CalPERS Chief Investment Officer Total Fund Performance and Risk Report

Period Ending March 31, 2013

Joe Dear, CIO

Investment Committee

May 2013

CalPERS | Investment Office

CalPERS CIO Total Fund Update

Economic and Market Conditions

The US continues to experience low and stable economic growth with inflation below 2%. Fundamentals continue slow improvement.

Portfolio Risk

Portfolio Total Risk continues to trend lower but remains elevated versus pre-crisis levels while Active Risk increased slightly from last quarter.

Total Fund Performance

The Total Fund has continued to generate strong total and relative performance for the fiscal year-to-date (FYTD) period.

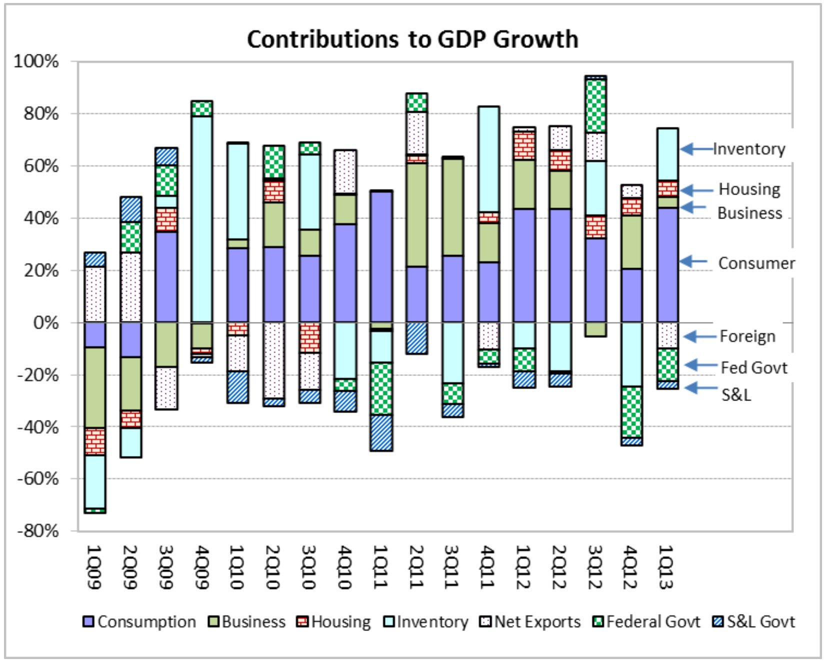
Economic Trends

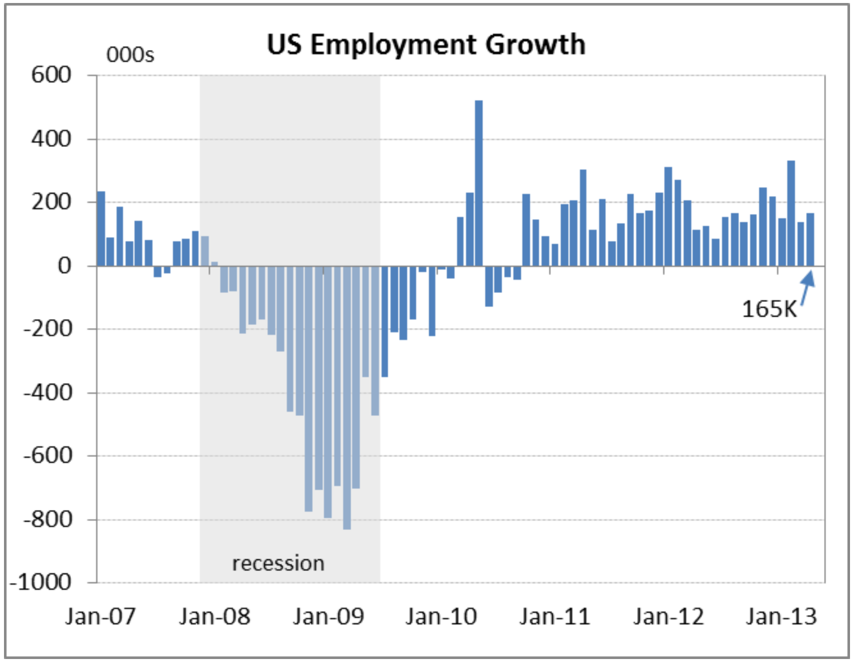
- While aggregate US GDP growth is subdued, most partial economic indicators are on an improving trend and central banks here and abroad are supportive.

