

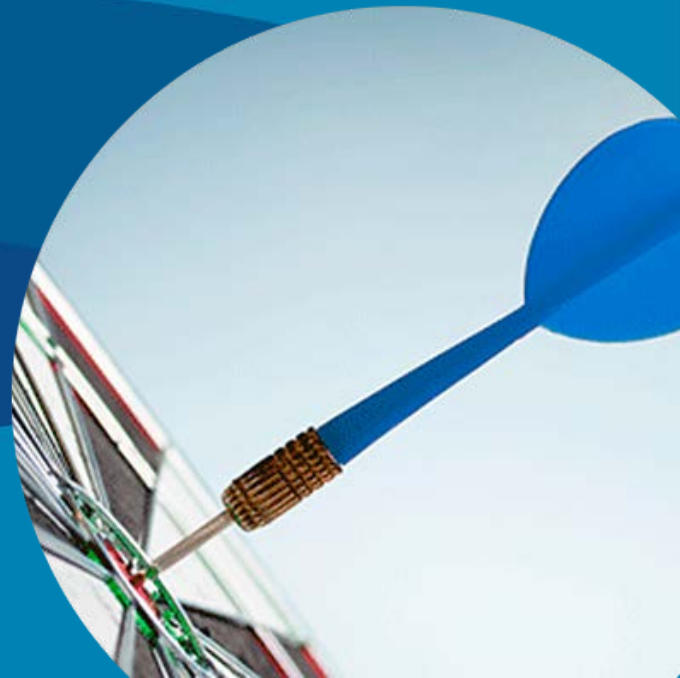


**APERS**

# **2021 Legislative Planning Session**

**May 20, 2020 Board Meeting**

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# Agenda

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- Recap of February and April Meetings
- Considerations and Possible Timeline
- April 2020 Board Requested Supplemental Valuations
- Possible June 30, 2020 Actuarial Valuation Results and Projections Based Upon Requested Supplemental Valuations

# RECAP OF FEBRUARY AND APRIL BOARD MEETINGS



# Introduction

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- At the February Board meeting, the evolution of the unfunded actuarial accrued liability (UAAL) for APERS was discussed
  - \$2.39B as of June 30, 2019
- At the April Board meeting:
  - Context was provided regarding any proposed benefit changes that the Board may wish to pursue
  - The Board was presented with a preview of what the June 30, 2020 actuarial valuation results may show depending upon various market rate of return scenarios for fiscal year end June 30, 2020

# Introduction

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- As a result of the discussions in April, the Board requested the results of certain supplemental actuarial valuations
- The purpose of this presentation is to:
  - Further discussion regarding any proposed benefit changes that the Board may wish to pursue
  - Present results of the Board requested supplemental actuarial valuations from the April 2020 Board meeting
  - Establish next steps

# Basic Retirement Funding Equation

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$$C + I = B + E$$

- Where:
  - C is Contribution Income
  - I is Investment Return
  - B is Benefits Paid
  - E is Expenses

“Money In = Money Out”

