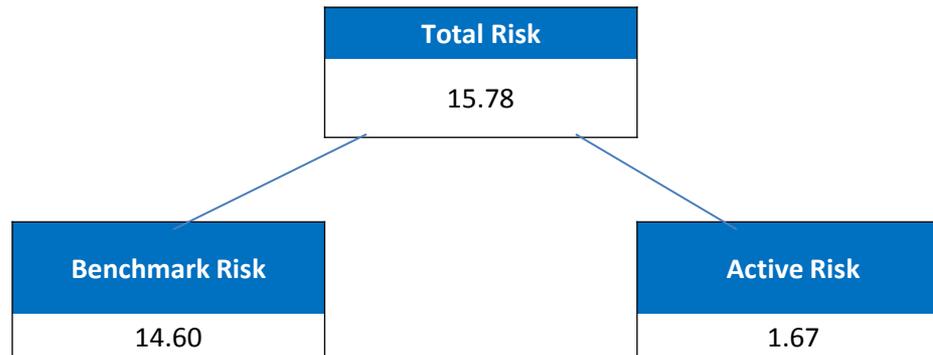


# CalPERS Total Plan Investment Risk Analysis

June 11, 2012

# Total Fund Projected Risk\*

## March 31, 2012 - 1 year Forecast

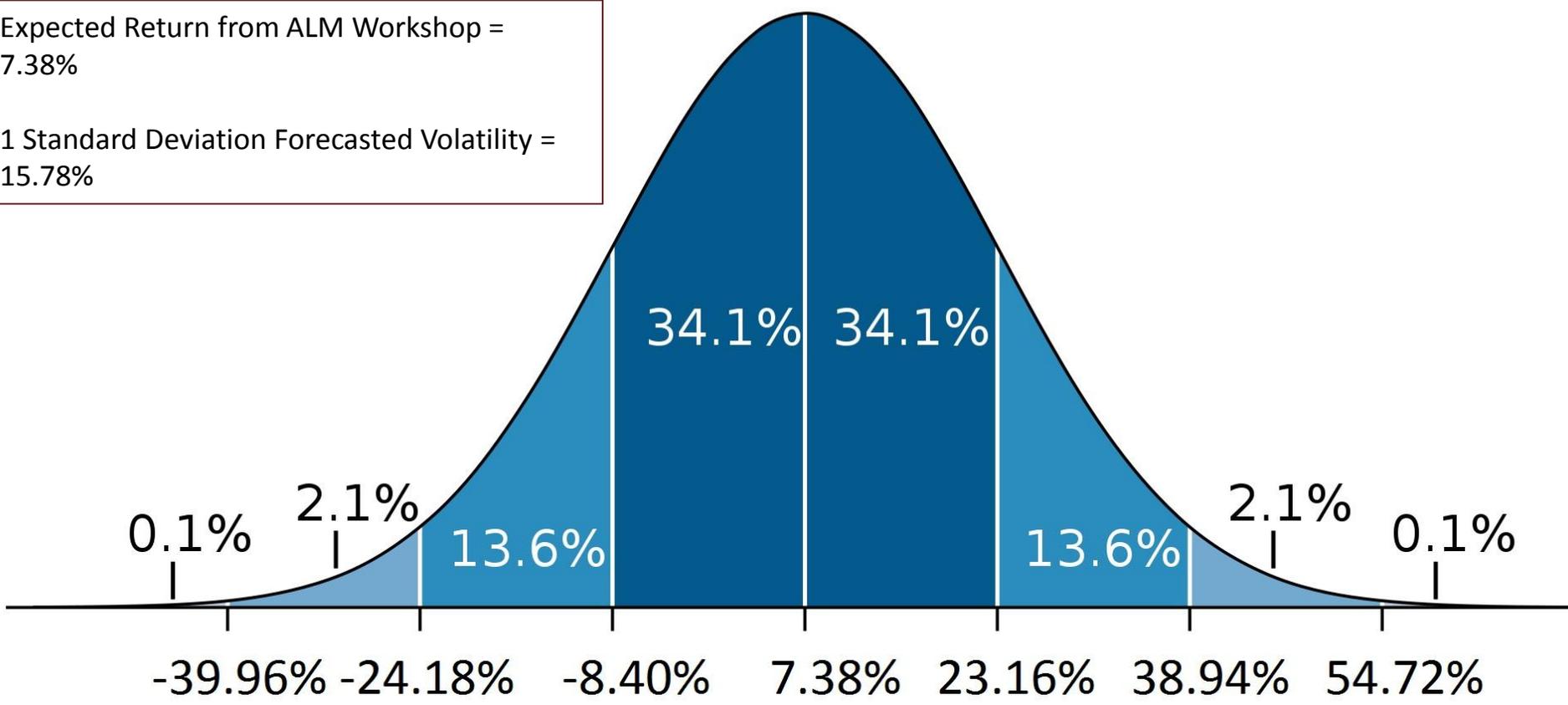


\*Risk is annualized predicted volatility (%)

