

PENSION MANAGEMENT STRATEGIES

CITY OF NEWPORT BEACH

Dan Matusiewicz, Finance Director



Discussion Roadmap

- Context of the Pension Problem
- Review Common Pension Management Strategies
- Venture in the granular but important analysis of the:
 “Schedule of Amortization Bases”
 (Page 14 of Actuarial Valuation for Non-pooled plans)
- Discuss best practices and resources at your disposal

Primary Objectives

1. Encourage you call your actuary regularly
2. Encourage you to analyze your schedule of amortization bases annually
3. Orient you to three types of amortization
4. Business Case for accelerating your payment schedule

Historical Context



What's the Problem?

Projected
2016

Accrued Pension Liability	880
Market Value of Assets	581
Unfunded Liability	299
Funded Status	66%

Current Projection

x 7.5% = \$22.4 million just to keep up with the interest

Hypothetical - Fully funded

Accrued Pension Liability	880
Market Value of Assets	880
Unfunded Liability	-
Funded Status	100%

÷ \$71.9 million = 12 times greater than expected payroll

Expected Asset Volatility +/- ~12% = \$105 million

Assets are currently underfunded and volatile.

Liabilities are large relative to agency payrolls and budget.

Common Pension Mgmt. Strategies

LONG TERM SAVINGS

- PEPRA
- Lower Tier Benefits
- Creative non-pensionable benefits
 - Cafeteria and other health allowance plans
 - Generous leave accrual
 - One-time bonuses

IMMEDIATE SAVINGS

- Negotiated employee contributions add up quickly
- Lower payrolls provide immediate cash savings

NOTE:

- Early retirement plans may exacerbate liability problem
- Disability retirements also drive-up liabilities

Knowing what is coming down the road can help your long-term planning

- **Imminent Experience Losses**
 - 6/30/2015 Investment Return of 2.4% results in 5.1% Experience loss
 - 6/30/2016 Investment Returns not on track to meet 7.5% earnings assumption
- **Decoupling of UAL from PERS Rates**
(Effective 6/30/15 Valuation – 2017-18 Rates)



Know your Actuary

and call them regularly

- They can guide you through your options and help you stay informed
- They can provide scenario analysis
- They are a wealth of information
- Attend the Annual CalPERS Education Forum – Access to ALL levels of PERS Staff, Executives and Board Members



CalPERS Actuary by county

Actuary: Phone Number:	Nancy Campbell (916) 795-0575	Bill Karch (916) 795-2856	Fritzie Archuleta (916) 795-1262	Kerry Worgan (916) 795-0003	Randall Dziubek (916) 795-1354	Cheuk Kiu (Jet) Au (916) 795-2187
County Name:	SAN DIEGO	VENTURA	ALAMEDA	ORANGE	LOS ANGELES	EL DORADO
			CONTRA COSTA	SAN BERNARDINO	MONO	SIERRA
						SOLANO

Actuary: Phone Number:	David Clement (916) 795-2472	May Shuang Yu (916) 795-4143	Barbara Ware (916) 795-3426	Stuart Bennett (916) 795-2692	Kelly Sturm (916) 795-0400	Shelly Chu (916) 795-0647
County Name:	SANTA CLARA	LASSEN	LOS ANGELES	BUTTE	AMADOR	COLUSA
	SANTA CRUZ	MODOC	MARIN	KERN	PLACER	FRESNO
	STANISLAUS	SACRAMENTO	MONTEREY	KINGS	SAN BENITO	MERCED
		SISKIYOU	SAN LUIS OBISPO	SAN BERNARDINO	SAN JOAQUIN	PLUMAS
				SANTA BARBARA	YOLO	TUOLUMNE

Actuary: Phone Number:	Todd Tauzer (916) 795-9623	Julian Robinson (916) 795-4164	Jordan Fassler (916) 795-1018	Jean Fannjiang (916) 795-2475
County Name:	HUMBOLDT	IMPERIAL	ALPINE	GLENN
	RIVERSIDE	LOS ANGELES	CALAVERAS	INYO
	SUTTER	NAPA	DEL NORTE	LOS ANGELES
	TRINITY	SAN FRANCISCO	LAKE	NEVADA
	YUBA	SAN MATEO	MADERA	SHASTA
		TULARE	MARIPOSA	SONOMA
				MENDOCINO
				TEHAMA

Asset Replenishment Strategies

- Read your Actuarial Valuation – **Not just the New Rates**
- Analyze Schedule of Amortization Bases (Page 14) and ask your actuary about the new additions.
- Identify if some or all of the bases can be amortized more effectively within your means



Actuarial Office
P.O. Box 942701
Sacramento, CA 94229-2701
TTY: (916) 795-3240
(888) 225-7377 phone - (916) 795-2744 fax
www.calpers.ca.gov

October 2015

**MISCELLANEOUS PLAN OF THE CITY OF NEWPORT BEACH (CalPERS ID: 1545983430)
Annual Valuation Report as of June 30, 2014**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2014 actuarial valuation report of your pension plan. Your 2014 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary, whose signature appears in the Actuarial Certification Section on page 1, is available to discuss the report with you after November 30, 2015.

