Dallas Police and Fire Pension System

Review of Subcommittee’s Proposed Plan Changes Based on Final January 1, 2016 Results

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Key January 1, 2016 Valuation Results

Summary of Key Valuation Results

	2016	2015
Contributions for plan year beginning January 1:		
Recommended contribution (City and employee)	$265,579,195	$205,014,802[1]
Recommended contribution as a percentage of total computation pay	72.72%	53.53%
Actual contributions (City and employee)	--	$140,562,050
Amortization period for determination of recommended contribution	40 years	30 years
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses, adjusted for timing	$92,446,291	$98,087,921[2]
Market value of assets	2,680,124,303	3,079,394,897
Actuarial value of assets	2,680,124,303	3,695,273,876
Actuarial accrued liability	5,947,173,998	5,792,216,025
Unfunded actuarial accrued liability (UAAL)	3,267,049,695	2,096,942,149
Funded ratio – Actuarial basis	45.07%	63.80%
Funded ratio – Market basis	45.07%	53.16%
Effective funding period to amortize UAAL	Infinite	Infinite
Demographic data for plan year beginning January 1:		
Number of retired members and beneficiaries	4,230	4,069
Number of vested former members[3]	200	157
Number of active members	5,415	5,487
Total computation pay	$365,210,426	$383,006,330
Average computation pay	67,444	69,803

[1]The 2015 valuation did not include the recommended contribution as a dollar amount. This amount was determined by Segal Consulting based on the rate-of pay information in the prior actuary's report.

[2]Prior valuations did not include an explicit administrative expense assumption.

[3]Excludes terminated participants due a refund of contributions.

The total recommended contribution based on 30-year amortization is $288,633,291, or 79.03% of total computation pay.

Active Groups Defined

- For this presentation current active employees will be grouped as follows:
  - Tier One (T1) – Current active employees hired on or before December 31, 2006.
  - Tier Two (T2) – Current active employees hired on or after January 1, 2007 and on or before March 1, 2011.
  - Tier Three (T3) Current active employees hired after February 28, 2011.

Current Plan Issues

- The statutory contribution rates are not sufficient to amortize the System's unfunded actuarial accrued liability (UAAL) within PRB guidelines. In fact, contributions are less than the interest on the UAAL, and the principal is not being amortized.
  - The System and the City will have to take steps to bring benefits and resources into a balance that amortizes the UAAL over no more than 40 years.
  - 98% of liabilities are for annuitants and Tier 1 active participants.
- There is a sizeable gap between actual and necessary contributions.
  - City contributions are 27.50% of total compensation, including overtime and other non-computation pay. For comparison purposes the City contribution rate is estimated to be 30.53% as a percentage of computation pay.
  - Employee contributions are 8.50% of computation pay if not in DROP, and 4.00% if in DROP. The weighted average of these rates as of the valuation date is 7.08%.
  - The current total contribution rate is 37.61% of computation pay.
- ***With no changes to benefit terms, an additional 35.11% of computation pay is needed to get to a 40-year funding period as of January 1, 2016.***

Current Plan Issues

- Under the current plan of benefits, the System is projected to be insolvent in 15 years if all assumptions are met, including 7.25% annual returns on assets.
- In the near-term, as modifications are made to the asset holdings of the System, it is unlikely that 7.25% returns can be achieved. Staff has advised Segal to assume 5.00% for 2016, 6.00% for 2017, 6.50% for 2018, 7.00% for 2019, and 7.25% thereafter.
  - On this basis, insolvency is anticipated one year earlier, in 2030.
- As noted previously, 98% of plan liability is associated with current annuitants or Tier 1 actives. Therefore, meaningful changes must be focused on these two participant segments.
- For current annuitants, possible changes that could have a significant impact include: COLA changes, DROP interest and DROP payout options.
- For Tier 1 active participants, changes include: COLA, DROP interest, DROP payout, DROP period, accrual rate, final salary determination, contribution changes
- For other active participants, the main impact will be contribution changes.