Positive	Same Trend	Negative
- Private demand *Strong 3.5% growth rate in past two quarters, thus offseting fiscal austerity* **- Jobs market** *Jobs growth averaging 196K p/m this year vs 183K in 2012, 175K in 2011* **- Credit conditions** *Strength in consumer (non revolving) and small business credit* **- House prices** *Home price appreciation has accelerated to 9.3%* **- Housing starts and completions** *Further surge in multi starts, and now completions are starting to catch up* **- Easing by Bank of Japan and ECB** *Japan plans to double monetary base and ECB restarts easing process*	**- CPI inflation … steady and low** *Steady at just below 2% as energy and food prices and rents stabilize.* **- Consumer sentiment** *Conference Board and Michigan readings are mid range* **- Global business conditions** *Global PMIs and Leading Indices still show modest non-US growth*	**- Manufacturing** *ISM dipped to 50.7 in April and non utility production has slowed* **- Government spending** *Defense sector has been very weak, while state and local still falling* **- Retail spending** *-Fall off in March but the quarter was strong for retail and other spending* **- Subdued 'potential' growth** *Labor force and household formation growth not back to pre recession rate*

US Economy and Employment

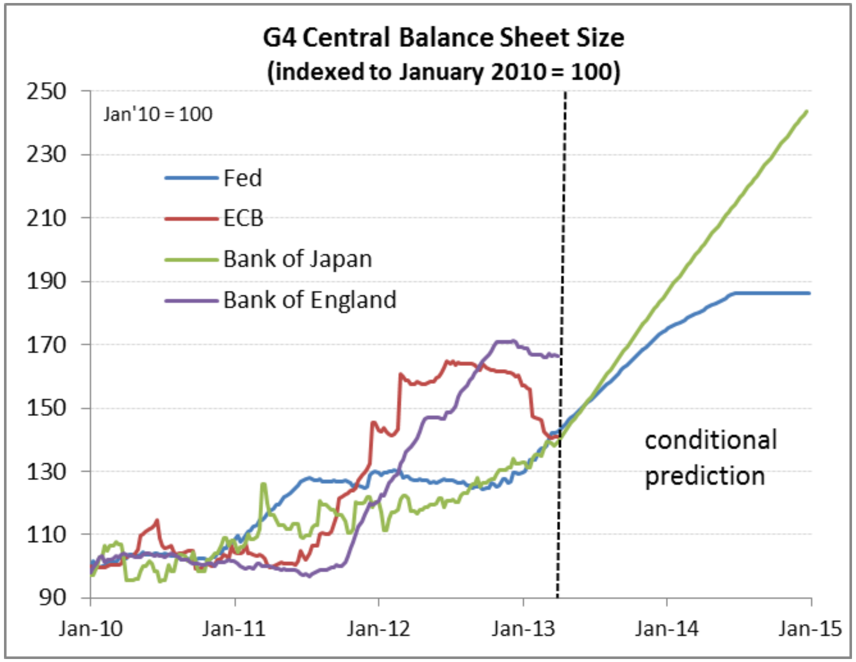
- The first estimate of US GDP growth in 1Q 2013 was 2.5%. For the second successive report, strong private final demand counteracted a decline in government spending.
- US job creation improved to 165K in April. The average so far this year (196K jobs per month) is higher than 2012 (183K p/m) and 2011 (175K p/m).