Future Contribution Rates

The exhibit below displays the Minimum Employer Contribution Rate for Fiscal Year 2016-17 and a projected contribution rate for 2017-18, before any cost sharing. The projected rate for 2017-18 is based on the most recent information available, including an estimate of the investment return for Fiscal Year 2014-15, namely 2.4 percent. For a projection of employer rates beyond 2017-18, please refer to the "Projected Rates" in the "Risk Analysis" section, which includes rate projections through 2021-22. The 5-year projection of future employer contribution rates supersedes any previous projections we have provided. The Risk Analysis section of your valuation report also contains estimated employer contribution rates in future years under a variety of investment return scenarios.

Fiscal Year	Employer Contribution Rate
2016-17	27.626%
2017-18	28.0% (projected)

Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the above rates. **The employer contribution rates in this report do not reflect any cost sharing arrangement you may have with your employees.**

The estimate for 2017-18 also assumes that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.). This is a very important assumption because these gains and losses do occur and can have a significant impact on your contribution rate. Even for the largest plans, such gains and losses often cause a change in the employer's contribution rate of one or two percent of payroll and may be even larger in some less common instances. These gains and losses cannot be predicted in advance so the projected employer contribution rates are just estimates. Your actual rate for 2017-18 will be provided in next year's report.

How to build the business case to accelerate your repayment schedule?

- Replicate amortization schedules for each base on your schedule of amortization bases
- Compare cash flow options
- Prepare a present value (PV) analysis of your optional cash flow schedules
- The PV analysis will help identify most efficient payment schedules
- Determine what your agency can afford
- Determine which payment option best fits your agency

Replenishment Options

- Lump sum discretionary payments
- Fresh Start (re-amortize UAL bases)
- Partial Fresh Start (re-amortize any two UAL bases)
- Section 115 Trust Funding

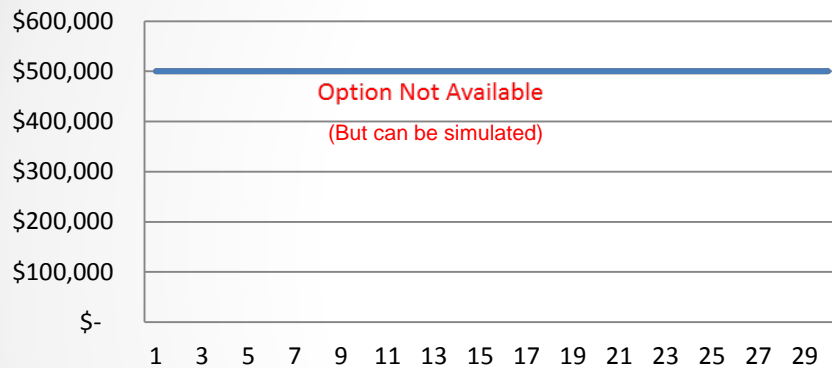


Understand the Amortization Schedule Options

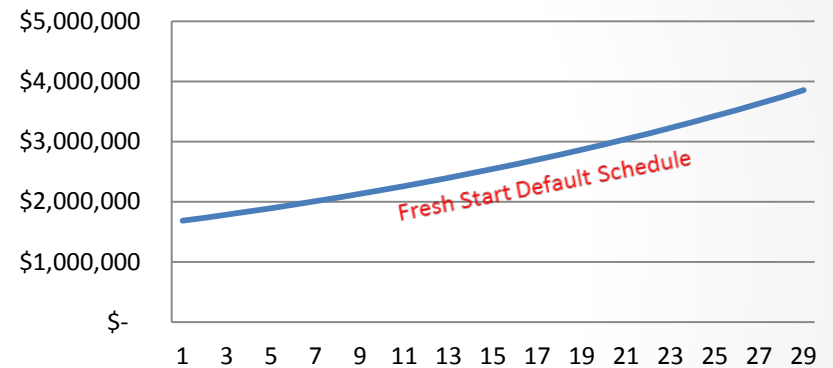
- Level Percent of Pay with 5Yr Phase-in Schedule – Default effective 6/30/13
- Level Percent of Pay – Default (only when a fresh start is initiated)
- Level Dollar Payment – Not a current option (However, this can be simulated with discretionary payments)

