Emerging Issues Forum Managing the Challenge Funding Schedule Extension (2011) James Lamenzo Actuary September 14, 2011



Funding Schedule Extension

- July, 2009 –PERAC Actuarial Advisory Committee:
 - Stephen Ricci, Ricci Consultants
 - Kathleen Riley, Segal Company
 - Daniel Sherman, Buck Consultants
 - Lawrence Stone, Stone Consulting

makes its recommendations.



Funding Schedule Extension

- Proposed long-term funding solution for Massachusetts systems
- 2008 investment returns were the impetus
- Discussions on extending 2028 began over 5 years ago
- Provide relief responsibly



Extend Schedule to 2040 (Under 22F)

- Increasing annual amortization 4.0% maximum
- Appropriation in any fiscal year at least as great as prior year (until fully funded)
- If appropriation would increase more than 8%, it may be adjusted



Funding Strategies

- Maintain the Budget!
- 2009 valuations (42)
- 2010 valuations (79)
- 2011 valuations (50 scheduled)



Stay Within 2030 Rules

- Preferred by many systems
- Is it feasible? 30% 50% increases using same schedule
- Many systems <u>must</u> extend beyond 2030
- Originally expected 60-75% of locals to extend



Extend Beyond 2030

- Can't extend to 2040 unless necessary
- Alternatives
 - Shorten schedule
 - Lower annual amortization increase



Short-term Implications

- 2008 investment losses not fully recognized (actuarial value)
- 1/1/11 valuations- 2 more years to recognize
- "Things will get worse before they get better."
 - Generally 15%- 20% returns required (<u>short-term</u>) to maintain position
 - 1/1/13 valuation may need to extend further to maintain appropriation



- Extension to 2030 very little help
- Significant increases using same schedule (30% - 50% +)
- Without 2040 option many systems looking at 20% + increases



2010 Valuations

- Situation slightly improved
 - Investment gains
 - Liability gains (usually)
- 2030 schedules possible (for about 60% of plans)
- 2040 schedules work for most



- Situation improved
 - Investment gains
 - Liability gains (usually)
- Already beginning to reflect 2008 losses (2009 Valuation)



2011 PERAC Local Valuations

Results to date: 9 systems

Reduce investment return assumption 3

Add mortality improvement assumption 9

Increase COLA base 3

Recognize another 40% of 2008 loss 9

No further extension of schedule

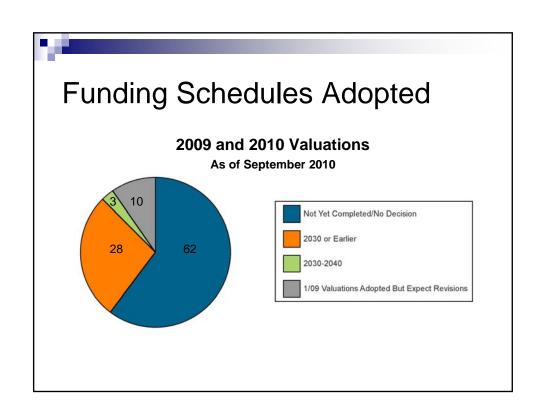
necessary 9

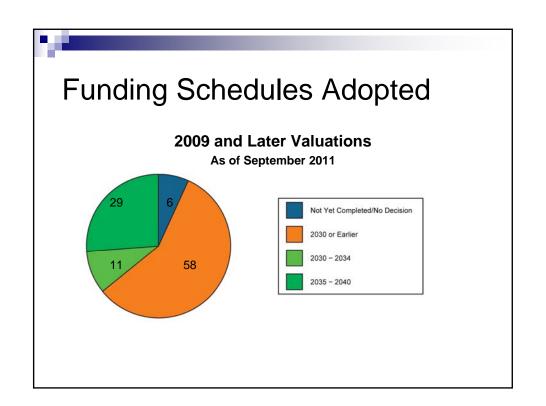


- Generally, no further extension is necessary
- Why?
 - Actuarial liability gains
 (Primarily salary gains)
 - Decrease in active members
 - Actuarial value of assets corridor



- Extremely positive (and surprising?) results
 - -Expected 5-10 years to deal with loss
 - -Things **can** get worse before they get better
 - -Mindset for 1/13 valuations: Expect schedule will need to be extended





When 2040 Doesn't Work

- Example:
 - FY13 under current schedule \$1,000
 - FY13 based on 1/1/11 valuation \$1,200



Phase-in Schedule

- To get systems back on track
- Schedule ramps up over 3-5 years
- Used for a number of systems under 2028 rules
- 8% annual increases serve as a phase-in



Alternative Approach

- Set increase in total appropriation
 - For example, 5% per year increases
 - More aggressive funding



Valuation Funding Schedules

- Regular: 4.0% annual increasing amortization to 2036
- Alternative: 5.0% annual increasing appropriation to 2032

FOR ILLUSTRATION PURPOSES ONLY!!!!!



Investment Return Assumption

- Should it be reduced?
- PERAC "Standard": 8.0% since 1997
- Pressure to **increase** in late 1990s
- Pressure to **decrease** over past few years



Investment Return and Salary Increase Assumption Example

Investment Return 8.0%

Actives 2,800
Retirees 3,200
Total Actuarial Liability 6,000

Assets 4,000 Unfunded Liability 2,000 Funded Ratio 66.7%



Investment Return and Salary Increase Assumption Examples

Investment Return 8.0% 7.5% **Actives** 2,800 3,000 3,200 3,300 Retirees Total Actuarial Liability 6,000 6,300 4,000 4,000 Assets **Unfunded Liability** 2,300 2,000 **Funded Ratio** 66.7% 63.5%



Investment Return and Salary Increase Assumptions

- Long-term
- Inflation components
- Should generally move together



Investment Return and Salary Increase Assumption Examples

Investment Return	8.0%	7.5%	7.5%
Salary Scale	Current	Current	*
Actives	2,800	3,000	2,900
Retirees	3,200	<u>3,300</u>	3,300
Total Actuarial Liability	6,000	6,300	6,200
Assets	4,000	4,000	4,000
Unfunded Liability	2,000	2,300	2,200
Funded Ratio	66.7%	63.5%	64.5%

^{*}current reduced by 1% at all ages



Investment Return and Salary Increase Assumption Examples

Investment Return	8.0%	7.5%	7.5 %	7.75%
Salary Scale	Current	Current	*	*
Actives	2,800	3,000	2,900	2,790
Retirees	<u>3,200</u>	<u>3,300</u>	<u>3,300</u>	<u>3,250</u>
Total Actuarial Liability	6,000	6,300	6,200	6,040
Assets	4,000	4,000	4,000	4,000
Unfunded Liability	2,000	2,300	2,200	2,040
Funded Ratio	66.7%	63.5%	64.5%	66.2%

^{*}current reduced by 1% at all ages



Final Observations

- Investment return assumption has the most impact
- Salary scale has the second most impact
- Reduction in investment return assumption should be mitigated
- Measured approach:

No need to reduce to 7.5% immediately Over time – maybe?

Monitor all assumptions each year