# Forecasted Distribution of Expected Return

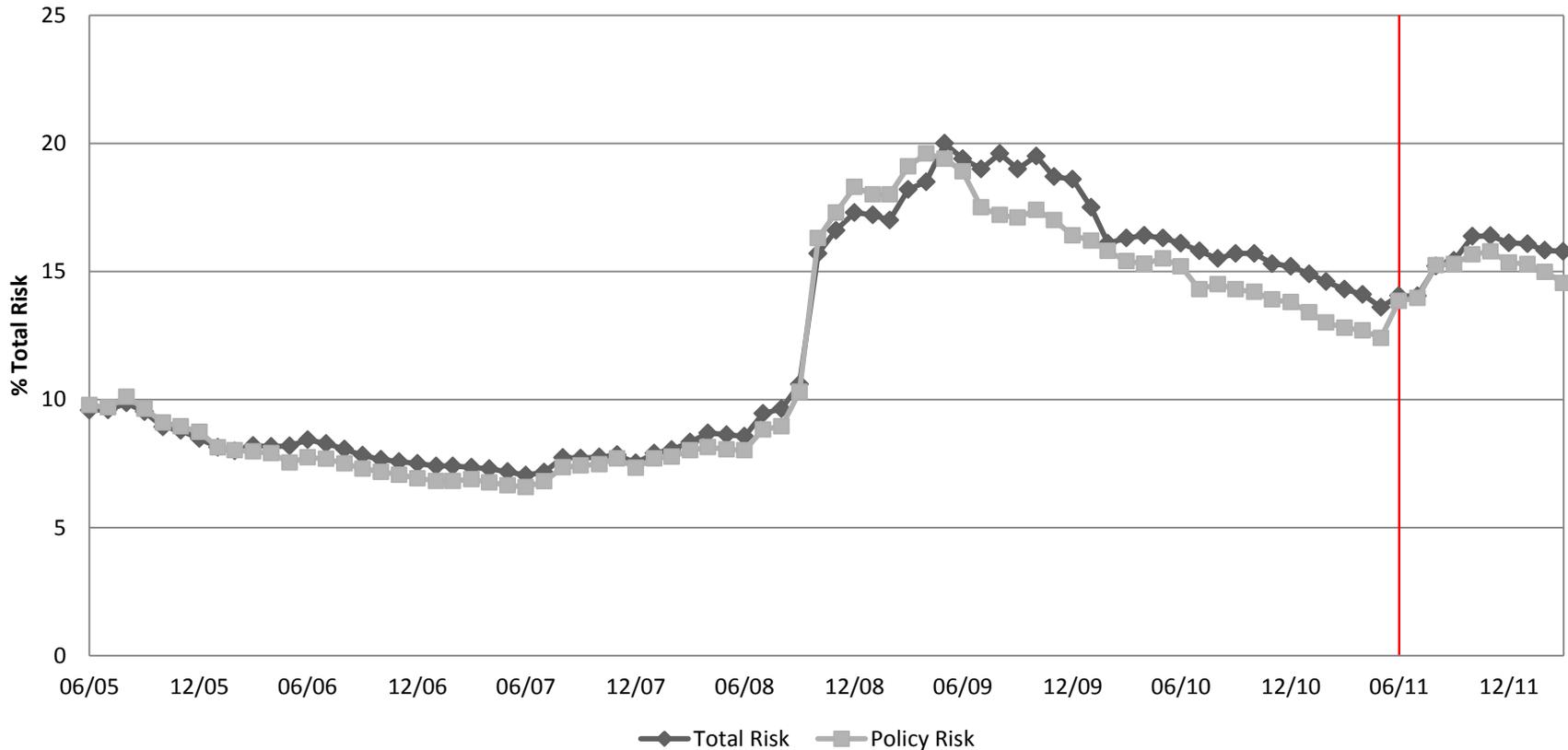
Expected Return from ALM Workshop = 7.38%