Amortization Schedules

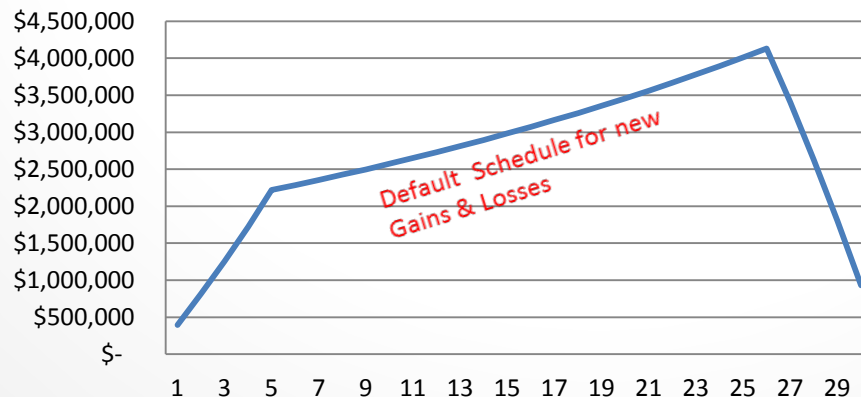
Level Payment Amortization



Level % of Pay Amortization



Level % of Pay - 5Yr Phase-in



Analyze Amortization Bases

CALPERS ACTUARIAL VALUATION - June 30, 2014

Schedule of Amortization Bases

Reason for Base	Date Established	Amortization Period	Balance 6/30/14	Expected Payment 2014-15	Balance 6/30/15	Expected Payment 2015-16	Amounts for Fiscal 2016-17		
							Balance 6/30/16	Scheduled Payment for 2016-17	Payment as Percentage of Payroll
FS 30-YEAR AMORTIZATION	06/30/08	24	\$(4,760,389)	\$(307,896)	\$(4,798,185)	\$(317,133)	\$(4,829,238)	\$(326,647)	(0.737%)
ASSUMPTION CHANGE	06/30/09	15	\$10,557,847	\$886,978	\$10,430,047	\$913,587	\$10,265,074	\$940,995	2.122%
SPECIAL (GAIN)/LOSS	06/30/09	25	\$11,727,208	\$743,250	\$11,836,131	\$765,547	\$11,930,105	\$788,514	1.778%
SPECIAL (GAIN)/LOSS	06/30/10	26	\$(1,985,365)	\$(123,450)	\$(2,006,272)	\$(127,154)	\$(2,024,906)	\$(130,969)	(0.295%)
ASSUMPTION CHANGE	06/30/11	17	\$11,462,630	\$894,394	\$11,395,000	\$921,226	\$11,294,477	\$948,863	2.140%
SPECIAL (GAIN)/LOSS	06/30/11	27	\$(5,269,530)	\$(321,832)	\$(5,331,062)	\$(331,487)	\$(5,387,199)	\$(341,431)	(0.770%)
PAYMENT (GAIN)/LOSS	06/30/12	28	\$1,857,636	\$111,552	\$1,881,299	\$114,899	\$1,903,267	\$118,346	0.267%
(GAIN)/LOSS	06/30/12	28	\$70,991,591	\$4,263,082	\$71,895,902	\$4,390,975	\$72,735,435	\$4,522,704	10.199%
(GAIN)/LOSS	06/30/13	29	\$61,329,437	\$(281,811)	\$66,221,333	\$931,405	\$70,222,231	\$1,918,695	4.327%
ASSUMPTION CHANGE	06/30/14	20	\$33,710,124	\$(689,286)	\$36,953,050	\$(709,964)	\$40,460,635	\$770,682	1.738%
(GAIN)/LOSS	06/30/14	30	\$(58,432,251)	\$(322,812)	\$(62,479,971)	\$(406,772)	\$(66,744,219)	\$(938,760)	(2.117%)
TOTAL			\$131,188,938	\$4,852,169	\$135,997,272	\$6,145,129	\$139,825,662	\$8,270,992	18.651%