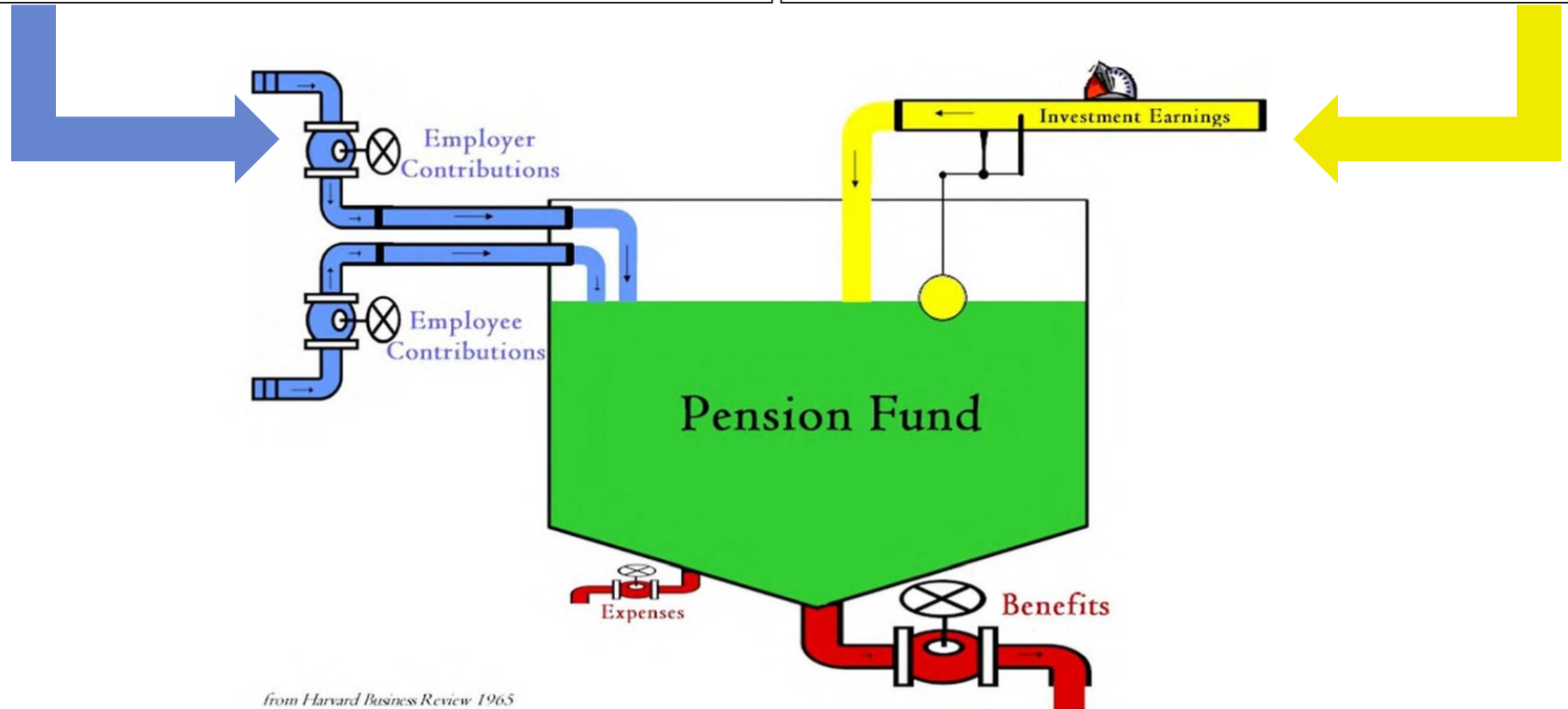
# Pension Plan Operation

## Actuary – Funding Policy

Adopted by the Board after consultation with the Actuary  
Determines how the employer contribution rate is to be determined

## Investment Consultant – Investment Policy

Adopted by the Board after consultation with the Investment Consultant  
Determines how the assets of the System are to be invested



# Possible June 30, 2020 Results and Projections

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- At the April meeting, the following scenarios based upon various market value (MV) rates of return for the fiscal year ending June 30, 2020 and 7.15% for fiscal years thereafter were presented:
  - Scenario 1: 5% MV ROR for FY 2020
  - Scenario 2: 0% MV ROR for FY 2020
  - Scenario 3: -5% MV ROR for FY 2020
  - Scenario 4: -10% MV ROR for FY 2020
  - Scenario 5: -15% MV ROR for FY 2020



# April Meeting – Summary of Projections (Slide 1 of 2)

Results for Period Ending June 30	Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter									
	5% MV Return		0% MV Return		-5% MV Return		-10% MV Return		-15% MV Return	
	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio
2020	\$ 2.5	79%	\$ 2.6	78%	\$ 2.7	77%	\$ 2.8	76%	\$ 2.9	75%
2021	2.5	79%	2.7	77%	3.0	75%	3.2	73%	3.4	71%
2022	2.6	79%	2.9	76%	3.3	73%	3.7	70%	4.0	67%
2023	2.6	79%	3.2	75%	3.7	71%	4.2	67%	4.7	63%
2024	2.7	80%	3.2	75%	3.8	71%	4.3	67%	4.9	63%
2025	2.7	80%	3.3	76%	3.9	71%	4.5	67%	5.1	62%
2026	2.7	81%	3.3	76%	4.0	71%	4.6	67%	5.3	62%
2027	2.7	81%	3.4	77%	4.1	72%	4.8	67%	5.5	62%
2028	2.7	82%	3.4	77%	4.2	72%	4.9	67%	5.7	62%
2029	2.6	83%	3.5	78%	4.3	72%	5.1	67%	5.9	62%
2030	2.6	83%	3.5	78%	4.4	73%	5.2	67%	6.1	62%
2031	2.6	84%	3.5	79%	4.4	73%	5.4	67%	6.3	62%
2032	2.5	85%	3.5	79%	4.5	73%	5.5	67%	6.5	62%
2033	2.5	86%	3.6	80%	4.6	74%	5.7	68%	6.7	61%
2034	2.4	87%	3.6	80%	4.7	74%	5.8	68%	7.0	61%

The -5% market value return scenario is highlighted since this was the most reasonable estimate of the fiscal year 2020 market value return known at the time. Projections in later sections are based upon this MV return scenario.



