San José Federated City Employees' Retirement System



2018 Final Valuation Results

December 20, 2018

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Agenda



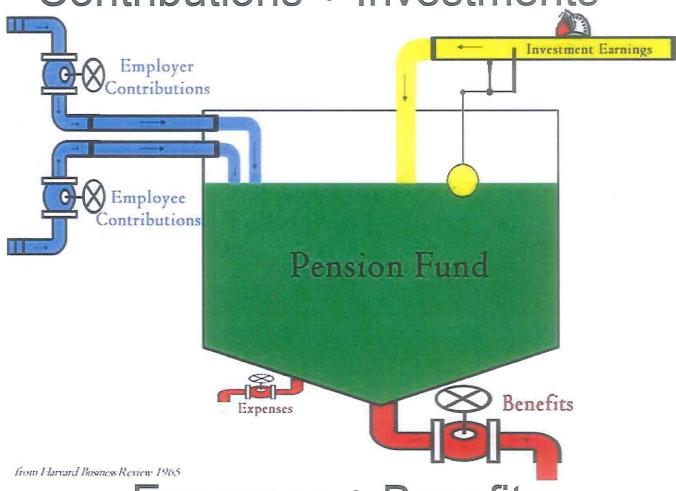
- Valuation Process
- Summary of Key Results
- Contributions
- Changes in UAL
- Projections
- ASOP 51 Assessment and Disclosure of Risk
- Appendix



A Dynamic System



Contributions + Investments =

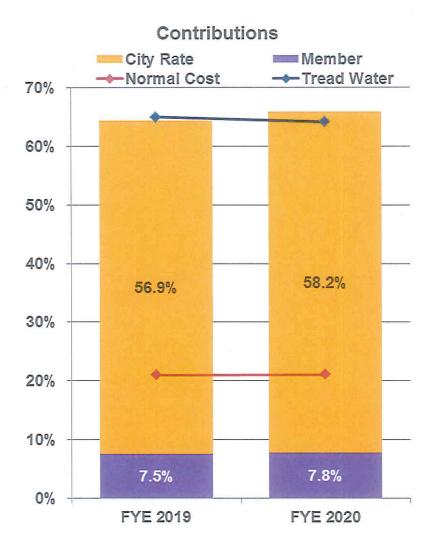


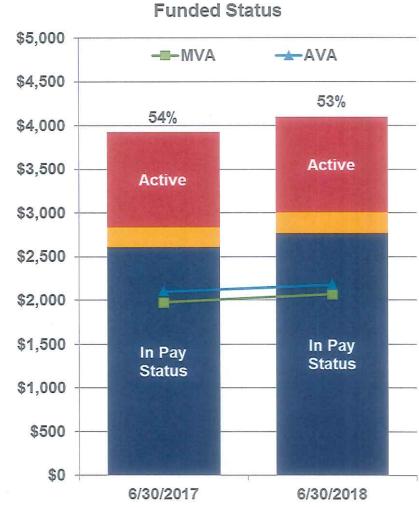
Expenses + Benefits



Final Valuation Results









Contributions by Tier





Tier 1

- Member and City normal cost contributions remained relatively constant
- Tier 1 City UAL payments increased about \$9 million

Tier 2

 City and member contributions increased, primarily reflecting the growth of Tier 2



FYE 2019 and 2020 Contributions



Contribution Rates and Amounts (Throughout the Year)					
	F	YE 2019	F	YE 2020	Change
Member Rates (Excluding Reclassification Payments)					
Tier 1 Tier 2		6.81% 8.28%		7.06% 8.33%	0.25% 0.05%
City Rates and Amounts					
Tier 1 UAL Payment	\$	127,894	\$	137,409	7.4%
Tier 1 Normal Cost and Admin Expenses	\$	29,548 18.61%		28,866 19.34%	
Tier 2 Contribution	\$	11,418 8.28%	\$	13,282 8.33%	16.3% 0.05%
Aggregate Contribution	\$	168,861 56.92%		179,558 58.17%	

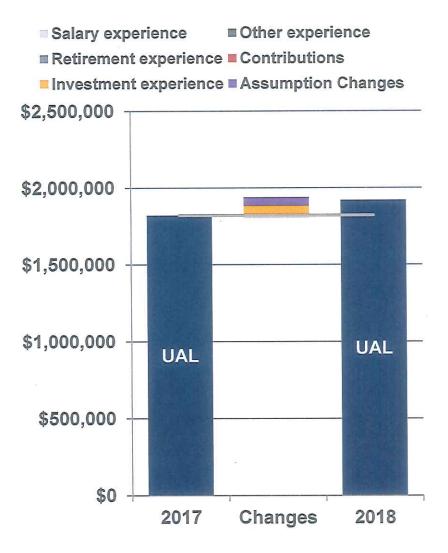
Dollar amounts in thousands

- Member contribution rates increased slightly
- City contribution increased
 - 6.3% as a dollar amount
 - 1.25% of payroll
- Primary increases are for the Tier 1 UAL and the growing Tier 2 population



