

BARTEL
ASSOCIATES, LLC

CalPERS Issues

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President

March 2, 2017

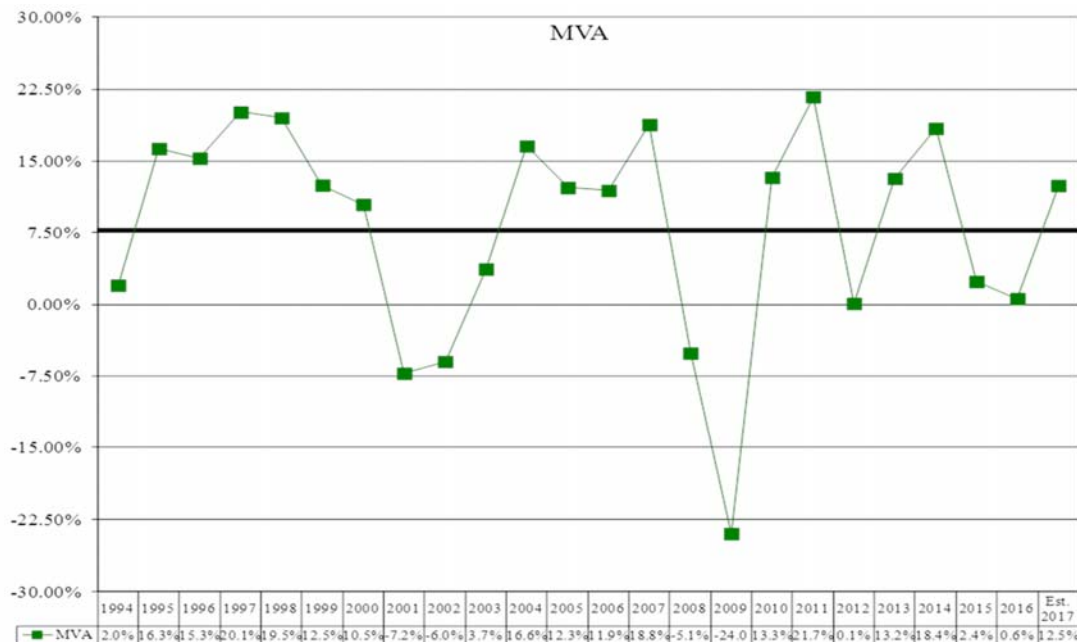
Agenda

- How did we get here? 1
- Recent CalPERS changes 6
- Paying Down Unfunded Liability and Rate Stabilization 19

How Did We Get Here?

- Investment Losses
- Enhanced Benefits
- CalPERS Contribution Policy
- Demographics

Historical Investment Returns



Enhanced Benefits

- At CalPERS, enhanced benefits implemented using all (future & prior) service
- Typically not negotiated with cost sharing

CalPERS Old Policy

- Effective with 2003 valuations:
 - Slow (15 year) recognition of investment losses into funded status
 - Rolling 30 year amortization of all (primarily investment) losses
- Designed to:
 - First smooth rates
 - Second pay off UAL and
- Mitigated contribution volatility

Demographics

- Around the State
 - Large retiree liability compared to actives
 - Declining active population
- Common to have 60%-75% of liability for retirees

Recent CalPERS Changes

- Contribution Policy
- Assumptions
- Risk Mitigation Strategy
- Discount Rate
- Other

Contribution Policy Changes

- No asset smoothing
- 5-year ramp up
- All amortization bases have fixed amortization periods
 - No rolling amortization

Contribution Policy Changes

- June 30, 2013 Valuation (15/16 rates)
- Designed to:
 - First pay off UAL and
 - Second smooth rates
- Uses MVA so only one funded status/ratio
- If assumptions are met then:
 - Contributions go up in the short run but then come down
 - UAL will be paid off

Assumption Changes

- June 30, 2014 Valuation, 2016/17 rates
- No changes to economic assumptions
- Anticipate future mortality improvement
- Other, modest, changes to assumptions

Risk Mitigation Strategy

- Move to more conservative investments over time
 - Only when investment return is better than expected
- Lower discount rate in concert with investment allocation changes
- Essentially use $\approx 50\%$ of investment gains to pay for cost increases
- Likely reduces discount rate 100 basis points over ≈ 20 years

Timing

	Valuation	First Impact	Full Impact
■ Contribution Policy	6/30/13	2015/16	2019/20
■ Assumptions	6/30/14	2016/17	2020/21
■ Risk Mitigation	Because based on investment gains timing is uncertain		

