CITY OF
SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Board of Administration of the Federated City Employees' Retirement System

FROM: Carmen Racy-Choy & Stuart Bennett

SUBJECT: Review of the System's Amortization Policy for the Unfunded Actuarial Accrued Liability

DATE: November 3, 2009

APPROVED:

DATE:

INTRODUCTION

The purpose of this memorandum is to provide the Board with information on the implications of the current Federated Plan amortization policy. The information contained in this memorandum will supplement material that the Board's actuary, GRS, will present on alternate amortization approaches.

BACKGROUND

The Federated City Employees' Retirement System minimum annual required pension contribution is the actuarially determined Normal Cost plus an amount equal to amortize the Unfunded Actuarial Accrued Liability (UAAL) over 30 years as a level percent of payroll. Under this open or "rolling" 30-year amortization policy the amortization period of the UAAL as calculated by the plan actuary is reset to 30 years at the time of each actuarial valuation. The current method has done a good job at reducing employer rate volatility however the recent investment market declines have moved the unrestricted actuarial value of assets over 30% away from the market value of assets. In other words as of June 30, 2009 almost one quarter of the assets used to set the employer contribution rate are not there.

ANALYSIS

Under the current 30-year open amortization policy the UAAL for the plan which was projected at $425 million dollars as of June 30, 2009 would never be fully amortized. The dollar amount of the UAAL, assuming all actuarial assumptions are realized, would continue to grow without end. The reason for this is that under current policy approximately 5.6% of the UAAL is paid off every year but the current dollar amount of the UAAL continues to grow at the actuarial assumed rate of return which is currently 8.25%.

Appendix A shows a 30-year projection of the funded status of the Federated Plan provided by the plan's actuary, GRS. The UAAL (column 12) under the current amortization policy continues to grow and is projected at $1.7 billion after 30 years. Column (15) of the projection indicates that in the near term the funded ratio of the plan drops to about 60% funded due to investment losses and then recovers over time but even after 30 years the projected funded ratio is only about 73%.

There is an implicit assumption with a rolling 30-year amortization policy that actuarial gains and losses will offset each other over time. However, this method may not be appropriate for the significant market downturn that the plan has experienced. Moreover, this method is also not appropriate when the probability of incurring losses on the investment return assumption is 83%, as is currently the case for the Federated Plan. Under the current method the UAAL will only be eliminated if the plan experience is better than the long term actuarial assumptions such as a sustained period of investment returns greater than the actuarially assumed 8.25% return, net of investment and administrative expenses, and costs of SRBR.

Although the current amortization policy is compliant with the Governmental Accounting Standards Board the 30-year amortization period is the longest allowable. For comparison purposes Appendix B contains a survey by Roeder Financial as of July 2009 of the assumptions used by public plan sponsors in California. Most of the plans have amortization periods between 15 and 25 years and use either a declining or layered approach. Under a declining year schedule the UAAL is amortized over a closed and declining period such that the amount is retired at the end of the amortization period. A layered approach establishes a new amortization schedule at the time of the actuarial valuation which is funded on a closed or declining basis thereby creating a series of amortization schedules or layers over time.

Best practice is for an individual's retirement benefit to be fully funded by their expected retirement date therefore it is prudent to set the amortization period to be close to the average future working lifetime of the active member workforce. This period is typically no greater than 15 years. In addition, for amortization periods greater than 17 years, based on current actuarial assumptions, the UAAL will increase initially before the balance starts to decrease in later years. In other words, the payments towards the UAAL in the early years are not enough to cover the interest that accrues on the UAAL balance so that the UAAL grows in size during the early part of the amortization schedule.

RECOMMENDATIONS

Staff recommends that the Board consider using a more conservative amortization policy in consultation with the plan actuary which uses:

1. A layered approach or declining amortization period approach for the Unfunded Actuarial Accrued Liability.
2. An amortization period between 15 and 20 years. This can be phased in over time by ratcheting down the current amortization period.

Carmen Racy-Choy
Chief Investment Officer

Stuart Bennett
Investment Officer

Appendix A

San Jose Federated City Employees' Retirement System

Projection Based on June 30, 2007 Actuarial Valuation (Retirement Benefits only)
Projection Assumes Open Group with 0% Population Growth