CHANGE IN MORTALITY ASSUMPTION

18.4% INVESTMENT GAIN

Default - 30 Yr, 5 Yr Ramps						Optional - 30 Yr, Level % of Pay			Default - 20 Yr, with 5 Yr Ramps			Optional - 20 Yr, Level % of pay		
	Balance	Period	Payment	Balance	Period	Payment	Balance	Period	Payment	Balance	Period	Payment		
1	\$ 66,221,333	30	\$ 931,405	\$ 66,221,333	30	\$ 3,976,626	\$ 66,221,333	20	\$ 1,261,363	\$ 66,221,333	20	\$ 5,000,070		
2	\$ 70,222,231	29	\$ 1,918,695	\$ 67,064,879	29	\$ 4,095,925	\$ 69,880,124	19	\$ 2,598,408	\$ 66,003,750	19	\$ 5,150,072		
3	\$ 73,499,553	28	\$ 2,964,384	\$ 67,848,000	28	\$ 4,218,803	\$ 72,427,046	18	\$ 4,014,541	\$ 65,614,300	18	\$ 5,304,574		
4	\$ 75,938,481	27	\$ 4,071,087	\$ 68,562,453	27	\$ 4,345,367	\$ 73,696,710	17	\$ 5,513,303	\$ 65,035,497	17	\$ 5,463,712		
5	\$ 77,412,874	26	\$ 5,241,525	\$ 69,199,265	26	\$ 4,475,728	\$ 73,507,649	16	\$ 7,098,377	\$ 64,248,263	16	\$ 5,627,623		
6	\$ 77,784,311	25	\$ 5,398,770	\$ 69,748,676	25	\$ 4,609,999	\$ 71,660,969	15	\$ 7,311,328	\$ 63,232,039	15	\$ 5,796,452		
7	\$ 78,020,570	24	\$ 5,560,734	\$ 70,200,078	24	\$ 4,748,299	\$ 69,454,995	14	\$ 7,530,668	\$ 61,964,553	14	\$ 5,970,345		
8	\$ 78,106,622	23	\$ 5,727,556	\$ 70,541,942	23	\$ 4,890,748	\$ 66,856,156	13	\$ 7,756,588	\$ 60,421,709	13	\$ 6,149,456		
9	\$ 78,026,163	22	\$ 5,899,382	\$ 70,761,752	22	\$ 5,037,471	\$ 63,828,166	12	\$ 7,989,286	\$ 58,577,446	12	\$ 6,333,939		
10	\$ 77,761,515	21	\$ 6,076,364	\$ 70,845,922	21	\$ 5,188,595	\$ 60,331,811	11	\$ 8,228,965	\$ 56,403,586	11	\$ 6,523,957		
11	\$ 77,293,521	20	\$ 6,258,655	\$ 70,779,717	20	\$ 5,344,253	\$ 56,324,724	10	\$ 8,475,834	\$ 53,869,672	10	\$ 6,719,676		
12	\$ 76,601,424	19	\$ 6,446,414	\$ 70,547,156	19	\$ 5,504,580	\$ 51,761,147	9	\$ 8,730,109	\$ 50,942,789	9	\$ 6,921,266		