1 Standard Deviation Forecasted Volatility = 15.78%



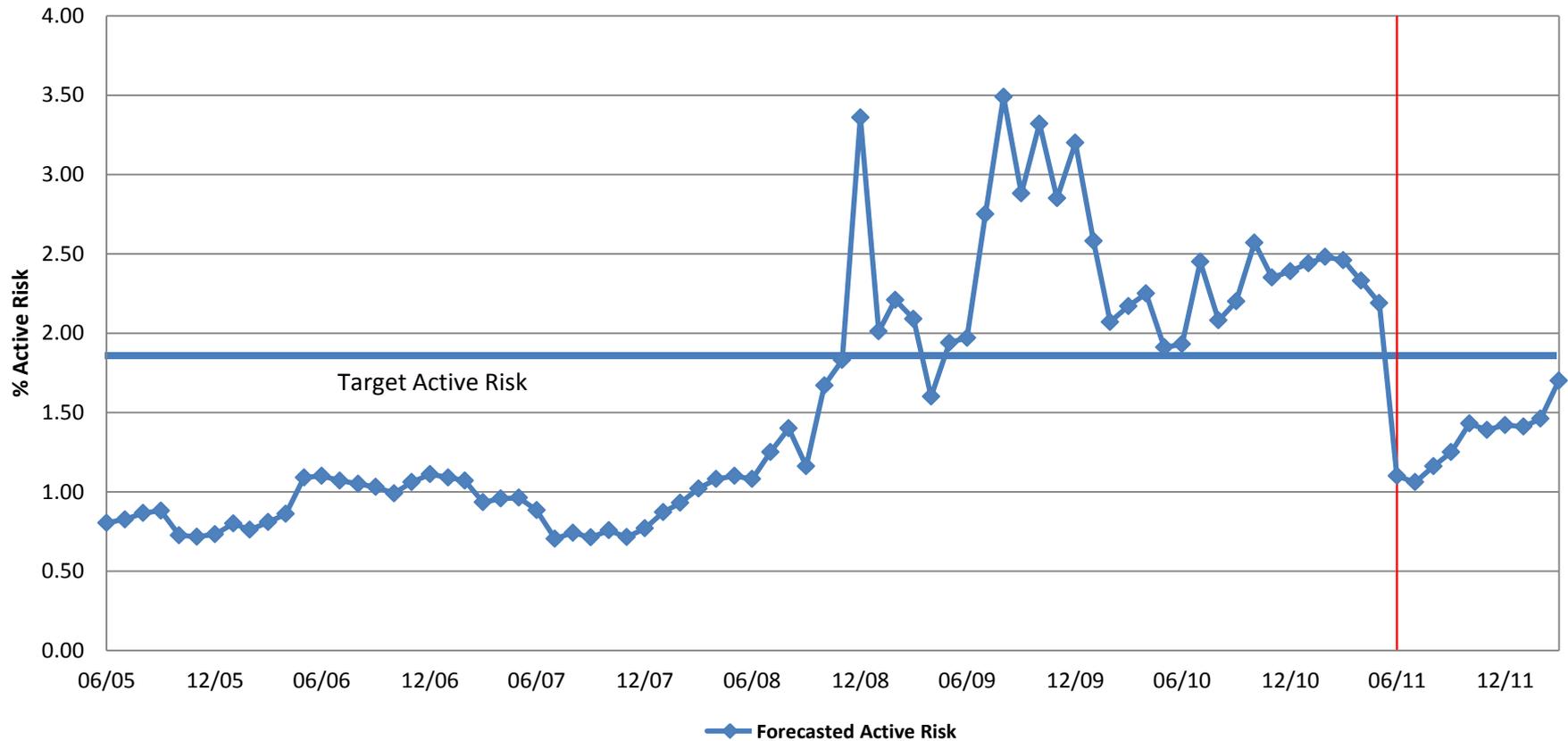
# Total Risk Time Series (Forecasted)