Ultimate Cost Increase

	<u>Misc.</u>	<u>Safety</u>
Next 15 Years		
■ Contribution Policy	≈ 7%	≈ 9%
■ Assumptions	≈ <u>4%</u>	≈ <u>7%</u>
■ Total	≈ 11%	≈ 16%
Next 25+ Years		
■ Risk Mitigation	≈ 8%	≈ 12%

Discount Rate

■ Combination of

● Expected Inflation	2.75%
● Real Rate of Return (above inflation)	4.75
● Margin for Adverse Deviation	<u>0.00</u>
● Total	7.50%

■ Based on:

- 2010 Capital Market Assumption study (updated in 2014)
- 2010 Asset Allocation

Discount Rate

■ CalPERS Board was told at the end of last year:

- 2017 Capital Market Assumption Study real rate of return will likely be 50 basis points lower
- Delivered by:
 - Outside investment advisors
 - CFO
 - CIO
 - Actuarial staff

■ Based on above, Board reached a compromise deal lowering the discount rate

Discount Rate

- Decrease discount rate from 7½% to 7% over next 3 valuations, for public agencies:

	<u>Rate</u>	<u>Initial</u>	<u>Full</u>
● 6/30/16 val.	7.375%	18/19	22/23
● 6/30/17 val.	7.25%	19/20	23/24
● 6/30/18 val.	7.00%	20/21	24/25
● Risk mitigation suspended until after 6/30/18			

Discount Rate

	<u>Misc.</u>	<u>Safety</u>
■ Normal Cost	2.0%	3.5%
■ UAL	<u>5.5</u>	<u>9.5</u>
■ Total	7.5%	13.0%
■ Standard Deviation	1%	2%

Ultimate Cost Increase

	<u>Misc.</u>	<u>Safety</u>
Next 10-15 Years		
■ Contribution Policy	≈ 7%	≈ 9%
■ Assumptions	≈ <u>4%</u>	≈ <u>7%</u>
■ Subtotal	≈11%	≈16%
■ Discount Rate	≈ <u>8%</u>	≈ <u>13%</u>
■ Total	≈19%	≈29%

Other Changes

- Collect payment on UAL as dollar amount for stand alone plans
 - Beginning with 2017/18 fiscal year
- Capital Market Assumptions Study
 - Beginning summer 2017, finish early 2018
 - Likely confirm 7.0% discount rate for current asset allocation

Paying Down Unfunded Liability & Rate Stabilization



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Options

- Pension Obligation Bonds (POBs)
- Borrow from General Fund
- Amortization Period
- One time payments
- Internal Service Fund
- Irrevocable Supplemental (§115) Trust



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POBs

- Usually thought of as interest arbitrage between **expected** earnings and rate paid on POB
- No guaranteed savings
 - Including paying off CalPERS Side Fund
- PEPRRA prevents contributions from dropping below normal cost
 - Savings offset when investment return is good

Borrow from General Fund

- Pay GF back like a loan
- Payments should come from all funds

Request Shorter Amortization

- Higher short term payments
- Less interest and lower long term payments
- PEPRRA prevents contributions from dropping below normal cost
 - Savings offset when investment return is good

One Time Payments

- Council/Board resolution to use a portion of one time money to reduce unfunded liability, e. g.
 - 1/3 to one time projects
 - 1/3 to replenish reserves and
 - 1/3 to pay down unfunded liability

Internal Service Fund

- Could be used for rate stabilization
- Restricted investments:
 - Likely low (0.5%-1.0%) investment returns
 - Short term/high quality
 - Designed for preservation of principal
- Assets could be used by Board/Council for other purposes
- Does not reduce GASB 68 Net Pension Liability

Irrevocable Suppl. Trust

- IRC §115
- Normally used for rate stabilization
- May not reduce GASB 68 Net Pension Liability
- Investments significantly less restricted:
 - Designed for long term returns
 - Likely much higher (4%-6%) investment returns than agency investment funds