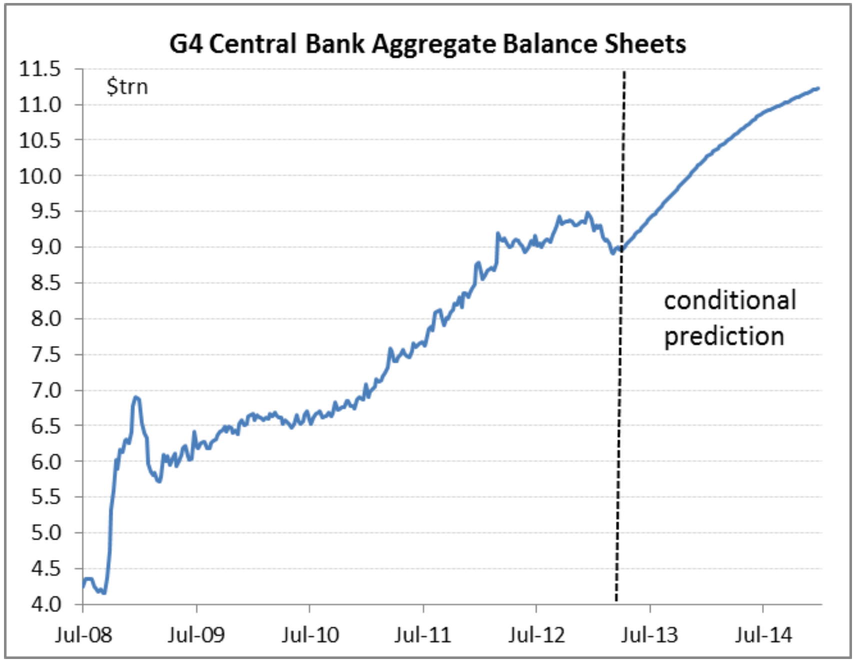




Current Issue – Liquidity Surge Still Ahead

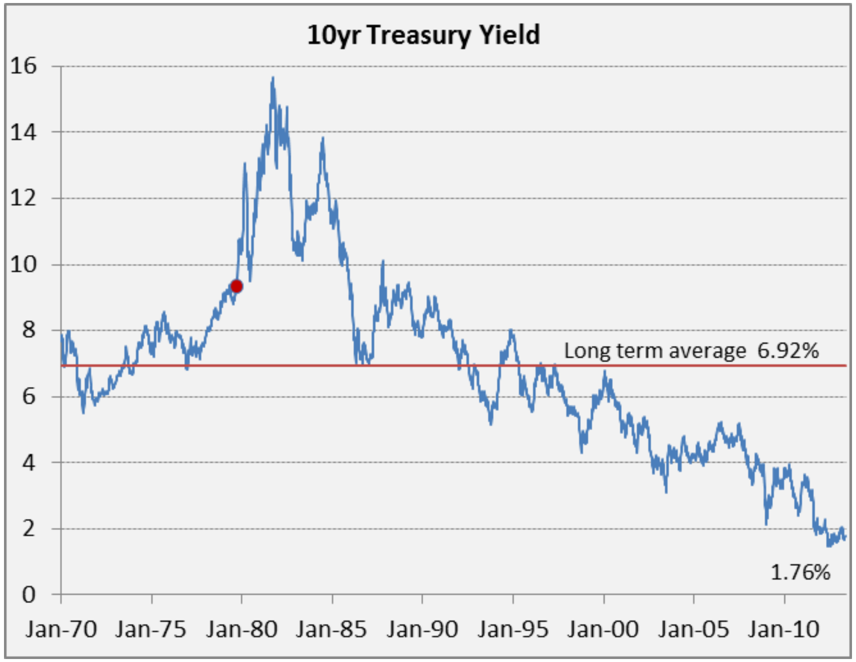
- One measure of global liquidity is the rate of balance sheet expansion by developed country central banks. Recently that measure has eased due to less quantitative easing (QE) in Europe.
- However now Japan plans to double its monetary base in the next two years and Japanese investors are likely to increase their purchases of foreign securities.

