Amortization Policy Second Reading

Finance & Administration Committee
February 13, 2018

CalPERS | Actuarial Office

Amortization Policy Goals

Benefit Security	Intergenerational Equity	Contribution Payment Stability

Why Consider Policy Changes?

- Benefit Security
- Intergeneration Equity
- Alignment with Industry Policy Recommendations

Current Actuarial Amortization Policy

Driver	Source				
	(Gain)/Loss		Assumption/ Method Change	Benefit Change	Golden Handshake
	Investment	Non-investment			
Amortization Period	30 Years	30 Years	20 Years	20 Years	5 Years
<u>Escalation Rate</u> - Active Plans * - Inactive Plans	 Payroll (3%) 0%	 3% 0%	 3% 0%	 3% 0%	 3% 0%
Ramp Up	5	5	5	0	0
Ramp Down	5	5	5	0	0

* Reducing to 2.875% for the 6/30/2017 actuarial valuations and 2.75% for the 6/30/2018 reports.

Proposed Policy Modifications

- Shorter amortization periods
- Level dollar payments
- Elimination of ramp down
- Elimination of ramp up for:
  - Assumption change bases
  - Non-investment gains/losses
- Applied prospectively
  - Existing amortization bases unchanged

Effects of Shorter Amortization Periods

Annual amortization payments/credits are higher

- Faster amortization of gains/losses
- Increased contribution volatility

Reduced total payments/credits over amortization period

- Less interest paid over amortization period for losses
- Less interest earned over amortization period for gains

Improved Intergenerational Equity

- UAL paid off more quickly
- Gains and losses recognized more rapidly

Fund Sustainability Improved

- Reduced probability of dropping below 50% funded ratio in the future

Level Dollar Versus Escalating Payment

Level dollar amortization payment higher initially, but remains level

- Faster amortization of losses
- Faster amortization of gains
- Increased contribution volatility

Reduced total payments over amortization period

- Less interest paid over amortization period for losses
- Less interest earned over amortization period for gains

Improved Intergenerational Equity

- UAL paid off more quickly

Fund Sustainability Improved

- Reduced probability of dropping below 50% funded ratio in the future
- Eliminates negative amortization

Ramp-up / Ramp-down

- Implemented when asset smoothing was removed
- Recommend to keep ramp–up for investment gains/losses
  - Elimination could lead to extreme contribution volatility
  - Remove for future UAL bases not related to investment results
- Remove ramp-down for all future UAL bases
  - Future potential contribution volatility due to bases becoming fully amortized can be handled through other means

