

Marin County Employees' Retirement Association

Actuarial Review and Analysis as of June 30, 2013

Novato Fire Protection District

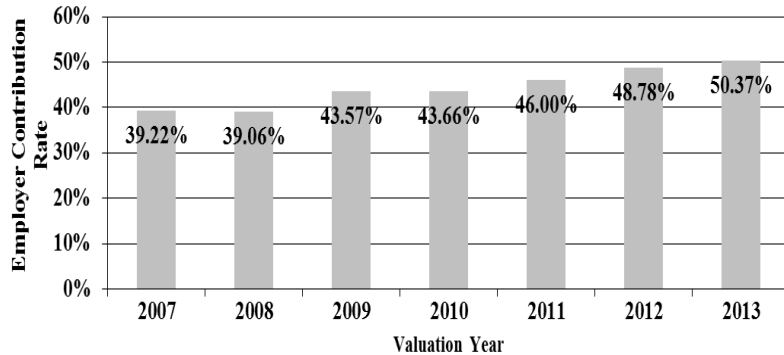
Valuation Date	June 30, 2012		June 30, 2013	
Actuarial Accrued Liability	\$143.1 M	<u>Funded Ratio</u>	\$148.3 M	<u>Funded Ratio</u>
Actuarial Value of Valuation Assets	\$109.1 M	76.3%	\$115.6 M	78.0%
Market Value of Valuation Assets	\$109.6 M	76.6%	\$123.0 M	82.9%
Unfunded Actuarial Accrued Liability	\$33.9 M		\$32.6 M	
Inactive Actuarial Liability	\$95.4 M		\$102.1 M	
Portion Covered by Market Value of Valuation Assets	100.0%		100.0%	
Employer Normal Cost	22.19%		21.59%	
Amortization of Unfunded Liability	26.59%		27.54%	
Administrative Expense Rate	<u>N/A</u>		<u>2.47%</u>	
Total Employer Rate	48.78%		51.60%	
Phase-In of Admin Expense Change	<u>N/A</u>		<u>-1.23%</u>	
Final Employer Rate	48.78%		50.37%	
Average Employee Rate after Phase-In of Admin Expense Change	<u>13.66%</u>		<u>13.91%</u>	
Final Total Rate	62.44%		64.28%	

Changes from Prior Year:

- The method for funding administrative expenses was changed, and no changes were made in actuarial assumptions; new benefit provisions were included for members hired on or after January 1, 2013 as a result of enactment of PEPRRA.
- Overall, the Plan cost increased from 48.78% to 50.37% of active member payroll.
 - Salary increases were lower than expected, reducing the contribution rate by 2.25% of pay. This smaller payroll over which to amortize the UAL led to a 3.04% of pay increase.
 - The demographic experience of the Plan – retirements, disabilities, terminations, deaths, and new entrants – was unfavorable: Plan cost increased by 1.31% from these causes.
 - Investment experience was positive, with a 13.9% market return and a 7.6% return on the actuarial value of assets, which decreased plan cost by 0.11% of pay.
 - An explicit charge for the expected employer administrative expenses was implemented, increasing Plan cost by 1.24% of pay.
 - Keeping the amortization period at 17 years rather than reducing it yearly, while reducing the amortization period for the extraordinary investment loss from an expected 26 years to 25 years reduced cost by 0.44% of pay.

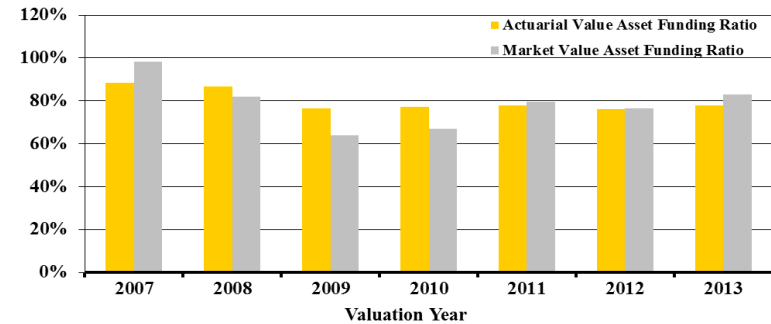
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Employer Contribution Rate as a Percentage of Member Payroll