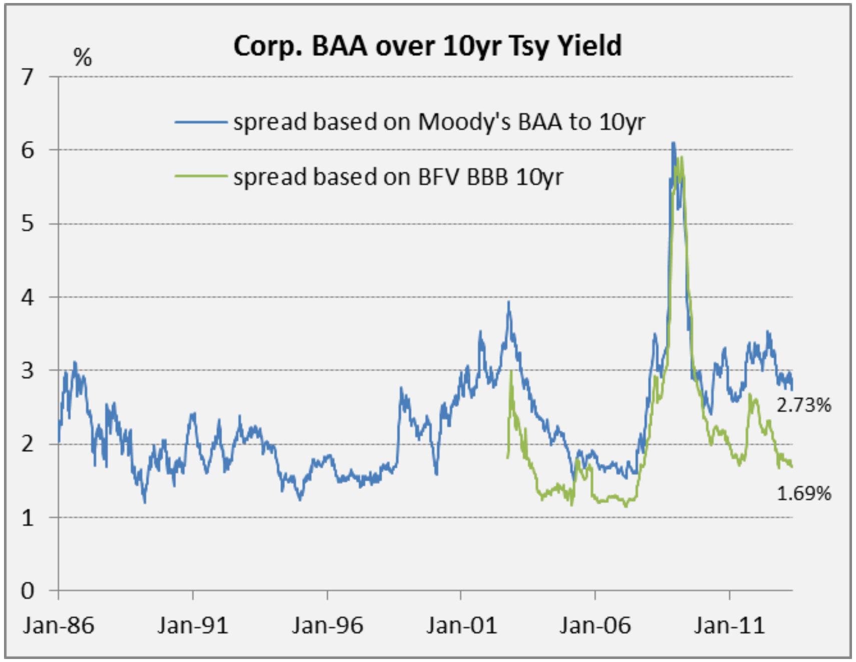




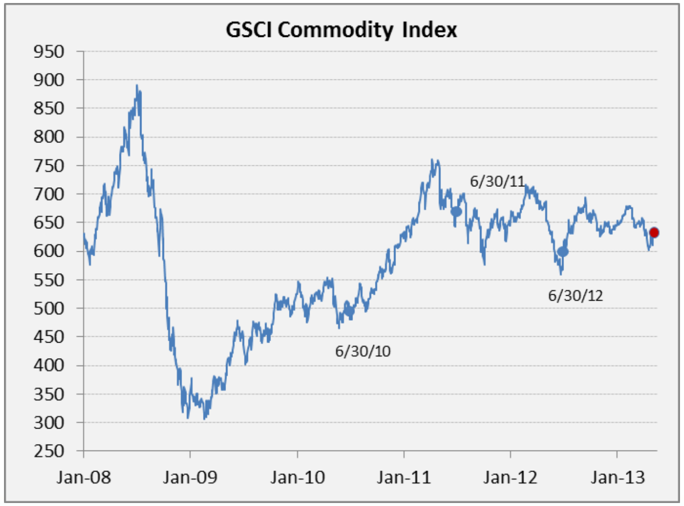
Market Environment

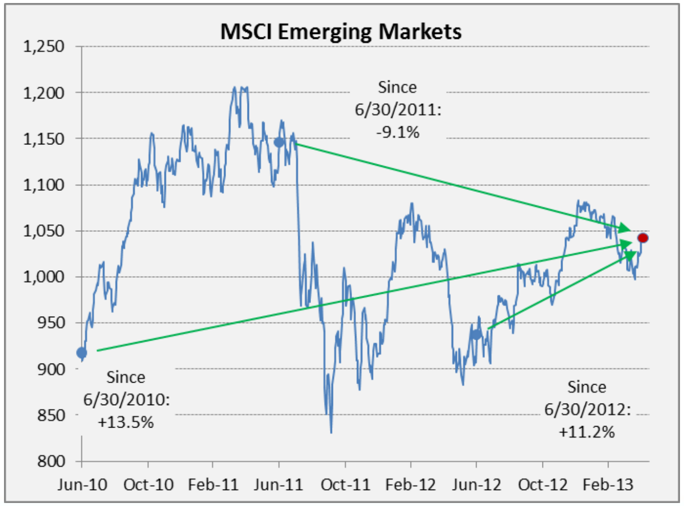
- Despite the strong equity and housing markets, US bond yields are suppressed by low inflation, a prospective dip in growth due to the sequester, and Fed policy.
- US corporate spreads have generally narrowed so far this year.





