing the unfunded liability to zero:

- **A fixed date** by which the System is to be fully funded, and
- **A fixed period** for determining the payment of related changes in the unfunded liability.

The **fixed date** approach is the current law with 2030 as the fixed date by which Systems are to be fully funded. Changing the current law from 2030 to a later date, say 2040 or 2050, provides additional relief to absorb the impact of the 2008 investment losses but does not address the observations and concerns that have been raised for the current law as the System approaches the end of the schedule. This approach does however provide a fixed date by which Systems are scheduled to be fully funded.

The **fixed period** approach uses a fixed period of time by which changes in the unfunded liability in a particular year are to be fully paid. Different amortization periods may be used for actuarial gains and losses, changes in actuarial assumptions, plan changes, and catastrophic events. Under this approach, each source of additional unfunded liability is treated the same and is not a function of the year the change occurred.

These two funding approaches ensure that the additional liabilities incurred in a year will be paid off by a specific date in the future. There is a third approach, which we refer to as the **rolling amortization** approach, which amortizes the unfunded liability over the same fixed period each year (e.g., 30 years). This approach will not fully fund the System within a specific or desired timeframe unless there are experience gains. In our opinion, this approach is not an adequate approach for funding.

One alternative to incorporate under any of these approaches would be to establish a funding target of less than 100% of the Actuarial Accrued Liability. Since public sector retirement plans are expected to continue indefinitely, the funding ratio target could be set at 80% or 90%.

We believe that maintaining a funding target of 100% is the desired goal. If the plan sponsor sets a goal of 100% funded and attains a funded ratio of 80%, that is not a bad result. In fact, the 2009 State of the Pension System published by PERAC stated: " . . . public sector experts, union officials, and advocates believe, according to the GAO, that 80% is a responsible funded ratio for public pension systems".

One other enhancement to consider for a funding policy is a minimum appropriation requirement. Features of this requirement might include the following.

- Appropriations may not decrease from one year to the next unless the System is at a particular funded ratio, or
- Appropriations must be at least equal to the net cash flow or some percentage of the net cash flow for Systems that are below a specific funding threshold. The goal would be to ensure enough liquidity to satisfy cash flow requirements since premature liquidation can reduce asset returns. It is important to note that with the aging of the population, it is anticipated that retirement benefit payments will increase dramatically over the next 10 to 15 years.

Recommendations – Funding

We recommend the following changes in the law related to pension funding.

1. Apply a combination of the fixed date and fixed period approaches to reduce unfunded liability to zero:

    a. Amortize the unfunded liability at the effective date by a fixed date which is not later than 30 years from the effective date. Amortization payments may increase by no more than 4% per year. For the following nine years, amortization payments will be calculated assuming the System will be fully funded by the original fixed date.
    b. After the initial 10-year period, amortize additional unfunded liability attributable to experience gains or losses or assumption changes over a fixed period not to exceed 20 years. Amortization payments may increase by no more than 4% per year.

c. In the event of unprecedented gains or losses, similar to the 2008 investment loss, the legislature will determine if the 20-year period should be extended.
d. If plan changes are approved by the legislature, the legislation will specify the period over which the unfunded liability attributable to the plan change will be amortized and the maximum annual increase in the amortization period.
e. The funding schedule developed using a., b., c., and d. is subject to the following additional limits:

   (i) At the discretion of the Retirement Board and if the funded ratio is less than 90%, the increase in the appropriation from one fiscal year to the next will be limited to 8%, and
   (ii) If the funded ratio is less than 90%, the appropriation can not decrease from one fiscal year to the next.

2. Require an actuarial valuation at least every two years.

3. Repeal Section 2 of Chapter 68 of the Acts of 2007.

4. Require legislative reviews starting in the 2015 fiscal year and to be conducted every five years thereafter to review the status of funded progress and the related funding rules.

Funding Other Post-Employment Benefits/Health Care

Even though the primary focus of this memo is to address pension funding it would be a gross oversight for us to ignore retiree medical benefits and the upcoming competition for dollars to pay for these benefits. As a long-term pension funding policy is considered for Massachusetts public employers, it is important that we acknowledge the challenges the public sector faces in funding retiree medical liabilities. These liabilities are being measured today and their size is causing the public sector to revisit plan designs.

