

Absolute Return Strategies Strategic Plan

February 19, 2013

Table of Contents

TOPIC	ARS PROGRAM Slide Number(s)
STRATEGIC PLAN	
ARS Strategic Plan & IC Items for Consideration	3 - 5
Role of Absolute Return Strategies	6 - 7
Program Benchmark & Parameters	8 - 14
Capital Source & Program Size	15 - 16
Program Economics & Resources	17 - 23
APPENDIX	24 - 31

STRATEGIC PLAN

The ARS Strategic Plan

Key Questions

1. Role of Absolute Return in the CalPERS Portfolio
2. Program Benchmark and Parameters
3. Capital Source
4. Program Size
5. Program Economics and Resources

Investment Committee Items For Consideration

- Affirm the Role of ARS in CalPERS portfolio as a diversifier to equity growth risk
- Affirm the ARS Benchmark and Program Parameters
 - 1 year T-Bills plus 5% over a 3 year time horizon
 - Volatility range of 6% to 8% annualized Standard Deviation
 - Beta target of 0.20 or below to Global Equity Markets
- Capital source and Program size will be determined by 2013 Strategic Asset Allocation Process using role and parameters as outlined above

Question 1: The Role of Absolute Return in the CalPERS Portfolio

From December 2012 IC Meeting

Role of ARS is to act as a diversifier to equity growth risk in the Total CalPERS Portfolio

- Returns with low beta to equity
- Produce returns in stressed scenarios
- Maintain Total Fund long term return target, while reducing Total Fund volatility
- Through partnership with ARS managers, provide insights into markets, risk appetites, and opportunities

Question 2: Program Benchmark & Parameters

Proposed Program Benchmark & Parameters

- The return target should remain T-bills plus 5%, reflecting the Program's belief that it is possible to select uncorrelated strategies, risks, and managers to meet that target over time
- Program volatility should target 6 - 8%
 - Not necessarily tied to equity market volatility
 - Allows sufficient risk to achieve return target
 - Constrains volatility to protect capital
- Program equity beta should fluctuate within a range from 0 to 0.20 depending on opportunity set and manager positioning

Current versus Proposed ARS Program Parameters

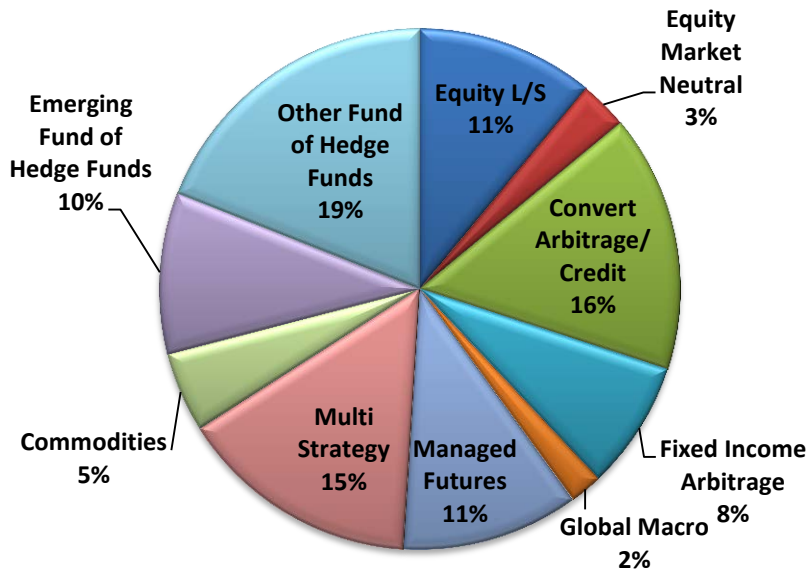
Parameter	Current ARS Program	Proposed ARS Program
Role	Diversify Total Fund Risk; Enhance Total Fund Return	Diversify Global Equity Growth Risk; Reduce Total Fund Risk
Return Target	1-Year T-Bills + 5%	Unchanged: 1-Year T-Bills + 5%
Risk Target	Less than half global equity volatility over a full cycle	6% - 8% annualized standard deviation regardless of equity market volatility
Drawdown Maximum	10% in any one month	7% in any one month
Liquidity Target	> 50% of non-fund-of-fund assets convertible to cash in < 90 days in normal conditions	Unchanged for direct investments; Adopt same target for funds of funds