Valuation as of June 30,	Fiscal Year Ending June 30,	Gross Market Return for FY Following Valuation Date	Net Market Return for FY Following Valuation Date	Employer Contribution Rate	Member Contribution Rate	Compensation at Valuation (in millions)	Employer Normal Cost Contribution (in millions)	Employer UAAL Amortization Contribution (in millions)	Actuarial Accrued Liability (AAL, in millions)	Actuarial Value of Assets (AVA, in millions)	Unfunded Actuarial Accrued Liability (UAAL, in millions)	Funded Ratio	Market Value of Assets (MVA, in millions)	Funded Ratio Using MVA
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
2007	2008	-3.10%	-3.80%	18.16%	4.26%	$ 291	$ 33.9	$ 19.1	$ 1,961	$ 1,623	$ 338	82.8%	$ 1,766	90.1%
2008	2009	-16.60%	-17.50%	18.31%	4.28%	302	35.2	20.1	2,076	1,764	313	84.9%	1,674	80.6%
2009	2010	9.15%	8.25%	17.59%	4.28%	314	36.6	18.6	2,196	1,772	425	80.7%	1,355	61.7%
2010	2011	9.15%	8.25%	19.41%	4.28%	326	38.0	25.3	2,320	1,744	576	75.2%	1,428	61.6%
2011	2012	9.15%	8.25%	21.78%	4.28%	338	39.5	34.2	2,448	1,720	728	70.3%	1,508	61.6%
2012	2013	9.15%	8.25%	23.97%	4.28%	352	41.0	43.3	2,578	1,681	897	65.2%	1,597	61.9%
2013	2014	9.15%	8.25%	26.27%	4.28%	366	42.6	53.4	2,712	1,693	1,019	62.4%	1,695	62.5%
2014	2015	9.15%	8.25%	27.62%	4.28%	380	44.3	60.6	2,848	1,801	1,047	63.2%	1,803	63.3%
2015	2016	9.15%	8.25%	27.44%	4.28%	394	46.0	62.3	2,988	1,918	1,070	64.2%	1,920	64.2%
2016	2017	9.15%	8.25%	27.20%	4.28%	409	47.7	63.6	3,129	2,035	1,094	65.0%	2,037	65.1%
2017	2018	9.15%	8.25%	26.96%	4.28%	425	49.6	65.1	3,271	2,153	1,118	65.8%	2,155	65.9%
2018	2019	9.15%	8.25%	26.71%	4.28%	442	51.5	66.5	3,415	2,272	1,142	66.6%	2,275	66.6%
2019	2020	9.15%	8.25%	26.46%	4.28%	459	53.5	67.9	3,560	2,393	1,167	67.2%	2,395	67.3%
2020	2021	9.15%	8.25%	26.22%	4.28%	476	55.6	69.4	3,705	2,512	1,193	67.8%	2,515	67.9%
2021	2022	9.15%	8.25%	26.00%	4.28%	495	57.7	70.9	3,849	2,631	1,219	68.3%	2,633	68.4%
2022	2023	9.15%	8.25%	25.77%	4.28%	514	60.0	72.5	3,994	2,748	1,245	68.8%	2,751	68.9%
2023	2024	9.15%	8.25%	25.53%	4.28%	535	62.4	74.2	4,140	2,867	1,273	69.3%	2,870	69.3%
2024	2025	9.15%	8.25%	25.29%	4.28%	557	64.9	75.9	4,289	2,988	1,300	69.7%	2,991	69.8%
2025	2026	9.15%	8.25%	25.04%	4.28%	579	67.5	77.4	4,441	3,112	1,329	70.1%	3,115	70.2%
2026	2027	9.15%	8.25%	24.81%	4.28%	602	70.1	79.1	4,596	3,238	1,357	70.5%	3,242	70.5%
2027	2028	9.15%	8.25%	24.58%	4.28%	625	72.9	80.8	4,754	3,367	1,387	70.8%	3,370	70.9%
2028	2029	9.15%	8.25%	24.36%	4.28%	650	75.8	82.5	4,914	3,497	1,417	71.2%	3,500	71.2%
2029	2030	9.15%	8.25%	24.15%	4.28%	676	78.8	84.4	5,077	3,628	1,448	71.5%	3,632	71.5%
2030	2031	9.15%	8.25%	23.94%	4.28%	702	81.9	86.2	5,241	3,761	1,480	71.8%	3,765	71.8%
2031	2032	9.15%	8.25%	23.73%	4.28%	730	85.1	88.1	5,405	3,894	1,512	72.0%	3,898	72.1%
2032	2033	9.15%	8.25%	23.52%	4.28%	759	88.5	90.1	5,571	4,027	1,545	72.3%	4,031	72.3%
2033	2034	9.15%	8.25%	23.31%	4.28%	790	92.1	92.1	5,740	4,162	1,578	72.5%	4,166	72.6%
2034	2035	9.15%	8.25%	23.10%	4.28%	822	95.9	94.1	5,914	4,302	1,612	72.7%	4,306	72.8%
2035	2036	9.15%	8.25%	22.89%	4.28%	855	99.8	96.1	6,094	4,446	1,647	73.0%	4,451	73.0%
2036	2037	9.15%	8.25%	22.69%	4.28%	890	103.8	98.2	6,279	4,596	1,683	73.2%	4,601	73.3%
2037	2038	9.15%	8.25%	22.49%	4.28%	926	107.9	100.3	6,470	4,751	1,720	73.4%	4,756	73.5%

0.00% Rate of growth for active membership

Projection assumes no actuarial gains and losses, other than from assets. Net returns on market value reflect 0.60% reduction for investment management fees and administrative expenses and a small reduction for SRBR payments. All liabilities are based on an 8.25% discount rate assumption. Changes to the gross market return in column 3 only affect the return on assets and do not affect the discounting of liabilities.

