Role of Funding Policy & Discipline

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Funding Policy
Why Do Plans Fund?

**Supports Retirement Security Policy.** Annual contributions that meet the actuarially determined amount support liability management. Although actuarial gains and losses will impact the level of liability, consistent funding over time results in accruing the assets to pay promised benefits.

**Security of future accruals.** Plans fund to provide systematic recognition of liabilities and so governments can better enforce budgetary controls. This is good governance and government best practice.

**Production of investment income.** Funded plans earn investment income. Better-funded plans earn more investment income. The benefits and expenses are paid for from two sources—contributions and investment income. The higher the investment income, the lower the required contributions. As the pension fund is likely to earn a higher rate of return than the governmental cost of capital, this represents a true savings to the taxpayers.

**Proper consideration of plan changes.** Actuarial advance funding leads to proper allocation of costs to working generations and the taxpayers they serve.

**What is the cost?**

\[
(\text{Contributions} + \text{Interest}) = (\text{Benefits} + \text{Expenses})
\]
What Are The Main Funding Inputs?

- Benefit Design
- Investment Income
- Contributions

Total Cost of Pension Plan

Actuarial Funding Method

Annual Share of Total Cost

How does the interaction among these components drive funding levels?
Funding Policy Guidelines

GFOA Best Practices
- Core elements of a funding policy

Center for State and Local Government Excellence
- Pension Funding: A Guide for Elected Official

California Actuarial Advisory Panel
- Actuarial Funding Policies and Practice for Public Pension and OPEB Plans and Level Cost Allocation Model

Conference of Consulting Actuaries (CCA)
- Ongoing review and development of funding policy guidelines

American Academy of Actuaries
- AGES

The CCA white paper on this subject has the most comprehensive information available.
Alignment
  - A retirement system should align stakeholder roles with their skills

Governance
  - Good governance provides a balance framework for making and implementing good decisions

Efficiency
  - Systems should maximize retirement income while avoiding excessive risk

Sustainability
  - The system should be designed to support retirement income over all generations of participants while being able to withstand financial shocks such as recession or prolonged inflation
Core Funding Elements

Actuarial Cost Method
- Level Method
- Method by which total present value of all future benefits for current active and retired participants is allocated to each year of service

Asset Smoothing Method
- Reduce the effect of short-term market volatility
- Setting the smoothing period

Amortization Policy
- Balance between contribution volatility and ensuring a fair allocation of cost among generation
- Setting the appropriate time period
Sample Policy Review

• General Funding Policy Issues
• Current Funding Policy
• Comparison to GASB Requirements
• Changes to consider for the Funding Policy
General Funding Policy Objectives (i.e. Budgets)

1. **Actuarially determined employer contribution** (ADEC)
   - Formally referred to as the ARC under GASB 25/27
   - Future contributions plus current assets sufficient to fund all benefits for current members
   - Contributions = Normal Cost + amortization of the Unfunded Actuarial Accrued Liability

2. **Intergenerational equity**
   - Reasonable allocation of funding to years of service

3. **Contributions stable as a percentage of payroll**
   - Reasonable management of future employer contribution volatility

4. **Support public policy goals of accountability and transparency**
   - Clear in intent and effect
   - Allow assessment of whether, how and when sponsor will meet funding requirements
Three Major Funding Policy Components

1. Actuarial Cost Method
   - Allocates present value of member’s future benefits to years of service
   - Defines Normal Cost and Actuarial Accrued Liability (AAL)

2. Asset Smoothing Method
   - Manages short term market volatility while tracking Market Value of Assets
   - Defines the Unfunded Actuarial Accrued Liability (UAAL)

3. Amortization Method
   - Sets contributions to systematically pay off the UAAL
   - Length of time and structure of payments
Actuarial Cost Method

Policy Objectives

Policy objectives

– Each member’s benefit should be funded by the expected retirement date, assuming all assumptions are met
– The Normal Cost for each member should be reasonably related to the expected cost of that member’s benefit
– Expected cost of each year of service emerges as a level percentage of member compensation

Methods in use

– Entry Age Normal
– Projected Unit Credit
– Aggregate
– Frozen Liability methods
– Others
Asset Smoothing Methods

Policy Objectives

Unbiased relative to market

– Same smoothing period for gains and for losses
– Do not selectively reset at market value only when market value is greater than actuarial value

Accountability and transparency prefer smoothing methods that provide for full recognition of deferred gains and losses in the UAAL by some date certain.

Preferred methods compare actual return to assumed return

– Earning above or below assumed return (gain or loss) recognized over smoothing period
– For example, for ten year smoothing:
  • Recognize 1/10 of most recent gain/loss immediately,
  • Recognize another 1/10 in each of the next nine valuations
Actuarial Standards of Practice No. 44

Policy should also incorporate the ASOP 44 concepts related to smoothing period and range from market value.

Market value corridors restrict how far actuarial value of assets can stray from market value of assets.