Meeting ARS Program Targets

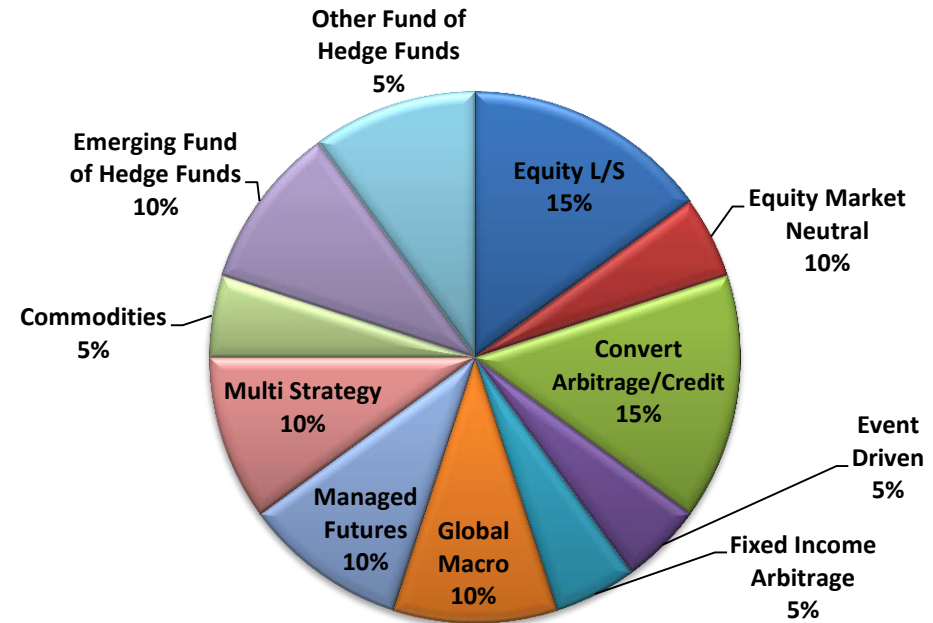
- ARS Program has returned T-bills plus 3% since inception in 2002, below T-bills plus 5% target
 - 2008 market dislocation revealed lack of robustness of certain “multi-strategy” approaches
 - Post-2008, portfolio restructured and de-risked
 - From 2009 to 2012, only three new funds have been added while 18 have been removed
 - From 2010 to 2012, Program volatility has been 3.6% versus 6.1% from 2002 to 2009
 - Total Fund priorities have focused on improving other larger programs
- How will ARS meet a T-bills plus 5% target?
 - Broader strategy mix
 - More active management of managers and strategies
 - Non-hedge fund absolute return approaches (replication strategies, alternative beta, opportunistic investing) where appropriate
 - Reduce Program costs

Revised Program Parameters: Implications for ARS Portfolio Construction

Current Strategy Allocation



Proposed Strategy Allocation



	ITD	Proposed
Annualized Return	5.50%	7.50%
Annualized Volatility	5.60%	6.50%
Sharpe Ratio	0.80	1.00
Beta to Global Equity	0.2	0.15
Max Drawdown	-21.03%	-7.00%

- Add Event Driven Strategies
- Increase Discretionary Global Macro
- Reduce Funds of Hedge Funds

Focus on More Actively Managing the ARS Portfolio

- Despite the failure of markets in 2008, five direct Hedge Funds and one Fund-of-Fund within the ARS portfolio posted positive returns in 2008 across a range of strategies – demonstrating the importance of manager selection and active portfolio management.
- Going forward, ARS will continue to focus on customization, allowing for more tactical positioning while avoiding problems commingled hedge fund investors (including CalPERS) faced during the financial crisis.

ARS Funds with Positive Performance in 2008

	Allocation as of 8/31/08		2008 CalPERS Realized Performance
Fixed Income Arbitrage Manager A \$	269,861,028	3.6%	1.59%
CTA Fund A \$	208,423,332	2.8%	27.14%
European Fund of Fund \$	135,381,996	1.8%	1.01%
Multistrategy Fund A \$	129,929,177	1.7%	2.25%
CTA Fund B \$	99,834,974	1.3%	25.04%
Equity Market Neutral Fund \$	44,639,100	0.6%	0.14%