Changes in UAL

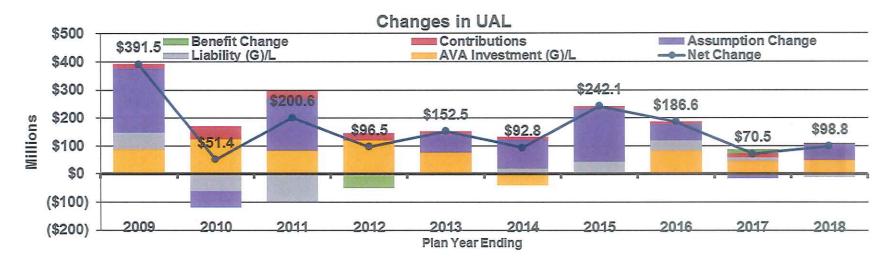




- During FYE 2018, the UAL based on the Actuarial Value of Assets increased by about \$99 million
- Reductions include:
 - Liability experience (\$11)
 - Salaries (\$10)
 - Retirement +\$6
 - Mortality (\$2)
 - Other (\$5)
- Increases include:
 - Investments +\$50
 - Assumptions +\$54
 - Contributions +\$4
 - Measure F +\$2

Historical Changes in UAL



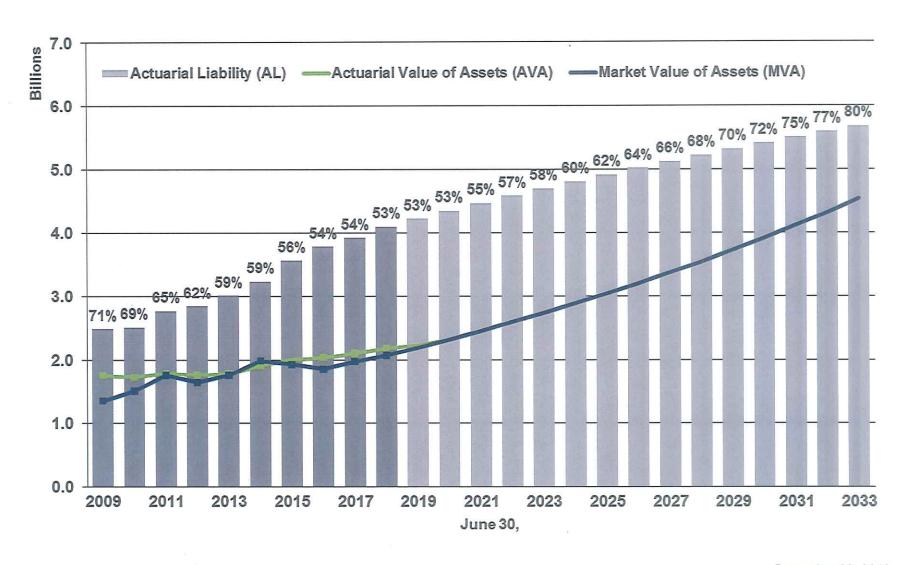


- Over the last decade, the UAL has increased every year for a total increase of \$1.58 billion
 - \$815 million due to assumption changes
 - \$629 million due to investment returns
 - \$177 million due to contributions less than the tread water amount
 - (\$10) million due to liability experience
 - (\$27) million due to benefit changes



