The OPEB World is Changing – A Comprehensive Overview

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Jennifer Diercksen, Davenport & Company

Greg Stump, Boomershine Consulting Group

David Boomershine, Boomershine Consulting Group

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The OPEB World is Changing in Several Areas

* Accounting: OPEB Requirements in 2017-2018
* Funding: Pre-Funding and Trust Funds Provide Advantages
* Bond Rating Agencies: More Focus on Retirement Plans, Including OPEB
* Plan Changes: Managing Plan Costs and Liabilities

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GASB Requirements/Changes

Of all the actuaries at the firm, none could match the zeal of Earnest T. Cromwell.

WHAT IS AN ACTUARY?

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What is an Actuary?
Actual Responses

* An actuary is a person who tells you how long you are going to live

"There must be some mistake. According to our actuary tables I'm going to live to 83."

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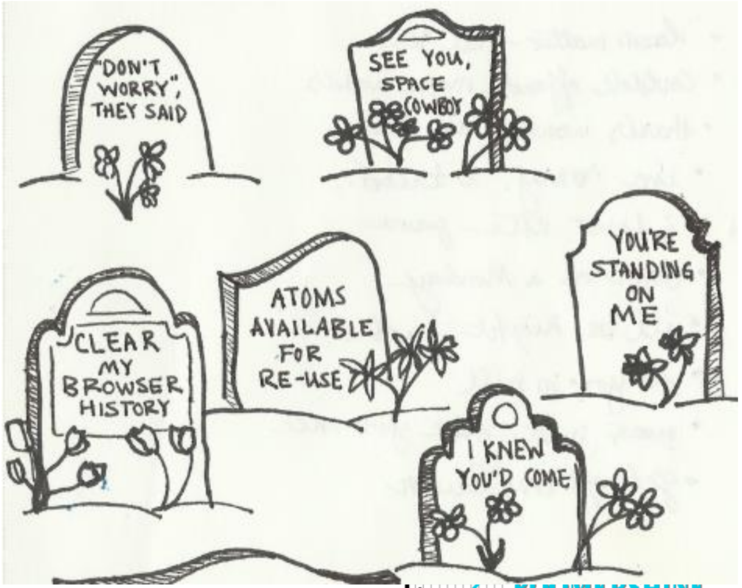
What is an Actuary?
Actual Responses

* A place where they bury dead actors



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What is an Actuary?
Actual Responses

* An actuary is a person who calculates insurance and annuity premiums, reserves, and dividends

(Webster's Dictionary)

$$
\begin{aligned}
A_x &= E[Z] = E[v^T] \\
&= \sum_{t=1}^{\infty} v^t Pr[T = t] = \sum_{t=0}^{\infty} v^{t+1} Pr[T(G,x) = t+1] \\
&= \sum_{t=0}^{\infty} v^{t+1} Pr[t < G - x \le t+1 \mid G > x] \\
&= \sum_{t=0}^{\infty} v^{t+1} \left(\frac{Pr[G > x+t]}{Pr[G > x]} \right) \left(\frac{Pr[x+t < G \le x+t+1]}{Pr[G > x+t]} \right) \\
&= \sum_{t=0}^{\infty} v^{t+1} {}_t p_x \cdot q_{x+t}
\end{aligned}
$$

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What is an Actuary?
Actual Responses

* An **actuary** is a business professional who deals with the financial impact of risk and uncertainty

(Wikipedia)

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GASB for Retirement Benefits

* GASB = Governmental Accounting Standards Board
* They do NOT have any influence over FUNDING, just accounting/financial reporting
* Pension and OPEB Statements
  * OLD: GASB 25/27 and GASB 43/45
  * NEW: GASB 67/68 and GASB 74/75
  * GASB 67/68 now in effect for pensions
  * GASB 74: FY17 – Net OPEB Liability (NOL)
  * GASB 75: FY18 – NOL on Balance Sheet and OPEB Expense