Summary of Current Plan vs. Proposed Plan

CURRENT PLAN

- COLA – 4.0% simple on Base Benefit for Tier 1; begins October 1 after DROP entry or retirement; COLA included in DROP
- Employee Contributions – 8.5% for non-DROP active participants and 4.0% for DROP active participants
- DROP (Actives) – 7.0% interest currently (changing to 6.0% October 1, 2016); interest continues throughout DROP; no limit time in DROP
- DROP (Retirees) - 7.0% interest currently (changing to 6.0% October 1, 2016)
- Supplement – Maximum of 3% or $75 per month
- Tier 3 Multiplier – 2.0% 1st 20 years, 2.5% next 5 years, 3.0% thereafter (max 90.0%)
- Tiers 1 and 2 Average Computation Pay – 36 consecutive months of highest pay
- Tier 3 Pre-Retirement Death Benefit – Greater of 50.0% of accrued benefit or 25.0% of Average Computation Pay

PROPOSED PLAN

- COLA – 2.0% compound with capped base, starting at earlier of age 62 or 3 years after retirement; no COLA in DROP
- Employee Contributions – Increasing to 9.0%, 10.5%, and 12.0% effective October 2016, 2017, and 2018 for all active participants
- DROP (Actives) – 3.0% interest payable for first 7 years in DROP, with deposits into the DROP stopping after 10 years; 6-month transition period for anyone in DROP as of 1/1/2017
- DROP (Retirees) – Interest dependent on form of payment
- Supplement – Maximum of 1% or $75 per month
- Tier 3 Multiplier – 3.0% for all years, increasing retroactively (max 90.0%)
- Tiers 1 and 2 Average Computation Pay – 60 consecutive months of highest pay, prospectively
- Tier 3 Pre-Retirement Death Benefit – Greater of 50.0% of accrued benefit or benefit based on 20 years, but no less than 30.0% of Average Computation Pay

Subcommittee's Proposed Plan Changes

- 2% compound COLA on base benefit for Tier 1 and annuitants, base not to exceed $31,668*; COLA removed from DROP; COLA starts at **earlier** of age 62 or three years after retirement
- Employee contributions increasing to 9.0% effective October 1, 2016, 10.5% effective October 1, 2017, and 12.0% effective October 1, 2018. Effective October 1, 2016, all contributions made from that point on while a DROP participant will be refunded upon retirement. The contributions will be paid out over a 10-year period, without interest.
- Active DROP Participants - Interest lowered to 3% as of October 1, 2016, with interest stopping after 7 years from original DROP entry date, and deposits to DROP account stopping after 10 years from original DROP entry date. A six-month transition period will be implemented.
- For PROP/Retiree DROP participants, and actives assumed to retire under DROP, the DROP account will be paid out under one of the following options:
  - A "liquid" option
  - A 10-year annuity
  - A 20-year annuity

**The maximum Social Security benefit payable for someone who retires at full retirement in 2016 is $31,668 per year. For purposes of these studies the maximum Social Security benefit is assumed to increase by 2.5% per year, and the base for each individual is set at retirement as the lesser of this amount and the full benefit accrued. The base for current annuitants is the lesser of $31,668 and the actual benefit at retirement.*