ARS Top 5 Worst Performers in 2008

	Allocation as of 8/31/08		2008 CalPERS Realized Performance
Equity Long Short Fund A	\$ 213,918,444	2.8%	-65.93%
Fixed Income Arbitrage Manager B	\$ 205,161,219	2.7%	-51.69%
Equity Long Short Fund B	\$ 195,662,176	2.6%	-38.15%
Credit Long Short Fund	\$ 146,535,426	1.9%	-56.02%
Multistrategy Fund B	\$ 135,647,817	1.8%	-37.43%

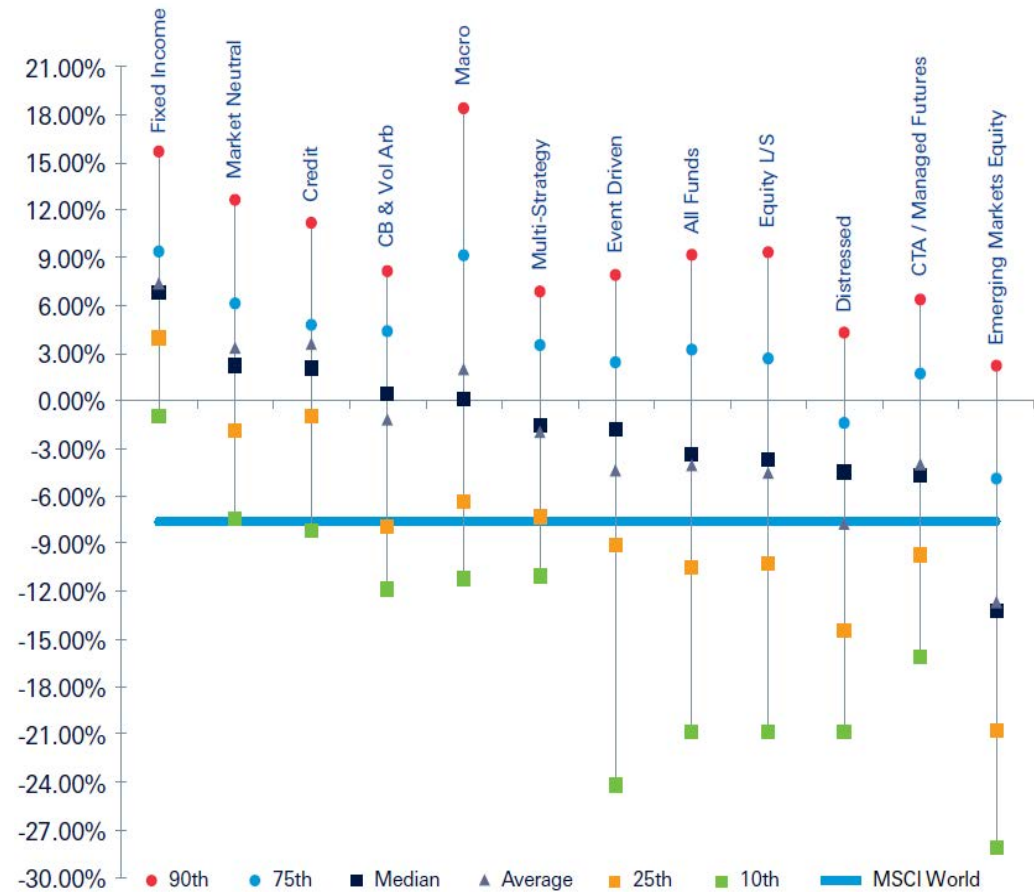
Actively Managing the ARS Portfolio: Manager Selection is Important

90th			
Fixed Income	15.55%	Event Driven	7.88%
Market Neutral	12.46%	All Funds	9.09%
Credit	11.13%	Equity L/S	9.38%
CB & Vol Arb	8.11%	Distressed	4.14%
Macro	18.33%	CTA / Managed Futures	6.34%
Multi-Strategy	6.77%	Emerging Markets Equity	2.09%

Median			
Fixed Income	7.11%	Event Driven	-1.73%
Market Neutral	2.24%	All Funds	-3.35%
Credit	2.13%	Equity L/S	-3.62%
CB & Vol Arb	0.58%	Distressed	-4.21%
Macro	0.22%	CTA / Managed Futures	-4.79%
Multi-Strategy	-1.34%	Emerging Markets Equity	-13.10%

10th			
Fixed Income	-1.00%	Event Driven	-24.21%
Market Neutral	-7.46%	All Funds	-20.76%
Credit	-8.06%	Equity L/S	-20.76%
CB & Vol Arb	-11.85%	Distressed	-20.84%
Macro	-11.09%	CTA / Managed Futures	-16.35%
Multi-Strategy	-11.01%	Emerging Markets Equity	-28.13%

