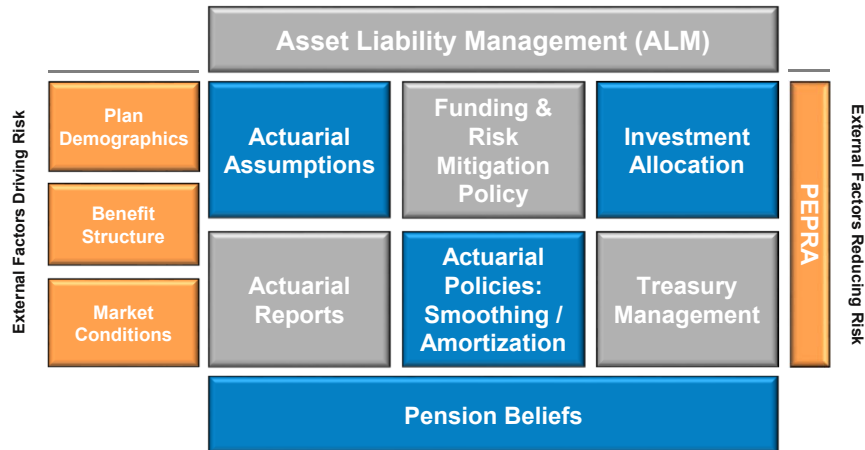
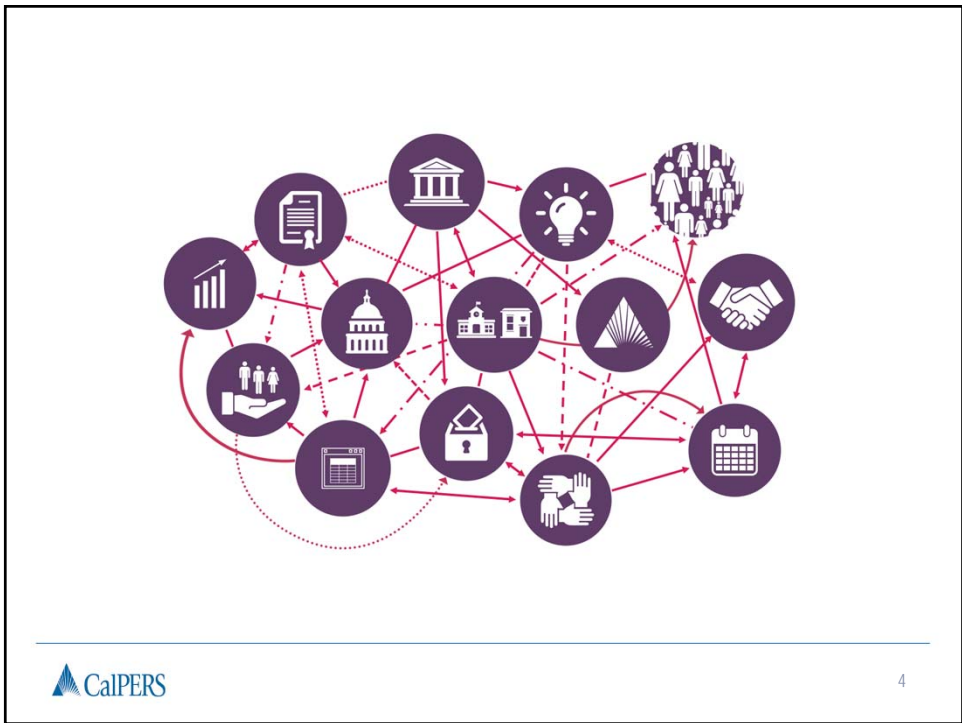