Subcommittee's Proposed Plan Changes, continued

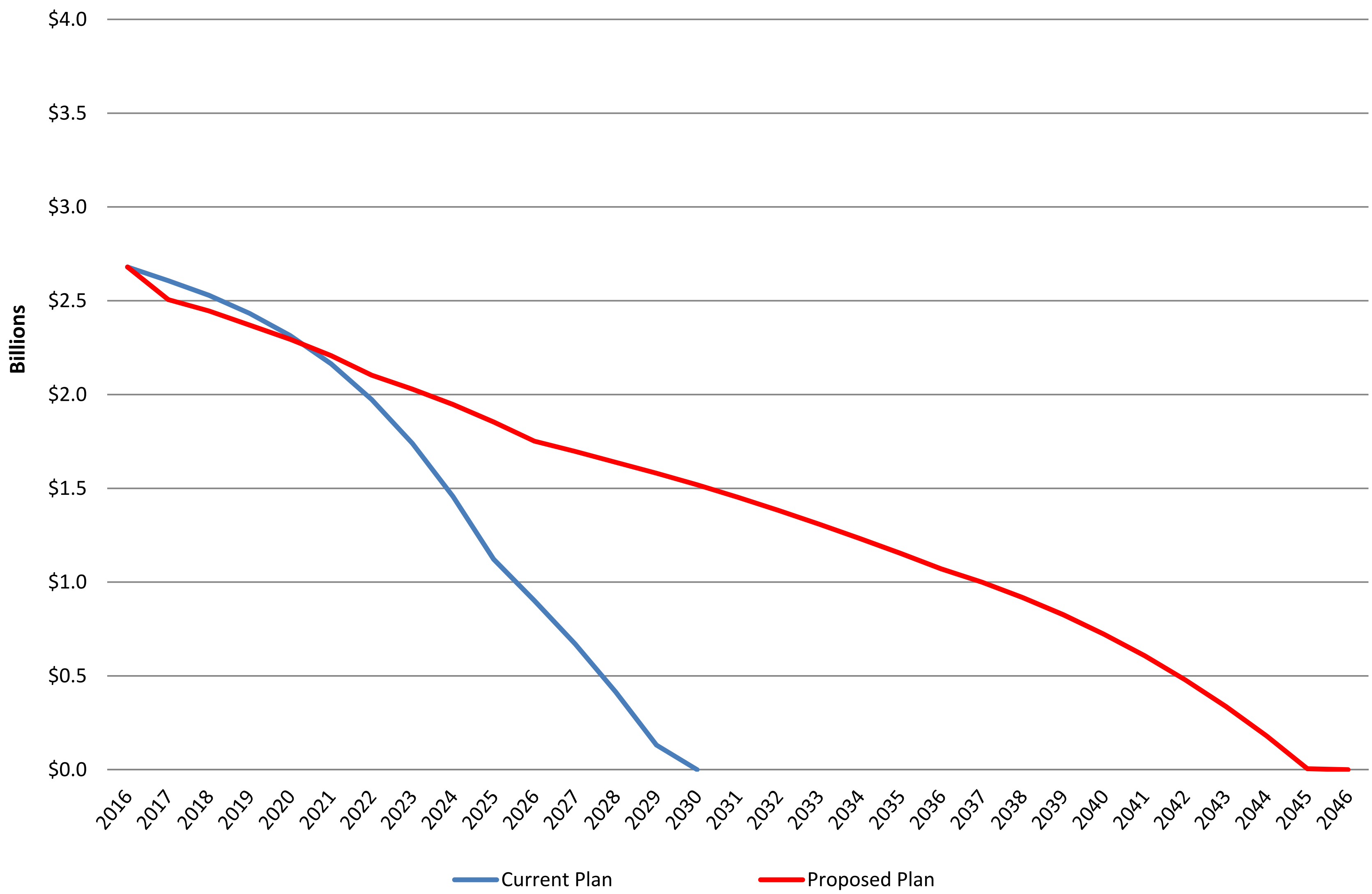
- Change supplement to the greater of 1% or $75, but no greater than the current supplement the participant has or would earn, with new supplement amount applied to the original base
- Benefit multiplier increased to 3% for Tier 3 participants, retroactive to date of hire
- Average computation pay for Tiers 1 and 2 participants changed to 60 months, prospectively
- Pre-retirement death benefit for Tier 3 participants changed to the same pre-retirement death benefit for Tiers 1 and 2 participants

If DROP balances are taken sooner than assumed, the cost will increase and long-term solvency will be impacted.