## History of 1 Year Forecast Total Risk



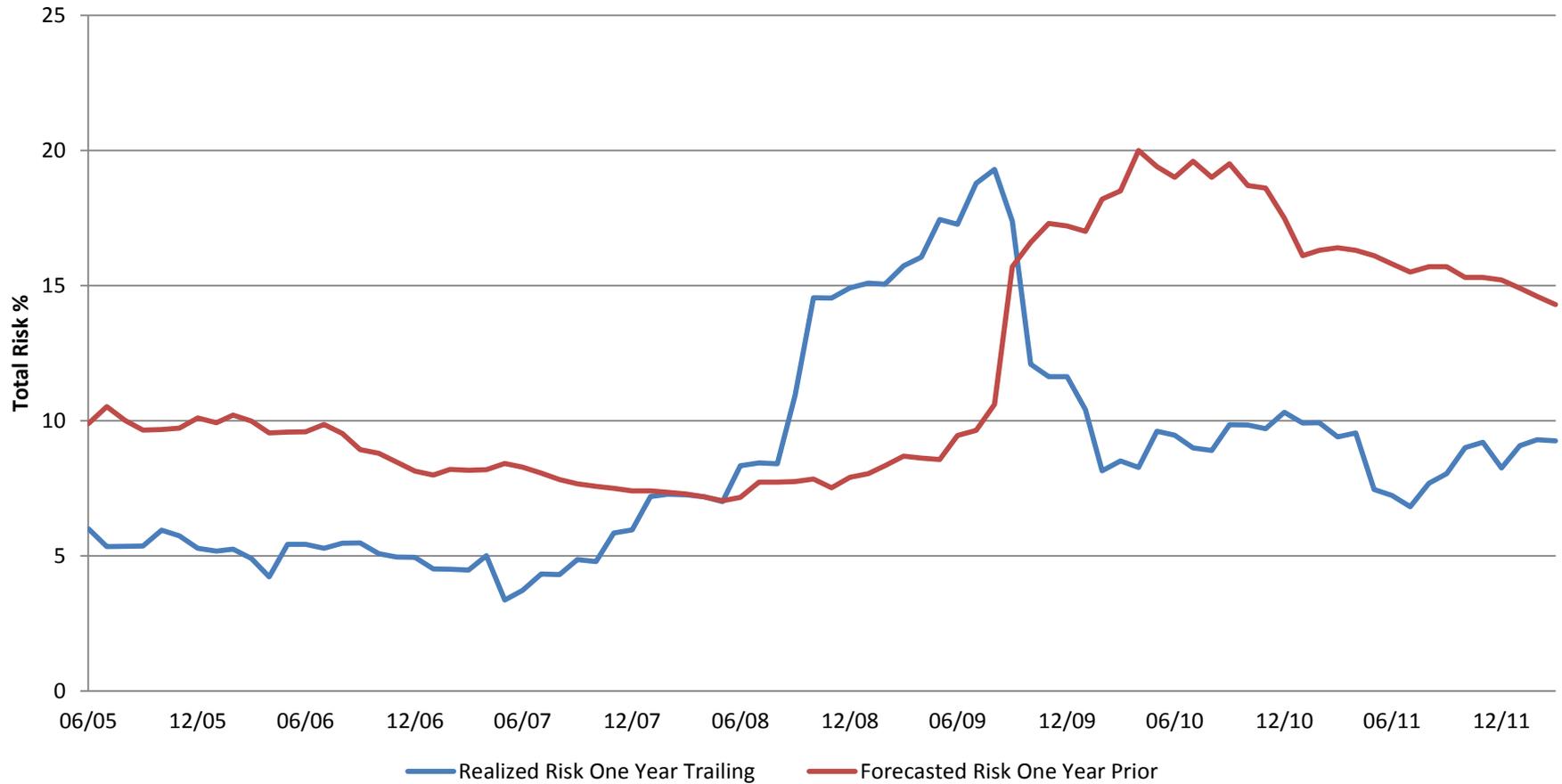
# Active Risk Time Series (Forecasted)