2011 Global Performance Dispersion



Source: Hedge Fund Intelligence (HFI), January 2012

Question 3: Capital Source

Question 4: Program Size

Capital Source and Program Size

- The 2013 Strategic Asset Allocation (SAA) process will determine the ARS program's size and capital source
- A clearly defined ARS role and program parameters are essential “building blocks” to including ARS in the SAA process
- Implications of the ARS role as a diversifier of equity risk on the SAA process:
 - Give ARS a defined allocation in the Total Fund
 - Include ARS in the Total Fund Policy Benchmark
 - Eliminate the equity overlay
 - Requires a meaningful allocation to ARS to provide diversification benefits
- The size of the ARS allocation will depend upon the interaction between ARS risk and return characteristics and those of other programs

Question 5: Program Economics & Resources

CalPERS 3 Pillars: Alignment, Control, and Transparency

- In stressed markets of 2008, many investors were surprised that the liquidity of their hedge funds was not what they expected as managers raised gates, suspended redemptions, or put funds into liquidation
- The ARS Program “Eureka” vehicles (funds of one) were designed as an attempt to ensure the term structure is in alignment with the underlying investments under all market scenarios
 - No lock-ups or gates
 - No ability for managers to side-pocket assets
 - Ability to take control of assets and remove the investment manager under certain circumstances
 - Full transparency of risks and exposures
- Additionally, the fee structures were designed to appropriately reflect the expected illiquidity premiums (or lack thereof) in certain strategies

Total Program Costs: % of AUM

2011 Program	Management Fees as % NAV	Performance Fees as % of NAV	Fees as % of NAV	2012 Program	Management Fees as % NAV	Performance Fees as % of NAV	Fees as % of NAV
Direct				Direct			
Commingled Funds	1.61%	0.77%	2.38%	Commingled Funds	1.68%	0.97%	2.66%
Fund-of-One	1.21%	0.53%	1.73%	Fund-of-One	1.19%	0.86%	2.05%
Sub-Total:	1.35%	0.61%	1.96%	Sub-Total:	1.34%	0.89%	2.23%
Fund of Hedge Funds (FoHFs)				FoHF's			
Custom FoHFs	0.79%		0.79%	Custom FoHFs	0.75%		0.75%
Underlying Managers	1.65%	0.60%	2.25%	Underlying Managers	1.43%	1.12%	2.55%
Sub-Total:	2.44%	0.60%	3.04%	Sub-Total:	2.18%	1.12%	3.30%
Direct & FoHF	1.66%	0.61%	2.27%	Direct & FoHF	1.60%	0.96%	2.56%
Advisory/Admin			0.34%	Advisory/Admin			0.20%
ARS Program Total	1.66%	0.61%	2.61%	ARS Program Total	1.60%	0.96%	2.76%

Improving the ARS Cost of Doing Business

Demonstrated Accomplishments:

- Advisory fees reduced to less than half of 2011 levels
- Structured new direct investments as customized separate accounts
 - Reduced management fees by 40+ bps
 - Rationalized performance fees
 - Claw back provisions
 - Improved liquidity terms

Future plans to improve costs related to Funds of Hedge Funds may include:

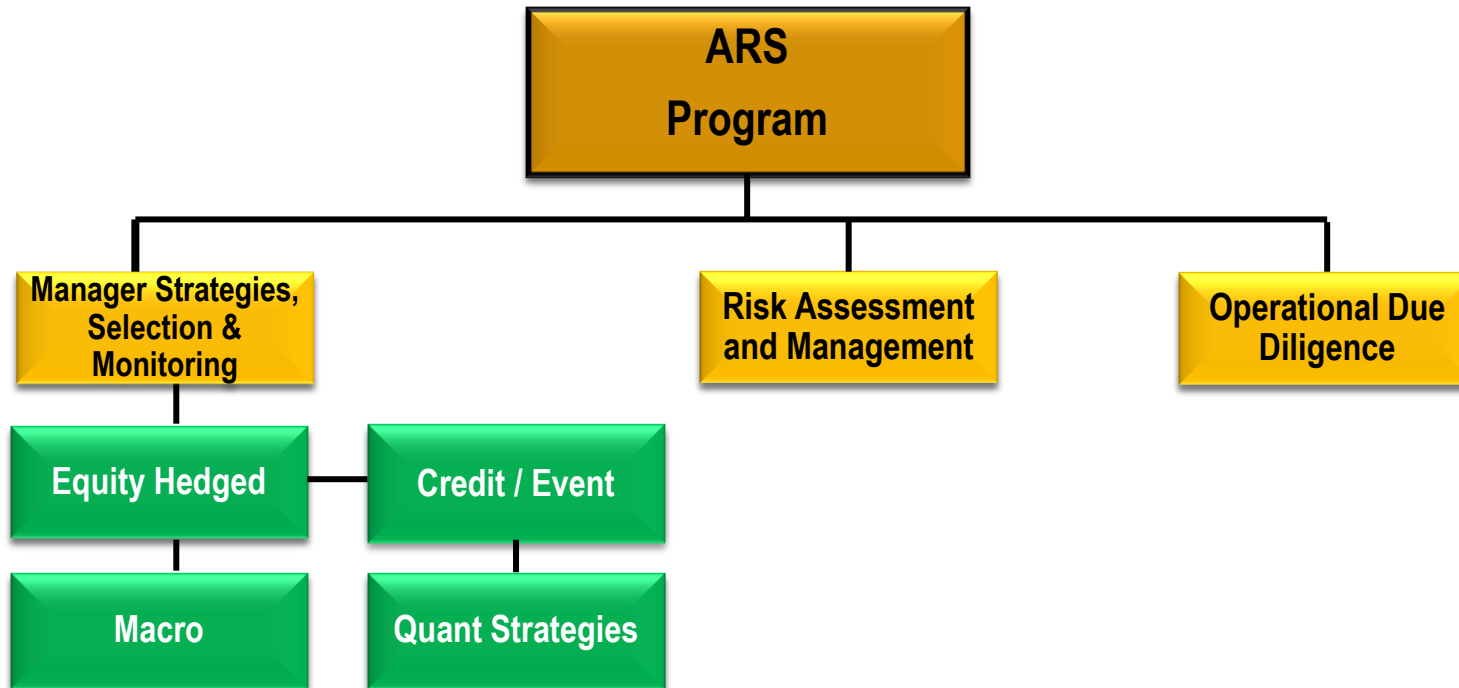
- More concentrated portfolios:
 - Scale benefits (governance, alignment of interest)
- More of the “best of” what fund of hedge fund managers can provide for CalPERS:
 - Sourcing, opportunistic idea generation, geographic/market expertise
- Reduce fund of hedge fund exposure and increase Program assets managed via customized separate accounts

Resources

Internalize Critical ARS Program Investment Functions to Improve Performance

- Sourcing
- Due Diligence
- Portfolio Construction
- Portfolio Monitoring
 - a) Skillful active management of the ARS portfolio through market cycles
 - b) Improved internal absolute return industry and strategy knowledge
 - c) Improved alignment of interests through enhanced risk management and investment guideline control
 - d) Significant reduction in overall ARS operating costs:
 - I. Reduce advisory fees
 - II. Shift more assets from funds of hedge funds to direct allocations
 - III. More assets governed by Three Pillars (alignment/control/transparency)
 - IV. More effective negotiations with managers

Dynamic team structure organized around strategy expertise

**Organizational Structure Requires:**

- Build operational due diligence capabilities
- Headcount expansion from 5 to 14 investment professionals during the 2013 -2014 and 2014 – 2015 fiscal years
- Total incremental resources proposed in 2013-2014 budget is ~ \$1.5 M – more than offset by reduced fees to advisors and fund of hedge fund managers

ARS Implementation Plan

- Actively manage ARS Program portfolio
 - Broaden strategy base
 - Refresh manager pool
 - Reduce fund of hedge fund exposure
- Continue to implement Three Pillars
- Structure internal resources to meet CalPERS goals
- Continue to drive ARS costs lower

Next Steps:

- Present a revised ARS Policy for Investment Committee review and approval reflecting ARS role and program parameters
- Complete the 2013 Strategic Asset Allocation Process using the parameters outlined in this presentation
 - Give ARS a defined allocation in the strategic asset allocation process
 - Capital source and size of allocation determined by the strategic asset allocation process