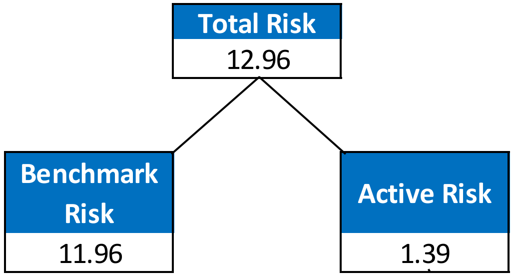
Market Environment

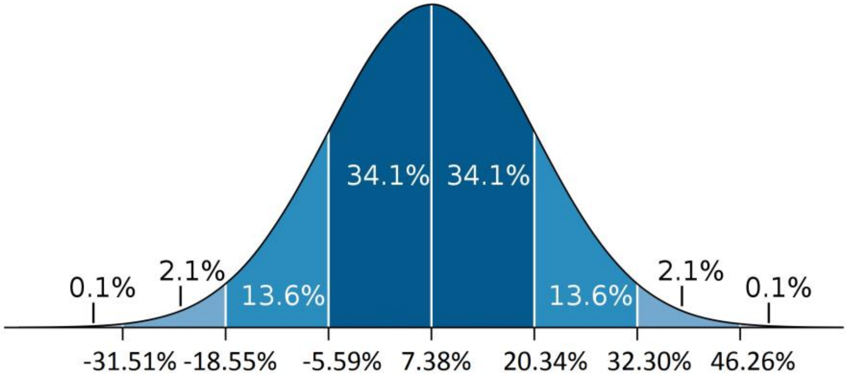




Total Fund Risk Profile

- Total Fund Forecast Risk is 12.96%
- Forecast Tracking Error is 1.39%
- Tracking Error Forecast is within guidelines