GASB 74/75 Changes

* Get Used to These Terms:
  * Total OPEB Liability (TOL)
  * Plan Fiduciary Net Position (PFNP)
  * Net OPEB Liability (= TOL – PFNP)
  * Service Cost
  * OPEB Expense
  * Valuation Date, Measurement Date, Reporting Date
* Say Goodbye to:
  * Net OPEB Obligation
  * ARC (now referred to as Actuarially Determined Contribution, ADC)
  * Annual OPEB Cost

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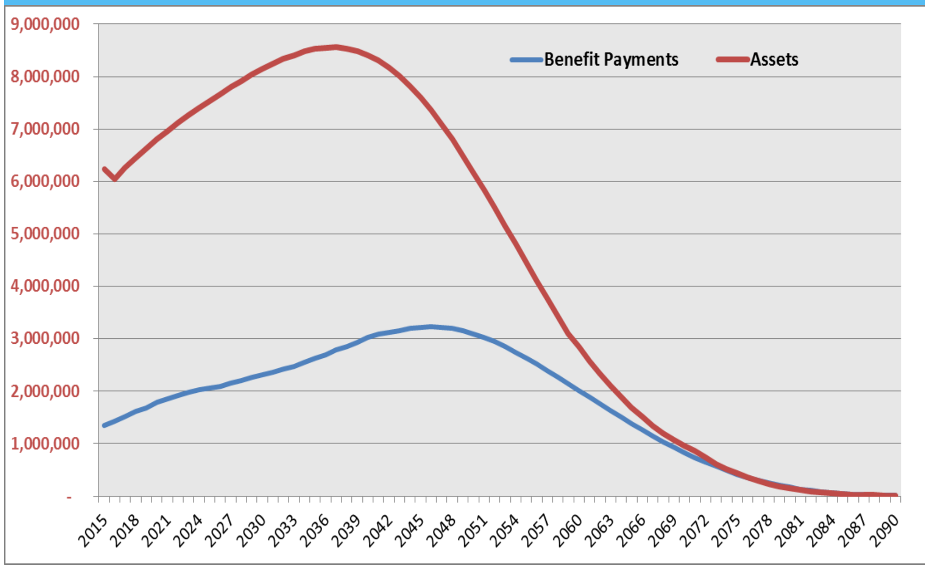
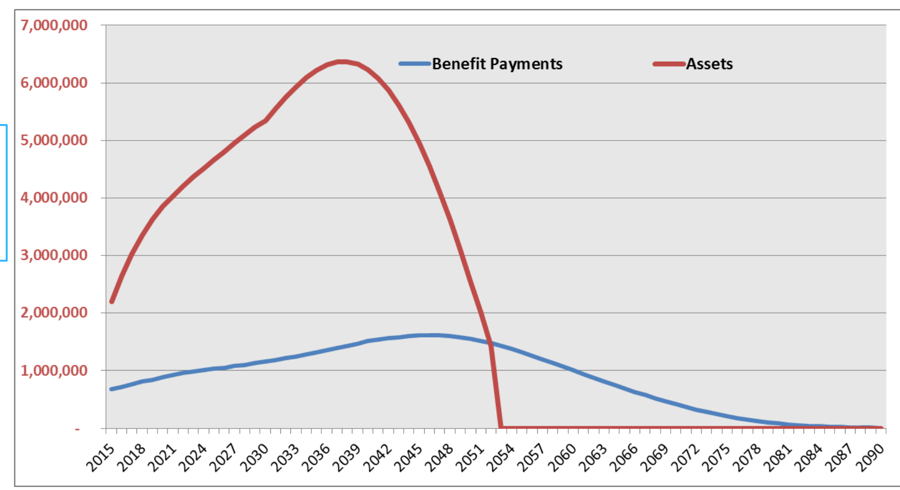
GASB 74 Discount Rates



← Fully Pre-Funded, rate = 7.00% (invested rate)

Partially Pre-funded Plan → (example) Rate = 6.15%



Unfunded Plan: Rate @ 6/30 ~3.50%
20 Year Muni AA Bond Index (no diagram)