- For example, actuarial value of assets (AVA) cannot be less than 80% of market value of assets (MVA) nor more than 120% of MVA.

ASOP 44 provides framework for tradeoff between smoothing period and (possibly) MVA corridor.

- AVA must be likely to return to MVA in a reasonable period.
- AVA must be likely to stay within a reasonable range of MVA.

Exception: If AVA stays “within a sufficiently narrow range” or returns “in a sufficiently short period” then only one or the other is required.
Amortization of Unfunded Actuarial Accrued Liability

More than just selecting an amortization period

Source of Unfunded Actuarial Accrued Liability (UAAL)

- Actuarial gains / losses
- Plan changes
- Assumption or method changes

Amortization method

- Level dollar amount
- Level percentage of pay

Amortization payment structure

- Fixed period (closed) or rolling (open)
- One UAAL layer or multiple UAAL layers

Policy objectives—balance of:

- Intergenerational equity
- Volatility management
Amortization of Unfunded Actuarial Accrued Liability

Amortization method

Level dollar amount
- UAAL is amortized like a mortgage
  - Payment is the same each year (level)
  - $1.5 million, $1.5 million, $1.5 million, etc.

Level percentage of payroll
- UAAL is amortized with payments that increase each year
- Annual increase in payment is based on payroll growth assumption (i.e., 4.00%)
- $1 million, $1.04 million, $1.082 million, etc.
Summary of Funding Policy Elements

Actuarial cost method
- Entry age normal, Projected Unit Credit, Other

Asset smoothing method
- Smoothing period
- MVA corridor

Amortization period
- Layered amortization with fixed periods
- Rolling
- Level percentage of payroll
- Limited negative amortization

It is your funding policy, designed and chosen to meet the needs of your plan, employees, taxpayers and governmental mission.
Current Funding Policy Objectives

The current objectives of the Board of Trustees funding policy are:

1. To maintain funding procedures that ensure that each member plan is financially independent of every other member of the system. There is no cost sharing among members of the Retirement System.

2. To secure the benefit obligations under each member plan in a systematic and orderly manner and to ensure that each member plan is funded in accordance with required state law as well as generally accepted actuarial practices and procedures.

3. To utilize actuarial methods which are intended to produce a contribution pattern that is relatively level as a percentage of covered payroll over time.

4. To utilize actuarial techniques that minimize administrative expenses whenever possible.

5. To assure long-term funding levels which are appropriate for mature pension plans.

6. To comply with applicable laws, regulations and standards.

7. To provide for periodic review and modification of the actuarial assumptions used in the annual member actuarial valuations and to determine the amount of service credit purchases.
Current Major Funding Policy Components

1. **Actuarial Cost Method**
   - Projected Unit Credit
     - One member uses an alternative method
     - Two others requested a similar study

2. **Asset Smoothing Method**
   - 10-year smoothing period with a 20% corridor
     - Corridors were widened temporarily to provide relief from the 2008 investment losses
System Three Major Funding Policy Components

Amortization periods are:
- 30 years for assumption and method changes,
- 15 years for experience gains/losses
- 10, 15 or 20 years for benefit changes
- 10 years for temporary early retirement incentive plans (ERIPs)
- The net period is no longer than 30 years and no shorter than 10 years
- Payments are determined as a level dollar amount

Under no circumstances are contributions allowed below an “absolute minimum” which is 30 years as a level % of pay (as described in State Code Section 47-20-10(b))
Other Funding Policy Issues

Other funding policy issues include:

• Setting plan assumptions based on the five year experience review. These include:
  a. Investment return – 7.50%
  b. Inflation – 2.75%
  c. Salary Scale – Select and ultimate based on age and service of participants
  d. Mortality – RP-2000 set forward two years for males and one year for females
  e. Termination and disability rates- Rates based on participant age
  f. Retirement Age – expected age at retirement, varies by plan provision, generally not earlier than age 60 for non-public safety personnel
  g. Specific assumptions may be modified for a particular member if in the actuary’s opinion this will better measure a plan’s liability.

• Setting assumptions for service purchases.
Other Funding Policy Issues

Other funding policy issues include:

- Exceptions:
  a. Members may make contributions in excess of the recommended up to a maximum
  b. If a plan is producing inadequate cash flow to support benefits then a larger contribution will be required. (This is very rare and would involve extremely small plans.)
  c. New members must agree to adhere to the funding guidelines. Underfunded plans may not improve benefits without Board approval.
Other System Funding Policy Issues

- Benefit enhancements
  a. Periodically, members will request benefit studies. These are provided only if:
    a) The member has had no more than one year of alternative contributions within the last five years
    b) Furthermore amortization for benefit changes will be
      i. 20 years if the funding % is at least 80%
      ii. 15 years if the funding % is between 70% and 80%
      iii. 10 years if the funding % is between 60% and 70%
      iv. If less than 60% benefit improvements may not be adopted