13	\$ 75,662,746	18	\$ 6,639,807	\$ 70,130,923	18	\$ 5,669,718	\$ 46,591,664	8	\$ 8,992,012	\$ 47,587,377	8	\$ 7,128,904		
14	\$ 74,453,154	17	\$ 6,839,001	\$ 69,512,253	17	\$ 5,839,809	\$ 40,762,923	7	\$ 9,261,772	\$ 43,765,024	7	\$ 7,342,771		
15	\$ 72,946,313	16	\$ 7,044,171	\$ 68,670,829	16	\$ 6,015,004	\$ 34,217,332	6	\$ 9,539,625	\$ 39,434,254	6	\$ 7,563,055		
16	\$ 71,113,735	15	\$ 7,255,496	\$ 67,584,653	15	\$ 6,195,454	\$ 26,892,738	5	\$ 9,825,814	\$ 34,550,281	5	\$ 7,789,946		
17	\$ 68,924,607	14	\$ 7,473,161	\$ 66,229,919	14	\$ 6,381,317	\$ 18,722,072	4	\$ 8,096,471	\$ 29,064,764	4	\$ 8,023,645		
18	\$ 66,345,614	13	\$ 7,697,356	\$ 64,580,872	13	\$ 6,572,757	\$ 11,731,628	3	\$ 6,254,524	\$ 22,925,529	3	\$ 8,264,354		
19	\$ 63,340,747	12	\$ 7,928,276	\$ 62,609,658	12	\$ 6,769,940	\$ 6,126,672	2	\$ 4,294,773	\$ 16,076,279	2	\$ 8,512,285		
20	\$ 59,871,090	11	\$ 8,166,125	\$ 60,286,160	11	\$ 6,973,038	\$ 2,133,257	1	\$ 2,211,808	\$ 8,456,276	1	\$ 8,767,653		
21	\$ 55,894,604	10	\$ 8,411,108	\$ 57,577,822	10	\$ 7,182,229	\$ (0)	-	\$ -	\$ -	-	\$ -		
22	\$ 51,365,877	9	\$ 8,663,442	\$ 54,449,465	9	\$ 7,397,696								
23	\$ 46,235,870	8	\$ 8,923,345	\$ 50,863,081	8	\$ 7,619,627								
24	\$ 40,451,639	7	\$ 9,191,045	\$ 46,777,615	7	\$ 7,848,215								
25	\$ 33,956,034	6	\$ 9,466,777	\$ 42,148,733	6	\$ 8,083,662								
26	\$ 26,687,373	5	\$ 9,750,780	\$ 36,928,569	5	\$ 8,326,172								
27	\$ 18,579,103	4	\$ 8,034,643	\$ 31,065,454	4	\$ 8,575,957								
28	\$ 11,642,040	3	\$ 6,206,761	\$ 24,503,621	3	\$ 8,833,236								
29	\$ 6,079,886	2	\$ 4,261,976	\$ 17,182,899	2	\$ 9,098,233								
30	\$ 2,116,967	1	\$ 2,194,918	\$ 9,038,368	1	\$ 9,371,180								
	\$ -			\$ -										
			\$190,643,158	Sum of Payments		\$189,189,635			\$134,985,569	Sum of Payments		\$134,353,756		
			\$117,556,017	NPV @ 3%		\$115,824,058			\$97,969,960	NPV @ 3%		\$97,088,739		