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GASB Changes

The OLD Way (25/27/43/45)	The NEW Way (67/68/74/75)
Focus on long term/ funding of actuarial contributions	Focus on short term/ funding progress
Accounting #'s just a subset of the funding #'s (One report)	Different #'s for each purpose (likely Two reports)
Annual Required Contribution (ARC)	Pension/OPEB Expense
Net Pension/OPEB Obligation: Have you been making your contributions?	Net Pension/OPEB Liability: How far off target are you?
One measure of liability	Disclose sensitivity = 3 - 5 measures
Asset Smoothing and Amortization of gains/losses = low volatility	NO Asset Smoothing, and rapid recognition of gains/losses = high volatility

GASB 74 Considerations

1. **Communication between Actuary and Auditor**
2. Decide on dates:
   * Valuation
   * Measurement
   * Reporting (FYE)
3. Funding Policy
4. Valuation Schedule going forward

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Funding Changes

OPEB Funding for Governments

* Relatively recent, for most governments
  * Impetus was GASB 43 & 45 in 2004
* Accounting requirements prompted funding
* Incentive to pre-fund – leverage of investment earnings
* Many governments delayed plans to pre-fund OPEB during the recession

The Actuarial Valuation

Two Primary Outputs:

* **Funding Status:** How are we doing relative to the target?
* **Cost:** What contributions are required to get/stay on target?
* Current focus for OPEB is on GASB/Accounting
  * This will change! Separate Reports

* Typically run valuation every 1-2 years

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OPEB Assumption Trends

Economic Assumptions

* Investment Return, **Healthcare Inflation**
* ALL have been decreasing in recent years

Demographic Assumptions

* Retirement Age, Termination, Disability, Mortality/Life Expectancy
* Participation and Coverage
* Based on analysis of recent actual experience, with adjustments for known events
* Life expectancy has been a key issue
* Retirements & terminations have been impacted by plan design and the economy

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Increased OPEB Funding

* GASB Disclosures
  * Impact on Discount Rate
* Bond Rating Agencies
  * Impact on Bond Rates
* Move From Paygo to Pre-Funding
* Average Funding % (Assets/Liabilities) – about 10%
  * Some Still at 0%
  * Some over 60%

Key Funding Issues

* Paying Full Annual Costs
* Funding % Improvement
* Actuarial Assumption Basis
* Amortization Approach
* Formal Written Policy

Bond Rating Agencies

Overview

Credit Agencies and Public Sector Retirement Plans

* Rating agencies are evolving their views on retirement plan obligations, viewing them with debt as a combined fixed obligation
  - Includes Pension and OPEB plans.

* As this evolution continues, governments that manage their long-term liabilities in a cost effective and proactive manner could be viewed more favorably.

* Retirement plan funding and management can have a significant impact on a government's borrowing costs.

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Credit Rating – Primary Factors

* Financial Performance
* Economic Base
* Management Issues
* Debt Management
  * Agencies recently revised criteria to officially include pension metrics.
  * Review incorporates total fixed cost calculation, including debt service, pensions, and OPEB contributions, as a percentage of budget.

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Credit Rating Overview of Fixed Costs

Moody's Investors Service November 2016 Report:

* Pensions are now a more significant balance sheet obligation than debt for a majority of larger local governments.
  * As a result, governments have to face hard revenue raising/expenditure cutting decisions to offset increasing costs.
  * Adjusted Net Pensions Liabilities (ANPLs) doubled between 2010 and 2015 and are expected to increase again in 2016 and 2017 due to recent underperformance of investments and reduced discount rates.
* Fixed costs are consuming a greater percentage of a government's budget, limiting financial flexibility
  * Median pension costs represented 6% of operating expenditures in 2015 for the 50 largest local governments
  * Median fixed costs (including debt service, pensions, and OPEB) totaled 23% of budget

Credit Agency Considerations for Funding/Budget

- Debt service limit/target costs
  - - 10% of budget
- Retirement plan limit/target costs
  - - 10% of budget
  - - Target OPEB plan costs: 5% of budget
- Total “red line” limit
  - - 20% - 25% of budget
- If retirement plan costs are relatively higher, then could impact flexibility for borrowing