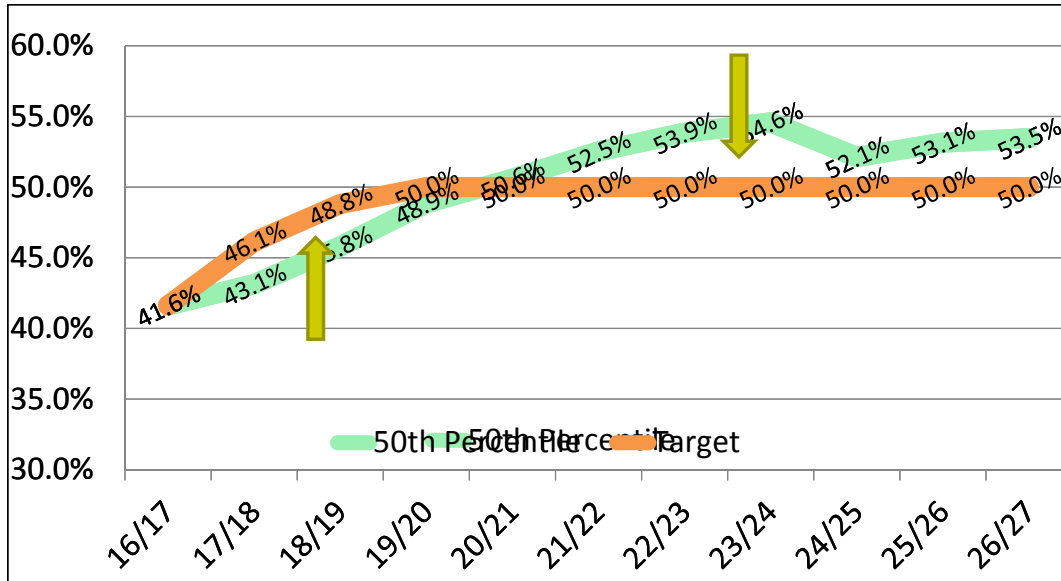
Irrevocable Suppl. Trust

- Can only be used to :
 - Reimburse for pension contributions
 - Make payments directly to pension system
- Assets could **not** be used for other purposes
- PARS, PFM & Keenan
- > 50 agencies

Irrevocable Suppl. Trust

- Can mitigate:
 - Investment volatility
 - Impact of plan becoming over funded
- Requires modest seed contribution to trust ($\approx 10\%$ of annual dollar contribution)

Irrevocable Supplemental Trust Contribution Rate Projections

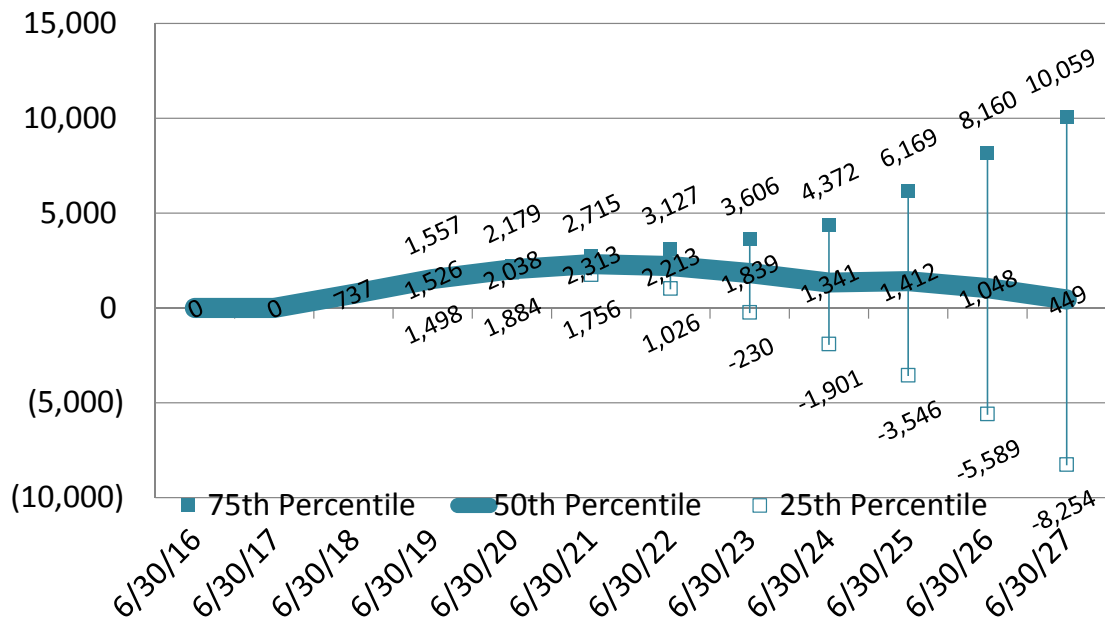


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Supplemental Trust Balance Projections



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