Impact of Subcommittee's Proposed Plan Changes

		Current Plan	Subcommittee's Proposed Plan	Impact of Subcommittee's Proposed Plan Changes
1	Total Normal Cost, without AE	$82,446,291	$65,786,814	-$16,659,477
2	Normal Cost as a % of Pay	22.58%	18.01%	-4.56%
3	Accrued liability total	$5,947,173,997	$4,931,097,474	-$1,016,076,524
4	Assets	2,680,124,303	2,680,124,303	N/A
5	Unfunded Liability: (3) - (4)	3,267,049,694	2,250,973,171	-$1,016,076,524
6	Funded Ratio: (4) / (3)	45.07%	54.35%	N/A
7	40-year Amortization Payment of Unfunded Liability	$173,132,903	$119,287,295	-$53,845,609
8	**Contribution Rate at 40-year level % of pay amortization**	**72.72%**	**53.41%**	**-19.31%**
9	Contribution Using a 40-year level % of pay amortization	265,579,195	195,074,109	-$70,505,086
10	Projected Payroll	$365,210,426	$365,210,426	N/A
11	Expected Contributions in $	137,337,381	148,403,256	11,069,350
12	**Expected Contributions as a % of Pay: (11) / (10)**	**37.61%**	**40.63%**	**3.02%**
13	**Contribution Deficit as a % of Pay: (8) - (12)**	**35.11%**	**12.78%**	**-22.33%**
14	Change in Contribution Deficit as a % of Pay	N/A	-22.33%	N/A

Projection A – Market Value of Assets, Projected as of December 31



Summary of Plan Change Impact

Comments on Projection A:

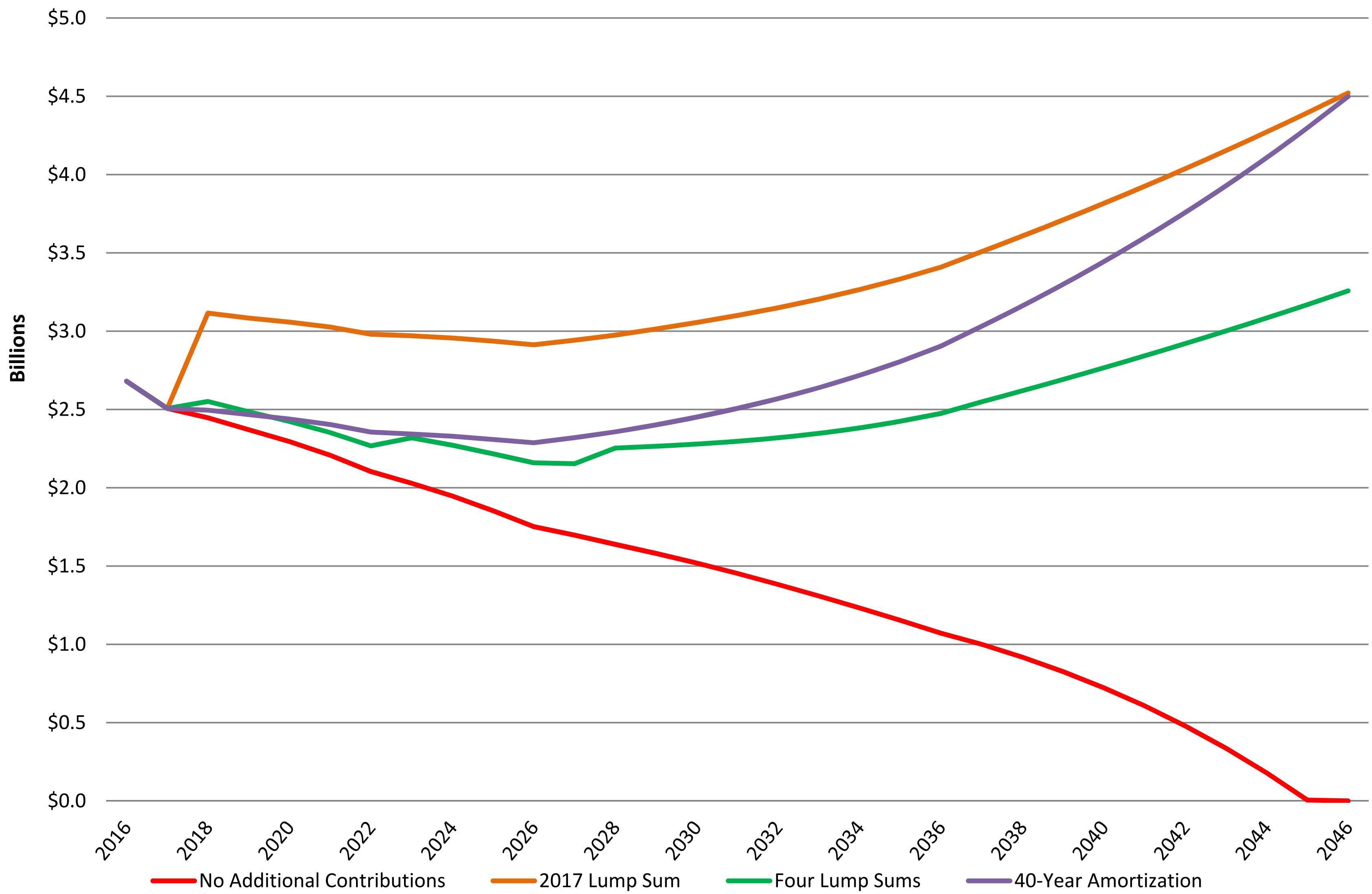
- With no changes to the plan, and the City's current contribution rate of 27.5% of total pay, the System is projected to become insolvent in calendar year 2030.
- Under the proposed plan, and with the City's contribution rate assumed to increase to 28.5% of total pay, the System is projected to become insolvent in calendar year 2046.
- Total pay is assumed to be 11% greater than the Plan's computation pay.
- **Plan changes and employee contribution increases alone are not projected to be enough to keep the System from going insolvent.**