APPENDIX

If Interest Rates Rise, ARS May Act as a Better Diversifier Than Fixed Income

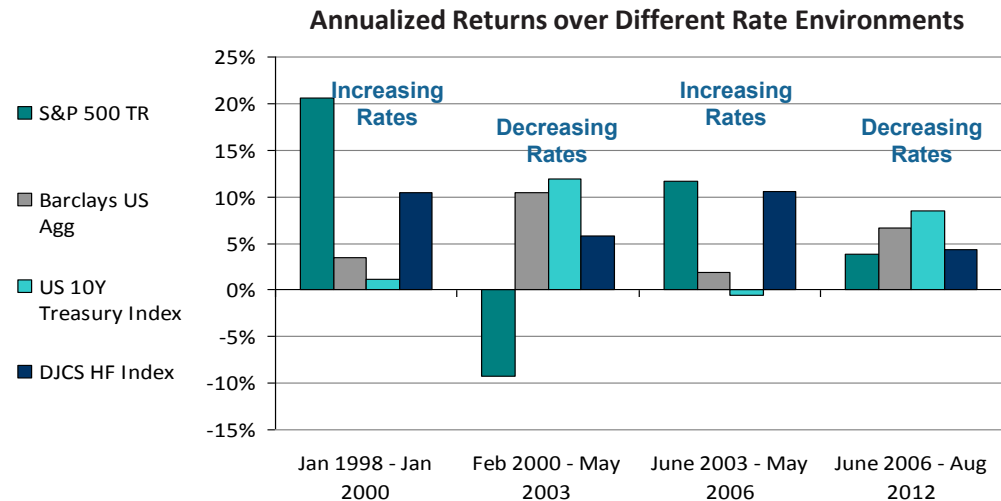
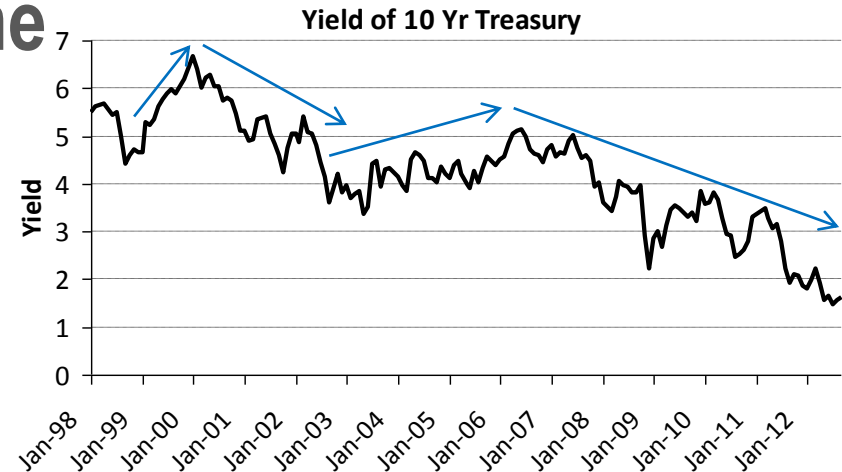
- Hedge Funds and Fixed Income both diversify equity risk,
- Yet perform very differently in rising interest rate environments

In analyzing performance data from Dow Jones Credit Suisse Hedge Fund Index (DJCS) going back to 1998, we separated history into two broad periods of rising rates and falling rates