# April Meeting – Summary of Projections (Slide 2 of 2)

Results for Period Ending June 30	Applied to Period Beginning July 1	Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter									
		5% MV Return		0% MV Return		-5% MV Return		-10% MV Return		-15% MV Return	
		Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum
		15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort
2020	2022	21	15.32%	23	15.32%	25	15.32%	27	15.32%	29	15.32%
2021	2023	21	15.32%	24	15.32%	28	15.32%	33	15.74%	39	16.39%
2022	2024	20	15.32%	26	15.32%	33	15.67%	42	16.68%	56	17.68%
2023	2025	20	15.32%	27	15.32%	38	16.27%	54	17.64%	109	19.00%
2024	2026	19	15.32%	26	15.32%	37	16.21%	55	17.66%	123	19.10%
2025	2027	18	15.32%	25	15.32%	36	16.12%	54	17.64%	131	19.16%
2026	2028	17	15.32%	24	15.32%	35	15.99%	53	17.57%	125	19.16%
2027	2029	16	15.32%	23	15.32%	34	15.84%	51	17.49%	116	19.13%
2028	2030	15	15.32%	22	15.32%	33	15.71%	50	17.42%	113	19.13%
2029	2031	14	15.32%	21	15.32%	32	15.57%	49	17.34%	108	19.11%
2030	2032	13	15.32%	20	15.32%	31	15.44%	48	17.28%	108	19.12%
2031	2033	12	15.32%	19	15.32%	30	15.32%	47	17.21%	106	19.12%
2032	2034	11	15.32%	19	15.32%	29	15.32%	46	17.13%	104	19.11%
2033	2035	10	15.32%	18	15.32%	28	15.32%	45	17.08%	106	19.13%
2034	2036	9	15.32%	17	15.32%	27	15.32%	45	17.01%	106	19.15%

Comment: The employer rate with a maximum of a 30-year amortization period assumes that the employer contribution rate remains level at 15.32% per year until the applicable valuation date.

The -5% market value return scenario is highlighted since this was the most reasonable estimate of the fiscal year 2020 market value return known at the time. Valuation results as of June 30, 2023 are emphasized since the employer rate peaks at this valuation date.



# CONSIDERATIONS AND POSSIBLE TIMELINE



# Considerations and Possible Timeline

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- Considerations:
  - After discussions today, the Board may wish to see alternate supplemental valuations based upon benefit provisions already identified
  - In addition, the Board may wish to see supplemental valuations based upon benefit provisions not yet identified (e.g., early retirement reduction factors)
- Possible timeline:
  - May 2020 – further discussion
    - Possible final decision
  - Potential Interim meeting in the next month or two if no decision reached today

**APRIL 2020**  
**BOARD REQUESTED**  
**SUPPLEMENTAL VALUATIONS**



# Board Requested Supplemental Valuations

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- Board requested supplemental valuations from the April 2020 meeting generally fell into the following categories
  - Member Contribution Rate changes for Contributory members
    - “Equivalent” changes for Non-Contributory members were not discussed but could be considered; they are not reflected in the results in this presentation
  - Cost of Living Allowance (COLA) changes
  - FAC changes
  - Vesting Changes
    - Vesting period changes
    - Quasi-vesting changes

# Board Requested Supplemental Valuations

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- The Board also had discussions about which groups may or may not be affected by any legislated changes
  - Current retirees (including DROP members)
  - Vested active members
  - Non-vested active members
  - New hires
- The following slides present supplemental actuarial valuation results as of June 30, 2019 of Board requested supplemental valuations
  - It is assumed that the benefit change would have been in effect as of the last valuation date (i.e., June 30, 2019)

# Board Requested Supplemental Valuations

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- Column (a) on the following slides is the decrease in the June 30, 2019 amortization period (i.e., 24 years) to maintain an employer contribution rate of 15.32%
  - For example, if proposal 1 had been in effect and the employer contribution rate were 15.32%, the amortization period as of June 30, 2019 would have been 21.2 years (i.e.,  $24.0 - 2.8 = 21.2$  years)
- Column (b) on the following slides is the amount the computed employer contribution rate would be decreased
  - For example, if proposal 1 had been in effect and the amortization period were unchanged (i.e., 24 years) for the existing UAAL, the computed employer contribution rate would have been 14.74% (i.e.,  $15.32\% - 0.58\% = 14.74\%$ )
  - Changes in the UAAL were amortized over a 20-year period
- Either (a) or (b) could happen, but not both
- Column (c) is the decrease to the UAAL
- Column (d) is the decrease in the employer normal cost as new hires replace current employees