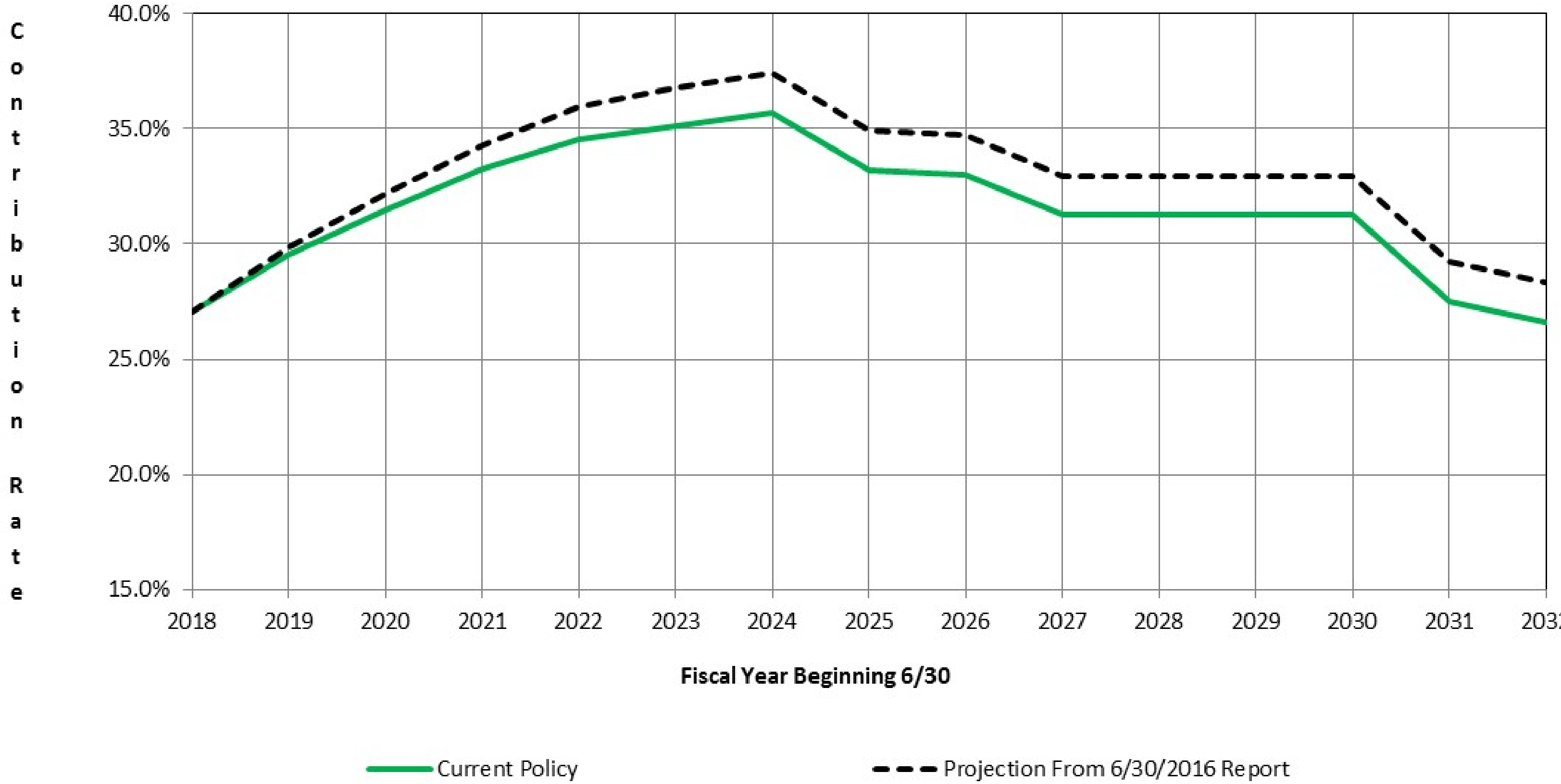
Evaluation of Options

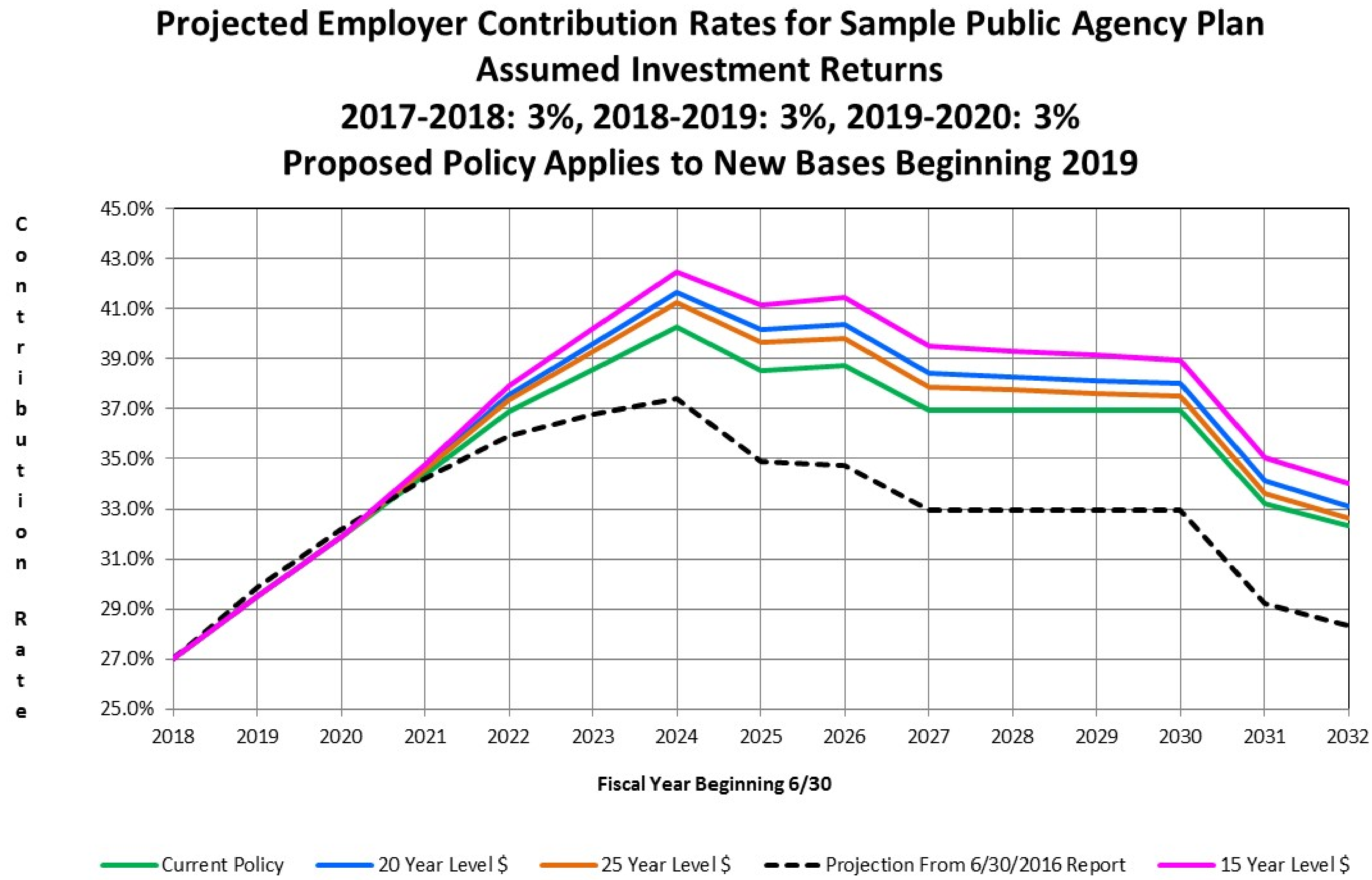
	Overall Evaluation	Benefit Security	Inter-generational Equity	Long-term Contribution Volatility	Short-term Budget Concerns	Simplicity/ Transparency
Gain/Loss Amortization Period (Years)						
15	Acceptable					N/A
20	Recommended					N/A
25	Acceptable					N/A
30	No longer recommended *					N/A
Payment Escalation Options (all bases)						
Level $	Recommended					
Level %	Acceptable (period not > 25 years)					
Valuation Date Implemented						
6/30/2017	Logistical challenges**	N/A	N/A	N/A		
6/30/2018	Acceptable	N/A	N/A	N/A		
6/30/2019	Recommended	N/A	N/A	N/A		