We commend the State for adopting Chapter 479 of the Acts of 2008 – a bill that permits plan sponsors to set up a fund without the difficulties of a home rule petition. Most communities understand that it is ultimately less expensive to prefund for these retirement benefits rather than to follow the current pay-as-you-go approach. This bill recognizes this important fact. However, due to a lack of funds, only a handful of communities will be able to take advantage of the legislation in the near future. In addition, this law as it is currently written, raises a number of unanswered questions, which include the following:

- Must an entity submit a funding schedule in order to pre-fund any portion?

- What if contributions are not made in accordance with a funding schedule?

- Why use GASB standards and liabilities with implicit subsidies and the possible use of rolling amortization schedules for determining funding requirements?

- What standards will the PERAC actuary utilize to accept or decline a funding schedule?

- What if the PERAC actuary does not accept a proposed schedule?

The 2009 State of the Pension System published by PERAC provides important insights on the Massachusetts pension systems, the history of the funding policy, and how Massachusetts moved from a pay-as-you-go system to prefunding. The material presented there provides strong support for funding retiree medical plans. When we consider the history of pension funding and the forthcoming funding for retiree medical benefits, it is important to note that the current unfunded liability and the upcoming expected pay-as-you-go benefit payments for 2009 retiree medical benefits are significantly greater than the corresponding numbers for pensions in 1988. Also the healthcare trend assumption has a significant impact on the cost of prefunding retiree medical which is not reflected in pension funding.

Requirements for funding retiree medical benefits should draw upon the past experience of the pension system, while recognizing the important differences between the two promises. Our recommendation on this matter is presented below.

- Coordinate funding of retiree medical benefits and pension benefits. Legislative action is needed to appropriate money for the necessary actuarial analysis to develop a thoughtful and coordinated program. Consideration should also be given to an expanded role and budget for PERAC in overseeing both promises.

Conclusion

The page that follows shows all the recommendations that are presented throughout this report. The first four address pension funding and the fifth incorporates retiree medical benefits.

We thank all who review this memo for their consideration of our observations and recommendations. We would welcome the opportunity to meet with you, the Commission or Legislative representatives to respond to questions or comments raised by our material and to further discuss and explore how we may be of assistance as the Commonwealth addresses these important issues.

Recommendations

1. Apply a combination of the fixed date and fixed period approaches to reduce the unfunded liability to zero:

    a. Amortize the unfunded liability at the effective date by a fixed date which is not later than 30 years from the effective date. Amortization payments may increase by no more than 4% per year. For the following nine years, amortization payments will be calculated assuming the System will be fully funded by the original fixed date.
    b. After the initial 10-year period, amortize additional unfunded liability attributable to experience gains or losses or assumption changes over a fixed period not to exceed 20 years. Amortization payments may increase by no more than 4% per year.
    c. In the event of unprecedented gains or losses, similar to the 2008 investment loss, the legislature will determine if the 20-year period should be extended.
    d. If plan changes are approved by the legislature, the legislation will specify the period over which the unfunded liability attributable to the plan change will be amortized and the maximum annual increase in the amortization period.
    e. The funding schedule developed using a., b., c., and d. is subject to the following additional limits:

        (i) At the discretion of the Retirement Board and if the funded ratio is less than 90%, the increase in the appropriation from one fiscal year to the next will be limited to 8%, and
        (ii) If the funded ratio is less than 90%, the appropriation can not decrease from one fiscal year to the next.

2. Require an actuarial valuation at least every two years.

3. Repeal Section 2 of Chapter 68 of the Acts of 2007.

4. Require legislative reviews starting in the 2015 fiscal year and to be conducted every five years thereafter to review the status of funded progress and the related funding rules.

5. Coordinate funding of retiree medical benefits and pension benefits. Legislative action is needed to appropriate money for the necessary actuarial analysis to develop a thoughtful and coordinated program. Consideration should also be given to an expanded role and budget for PERAC in overseeing both promises.