## History of 1 Year Forecast Active Risk



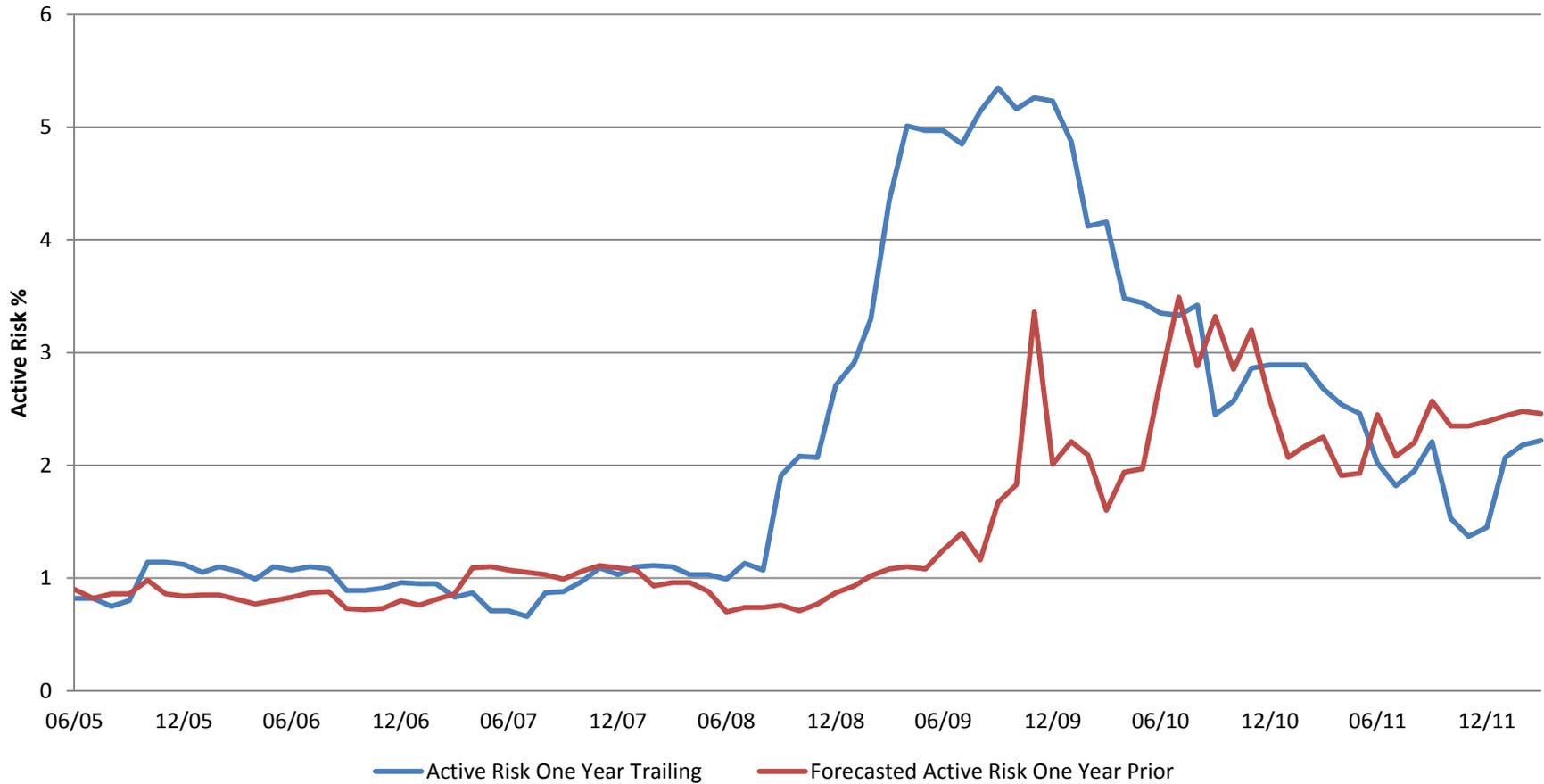
# Time Series Analysis

## Forecasted vs. Realized Total Risk



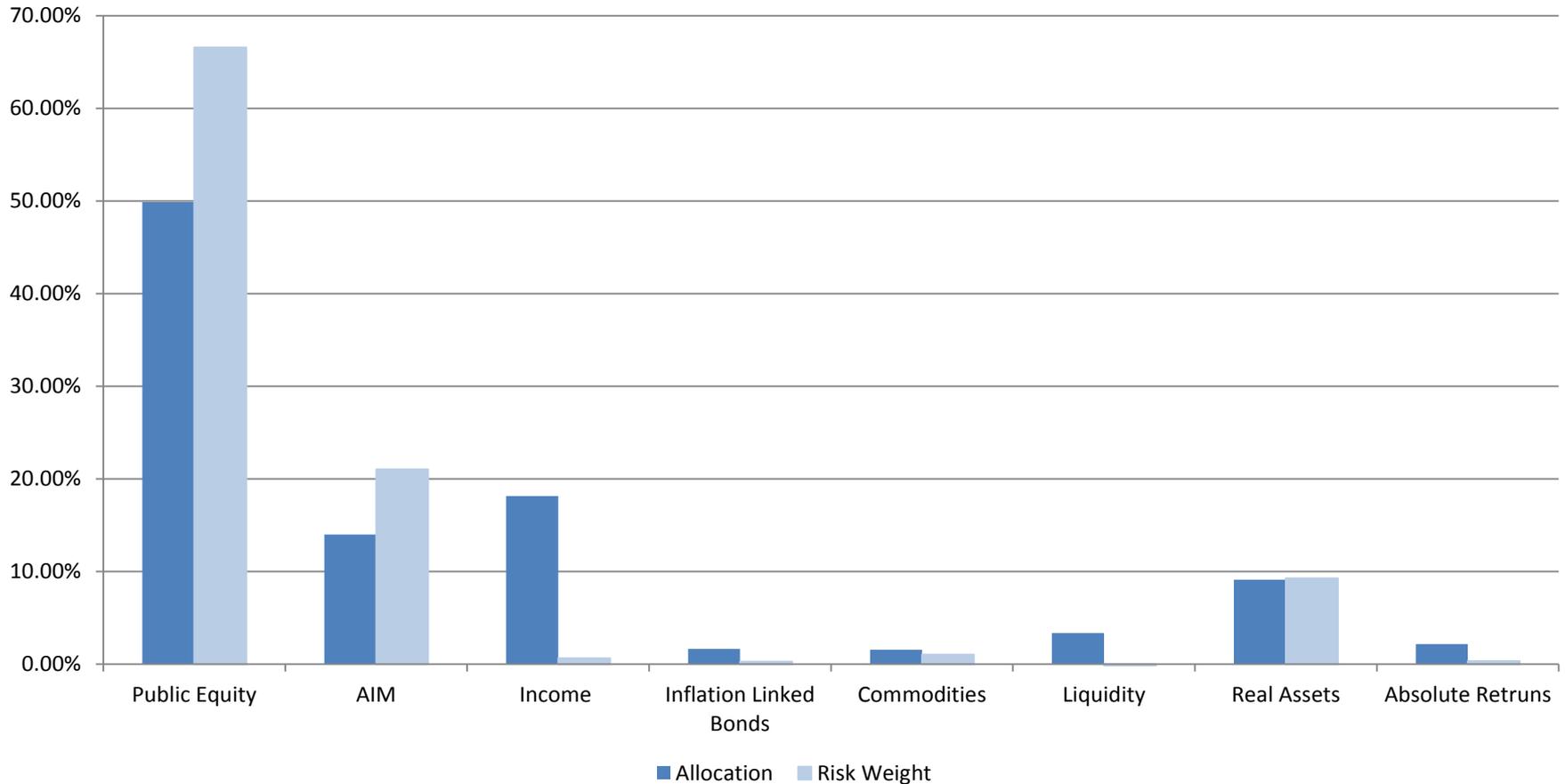