* Professional & industry guidelines

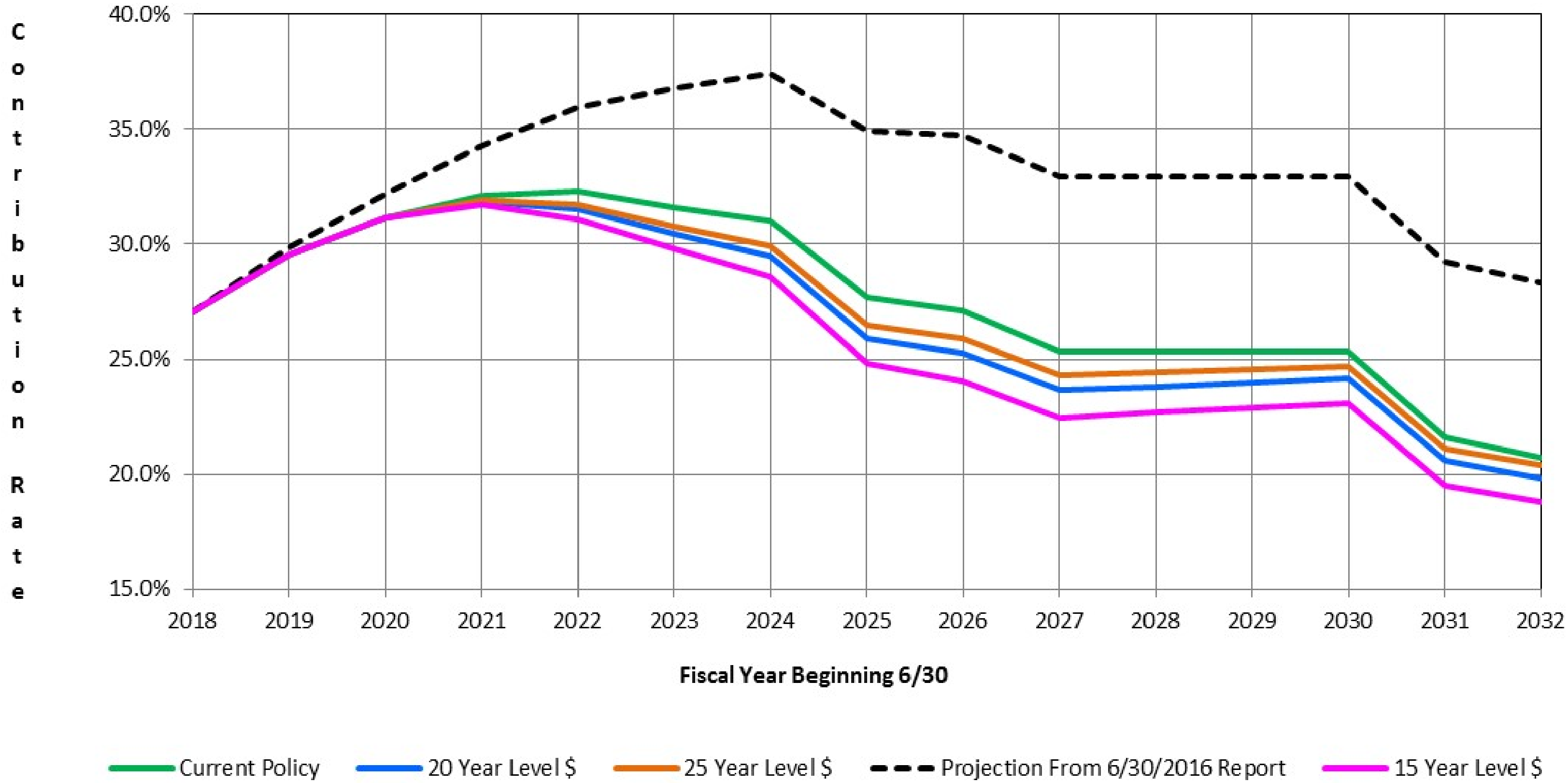
** Implementing policy changes for 6/30/2017 Valuations could delay Reports 8 weeks.