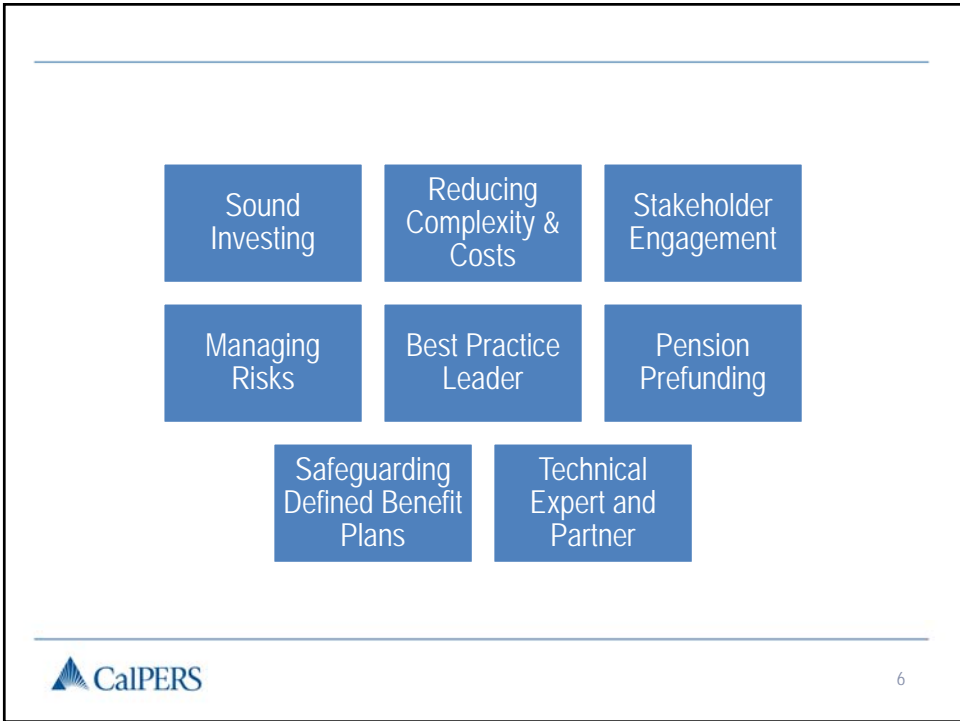
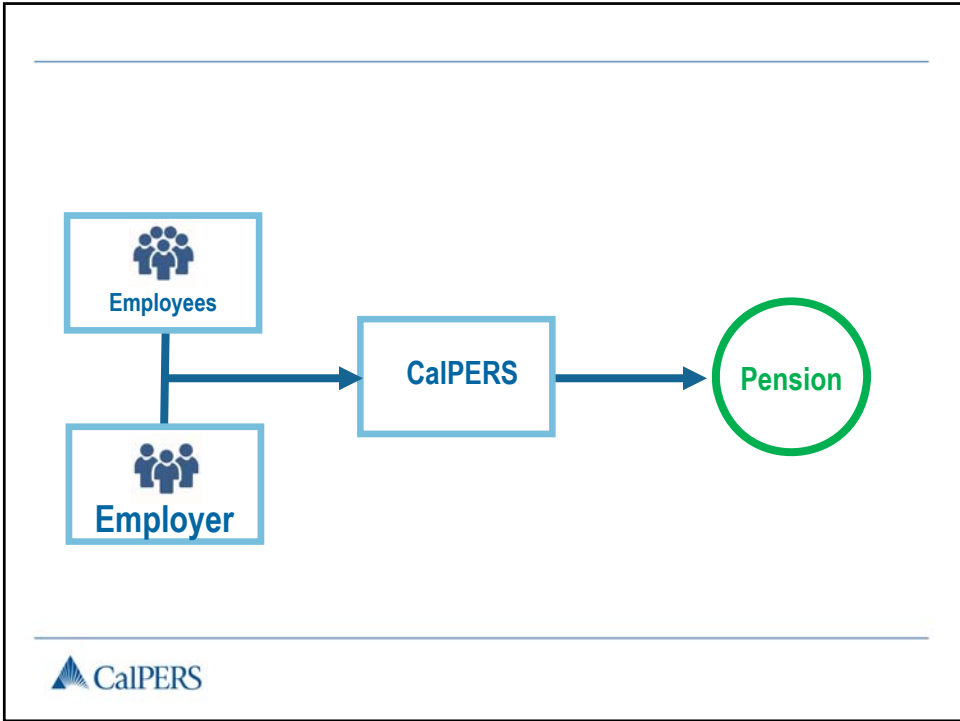
Asset Liability Management (ALM) Framework