# Member Contribution Rate Changes

Item Number	Proposed Change - Brief Summary (Members Affected)	Effect of Proposed Benefit Change as of June 30, 2019					
		Either (a) or (b)		(c) Decrease in UAAL (\$ in millions)	(d) Decrease in Employer Normal Cost as New Hires Replace Current Employees (as a % of Payroll)		
		(a) Decrease in Amortization Period	(b) Decrease in Total Employer Contribution Rate (as % of Payroll)				
					5-Years Out	10-Years Out	Ultimate
1	6% member contribution rate <sup>1</sup> (all contributory members)	2.8 years	0.58%	\$ -	0.27%	0.44%	0.80%
2	6.5% member contribution rate <sup>1</sup> (all contributory members)	4.0 years	0.87%	\$ -	0.41%	0.66%	1.20%
3	7% member contribution rate <sup>1</sup> (all contributory members)	5.0 years	1.16%	\$ -	0.55%	0.88%	1.60%

Notes:

- 1 If this change were phased-in over a number of years, the decrease in the near term would be proportional to the period of years for the phase-in.

# Cost of Living Allowance (COLA) Changes

Item Number	Proposed Change - Brief Summary (Members Affected)	Effect of Proposed Benefit Change as of June 30, 2019					
		Either (a) or (b)		(c) Decrease in UAAL (\$ in millions)	(d) Decrease in Employer Normal Cost as New Hires Replace Current Employees (as a % of Payroll)		
		(a) Decrease in Amortization Period	(b) Decrease in Total Employer Contribution Rate (as % of Payroll)				
4	3% Simple COLA (all members)	8.2 years	2.21%	\$ 432.2			0.50%
5	3% Simple COLA (all non-retired members)	5.3 years	1.34%	\$ 214.6			0.50%
6	3% Simple COLA (new hires only)	0.0 years	0.00%	\$ -	0.17%	0.27%	0.50%
7	Lesser of 3% Compound COLA or CPI (all members)	12.5 years	3.81%	\$ 752.3			0.82%
8	Lesser of 3% Compound COLA or CPI (all non-retired members)	8.3 years	2.31%	\$ 378.5			0.82%
9	Lesser of 3% Compound COLA or CPI (new hires only)	0.0 years	0.00%	\$ -	0.28%	0.45%	0.82%

Proposals 4 through 6 – Simple COLA assumed to be applied to current benefit.  
 Proposals 7 through 9 – COLA percentage assumed to be 2.2%.

# Other Changes – FAC and Vesting

Item Number	Proposed Change - Brief Summary (Members Affected)	Effect of Proposed Benefit Change as of June 30, 2019					
		Either (a) or (b)		(c) Decrease in UAAL (\$ in millions)	(d) Decrease in Employer Normal Cost as New Hires Replace Current Employees (as a % of Payroll)		
		(a) Decrease in Amortization Period	(b) Decrease in Total Employer Contribution Rate (as % of Payroll)		5-Years Out	10-Years Out	Ultimate
10	60 month FAC <sup>1</sup> (all active members)	3.6 years	0.87%	\$ 125.8	0.13%	0.21%	0.39%
11	10-year vesting (all active members)	1.3 years	0.29%	\$ 1.2	0.13%	0.17%	0.26%
12	10-year 'quasi'-vesting <sup>2</sup> (all active members)	0.8 years	0.18%	\$ 5.9	0.07%	0.11%	0.21%

Notes:

- 1 The current 36-month FAC of all members would be computed and then frozen with the ultimate FAC being the greater of the frozen 36-month FAC and the ultimate 60-month FAC.
- 2 The current 5-year vesting period would not change. However, until a member reaches 10 years of service, the benefit multiplier would be 1.6%. Upon attaining 10-years of service the current multiplier would apply to the service over the first 10 years rather than the 1.6% multiplier.