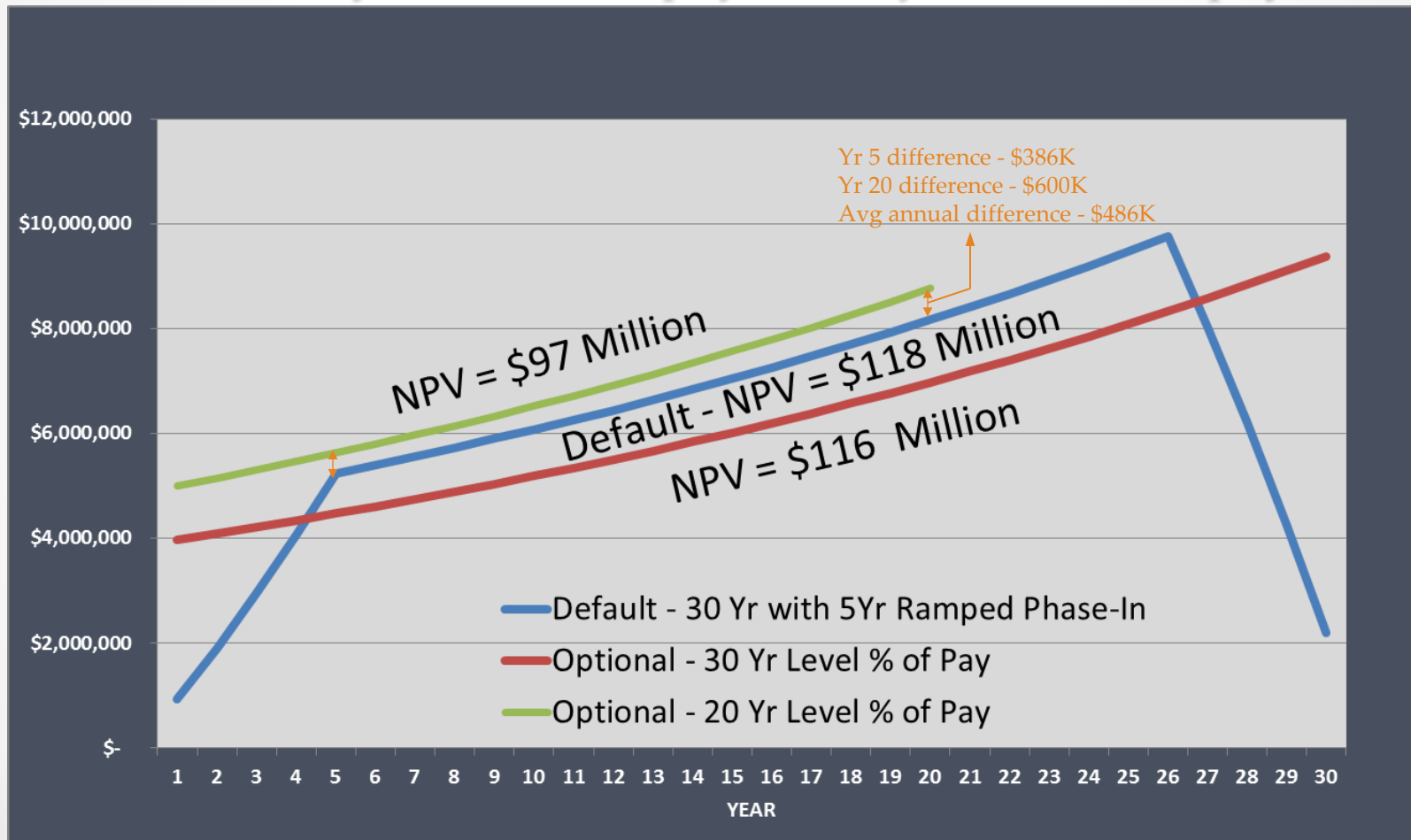
20 Yr. vs 30 Yr.
Saves \$20M

16

20 Yr. vs 30 Yr.
Saves \$20M

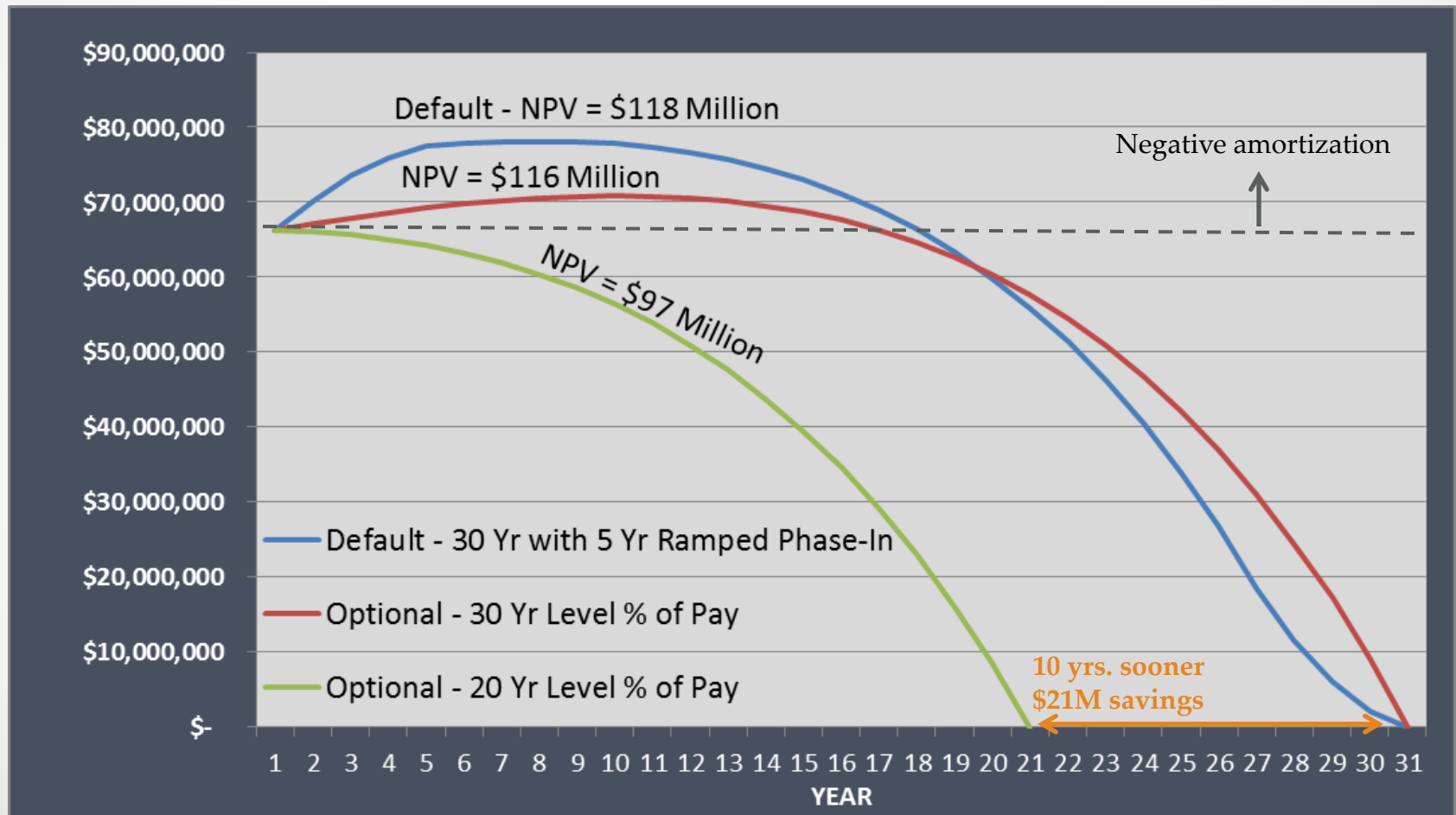
Annual Payment comparison

Default Vs 30 yr. level % of pay Vs 20 yr. level % of pay



Annual balance Comparison

Default vs. 30 yr. level % of pay vs. 20 yr. level % of pay



Managing your amortization bases

Schedule of Amortization Bases

Reason for Base	Date Established	Amort. Period	Balance 06/30/14	Amounts for Fiscal 2016-17		Amort Schedule	Recommendations
				Payment for 2016-17	Payment as % of Payroll		
FS 30-YEAR AMORTIZATION	06/30/08	24	(\$4,760,389)	(\$326,647)	-0.737%	Level % of Pay	OK
ASSUMPTION CHANGE	06/30/09	15	\$10,557,847	\$940,995	2.122%	Level % of Pay	OK
SPECIAL (GAIN)/LOSS	06/30/09	25	\$11,727,208	\$788,514	1.778%	Level % of Pay	A30 Take Action
SPECIAL (GAIN)/LOSS	06/30/10	26	(\$1,985,365)	(\$130,969)	-0.295%	Level % of Pay	OK - Credit
ASSUMPTION CHANGE	06/30/11	17	\$11,462,630	\$948,863	2.140%	Level % of Pay	OK
SPECIAL (GAIN)/LOSS	06/30/11	27	(\$5,269,530)	(\$341,431)	-0.770%	Level % of Pay	OK - Credit