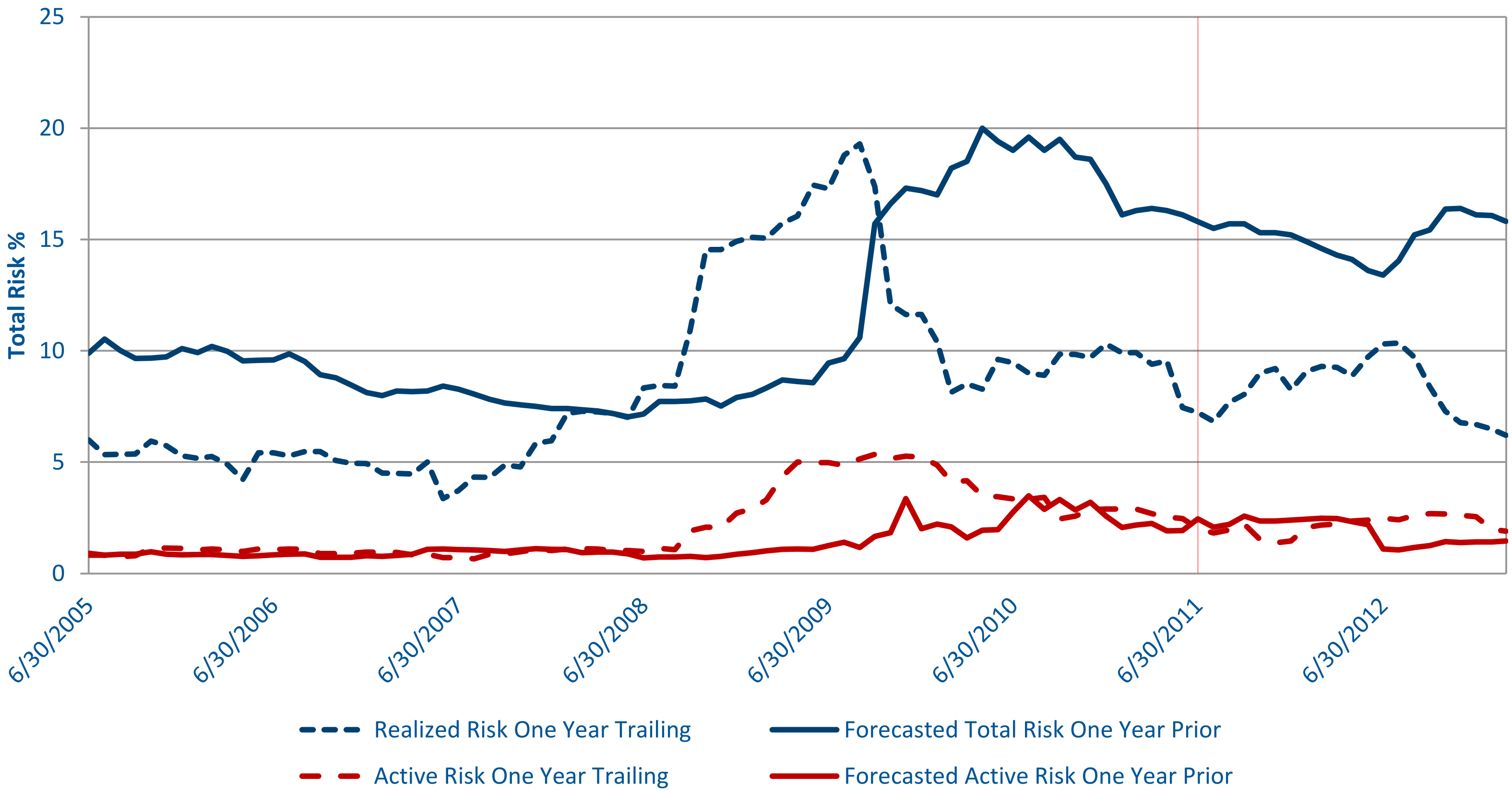


Forecasted Distribution of Returns*

*Based on Forecasted Returns from 2010 Asset Liability Workshop of 7.4% and Predicted Risk of 12.96%
Note: All risk statistics as of February 28, 2013

Forecasted Risk Time Series

Total and Active Risk - Forecasted and Trailing One Year Realized



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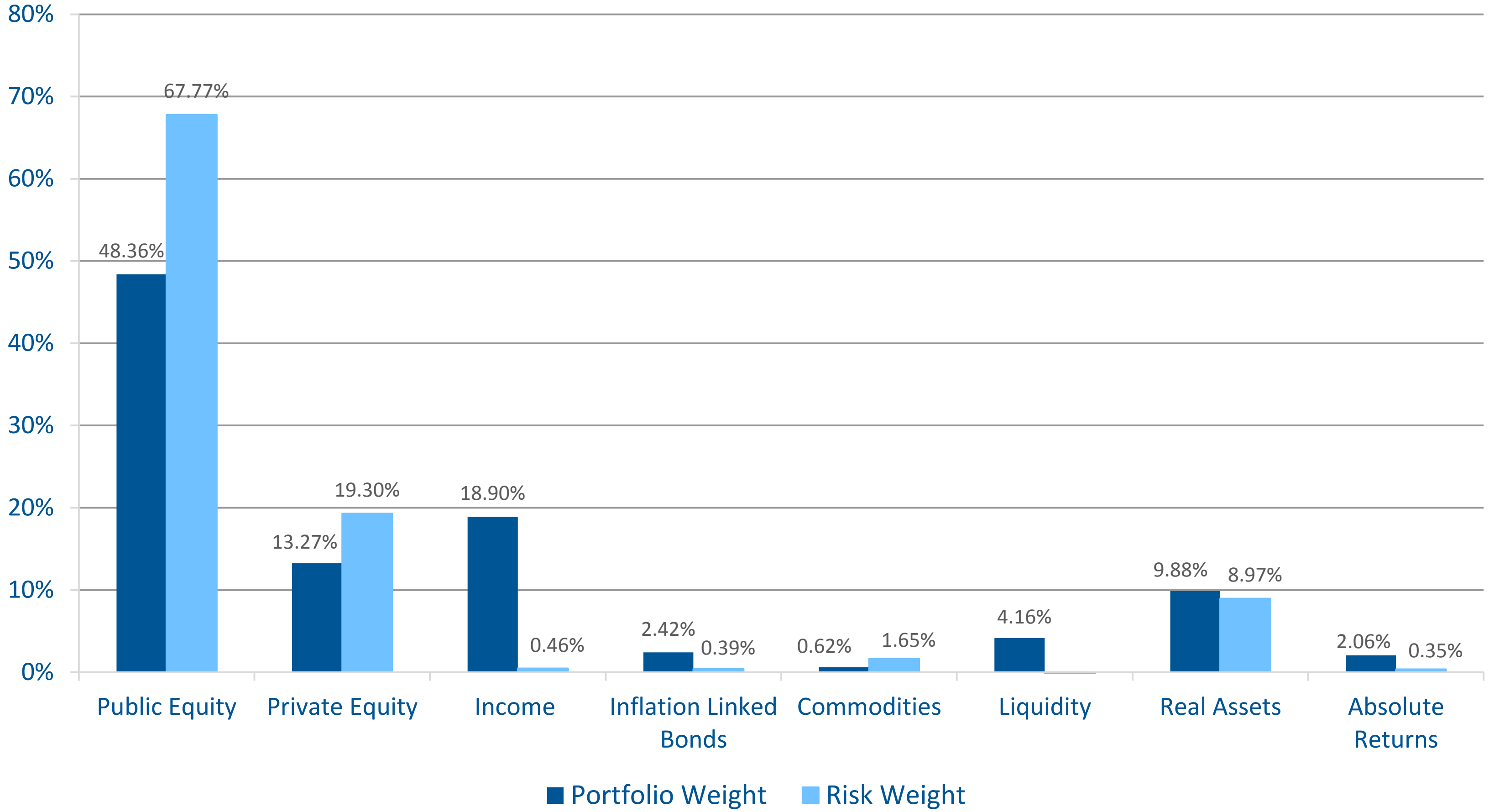
Contribution to Risk