**POSSIBLE JUNE 30, 2020 ACTUARIAL  
VALUATION RESULTS AND PROJECTIONS  
BASED UPON REQUESTED  
SUPPLEMENTAL VALUATIONS**



# Possible June 30, 2020 Results and Projections

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- The following slides show possible June 30, 2020 actuarial valuation results and the potential effects on future computed employer contribution rates
- The scenarios are not meant to be predictions of what the June 30, 2020 or any other actuarial valuation results will show
- They are intended to allow the Board to compare current benefit provisions with proposed benefit provisions without commenting on the actual valuation results on each future valuation date

# Possible June 30, 2020 Results and Projections

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- Projected actuarial valuation results are based upon the -5% market value return scenario for fiscal year 2020
  - The -5% market value return scenario was chosen since this was the most reasonable estimate of the fiscal year 2020 market value return known at the time
  - Projected actuarial valuation results are highly dependent upon the market value rate of return scenario chosen
- For projections purposes, it is assumed that the proposed benefit change would have been effective as of June 30, 2022
  - For member contribution rate changes, FY 2023 is the first assumed affected fiscal year
  - For COLA changes, the July 1, 2022 COLA is the first COLA assumed to be affected
  - All members (i.e., retirees and active members) are assumed to be affected by the proposed benefit changes
- The June 30, 2021 valuation (i.e., the valuation that determines the employer contribution rate for the fiscal year beginning July 1, 2023) was the first valuation to reflect the proposed changes

# Member Contribution Rate Changes: 6.0%, 6.5% or 7.0% with 2-Year Phase-Ins (Slide 1 of 2)

Results for Period Ending June 30	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter								
	No Change to Benefit Provisions (i.e., Base)			Increase Member Contribution Rate to 6.0% Over 2 Years		Increase Member Contribution Rate to 6.5% Over 2 Years		Increase Member Contribution Rate to 7.0% Over 2 Years	
	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	
2020	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	
2021	3.0	75%	3.0	75%	3.0	75%	3.0	75%	
2022	3.3	73%	3.3	73%	3.3	73%	3.3	73%	
2023	3.7	71%	3.7	71%	3.7	71%	3.6	71%	
2024	3.8	71%	3.7	71%	3.7	72%	3.7	72%	
2025	3.9	71%	3.8	72%	3.8	72%	3.8	72%	
2026	4.0	71%	3.9	72%	3.8	72%	3.8	73%	
2027	4.1	72%	3.9	73%	3.9	73%	3.8	73%	
2028	4.2	72%	4.0	73%	3.9	74%	3.8	74%	
2029	4.3	72%	4.0	74%	3.9	74%	3.9	75%	
2030	4.4	73%	4.1	74%	4.0	75%	3.9	76%	
2031	4.4	73%	4.1	75%	4.0	76%	3.9	76%	
2032	4.5	73%	4.1	76%	4.0	76%	3.9	77%	
2033	4.6	74%	4.2	76%	4.0	77%	3.8	78%	
2034	4.7	74%	4.2	77%	4.0	78%	3.8	79%	

# Member Contribution Rate Changes: 6.0%, 6.5% or 7.0% with 2-Year Phase-Ins (Slide 2 of 2)

Results for Period Ending June 30	Applied to Period Beginning July 1	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter									
		No Change to Benefit Provisions (i.e., Base)		Increase Member Contribution Rate to 6.0% Over 2 Years		Increase Member Contribution Rate to 6.5% Over 2 Years		Increase Member Contribution Rate to 7.0% Over 2 Years			
		Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum		
		15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort		
2020	2022	25	15.32%	25	15.32%	25	15.32%	25	15.32%		
2021	2023	28	15.32%	28	15.32%	28	15.32%	28	15.32%		
2022	2024	33	15.67%	32	15.63%	32	15.60%	32	15.57%		
2023	2025	38	16.27%	34	15.87%	32	15.67%	31	15.46%		
2024	2026	37	16.21%	31	15.40%	28	15.32%	26	15.32%		
2025	2027	36	16.12%	29	15.32%	27	15.32%	25	15.32%		
2026	2028	35	15.99%	28	15.32%	26	15.32%	24	15.32%		
2027	2029	34	15.84%	27	15.32%	24	15.32%	22	15.32%		
2028	2030	33	15.71%	26	15.32%	23	15.32%	21	15.32%		
2029	2031	32	15.57%	25	15.32%	22	15.32%	20	15.32%		
2030	2032	31	15.44%	23	15.32%	21	15.32%	19	15.32%		
2031	2033	30	15.32%	22	15.32%	20	15.32%	18	15.32%		
2032	2034	29	15.32%	21	15.32%	19	15.32%	17	15.32%		
2033	2035	28	15.32%	20	15.32%	18	15.32%	15	15.32%		
2034	2036	27	15.32%	19	15.32%	16	15.32%	14	15.32%		

Comment: The employer rate with a maximum of a 30-year amortization period assumes that the employer contribution rate remains level at 15.32% per year until the applicable valuation date.