PAYMENT (GAIN)/LOSS	06/30/12	28	\$1,857,636	\$118,346	0.267%	Level % of Pay	A30 Take Action
(GAIN)/LOSS	06/30/12	28	\$70,991,591	\$4,522,704	10.199%	Level % of Pay	A30 Take Action
(GAIN)/LOSS	06/30/13	29	\$61,329,437	\$1,918,695	4.327%	5 Yr Ramp	AR, A30 Take Action
ASSUMPTION CHANGE	06/30/14	20	\$33,710,124	\$770,682	1.738%	5 Yr Ramp	AR Take Action
(GAIN)/LOSS	06/30/14	30	(\$58,432,251)	(\$938,760)	-2.117%	5 Yr Ramp	OK - Credit
TOTAL			\$131,188,938	\$8,270,992	18.651%		

Recommendation Notes:

- (1) **AR** - Avoid the 5 Yr Ramp Amortization Schedules to avoid negative amortization.
- (2) **A30** - Avoid the 30 Yr Amortization Schedules. Target < 20 Years to avoid negative amortization.
- (3) GFOA Recommendation: "Never exceed 25 years, but ideally fall between 15-20 year range"
<http://www.gfoa.org/sites/default/files/GFOABPCoreElementsofPensionFundingPolicy.pdf>
- (4) Partial Fresh Start can be achieved by combining any two amortization bases.
- (5) Consider leaving credit balances in place as a rainy day fund; you can combine credits with other bases when/if you need rate-relief down the road.

