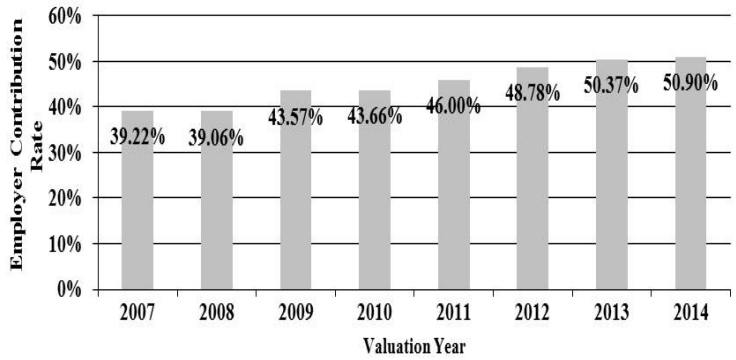
Marin County Employees' Retirement Association
Actuarial Review and Analysis as of June 30, 2014
Novato Fire Protection District

Valuation Date	**June 30, 2013**		**June 30, 2014**	
Actuarial Liability	$148.3 M	Funded Ratio	$157.9 M	Funded Ratio
Actuarial Value of Valuation Assets	$115.6 M	78.0%	$141.2 M	89.4%
Market Value of Valuation Assets	$123.0 M	82.9%	$141.2 M	89.4%
Unfunded Actuarial Liability	$32.6 M		$16.7 M	
Inactive Actuarial Liability	$102.1 M		$110.1 M	
Portion Covered by Market Value of Valuation Assets	100.0%		100.0%	
Employer Normal Cost	21.59%		21.71%	
Amortization of Unfunded Liability	27.54%		26.87%	
Administrative Expense Rate	2.47%		2.32%	
Total Employer Rate	51.60%		50.90%	
Phase-In of Admin Expense Change	-1.23%		N/A	
Final Employer Rate	50.37%		50.90%	
Average Employee Rate	13.91%		14.26%	
Final Total Rate	64.28%		65.16%	

Changes from Prior Year:

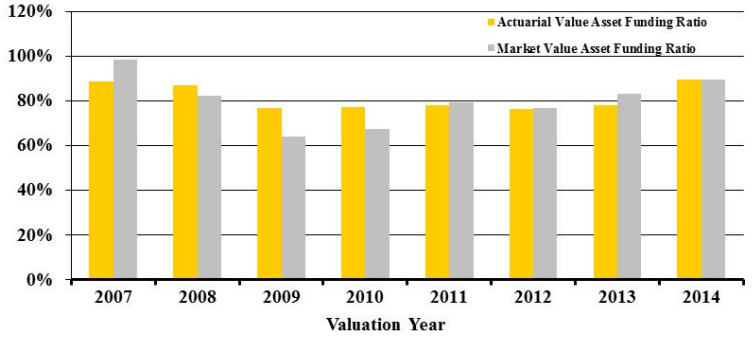
- The Board of Retirement adopted a new funding policy for any subsequent unexpected change in the UAL after June 30, 2013. The Board also adopted a policy to replace the smoothed actuarial value of assets with the market value of assets for valuation purposes.
- Overall, the Plan cost increased from 50.37% to 50.90% of active member payroll.
  - Asset experience produced an investment gain, which decreased the contribution rate by 5.64% of pay.
  - Demographic experience of the Plan was close to the actuarial assumptions, decreasing the contribution rate for Novato by 0.07%.
  - Salary increases were lower than expected, reducing the contribution rate by 2.37% of pay. This smaller payroll over which to amortize the UAL led to a 1.17% of pay increase.
  - The second year of the administrative expense phase-in increased the employer contribution rate by 1.05% of pay.
  - The new amortization policy recommended by Cheiron and adopted by the Board increased the contribution rate by 3.68%.
  - Demographic and economic assumption changes as a result of the recent Experience Study - including a reduction in the return assumption and updates to the mortality tables - increased the employer contribution rate by 2.88% of pay and decreased the average employee contribution rate by 0.17%.