# Member Contribution Rate Changes: 6.0%, 6.5% or 7.0% with 4-Year Phase-Ins (Slide 1 of 2)

Results for Period Ending June 30	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter								
	No Change to Benefit Provisions (i.e., Base)			Increase Member Contribution Rate to 6.0% Over 4 Years		Increase Member Contribution Rate to 6.5% Over 4 Years		Increase Member Contribution Rate to 7.0% Over 4 Years	
	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	
2020	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	
2021	3.0	75%	3.0	75%	3.0	75%	3.0	75%	
2022	3.3	73%	3.3	73%	3.3	73%	3.3	73%	
2023	3.7	71%	3.7	71%	3.7	71%	3.7	71%	
2024	3.8	71%	3.8	71%	3.8	71%	3.7	71%	
2025	3.9	71%	3.8	72%	3.8	72%	3.8	72%	
2026	4.0	71%	3.9	72%	3.9	72%	3.8	72%	
2027	4.1	72%	4.0	73%	3.9	73%	3.9	73%	
2028	4.2	72%	4.0	73%	4.0	73%	3.9	74%	
2029	4.3	72%	4.1	74%	4.0	74%	3.9	74%	
2030	4.4	73%	4.1	74%	4.0	75%	3.9	75%	
2031	4.4	73%	4.1	75%	4.0	75%	3.9	76%	
2032	4.5	73%	4.2	75%	4.0	76%	3.9	77%	
2033	4.6	74%	4.2	76%	4.1	77%	3.9	78%	
2034	4.7	74%	4.2	77%	4.0	78%	3.9	79%	

# Member Contribution Rate Changes: 6.0%, 6.5% or 7.0% with 4-Year Phase-Ins (Slide 2 of 2)

Results for Period Ending June 30	Applied to Period Beginning July 1	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter									
		No Change to Benefit Provisions (i.e., Base)		Increase Member Contribution Rate to 6.0% Over 4 Years		Increase Member Contribution Rate to 6.5% Over 4 Years		Increase Member Contribution Rate to 7.0% Over 4 Years			
		Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum		
		15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort		
2020	2022	25	15.32%	25	15.32%	25	15.32%	25	15.32%		
2021	2023	28	15.32%	28	15.32%	28	15.32%	28	15.32%		
2022	2024	33	15.67%	32	15.63%	32	15.60%	32	15.57%		
2023	2025	38	16.27%	35	16.05%	34	15.93%	33	15.81%		
2024	2026	37	16.21%	33	15.77%	32	15.56%	30	15.34%		
2025	2027	36	16.12%	31	15.45%	29	15.32%	27	15.32%		
2026	2028	35	15.99%	28	15.32%	26	15.32%	24	15.32%		
2027	2029	34	15.84%	27	15.32%	25	15.32%	23	15.32%		
2028	2030	33	15.71%	26	15.32%	24	15.32%	22	15.32%		
2029	2031	32	15.57%	25	15.32%	22	15.32%	20	15.32%		
2030	2032	31	15.44%	24	15.32%	21	15.32%	19	15.32%		
2031	2033	30	15.32%	23	15.32%	20	15.32%	18	15.32%		
2032	2034	29	15.32%	22	15.32%	19	15.32%	17	15.32%		
2033	2035	28	15.32%	20	15.32%	18	15.32%	16	15.32%		
2034	2036	27	15.32%	19	15.32%	17	15.32%	15	15.32%		

Comment: The employer rate with a maximum of a 30-year amortization period assumes that the employer contribution rate remains level at 15.32% per year until the applicable valuation date.



# Member Contribution Rate Changes: 6.0%, 6.5% or 7.0% with 8-Year Phase-Ins (Slide 1 of 2)

Results for Period Ending June 30	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter								
	No Change to Benefit Provisions (i.e., Base)			Increase Member Contribution Rate to 6.0% Over 8 Years		Increase Member Contribution Rate to 6.5% Over 8 Years		Increase Member Contribution Rate to 7.0% Over 8 Years	
	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	
2020	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	
2021	3.0	75%	3.0	75%	3.0	75%	3.0	75%	
2022	3.3	73%	3.3	73%	3.3	73%	3.3	73%	
2023	3.7	71%	3.7	71%	3.7	71%	3.7	71%	
2024	3.8	71%	3.8	71%	3.8	71%	3.8	71%	
2025	3.9	71%	3.9	72%	3.8	72%	3.8	72%	
2026	4.0	71%	3.9	72%	3.9	72%	3.9	72%	
2027	4.1	72%	4.0	72%	4.0	72%	4.0	73%	
2028	4.2	72%	4.1	73%	4.0	73%	4.0	73%	
2029	4.3	72%	4.1	73%	4.1	74%	4.0	74%	
2030	4.4	73%	4.2	74%	4.1	74%	4.0	75%	
2031	4.4	73%	4.2	74%	4.1	75%	4.0	75%	
2032	4.5	73%	4.2	75%	4.1	76%	4.0	76%	
2033	4.6	74%	4.3	76%	4.2	76%	4.0	77%	
2034	4.7	74%	4.3	76%	4.2	77%	4.0	78%	