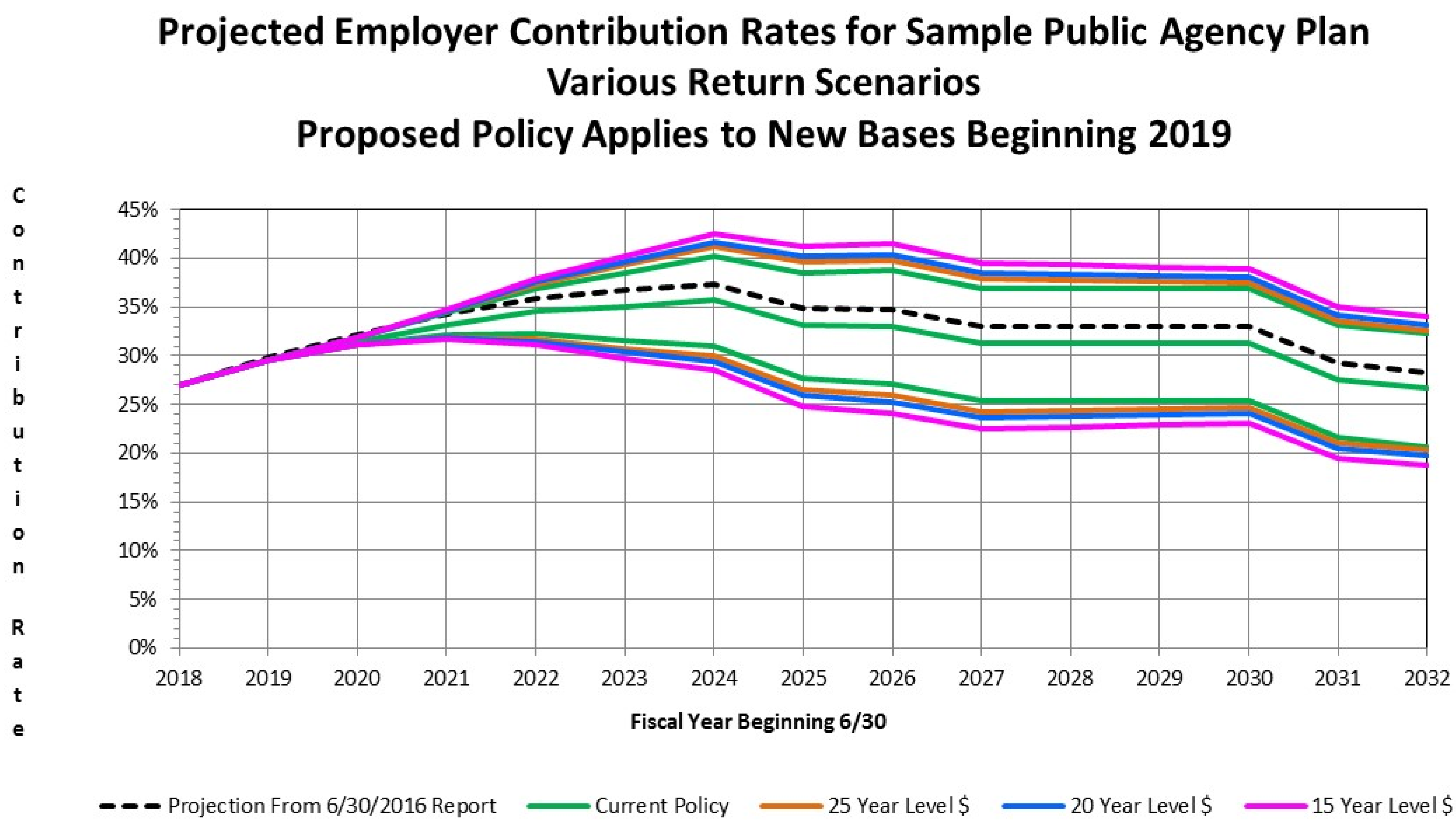
Projected Employer Contribution Rates for Sample Public Agency Plan
Assumed Investment Returns
2017-2018: 7.25%, 2018-2019: 7%, 2019-2020: 7%
Proposed Policy Applies to New Bases Beginning 2019




Projected Employer Contribution Rates for Sample Public Agency Plan
Assumed Investment Returns
2017-2018: 3%, 2018-2019: 3%, 2019-2020: 3%
Proposed Policy Applies to New Bases Beginning 2019
Contribution Rate
45.0%
43.0%
41.0%
39.0%
37.0%
35.0%
33.0%
31.0%
29.0%
27.0%
25.0%
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
Fiscal Year Beginning 6/30
Current Policy
20 Year Level $
25 Year Level $
Projection From 6/30/2016 Report
15 Year Level $

Projected Employer Contribution Rates for Sample Public Agency Plan
Assumed Investment Returns
2017-2018: 11%, 2018-2019: 11%, 2019-2020: 11%
Proposed Policy Applies to New Bases Beginning 2019