# Time Series Analysis

## Forecasted vs. Realized Active Risk



# Asset Class Contribution to Total Risk

March 31, 2012



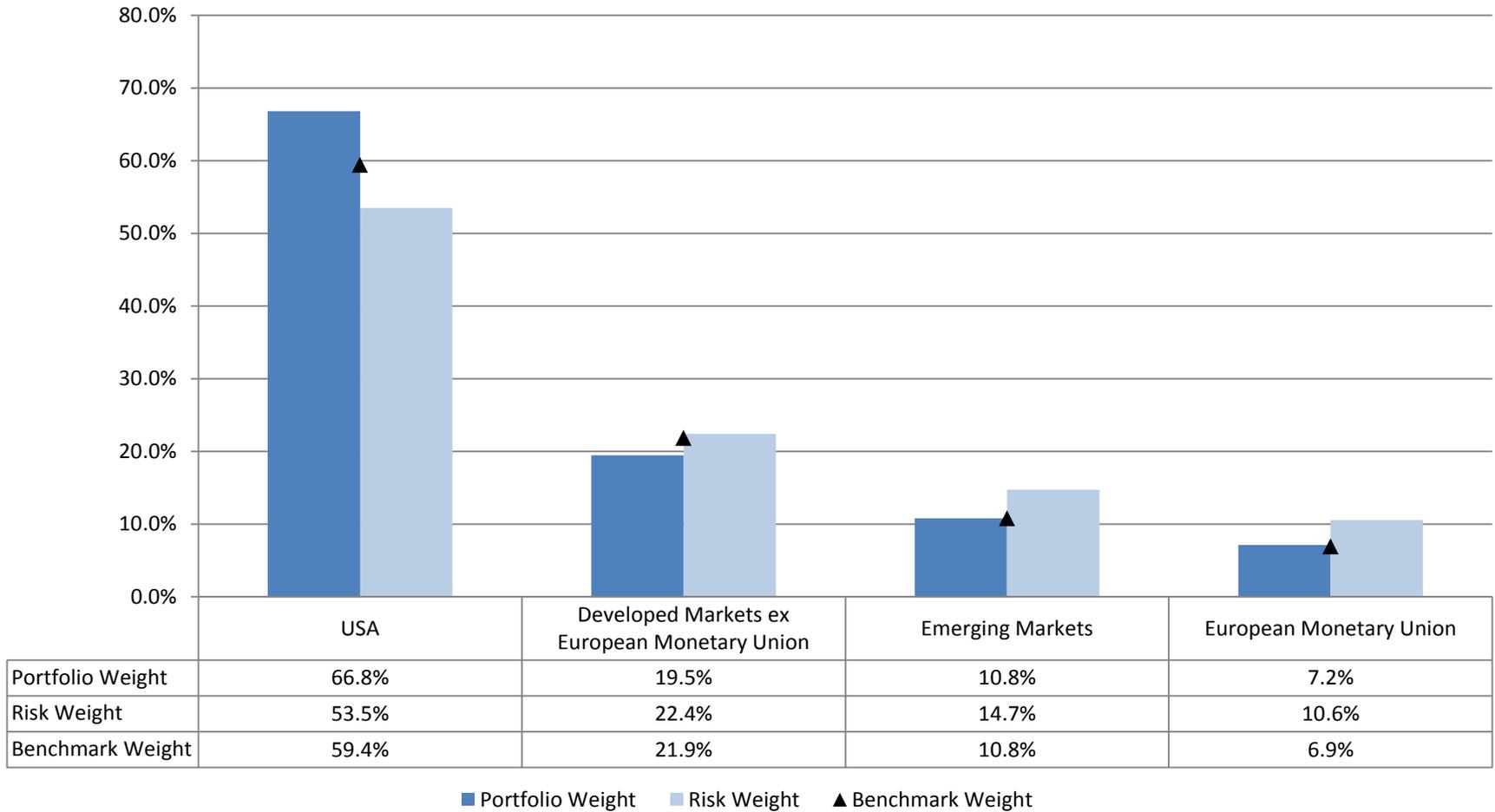
# Asset Class Risk and Contribution to Total Fund Risk