# Member Contribution Rate Changes: 6.0%, 6.5% or 7.0% with 8-Year Phase-Ins (Slide 2 of 2)

Results for Period Ending June 30	Applied to Period Beginning July 1	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter							
		No Change to Benefit Provisions (i.e., Base)		Increase Member Contribution Rate to 6.0% Over 8 Years		Increase Member Contribution Rate to 6.5% Over 8 Years		Increase Member Contribution Rate to 7.0% Over 8 Years	
		Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum	Amortization Period to Maintain	Employer Rate With Maximum
		15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort	15.32% (yrs.)	30 Yr. Amort
2020	2022	25	15.32%	25	15.32%	25	15.32%	25	15.32%
2021	2023	28	15.32%	28	15.32%	28	15.32%	28	15.32%
2022	2024	33	15.67%	32	15.63%	32	15.60%	32	15.57%
2023	2025	38	16.27%	36	16.13%	36	16.05%	35	15.98%
2024	2026	37	16.21%	35	15.96%	34	15.83%	33	15.70%
2025	2027	36	16.12%	33	15.73%	32	15.56%	30	15.38%
2026	2028	35	15.99%	31	15.47%	29	15.32%	28	15.32%
2027	2029	34	15.84%	29	15.32%	27	15.32%	26	15.32%
2028	2030	33	15.71%	27	15.32%	26	15.32%	24	15.32%
2029	2031	32	15.57%	26	15.32%	24	15.32%	22	15.32%
2030	2032	31	15.44%	24	15.32%	22	15.32%	20	15.32%
2031	2033	30	15.32%	23	15.32%	21	15.32%	19	15.32%
2032	2034	29	15.32%	22	15.32%	20	15.32%	18	15.32%
2033	2035	28	15.32%	21	15.32%	19	15.32%	17	15.32%
2034	2036	27	15.32%	20	15.32%	17	15.32%	15	15.32%

Comment: The employer rate with a maximum of a 30-year amortization period assumes that the employer contribution rate remains level at 15.32% per year until the applicable valuation date.



# Cost of Living Allowance (COLA) Changes (Slide 1 of 2)

Results for Period Ending June 30	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter					
	No Change to Benefit Provisions (i.e., Base)		3.0% Simple COLA		Compound COLA Lesser of 3.0% or Increase in CPI	
	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio
2020	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%
2021	3.0	75%	2.5	78%	2.2	80%
2022	3.3	73%	2.8	76%	2.5	78%
2023	3.7	71%	3.2	74%	2.8	77%
2024	3.8	71%	3.2	74%	2.8	77%
2025	3.9	71%	3.3	75%	2.8	78%
2026	4.0	71%	3.3	75%	2.8	78%
2027	4.1	72%	3.3	76%	2.8	79%
2028	4.2	72%	3.4	76%	2.8	80%
2029	4.3	72%	3.4	77%	2.7	81%
2030	4.4	73%	3.4	77%	2.7	81%
2031	4.4	73%	3.4	78%	2.6	82%
2032	4.5	73%	3.4	79%	2.6	83%
2033	4.6	74%	3.4	79%	2.5	84%
2034	4.7	74%	3.4	80%	2.4	85%

# Cost of Living Allowance (COLA) Changes (Slide 2 of 2)

Results for Period Ending June 30	Applied to Period Beginning July 1	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter					
		No Change to Benefit Provisions (i.e., Base)		3.0% Simple COLA		Compound COLA Lesser of 3.0% or Increase in CPI	
		Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort	Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort	Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort
2020	2022	25	15.32%	25	15.32%	25	15.32%
2021	2023	28	15.32%	19	15.32%	14	15.32%
2022	2024	33	15.67%	22	15.32%	16	15.32%
2023	2025	38	16.27%	25	15.32%	18	15.32%
2024	2026	37	16.21%	24	15.32%	17	15.32%
2025	2027	36	16.12%	23	15.32%	17	15.32%
2026	2028	35	15.99%	22	15.32%	16	15.32%
2027	2029	34	15.84%	21	15.32%	15	15.32%
2028	2030	33	15.71%	20	15.32%	14	15.32%
2029	2031	32	15.57%	19	15.32%	13	15.32%
2030	2032	31	15.44%	18	15.32%	12	15.32%
2031	2033	30	15.32%	17	15.32%	11	15.32%
2032	2034	29	15.32%	16	15.32%	10	15.32%
2033	2035	28	15.32%	15	15.32%	9	15.32%
2034	2036	27	15.32%	14	15.32%	8	15.32%