The funding % is the actuarial value of assets divided by the actuarial accrued liability.
# Comparison of Differences in System Funding Policy and New Accounting Elements

<table>
<thead>
<tr>
<th>Item</th>
<th>System Funding</th>
<th>Accounting</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Funding Method</td>
<td>Projected Unit Credit (PUC)</td>
<td>Entry Age Normal (EAN)</td>
<td>EAN is the most often used funding method (67%), PUC is next (25%)</td>
</tr>
<tr>
<td>Asset Smoothing</td>
<td>Sum of actuarial value at beginning of year and the cash flow during the year plus the assumed investment return, adjusted by 10% of the amount that the value exceeds or is less than the market value at end of year. The actuarial value is adjusted, if necessary, to be within 20% of market value</td>
<td>NPL based on Market; 5-year recognition of difference between actual and assumed returns for expense purposes; disclosed as deferred recognition</td>
<td>Most plans use traditional smoothing of 5 to 10 years with a 20% corridor; non-asymptotic</td>
</tr>
<tr>
<td>Amortization of Liability Changes</td>
<td>30 years for assumption and method changes, 15 years for experience and 10 to 20 years for plan changes; level dollar with a maximum of 30 years and a minimum of 10 years; Absolute Minimum to comply with State Law</td>
<td>Immediate recognition for NPL purposes; for expense future working lifetime for experience and assumptions, as noted above for investments and immediate for all else</td>
<td>The average System amortization period is about 12 years; the accounting average will be significantly shorter</td>
</tr>
<tr>
<td>Valuation Date</td>
<td>January 1 or July 1 depending on the Member’s fiscal year, based on data received on the preceding October 1 or April 1</td>
<td>The measurement date of the NPL is as of a date no earlier than the end of the employer’s prior fiscal year.</td>
<td>If the valuation dates remain the same, the measurement date will be October 1 or April 1 as appropriate</td>
</tr>
<tr>
<td>Assumed Rate of Return</td>
<td>7.50%, based on periodic experience reviews to reflect the long-term expectations for the System</td>
<td>7.50% unless for an individual member the projected benefit payments for current participants are greater than current assets plus future contributions for the same actives; in that case a blended assumption must be used</td>
<td>Our testing indicates that the great majority of Members will be able to use the long-term assumption for accounting purposes</td>
</tr>
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Changes to Consider for the System Funding Policy

Actuarial Funding Method

Should the valuation funding method be changed from PUC to EAN?

– Yes
  • If a change is made both funding and accounting will use the same methodology
  • Most public sector plans use EAN so this would make the System more like other systems
  • EAN is may be more conservative and may increase contributions

– No
  • Even using the same funding method, expense and contributions will not equal
  • So it may be better to keep the current method to emphasize the distinction
  • PUC has been in place for the System for many years and is working well
  • While EAN is typically more conservative, for some Members a change may lower recommended contributions

To emphasize the difference between accounting and funding and to provide consistency in recommended contribution, we suggest no change for the funding method.
Changes to Consider for the System Funding Policy

Asset Smoothing Method

Should the asset smoothing funding method be changed to market or a 5-year period?

- Yes
  - Faster recognition of investment gains or losses will tighten the relationship between assets at market value and recommended contributions
  - The private sector has moved to a market based valuation

- No
  - Market volatility is recognized appropriately under the current method
  - System members are long-term in nature and short term market fluctuations should be mitigated

The current 10-year method appropriately recognizes investment gains/losses and complies with ASOP 44. We recommend maintaining the current method.
Changes to Consider for the Funding Policy
Amortization Periods

Should the amortization periods be shortened to match accounting standards?

– Yes
  • This change would prevent generational transfer of liabilities

– No
  • The change would create unreasonable volatility in the recommended contribution making budgeting virtually impossible
  • The current combination of amortization periods reasonably allocates recommended contributions fairly to generations of taxpayers

We recommend no changes in the amortization periods used to determine the recommended contributions.
Changes to Consider for the Funding Policy
Valuation Dates

Should the valuation dates be changed?

– Yes
  • Accounting preferences are to have amounts as close to year-end as possible

– No
  • The current dates fit the new accounting requirements
  • Members still need budget numbers on the same schedule as they do now
  • Changing the dates would not improve the financial statements

We recommend no change in the valuation dates.
Changes to Consider for the System Funding Policy

Investment Return Assumption

Should the investment return assumption be reviewed?

– The investment return assumption was adopted effective January 1, 2015 pursuant to an experience review
– Experience review are performed every 5 years
– The next review will include data from January 1, 2015 to December 31, 2019
– Other plan assumptions will also be reviewed, including
  • Mortality
  • Salary increase patterns
  • Retirement patterns
  • Termination and disability incidence
  • Other assumptions used to determine the recommended contribution

No changes are recommended at this time. Assumptions will be reviewed as previously scheduled unless the schedule is modified by the Board.
Questions