March 31, 2012

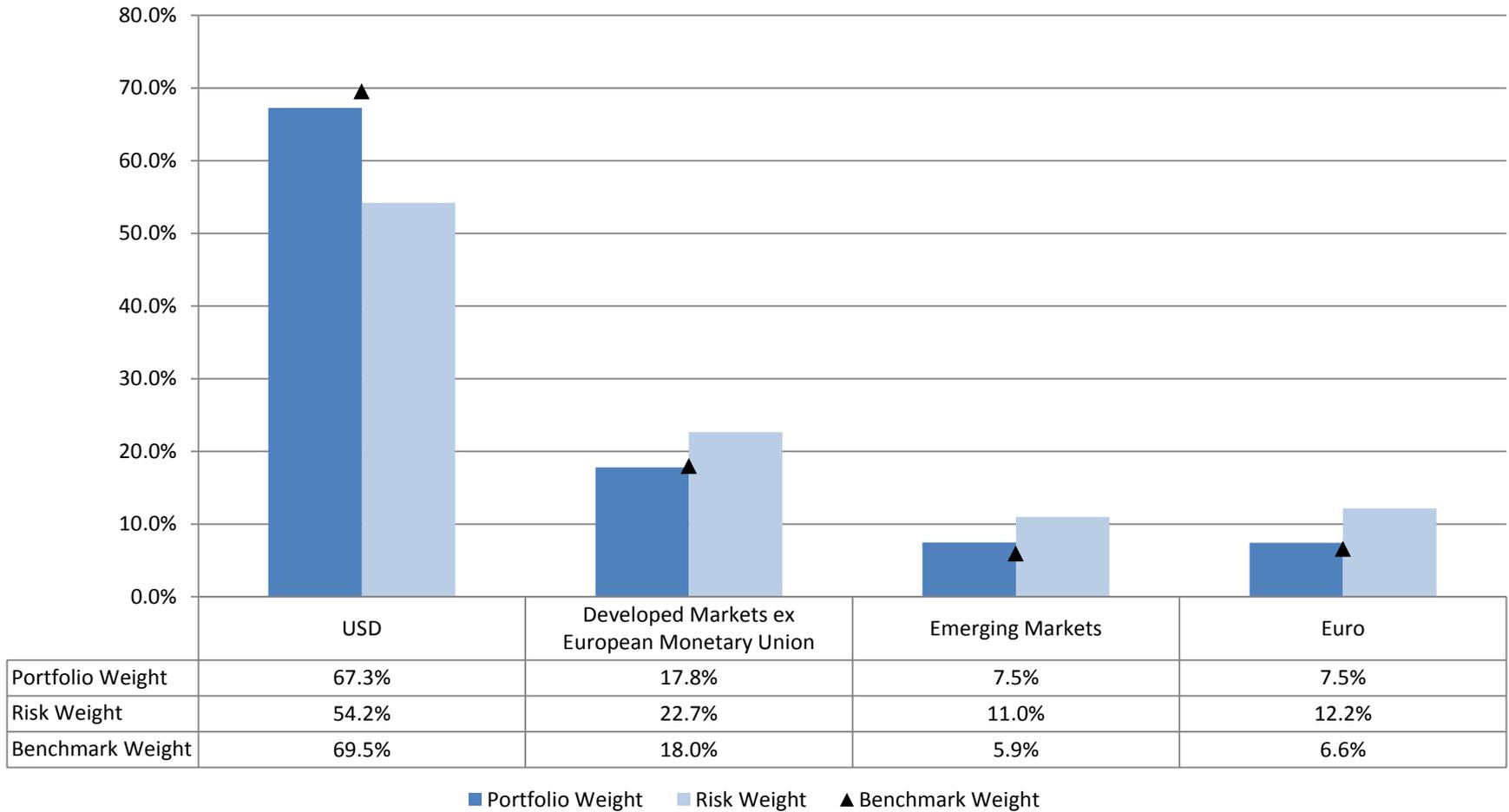
Asset Class	Market Value (\$ millions)	Current Portfolio Weight (%)	Effective Weight (%)	Policy Weight (%)	Active Weight (%)	Active Effective Weight (%)	Total Risk	%CR to Total Risk	Correlat ion	Active Risk	Value-At- Risk(\$)*
AIM	33,453	13.98	13.98	14.00	-0.02	-0.02	24.42	21.01	0.97	7.46	2,677
Public Equity	119,390	49.89	52.24	50.00	-0.11	2.24	21.22	66.59	0.99	0.30	8,299
Income	43,366	18.12	18.12	17.00	1.12	1.12	6.40	0.62	0.08	0.65	909
Inflation Linked Bonds	3,959	1.65	1.65	3.00	-1.35	-1.35	6.56	0.26	0.37	0.61	85
Commodities	3,693	1.54	1.54	1.00	0.54	0.54	20.56	1.04	0.52	3.88	249
Liquidity	8,013	3.35	3.35	4.00	-0.65	-0.65	2.65	-0.15	-0.26	0.39	70
Real Assets	21,820	9.12	9.12	11.00	-1.88	-1.88	18.63	9.27	0.86	6.95	1,332
Absolute Return	5,151	2.15	2.15	0.00	2.15	2.15	3.29	0.32	0.72	3.47	56
Beta Overlay	450	0.19	1.92 <sup>#</sup>	0.00	0.19	1.92		2.19	0.99		271
Currency Overlay	(4)	0.00	0.00	0.00	0.00	0.00		-1.12	0.48		292
<b>CalPERS Perf</b>	<b>239,292</b>	<b>100</b>	<b>104.07</b>	<b>100</b>	<b>0</b>	<b>4.07</b>	<b>15.78</b>	<b>100</b>	<b>1.00</b>	<b>1.70</b>	<b>12,375</b>

\*The maximum loss over 10 days at 95% confidence # Represents ARS Equity futures overlay of \$4Bn