Candidate Portfolio C Adopted by the Board

Asset Allocation of Preliminary Candidate Portfolios					Allocation 9/30/2017	Interim Policy 9/30/2016	ALM Policy 2013
Asset Class Component	Candidate A	Candidate B	Candidate C	Candidate D			
Global Equity	34%	42%	50%	59%	50%	46%	47%
Private Equity	8%	8%	8%	8%	8%	8%	12%
Fixed Income	44%	36%	28%	19%	19%	20%	19%
Real Assets	13%	13%	13%	13%	-	-	-
Real Estate	-	-	-	-	9%	11%	11%
Infrastructure/Forestland	-	-	-	-	2%	2%	3%
Inflation Assets	0%	0%	0%	0%	8%	9%	6%
Liquidity	1%	1%	1%	1%	4%	4%	2%
Expected Compound Return (1-10 yrs.)	5.6%	5.8%	6.1%	6.4%	6.0%	5.9%	6.2%
Long Term Expected Return (11-60 yrs.)	7.8%	8.0%	8.3%	8.5%	8.1%	8.0%	8.3%
Blended Return (1-60 yrs.)	6.50%	6.75%	7.00%	7.25%	6.85%	6.77%	7.09%
Expected Volatility	9.1%	10.2%	11.4%	12.8%	11.5%	11.0%	12.0%
Cash Yield:	3.1%	3.0%	2.9%	2.7%	-	-	-







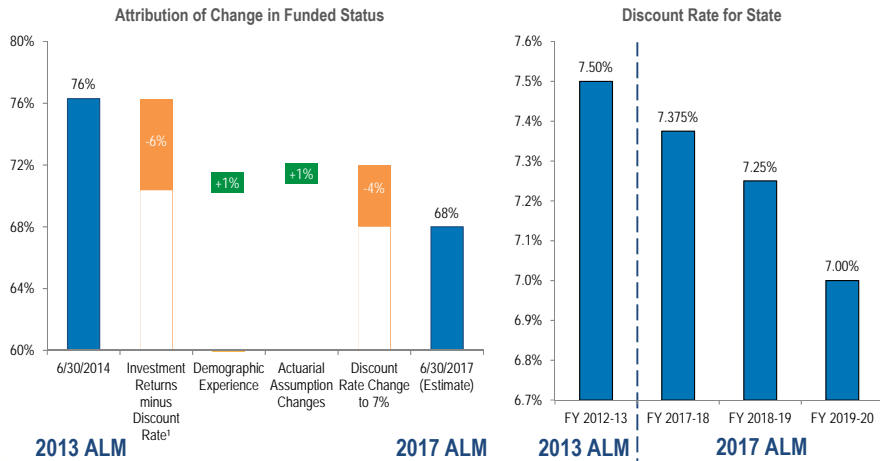
Financial Highlights

Current Value \$350 billion*

11.20% 2016/17 Portfolio Return	8.83% 5-yr Annualized Return	4.39% 10-yr Annualized Return	6.60% 20-yr Annualized Return	8.40% Annualized Return Since 1988
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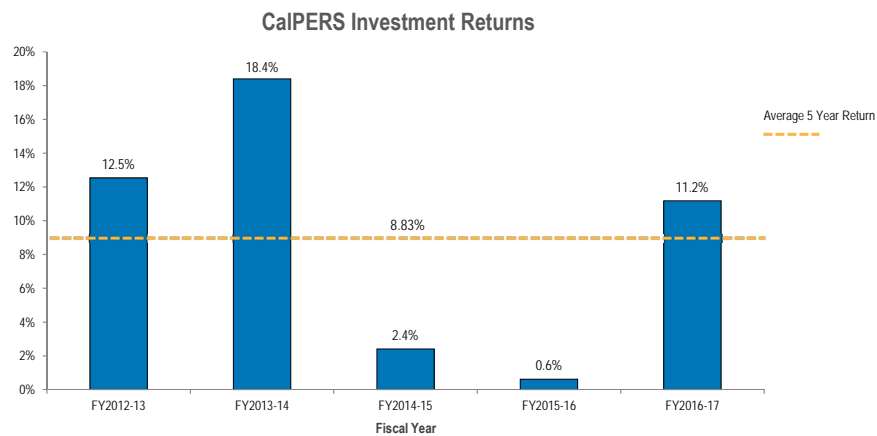
* As of 12/31/2017

2013 Vs. Today – Drivers of Lower Funded Ratio



¹4.64% Compound Return for the Total Fund over the last 3 fiscal years:

Financial Highlights



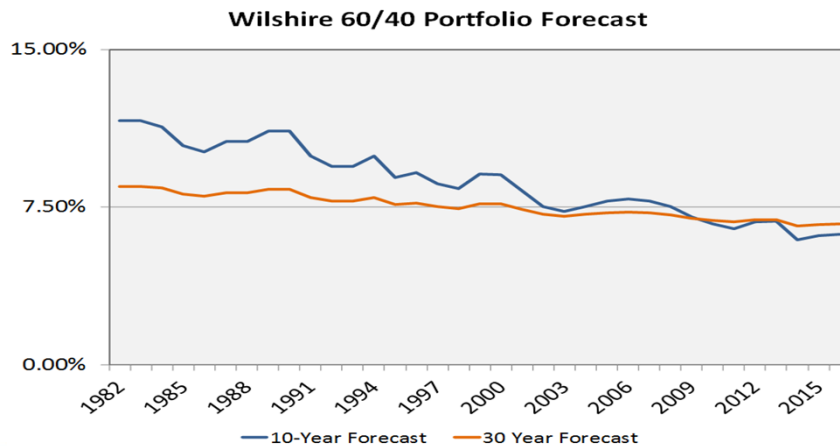
Proposed Amortization Policy Change

- Future gains and losses would be amortized over 20 years instead of 30
- 25 year option now being considered as well
- The “ramp-down” on gains and losses would be eliminated
- Use a level dollar amount for calculating employer contributions, instead of using a level percentage of payroll
- Save employers money by reducing total amount of unfunded liability
 - Ex: 15 year mortgage vs 30 year mortgage
- Aligns with best industry standards
- Addresses ‘intergenerational equity’ issue



Difference in Short and Long Term CMAs

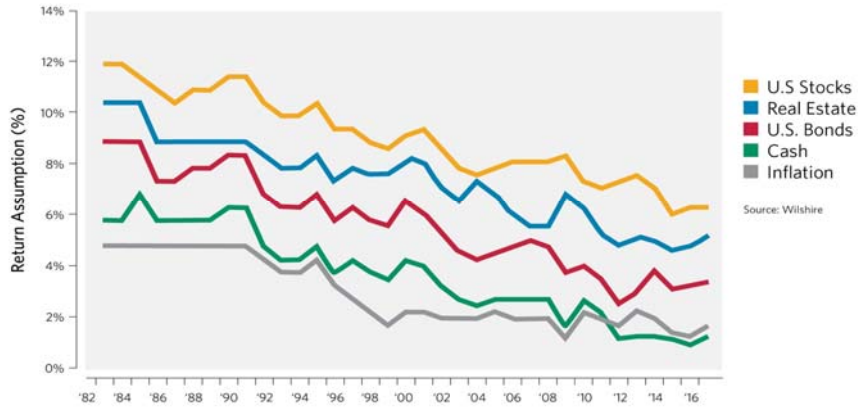
Current low real yield is primary driver of difference