Comment: The employer rate with a maximum of a 30-year amortization period assumes that the employer contribution rate remains level at 15.32% per year until the applicable valuation date.

# Other Changes – FAC and Vesting

## (Slide 1 of 2)

Results for Period Ending June 30	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter								
	No Change to Benefit Provisions (i.e., Base)		5-Year FAC Period		10-Year Vesting		10-Year Quasi-Vesting		
	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	UAAL (\$ billions)	Funded Ratio	
2020	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	\$ 2.7	77%	
2021	3.0	75%	2.9	76%	3.0	75%	3.0	75%	
2022	3.3	73%	3.2	74%	3.3	73%	3.3	73%	
2023	3.7	71%	3.5	72%	3.7	71%	3.7	71%	
2024	3.8	71%	3.6	72%	3.8	71%	3.8	71%	
2025	3.9	71%	3.7	72%	3.9	71%	3.9	71%	
2026	4.0	71%	3.8	73%	3.9	72%	4.0	72%	
2027	4.1	72%	3.8	73%	4.0	72%	4.0	72%	
2028	4.2	72%	3.9	73%	4.1	72%	4.1	72%	
2029	4.3	72%	4.0	74%	4.2	73%	4.2	73%	
2030	4.4	73%	4.0	74%	4.3	73%	4.3	73%	
2031	4.4	73%	4.1	75%	4.3	73%	4.4	73%	
2032	4.5	73%	4.1	75%	4.4	74%	4.5	74%	
2033	4.6	74%	4.2	76%	4.5	74%	4.5	74%	
2034	4.7	74%	4.2	76%	4.5	75%	4.6	75%	

# Other Changes – FAC and Vesting (Slide 2 of 2)

Results for Period Ending June 30	Applied to Period Beginning July 1	-5% Market Value (MV) Return for the Year Ended June 30, 2020; 7.15% MV Return for Fiscal Years Thereafter							
		No Change to Benefit Provisions (i.e., Base)		5-Year FAC Period		10-Year Vesting		10-Year Quasi-Vesting	
		Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort	Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort	Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort	Amortization Period to Maintain 15.32% (yrs.)	Employer Rate With Maximum 30 Yr. Amort
2020	2022	25	15.32%	25	15.32%	25	15.32%	25	15.32%
2021	2023	28	15.32%	24	15.32%	27	15.32%	27	15.32%
2022	2024	33	15.67%	27	15.32%	31	15.42%	31	15.50%
2023	2025	38	16.27%	31	15.47%	35	16.03%	36	16.10%
2024	2026	37	16.21%	30	15.37%	35	15.98%	35	16.03%
2025	2027	36	16.12%	29	15.32%	34	15.87%	34	15.92%
2026	2028	35	15.99%	28	15.32%	33	15.74%	33	15.79%
2027	2029	34	15.84%	27	15.32%	32	15.59%	32	15.65%
2028	2030	33	15.71%	26	15.32%	31	15.43%	31	15.50%
2029	2031	32	15.57%	25	15.32%	30	15.32%	30	15.35%
2030	2032	31	15.44%	24	15.32%	29	15.32%	29	15.32%
2031	2033	30	15.32%	24	15.32%	28	15.32%	28	15.32%
2032	2034	29	15.32%	23	15.32%	27	15.32%	27	15.32%
2033	2035	28	15.32%	22	15.32%	26	15.32%	26	15.32%
2034	2036	27	15.32%	20	15.32%	24	15.32%	25	15.32%

Comment: The employer rate with a maximum of a 30-year amortization period assumes that the employer contribution rate remains level at 15.32% per year until the applicable valuation date.





# SUMMARY

# Summary

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- There is no “right” answer as to what legislative changes should or should not be pursued
- In establishing more formal objectives, we would suggest the Board at least consider the following:
  - Member feedback
  - Which membership groups should or should not be affected
- Open discussion and next steps...

**THANK YOU**



# Disclaimers

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