Projected Liability and Asset Growth

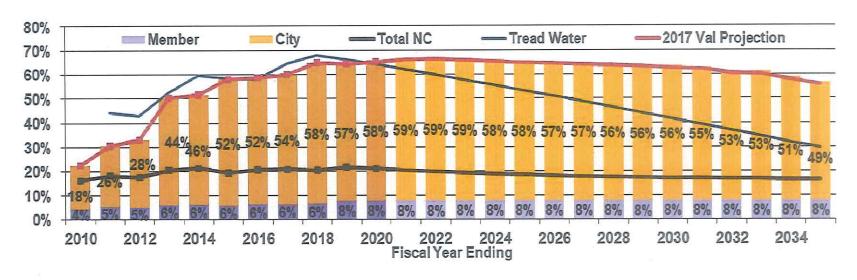


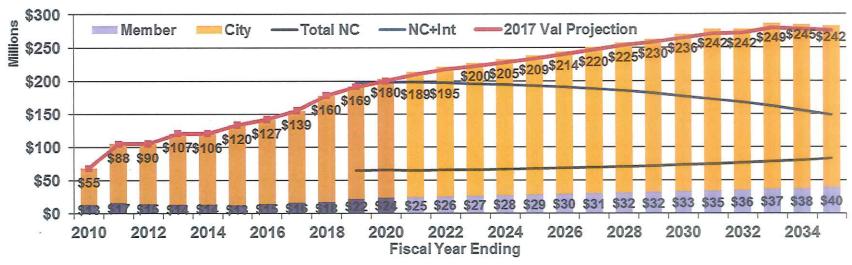




Projected Contributions









ASOP 51



- New Actuarial Standard of Practice (ASOP) on Assessment and Disclosure of Risk
 - Effective for measurements on or after November 1, 2018
- Requirements
 - Identify risks
 - Assess risks
 - Disclose relevant plan maturity measures
 - Disclose relevant historical information
 - Recommend more detailed assessment if "significantly beneficial"
- Most required information has been disclosed previously
 - Added new section to valuation report to highlight this information



Identification of Risks

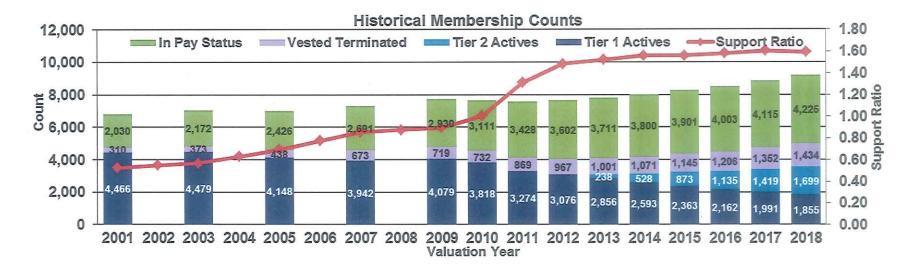


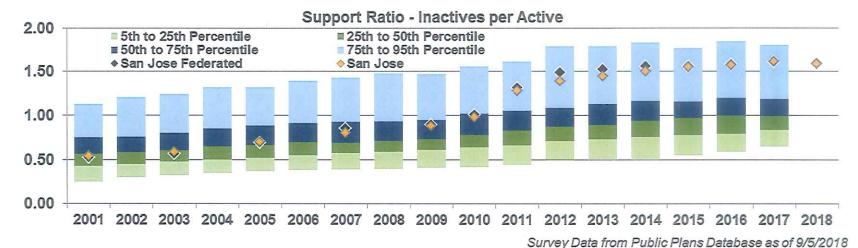
- Investment risk
 - Potential for actual investment returns to be different than expected
- Interest rate risk
 - Potential for interest rates to be different than expected, particularly to the extent it affects future expected investment returns
- Longevity and other demographic risks
 - Potential for mortality and other demographic experience to differ from anticipated
- Assumption change risk
 - Potential for need to change assumptions to reflect changing future expected experience