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Moody's Adjusted Net Pension Liability

- Announced "final" version in April, 2013
- To be used in determining bond/credit ratings
- No additional information is required
  - - They will make the adjustments on their own
- Ostensibly for "transparency and consistency"
- Moody's will compute their own unfunded liability and amortization of such, by:
  1. Adjusting reported liability using a bond index rate (Citigroup Pension Liability Index, now about 4%);
  2. Compute unfunded liability with market value of assets;
  3. Compute amortization using 20 year period; and
  4. Multiple-employer cost-sharing plan liabilities will be allocated to individual government employers based on proportionate share of contribution.

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Financial Impact of Rating Downgrade

- Outsized pension liabilities effect budgetary flexibility and overall financial health of a government, and can ultimately result in a rating downgrade (sometimes more than one and multiple notches)
  - Local Government Examples: Dallas, TX; Central Falls, RI; and Chicago, IL
  - State Government Examples: Connecticut, Kentucky, New Jersey, Illinois, and Pennsylvania.
- Subsequent effect of rating downgrade is increased costs for borrowing, which further limits budgetary flexibility

Initial Rating	Revised Rating	Increase in Interest Rate
Aaa	Aa	5-10 bps
Aa	A	25-40 bps
A	Baa	75-85 bps

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Case Study: Chicago, IL

- Due to significant pensions pressures, the City of Chicago has been downgraded to Ba1from Aa3 over the last 10 years
  - State constitutional protections for pension benefits
  - State statute dictates pension contribution levels for local government single-employer plans
    - Unlike some of the other local governments in the state, the city had a history of underfunding the ARC
- In January 2017, Chicago sold $1.2B of debt in the capital markets
  - For the $888 million in Tax-Exempt Debt, rates ranged from 5.6% to 6.0%, which equated to approximately 3% higher than cities with Aaa rating
  - The $275 million in Taxable debt had a rate of 7%, which was about 4% higher than cities with Aaa rating
  - Ultimately, the city will be responsible for funding approximately $1.1 billion in interest costs over the lifetime of the bond
    - If the city was still rated in the "AA" category, interest savings would have amounted to approximately $450 to $500 million

Plan Changes

“Benefits Cost What They Cost”

* Funding and Costs will fluctuate based on changes in:
  * Demographics: Key Risks include longevity and retirement patterns
  * Economic and Investment Experience: Key risks include salaries, inflation, and investment returns (volatility and long-term return levels)

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OPEB Benefit Trends

Cost Sharing

* Percentage paid by retiree vs. employer
  * Trend has been a shift towards retiree
* Service-based cost sharing becoming more common
  * Higher retiree % for shorter career

Eligibility & Coverage

* Age & Service Requirements – have been increasing
* Spouse/family coverage for retirees has been decreasing

Plan Options

* Lower cost options (e.g., high-deductible plans) have been replacing more expensive plans
* Some defined contribution arrangements
* Employer Group Waiver Plans (EGWPs)
* Other Plan Changes

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Current Plan Costs – Not Affordable?

* Past/Current Plan Costs too high?
  * As % of Budget or in Dollars
* Accounting Requirements/Guidelines
* Bond Rating Agency Focus
* If Conclusion is That You Cannot Afford Current Plan
* Then Adjust Plan to What You Can Afford

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OPEB Changes – Case Study

* 4 Tiered Approach
  * Retirees: Small Change
  * Closer to Retirement: Bigger Change
  * Far from Retirement: Defined Contribution
  * New Hires: Lesser Defined Contribution
* Lowered Costs and Liabilities – over 35%
* Improved Funding % - About 15%
* In Combination with Annual Funding Improvement

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Questions

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Jenn Diercksen
jdiercksen@investdavenport.com

Dave Boomershine
dboomershine@boomershineconsulting.com

Greg Stump
gstump@boomershineconsulting.com