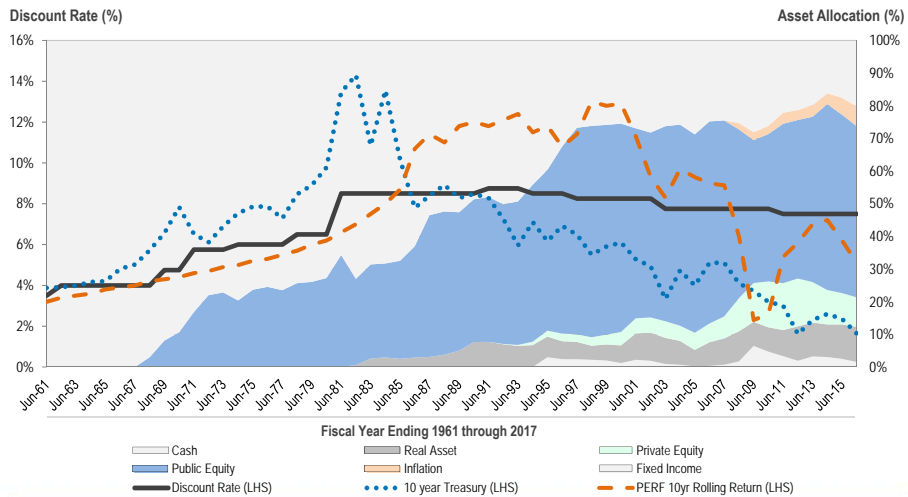
• Source: Wilshire Associates

Wilshire Forecasts through Time

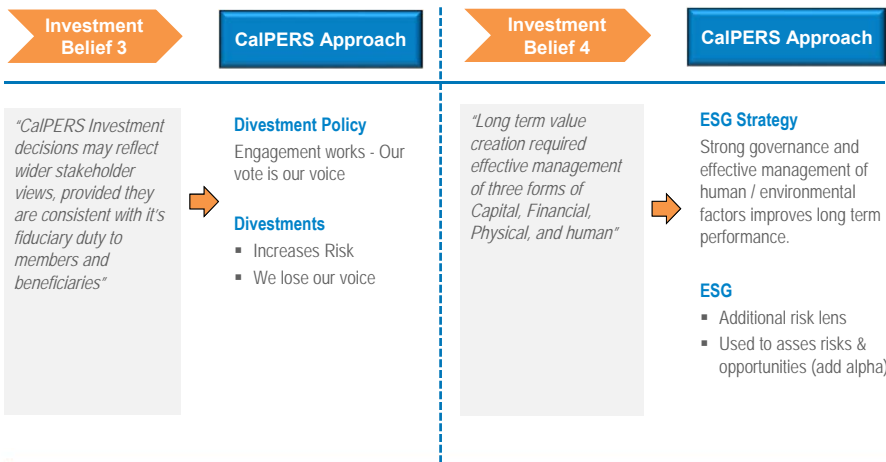
Return prospects have been declining for decades, following the downward trend in interest rates



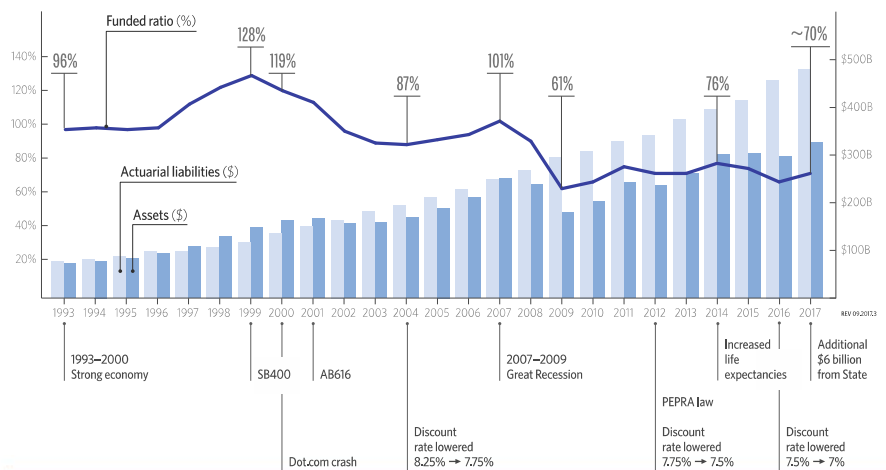
Interest Rates vs CalPERS Investment Mix & Returns



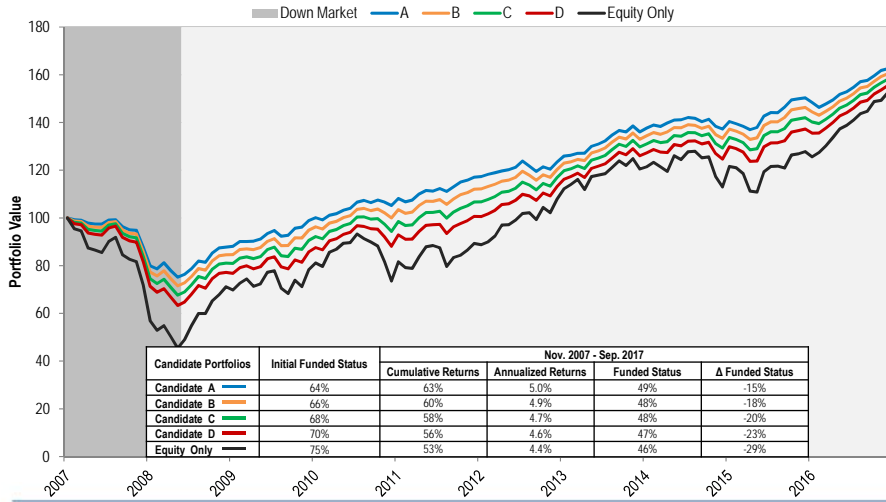
Distinguishing between Divestments and ESG Strategy