Plan Maturity – Support Ratio





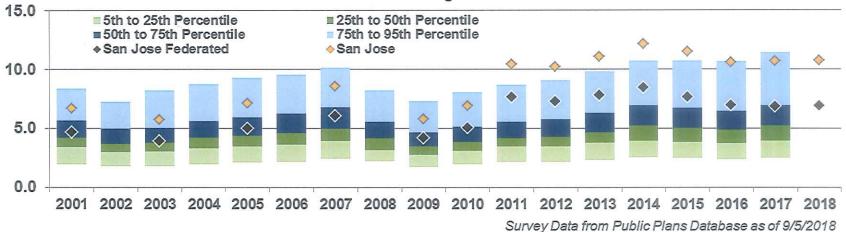




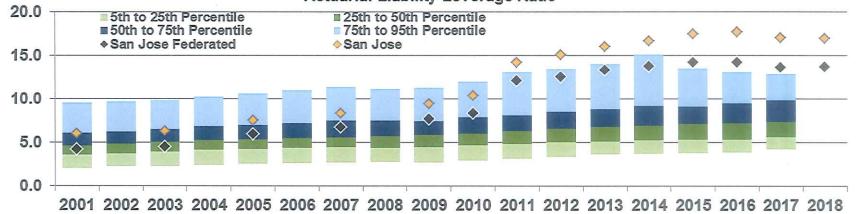
Plan Maturity – Leverage Ratios







Actuarial Liability Leverage Ratio



Survey Data from Public Plans Database as of 9/5/2018



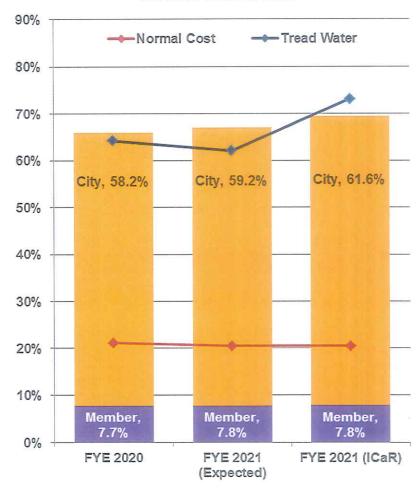
Simple Risk Assessments



Discount Rate Change Impact



Interest Cost at Risk

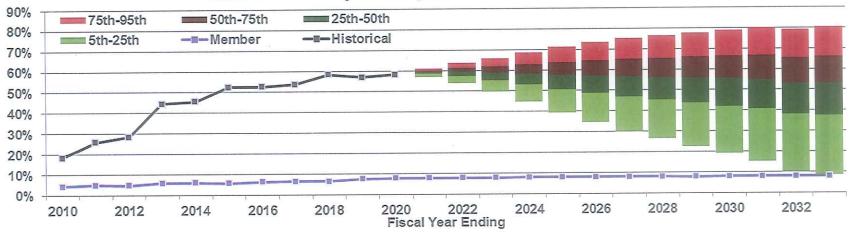




Stochastic Risk Assessments



Historical and Projected City Contribution Rates



- The growing plan maturity exacerbated the growth in contribution rates due to the recession and assumption changes
- Looking forward, the level of plan maturity combined with the volatility of the investment portfolio causes a wide range of potential contribution rates
- In 6 years, projected contribution rates range from 35% of payroll at the 5th percentile to 73% of payroll at the 95th percentile

Stochastic projections are based on a 6.75% geometric return and a 12.3% standard deviation



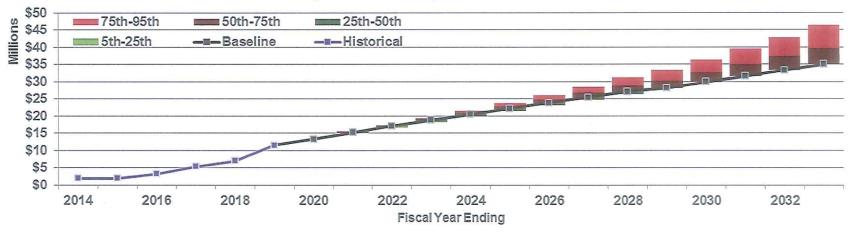
Range of Contribution Amounts By Tier



Historical and Projected Tier 1 City Contribution Amounts



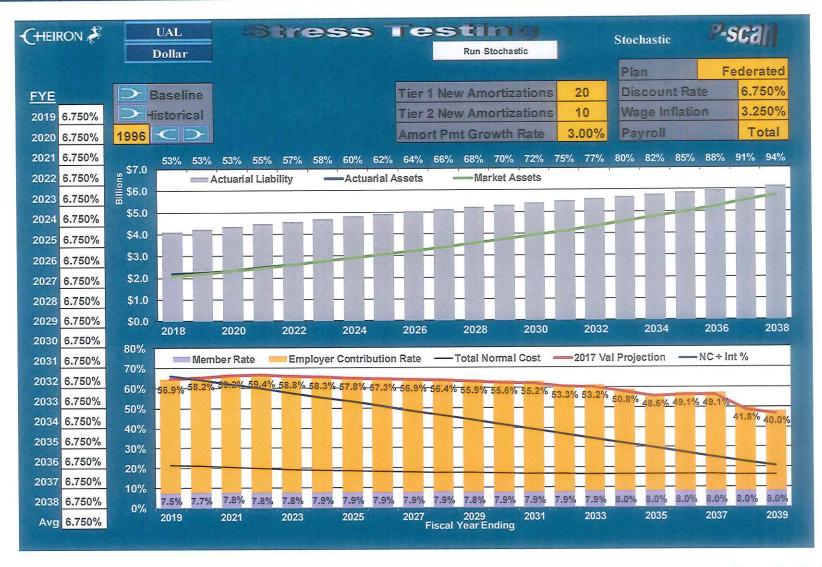
Historical and Projected Tier 2 City/Member Contribution Amounts





Stress Testing







Appendix – Certification



- The purpose of this presentation is to present the results of the June 30, 2018 Actuarial Valuation for the City of San José Federated City Employees' Retirement System.
- In preparing our presentation, we relied on information (some oral and some written) supplied by the City of San José Department of Retirement Services. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. A summary of the data, assumptions, methods, and plan provisions used to prepare the valuation can be found in the June 30, 2018 actuarial valuation report.
- Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.
- To the best of our knowledge, this presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.
- This presentation was prepared exclusively for the City of San José Federated City Employees'
 Retirement System for the purpose described herein. This presentation is not intended to benefit any
 third party, and Cheiron assumes no duty or liability to any such party.

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