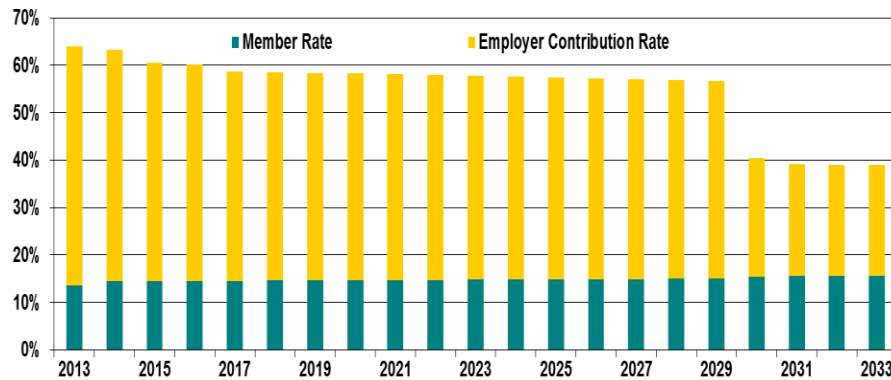
The employer contribution rate increased in fiscal year 2009 due principally to poor investment returns, and the deferred impact of these losses continued to be felt during the five year smoothing period. Changes in actuarial assumptions have also increased the employer rate.

Plan Funded Ratios



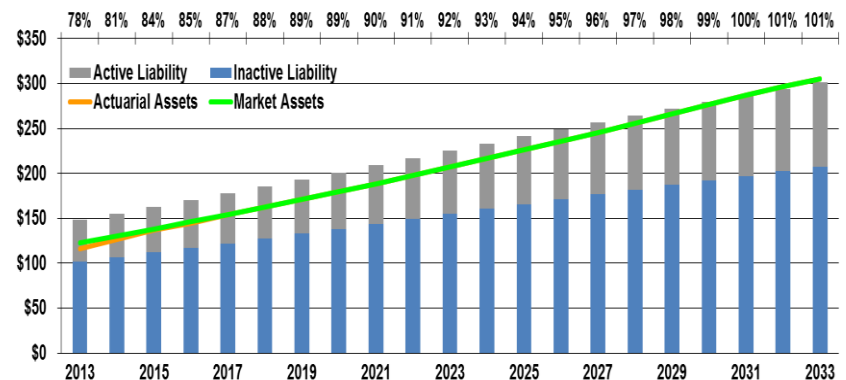
The above graph shows the funded ratio, both at market and actuarial value of assets. Funded ratios have trended down since 2007, but have improved recently, due to investment performance.

Projection of Employer Cost as a Percentage of Member Payroll



Provided assumptions are met, contribution rates are expected to decline slowly over the next few years as the current deferred investment gains are recognized.

Projection of Funded Ratio Based on Actuarial Accrued Liability



Provided assumptions are met, the funded ratio (shown by the numbers along the top of the graph) will improve as the unfunded liability and extraordinary loss are paid off. This graph and the prior graph assume a 17 year amortization period for the bulk of the UAAL.

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	2013 <u>Baseline</u>	<u>+1%</u>	<u>-1%</u>
Sensitivity Analysis:			
Expected Long-Term Rate of Return	7.50%	8.50%	6.50%
Employer Cost	50.37%	31.16%	71.93%
Funding Ratio	78.00%	87.95%	68.55%

Investment Earnings:	<u>FY 2012</u>	<u>FY 2013</u>
Market Value	1.6%	13.9%
Actuarial Value	3.3%	7.6%
Expected	7.5%	7.5%
Unrecognized Gain (Loss)	\$ 0.5 M	\$ 6.9 M

Projected Payroll:	<u>FY 2013</u>	<u>FY 2014</u>
Total	\$9.3 M	\$8.8 M

Projected Employer Contribution:	<u>FY 2014</u>	<u>FY 2015</u>
Total Employer Rate	48.78%	50.37%
Projected Covered Payroll	\$9.6 M	\$9.0 M
Expected Employer Contribution	\$4.7 M	\$4.6 M

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Actuarial Cost Method	Entry Age Normal to Final Decrement (GASB 67/68 compliant)
Amortization Method	Level % of pay; closed.
Remaining Amortization Period	17 years, fixed.
	Half of the extraordinary asset loss from FY 2009 is being amortized as a level percentage of payroll over a closed 30 year period, with 25 years remaining as of June 30, 2013. Any extraordinary gains occurring during this period will first be used to offset the FY 2009 loss; any excess will be amortized over a similar long period of time, such as 30 years.
Asset Valuation Method	5 Year smoothing; each year's gain and loss recognized over a closed five-year period; Actuarial value not less than 80% and not greater than 120% of market value. Valuation Assets exclude special Non-Valuation Reserves and contingency reserve.
Actuarial Economic Assumptions:	
Long-Term Inflation Rate	3.25%
Real Rate of Return	4.25%
Nominal Rate of Return	7.50%
Projected Salary Increases	3.75% - 8.25%
Cost-of-Living Adjustments	3.25%

Disclaimers: This exhibit is intended to summarize the information presented in the June 30th, 2013 Actuarial Valuation Report for MCERA. This exhibit is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.