Projected Employer Contribution Rates for Sample Public Agency Plan
Various Return Scenarios
Proposed Policy Applies to New Bases Beginning 2019
Contribution Rate
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
Fiscal Year Beginning 6/30
Projection From 6/30/2016 Report
Current Policy
25 Year Level $
20 Year Level $
15 Year Level $

Inactive Employers

- No active members
- All members retired or terminated with vested future benefit
- All benefits earned – no future accrual of benefits
- Recommendation – amortization period set by actuary
  - Not to exceed 15 years
  - Based on average future lifetime of members and cash flow expectations

Next Steps

Board to select

1. Amortization period for future actuarial gains/losses

   Recommendation is 20 years

2. Level $ or level % amortization for future UAL bases

   Recommendation is level $

3. Ramps for assumption changes / non-investment gains/losses

   Recommendation is to remove 5-year ramps for future assumption change bases and non-investment gains/losses

Next Steps (continued)

Board to select (continued)

4. Ramp-down for investment gains/losses

   Recommendation is to remove 5-year ramp-down for future investment gains/losses

5. Effective date of items 1-4

   Recommendation is items 1-4 should be effective for UAL bases established June 30, 2019 or later

6. *Inactive Employers*

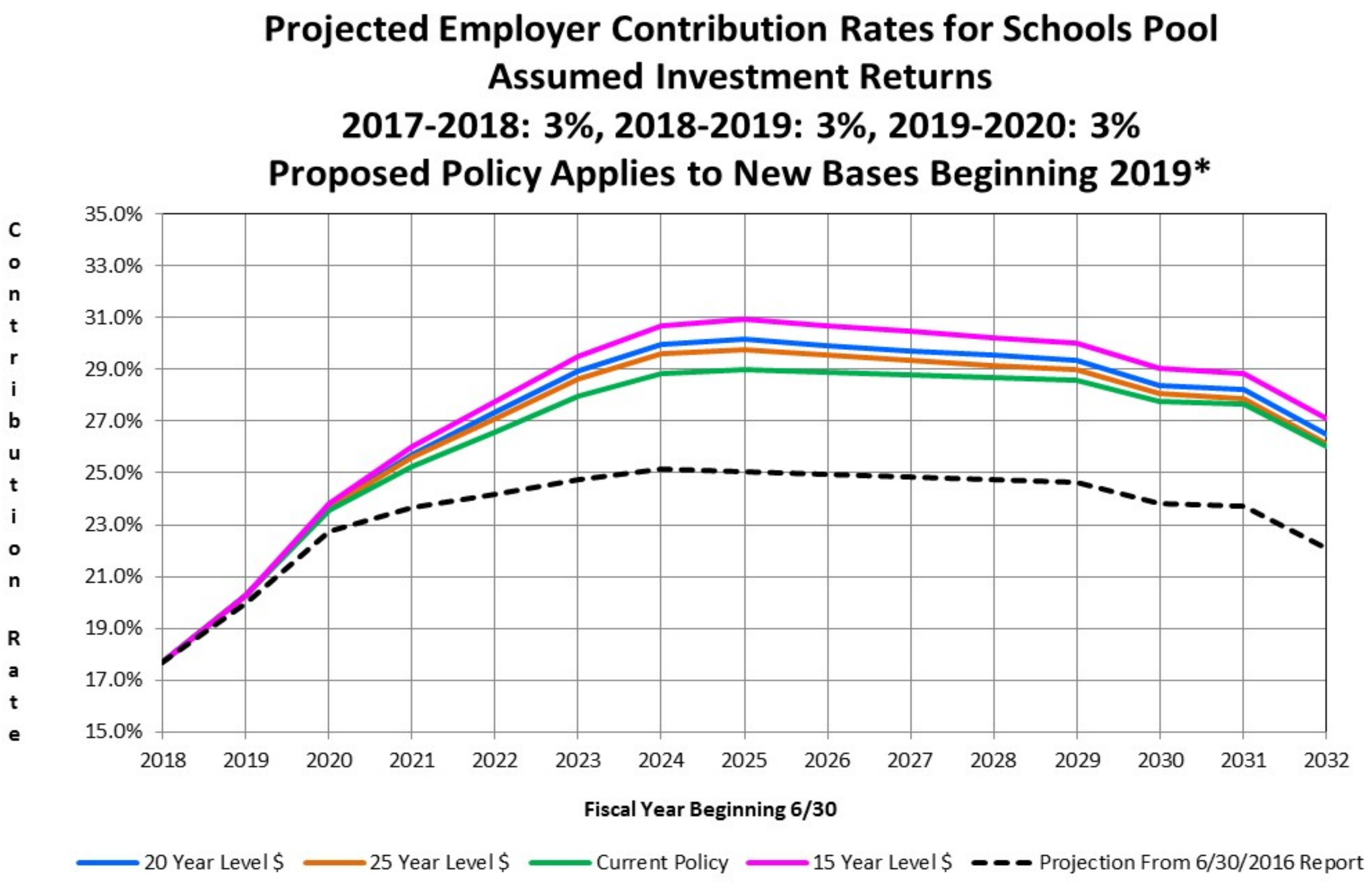
   Recommendation is a 15-year maximum period for all UAL of Inactive Employers beginning with June 30, 2017 valuations