Historical Factors Impact Funded Status (1993-2017)



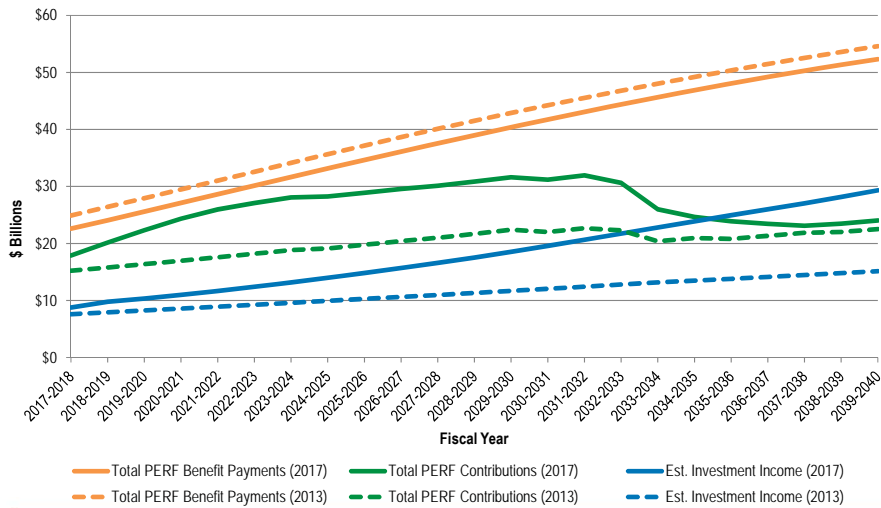
Scenario Analysis (Global Financial Crisis & Recovery)



- Analysis assumes no rebalancing.
- The Funded Status calculation assumes a liability growth rate of 7.9%.

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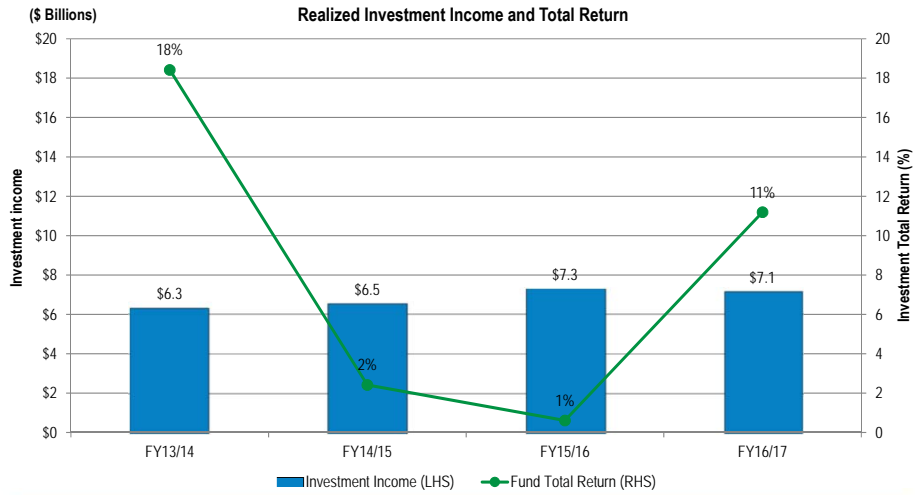
Contribution, Benefit Payments and Investment Income 2013 and Today



- Data Source: 2013 and 2017 Contribution and Benefit Payments are from ACTO.
- Investment Income assumes implementation of "Candidate Portfolio C." Investment income only includes income from Global Equity (dividends), Global Fixed Income (coupons), and Real Assets (rent).

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Stability of Investment Income



• Investment Income defined as cash income from:
Global Equity (dividends), Global Fixed Income (coupons), Real Assets (rent)