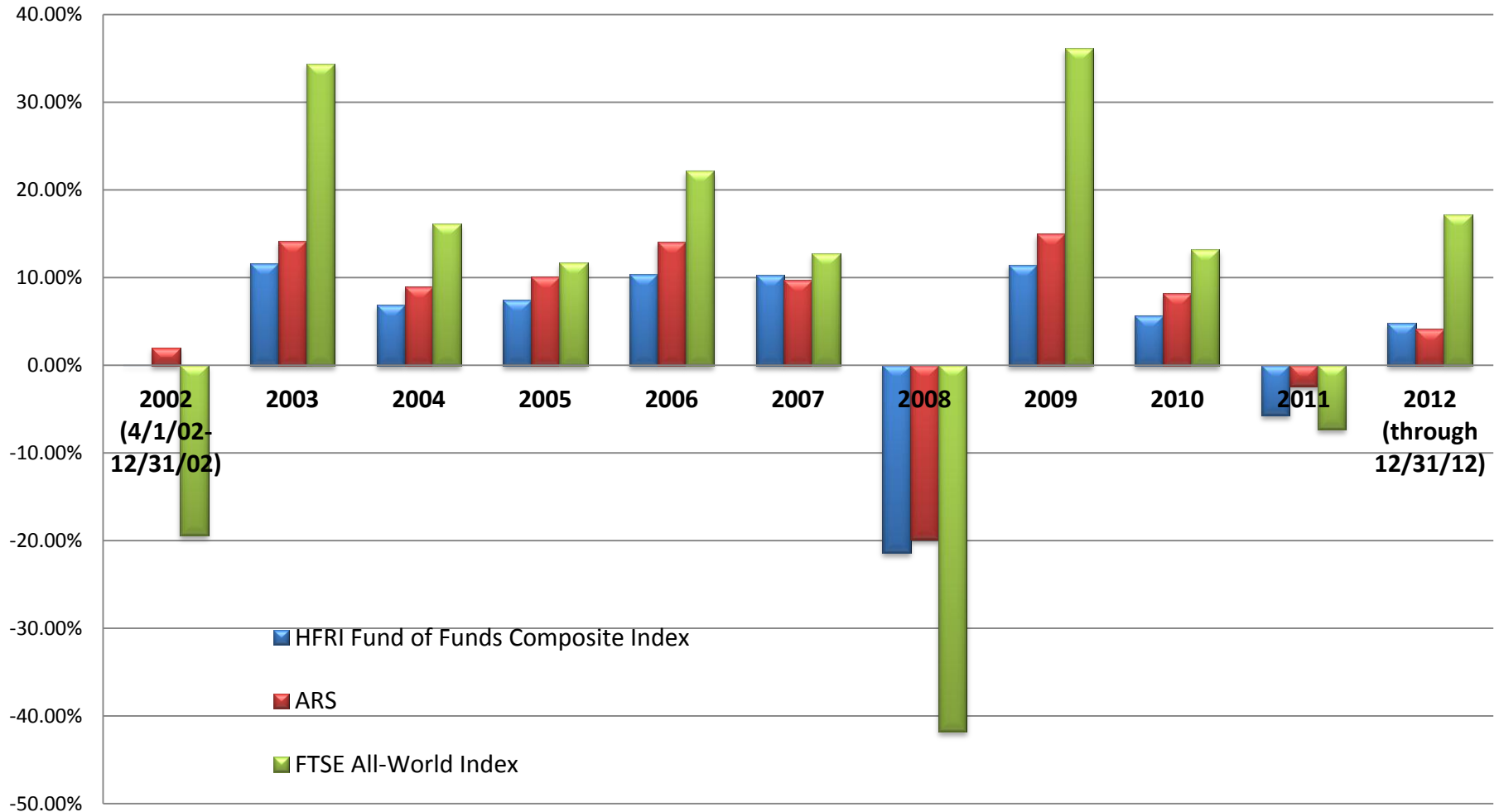
For the two periods of rising rates, the average performance for hedge funds was significantly better than for fixed income assets:

Avg. Return When Rates Rise

Hedge Funds	+10.5%
Barclays Agg	+2.7%
US 10yr Tsy	+0.3%



ARS Performance: Calendar Year Returns



ARS Annual Performance History

	ARS	ARS Benchmark*	HFRI FoHF Composite Index	FTSE All-World Index
2002 (Inception April 1)	-4.71%	-7.47%	0.04%	-19.38%
2003	14.13%	19.34%	11.61%	34.39%
2004	8.93%	6.94%	6.86%	16.14%
2005	10.14%	7.41%	7.49%	11.71%
2006	14.10%	9.51%	10.39%	22.19%
2007	9.70%	11.23%	10.25%	12.74%
2008	-19.93%	9.96%	-21.37%	-41.76%
2009	15.00%	5.82%	11.47%	36.18%
2010	8.20%	5.88%	5.70%	13.18%
2011	-2.58%	5.60%	-5.72%	-7.26%
2012 (through 12/31/12)	4.15%	5.24%	4.81%	17.14%

*ML 1 Year T-Bills + 5% ARS benchmark 2005-present; 50% Equity /50% T- Bills + 7% hybrid benchmark 2002-2004

ARS Compared With Other CalPERS Asset Classes (Past 3 Years - 12/31/12)