# Regional Exposure



# Currency Exposure



# Top Industry Exposures and Contribution to Risk

March 31, 2012

Industry Group	Total Fund MV (in 1,000,000's)	Weight (%)	%CR to Total Risk
Energy	15,561	6.51%	9.22
Materials	11,732	4.90%	8.49
Capital Goods	11,737	4.91%	7.32
Real Estate (privately held)	17,510	7.32%	7.21
Banks	11,769	4.92%	6.58
Diversified Financials	7,695	3.22%	4.69
Software & Services	8,376	3.50%	4.35
Technology Hardware & Equipment	6,655	2.78%	3.73
Insurance	6,147	2.57%	3.40
Retailing	5,692	2.38%	3.10
	<b>102,873</b>	<b>43%</b>	<b>58%</b>

# Top Corporate Exposures & Contribution to Risk\*

March 31, 2011

Issuer	Market Value (in 1,000,000's)	Weight (%)	%CR to Total Risk
CITIGROUP INC#	2,358	0.99%	0.30%
APPLE INC	1,595	0.67%	0.81%
LYONDELLBASEL IND.	1,353	0.57%	1.53%
EXXON MOBIL CORP	1,277	0.53%	0.55%
JPMORGAN CHASE & CO	1,101	0.46%	0.43%
GENERAL ELECTRIC CO	917	0.38%	0.47%
MICROSOFT CORP	803	0.34%	0.33%
AT&T INC	714	0.30%	0.20%
INTERNATIONAL BUSINESS MACHS	711	0.30%	0.22%
ROYAL DUTCH SHELL A	684	0.29%	0.37%
	<b>11,517</b>	<b>4.81%</b>	<b>5.21%</b>

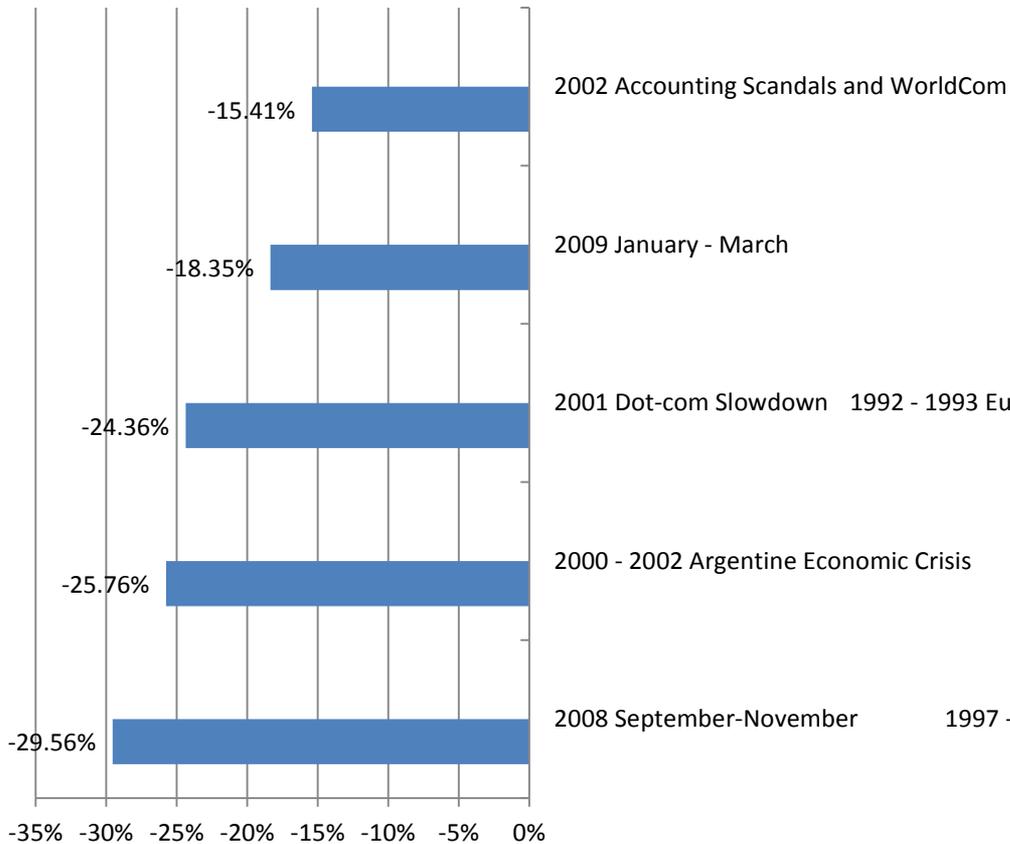
\* Includes: Public & Selected Private Equity, Fixed Income, Corporate Bond holdings.

\* Excludes: Government Agency, Private Equity and Real Estate holdings

# Includes asset backed securities with Citigroup entities as sponsor

# Comparison: Best & Worst Scenarios

## 5 Worst Scenarios for Total PERF



## 5 Best Scenarios for Total PERF