Appendix B

Roeder Financial

Updated July 16, 2009

Rank	PLAN SPONSOR	Funding Method	Assumed Investment Return (a)	Base Wage Inflation (b)	Assumed "Excess" Investment Return (a) - (b)	Amortization Period (years)	Valuation Asset Corridor
1	Oakland Police & Fire - Closed	N/A	8.00%	4.75%	*3.25%*	N/A - 1997 POB	Y: 90-110
2	CalPERS - Legislative	Aggregate	7%	3.25%	*3.75%*	N/A	Y: 80-120
3	City & County of San Francisco	EAN	7.75%	4.50%	*3.25%*	15 or 20 open	N
4	Contra Costa County (2007)	EAN	7.80%	4.25%	*3.55%*	14-declining; 18-G/L layered	N
5	CalPERS - Judges	Aggregate	7%/7.25%	3.25%	*3.75%/4%*	N/A	N
6	University of California	EAN	7.50%	3.50%	*4.00%*	15 - layered Level $$	N
7	LA Department of Water & Power	EAN	8.00%	4.25%	*3.75%*	15 - layered Level $$	N
8	Mendocino County	EAN	8.00%	4.00%	*4.00%*	9-declining;	Y: 80-120
9	Merced County	EAN	8.16%	4.50%	*3.66%*	16- declining	Y: 80-120
10	San Mateo County	EAN	7.75%	4.00%	*3.75%*	15 - layered	Y: 80-120
11	Sonoma County	EAN	8.00%	4.25%	*3.75%*	15-declining	N
12	Ventura County	EAN	8.00%	4.25%	*3.75%*	15 - layered	N
13	Marin County (2007)	EAN	8.00%	4.00%	*4.00%*	18-declining; 16 or 10 open	Y: 80-120
14	City of San Jose (Safety)	EAN	8.00%	4.00%	*4.00%*	16 - layered	Y: 80-120
15	City of San Diego	EAN	7.75%	4.00%	*3.75%*	19-declining;15-G/L layered	Y: 80-120
16	San Bernardino County	EAN	8.00%	4.25%	*3.75%*	20 - layered	N
17	Imperial County	EAN	7.90%	4%	*3.90%*	23 - declining	Y: 80-120
18	Alameda County	EAN	8%	4%	*4.00%*	25 - declining	Y: 80-120
19	Los Angeles Fire & Police	EAN	8%	4.25%	*3.75%*	Most 29 declining; G/L - most layered 15	Y: 80-120
20	City of Oakland - Closed	Aggregate	8.00%	3.25%	*4.75%*	N/A - Well Overfunded	N
21	Tulare County	EAN	7.90%	4.00%	*3.90%*	15 - open	N
22	City of Los Angeles	PUC	8%	4.25%	*3.75%*	27-declining G/L 15-layered	Y: 80-120
23	San Joaquin County	EAN	8.16%	3.75%	*4.41%*	10 - open	Y: 80-120
24	Fresno County	EAN	8%	4%	*4.00%*	25; new G/L 15 layered	Y: 80-120
25	Kern County	EAN	7.75%	4.00%	*3.75%*	27.5 - declining	Y: 50-150
26	CalSTRS	EAN	8%	4.25%	*3.75%*	Small fixed rate (< 1%)	N
27	Los Angeles County	EAN	7.75%	4.00%	*3.75%*	30 - rolling: NOTE 1	N
28	San Luis Obispo County	EAN	7.75%	3.75%	*4.00%*	26 - declining	N
29	Sacramento County	EAN	7.88%	3.75%	*4.13%*	25 - declining	Y: 80-120
30	San Diego County	EAN	8.25%	4.25%	*4.00%*	20 - layered	N
31	Santa Barbara County	EAN	8.16%	4.00%	*4.16%*	15 - layered	Y: 80-120
32	City of Fresno (Safety)	EAN	8.25%	4%	*4.25%*	15 rolling (100+% FR)	N
33	City of Fresno (General)	PUC	8.25%	4%	*4.25%*	15 rolling (100+% FR)	N
34	Pasadena Fire & Police - Closed	**NOTE 2**	8.00%	3.80%	*4.20%*	**NOTE 2**	N
35	Orange County	EAN	7.75%	3.50%	*4.25%*	26-declining; G/L 15 layered	N
36	Alameda-Contra Costa Transit	PUC	7.70%	3.20%	*4.50%*	19 - declining	Y: 80-120
37	CalPERS	EAN	7.75%	3.25%	*4.50%*	G/L - open 30	Y: 80-120
38	Stanislaus County	EAN	8.16%	4.00%	*4.16%*	30 - declining	Y: 80-120
39	East Bay Municipal Utility	EAN	8.25%	4.00%	*4.25%*	30 - layered	Y: 80-120
40	City of San Jose (General) (2007)	EAN	8.25%	4.00%	*4.25%*	30 - open	N

NOTES:

1: Administrator shortly anticipates reduction in amortization period
2: Legal agreement determines contribution level.
3: For contract agencies, corridor temporarily widened with possible

G/L = actuarial gains/actuarial losses
FR = Funded ratio
POB = Pension Obligation Bond

COLOR CODE:
Most Optimistic
Most Conservative

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