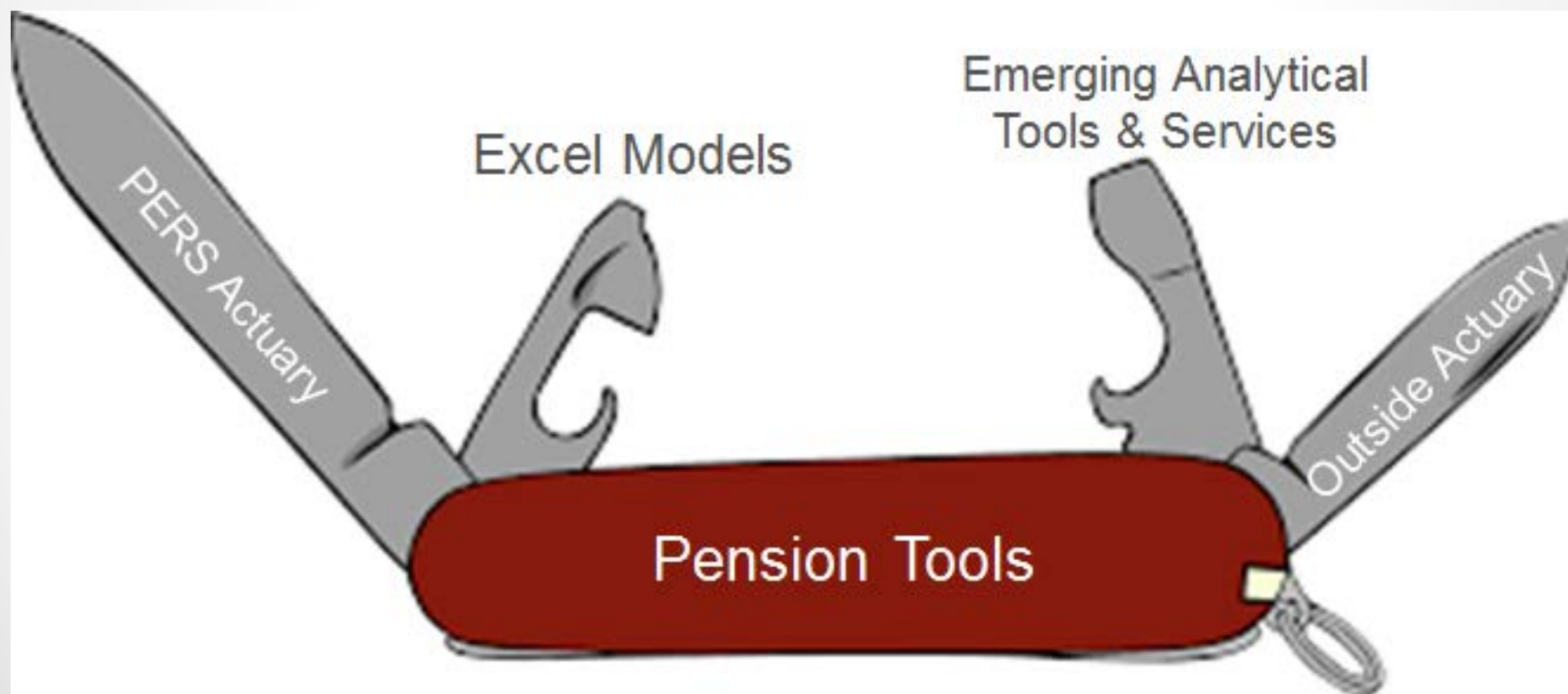
Analysis Checklist

- ☐ Download Excel amortization schedules www.newportbeachca.gov/csmfo
- ☐ Focus on bases that exceed 20 Yrs.
- ☐ Also evaluate bases starting with 5-Yr Phase-in ramps, 6/30/13 or later
- ☐ Create a comparative amortization schedule for each base in question
- ☐ Consider combining bases to create fewer and shorter amortization bases.
- ☐ Evaluate what your agency can afford to pay making use of the “discretionary payment”, “fresh start” or “partial fresh start” options.
- ☐ Quantify savings by for boards preparing a PV analysis comparing current and proposed cash flows.
- ☐ Review plan with your actuary & board.

Memorialize Policies

- Consider Adopting Pension & OPEB Funding Policy
 - Target funding at 100% of Actuarial Accrued Liability
 - Contribute no less than 100% of Actuarial Determined Contribution Annually
 - Analyze schedule of amortization bases each and every year
 - Amortize ALL gains/losses no longer than a 20 year, closed period
 - Asset Smoothing or Rate Phase-in no longer than 5 Yrs.
 - Transparency of in funding progress
- Revise Reserve and Surplus Policies to address UAL
 - Establish a rate smoothing reserve to avoid phase-in periods and provide economic relief during recessionary cycles
 - Dedicate a portion of surplus funds to accelerate payment on unfunded liabilities

Consider tools at your disposal



Resources

CalPERS Actuary

Independent Actuary

Emerging Analytical Tools and Services

Government Finance Officers Association (GFOA)

<http://www.gfoa.org/core-elements-funding-policy>

<http://www.gfoa.org/sustainable-funding-practices-defined-benefit-pension-plans>

California Actuarial Advisory Panel (CAAP)

http://www.sco.ca.gov/Files-ARD/BudLeg/CAAP_Funding_Policies_w_letter.pdf

Comparative Amortization Schedules

<http://newportbeachca.gov/csmfo>

Questions

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