Employer Contribution Rate as a Percentage of Member Payroll



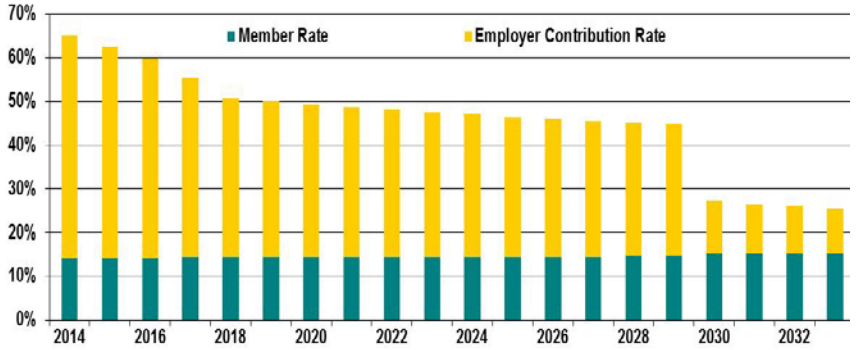
The employer contribution rate increased in fiscal year 2009 due principally to poor investment returns, and the deferred impact of these losses continued to be felt during the five year smoothing period. Changes in actuarial assumptions have also increased the employer rate.

Plan Funded Ratios



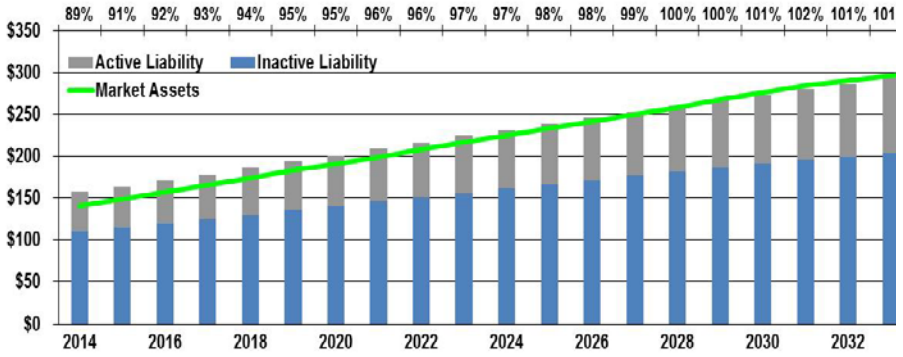
The above graph shows the funded ratio, both at market and actuarial value of assets. Beginning in 2014, the actuarial value of assets is equal to the market value. Funded ratios have trended down since 2007, but have improved recently, due to investment performance.

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 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 16 year amortization period for the bulk of the UAL.

Sensitivity Analysis:	2014 Baseline	+1%	-1%
Expected Long-Term Rate of Return	7.25%	8.25%	6.25%
Employer Cost	50.90%	30.70%	73.55%
Funding Ratio	89.44%	101.26%	78.19%

Investment Earnings:	FY 2013	FY 2014
Market Value	13.9%	18.1%
Actuarial Value	7.6%	12.4%
Expected	7.5%	7.5%

Projected Payroll:	FY 2014	FY 2015
Total	$8.8 M	$8.5 M

Projected Employer Contribution:	FY 2015	FY 2016
Total Employer Rate	50.37%	50.90%
Projected Covered Payroll	$9.0 M	$8.8 M
Expected Employer Contribution	$4.6 M	$4.4 M

Beginning in 2014, the market and actuarial value of assets are the same. In future years, there will not be an investment return computed on an actuarial basis.

The employer costs in the sensitivity analysis are calculated assuming that the change in UAL due to the discount rate change is amortized over a 20 year period as a level percent of payroll with no phase-in/out.

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 (16 years remaining as of June 30, 2014).
	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 24 years remaining as of June 30, 2014.
	Any subsequent unexpected change in the unfunded actuarial liability after June 30, 2013 is amortized over 24 years (22 years for assumption changes) that includes a 5-year phase-in/out (3 years for assumption changes) of the payments/credits for each annual layer.
Asset Valuation Method	As of the June 30, 2014 valuation, assets are valued using the market value. The assets used to compute the UAL are the market value of assets, minus the value of any non-valuation contingency reserves.

Actuarial Economic Assumptions:	
Long-Term Inflation Rate	2.75%
Real Rate of Return	4.50%
Nominal Rate of Return	7.25% (net of investment, but not administrative, expenses)
Projected Salary Increases	3.77% - 11.24%
Wage Inflation	3.00%

Disclaimers: This exhibit is intended to summarize the information presented in the June 30, 2014 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.