Proposed Plan Changes – With City Contribution Increases

Basis for Projection B:

- The City's base contribution rate is assumed to be 28.5% of total pay.
- **No Additional Contributions** – No increases in the City's contributions over 28.5% of total pays. Insolvency projected in 2046.
- **2017 Lump Sum** – Assumes an additional $650 Million City contribution in 2017, on top of the 28.5% contribution rate
- **Four Lump Sums** – Assumes additional $250 Million City contributions in 2017, 2022, 2027, and 2032, on top of the 28.5% contribution rate.
- **40-Year Amortization** – Assumes City's rate increases to the rate necessary to amortize the 2016 unfunded liability over a 40-year basis, and that the City pays that rate ongoing. The City's rate would be 40% of total pay in 2017, 38.6% of total pay in 2018, and then 37.3% of total pay each year thereafter.

Projection B – Market Value of Assets, Projected as of December 31 Proposed Plan Change, With Additional City Contribution Options



Summary of Plan Change Impact – With City Contribution Rate Increases, Continued

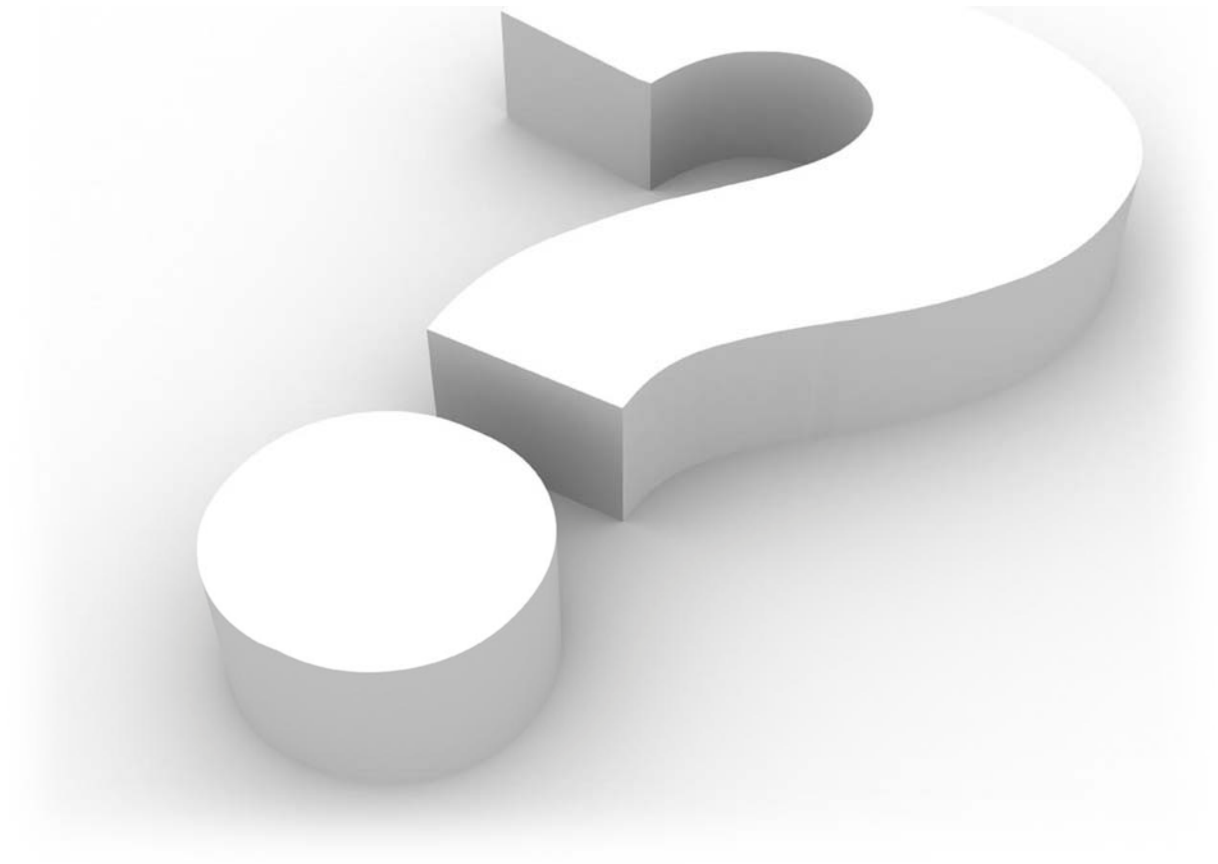
Comments on Projection B:

- Of the three additional payment City contribution scenarios presented, the City would pay less overall under the **2017 Lump Sum** scenario, followed by the **Four Lump Sums** and then **40-Year Amortization** scenarios.
- Under all three of these scenarios, assuming all assumptions are met each year, the Plan is projected to remain solvent with assets projected to increase into the 22nd Century.

Caveats and Disclaimers

- The closer the plan gets to insolvency, asset illiquidity may become an issue and earning the assumed return may become more difficult.
- Segal does not practice law and is not in a position to comment on the legality of the proposed benefit changes, nor are we recommending any specific changes. The proposed changes were requested by the Long-Term Financial Stability Subcommittee.
- Actual results may differ significantly from the measurements shown in the attached projections due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the smoothing of investment gains or losses); changes in plan provisions or applicable laws; and the City contributing amounts other than those anticipated.
- ***The results of these projections are not a guarantee of future performance and should be used as a guideline, not an absolute, while making decisions regarding the future of the System. Projections, by their very nature, cannot be guaranteed.***
- The information contained in this presentation was prepared for use by the System, Board of Trustees, and Subcommittee. Segal is not responsible for representations made regarding the information herein to any third parties. Please note that care should be taken in using the information in this presentation independent of the whole presentation to avoid possible misinterpretation of the results.
- The assumptions used in these projections are the same as those in the January 1, 2016 actuarial valuation, unless stated otherwise. The valuation presumes ongoing plan viability. If no changes are made to plan provisions, the assumptions will need to be updated to reflect projected insolvency and expected changes in participant behavior.

Questions and Discussion



Thank You!

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