	ARS β to:	Annualized Return	Annualized Standard Deviation	Sharpe Ratio (Risk Free Rate=0.25%)	Maximum Drawdown From Peak Value
TOTAL GLOBAL EQUITY	0.17	7.35%	16.90%	0.42	-20.15%
ILAC COMMODITIES*	0.13	2.99%	20.31%	0.14	-22.39%
PRIVATE EQUITY	0.04	15.28%	6.11%	2.46	-6.39%
TOTAL FIXED INCOME	-0.07	11.02%	4.08%	2.64	-1.98%
REAL ESTATE	-0.06	6.88%	7.50%	0.88	-7.91%
CALPERS ARS PROGRAM	N/A	3.16%	3.63%	0.80	-5.01%
FOF'S COMPOSITE INDEX (HFRI FOF Composite)	0.77	1.60%	4.47%	0.30	-7.67%
ARS BENCHMARK (ML 1 Year T Bills + 5% ARS benchmark 2005-present; Equity / T Bills + 7% hybrid benchmark 2002-2004)	-0.59	5.57%	0.20%	N/A	0.00%

Program inception date: 4/1/2002

*ILAC Commodities SX1CA1 inception is 10/1/07; S&P GSCI Returns used prior to that date

ARS Compared With Other CalPERS Asset Classes (ARS Inception - 12/31/12)

	ARS β to:	Annualized Return	Annualized Standard Deviation	Sharpe Ratio (Risk Free Rate=2.00%)	Maximum Drawdown From Peak Value
TOTAL GLOBAL EQUITY	0.25	5.24%	16.77%	0.19	-53.57%
ILAC COMMODITIES*	0.11	8.31%	24.50%	0.08	-67.91%
PRIVATE EQUITY	0.05	9.43%	9.53%	0.78	-31.92%
TOTAL FIXED INCOME	0.19	8.11%	6.02%	1.01	-12.49%
REAL ESTATE	0.06	2.68%	14.49%	0.05	-61.66%
CALPERS ARS PROGRAM	N/A	5.44%	5.55%	0.62	-21.03%
FOF'S COMPOSITE INDEX (HFRI FOF Composite)	0.98	3.37%	5.37%	0.26	-22.20%
ARS BENCHMARK (ML 1 Year T Bills + 5% ARS benchmark 2005-present; Equity / T Bills + 7% hybrid benchmark 2002-2004)	-2.12	7.40%	0.79%	N/A	-12.11%

Program inception date: 4/1/2002

*ILAC Commodities SX1CA1 inception is 10/1/07; S&P GSCI Returns used prior to that date

Largest Institutional Hedge Fund Investors

Rank	Institution	Type	Total Plan Assets (\$Bil.)	Hedge Fund Assets (\$Bil.)	% of Assets In Hedge Funds
1	APG, Amsterdam, The Netherlands	Pension manager	404	22	5%
2	China Investment Corp., Beijing, China	Sovereign wealth fund	482	19	4%
3	Future Fund, Melbourne, Australia	Sovereign wealth fund	83	16	19%
4	Ontario Teachers, Toronto, Canada	Public pension	117	13	11%
5	GM Asset Management, New York	Corporate pension	110	11	10%
6	University of Texas, Austin, Texas	Endowment	28	8	27%
7	Government of Singapore Investment Corp., Singapore	Sovereign wealth fund	248	7	3%
8	CPP Investment Board, Toronto, Canada	Public pension	170	7	4%
9	Texas Teachers Retirement System, Austin, Texas	Public pension	110	6	6%
10	Pennsylvania Public School Employees, Harrisburg, Pa.	Public pension	49	6	13%
11	AIG, New York	Insurance company	556	6	1%
12	New Jersey State Investment Council, Trenton, N.J.	Public pension	70	6	8%
14	Stanford Management, Stanford, Calif.	Endowment	23	5	23%
13	Virginia Retirement System, Richmond, Va.	Public pension	53	5	10%
15	University of California Regents, Oakland, Calif.	Endowment/pension	72	5	7%
16	CalPERS, Sacramento, Calif.	Public pension	240	5	2%

ARS Can Provide More Diversification Benefits As Size Grows

- ❖ Given the diversification benefits of hedge funds (namely low correlation and volatility) to the current CalPERS portfolio, the Total Portfolio volatility is expected to drop as the hedge fund allocation increases

Volatility assumptions		
CalPERS	ARS	
11.50%	3.70%	
Weight		Volatility Combined
CalPERS	HF	
100%	0%	11.50%
95%	5%	11.07%
<u>90%</u>	<u>10%</u>	<u>10.65%</u>
85%	15%	10.22%
80%	20%	9.80%
75%	25%	9.38%
70%	30%	8.96%
65%	35%	8.54%
60%	40%	8.13%
55%	45%	7.72%
50%	50%	7.31%