Questions & Comments

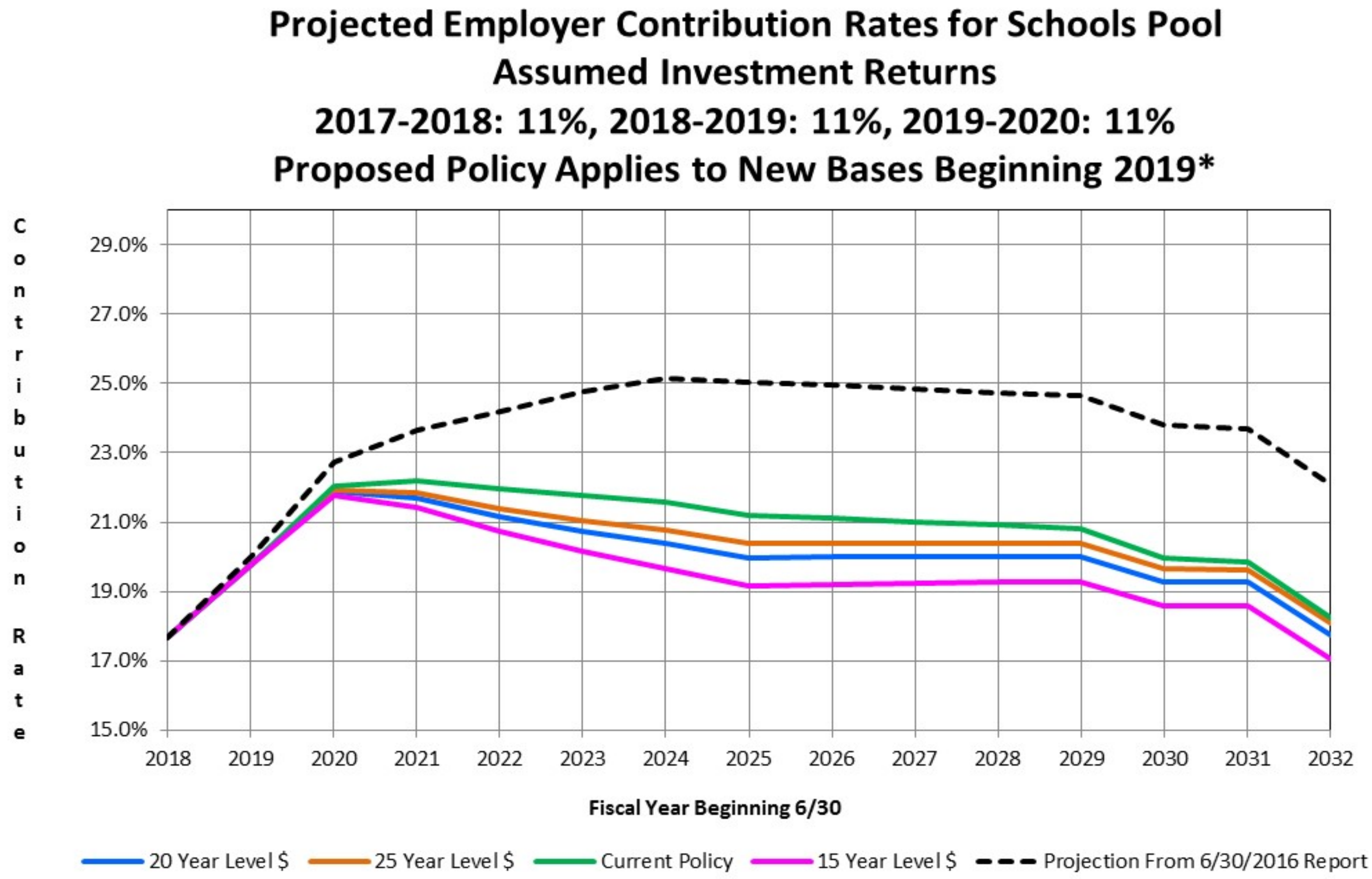
Appendix

Guidance / Best Practices

- Recommended amortization periods
  - California Actuarial Advisory Panel (CAAP)
    - Gains/losses: 15-20 years
    - Assumption changes: no longer than 25 years
      - Ramp no longer than time until next review of assumptions
    - Benefit changes
      - Active: lesser of expected future service or 15 years
      - Retired: lesser of expected lifetime or 10 years
  - Government Finance Officers Association (GFOA)
    - No longer than 10 years for gains/losses for closed plans



* The impact of the final scheduled discount rate change from 7.25% to 7.0% occurring on June 30, 2019 will be determined under the current amortization policy.



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Asset Liability Management Model Results State Miscellaneous Plan

Amortization Policy	The Probability that the Following Event Will Occur at least once in the next 30 Years		
	Funded Ratio Falls Below 50%	Employer Contribution Rate Exceeds 35%	Contribution Rate Increases by more than 5% in One Year
Current	6%	73%	0%
Proposed	5%	74%	10%

California Public Retirement Systems
County Plans

County	Accrued Liability (billions)	Asset Smoothing Period	Amortization Method	Escalation Rate	Amortization Period (gain/loss)
Los Angeles	$62	5 years	Closed Layers	% of payroll	30
San Francisco	$24	5 years	Closed Layers	% of payroll	20
Orange	$18	5 years	Closed Layers	% of payroll	20
San Diego	$14	5 years	Closed Layers	% of payroll	20
San Bernardino	$11	5 years	Closed Layers	% of payroll	20
Sacramento	$9	7 years	Closed Layers	% of payroll	20

California Public Retirement Systems County Plans (continued)

County	Accrued Liability (billions)	Asset Smoothing Period	Amortization Method	Escalation Rate	Amortization Period (gain/loss)
Contra Costa	$9	5 years	Closed Layers	% of payroll	18
Alameda	$8	5 years	Closed Layers	% of payroll	20
Kern	$6	5 years	Closed Layers	% of payroll	18
Fresno	$5	5 years	Closed Layers	% of payroll	15
Ventura	$5	5 years	Closed Layers	% of payroll	15
San Mateo	$4	5 years	Closed Layers	% of payroll	15

California Public Retirement Systems Single Employer Plans

System	Accrued Liability (billions)	Asset Smoothing Period	Amortization Method	Escalation Rate	Amortization Period (gain/loss)
Univ. of Cal.	$69	5 years	Closed Layers	Level dollar	20
LA City	$17	7 years	Closed Layers	% of payroll	15
LA Dept. of W&P	$13	5 years	Closed Layers	Level dollar	15
LA Fire & Police	$19	7 years	Closed Layers	% of payroll	20
San Diego City	$9	4 years	Closed Layers	*	15

* Closed to new members (except police) in 2012. Uses level % of payroll for police and level dollar for other