Portfolio Weight and Contribution to Total Risk



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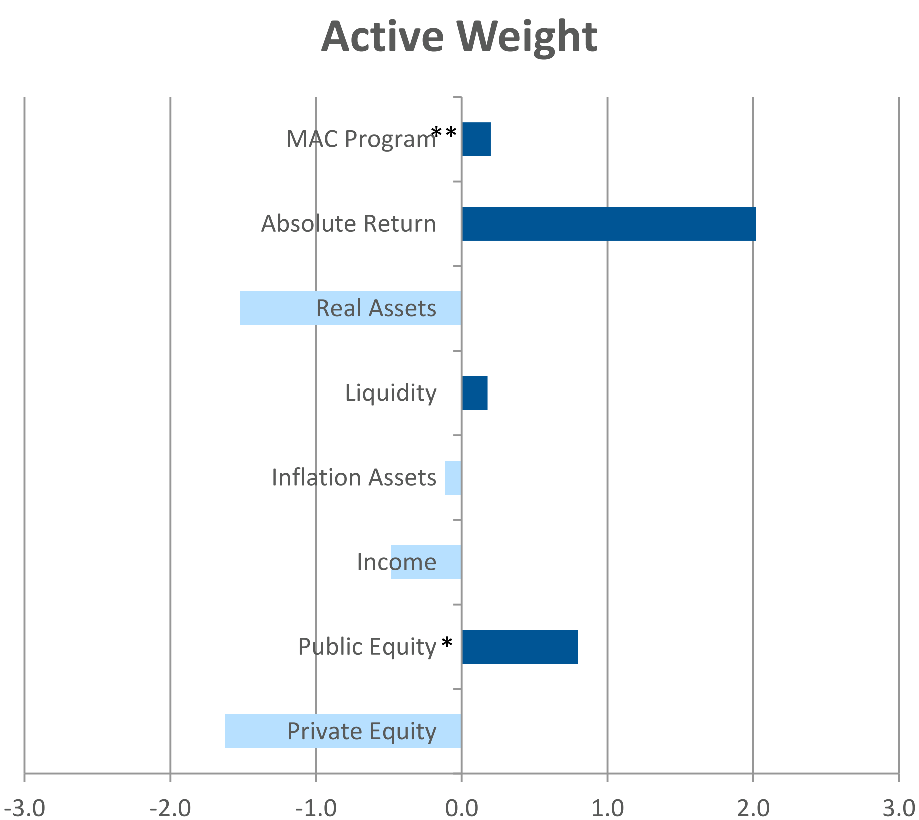
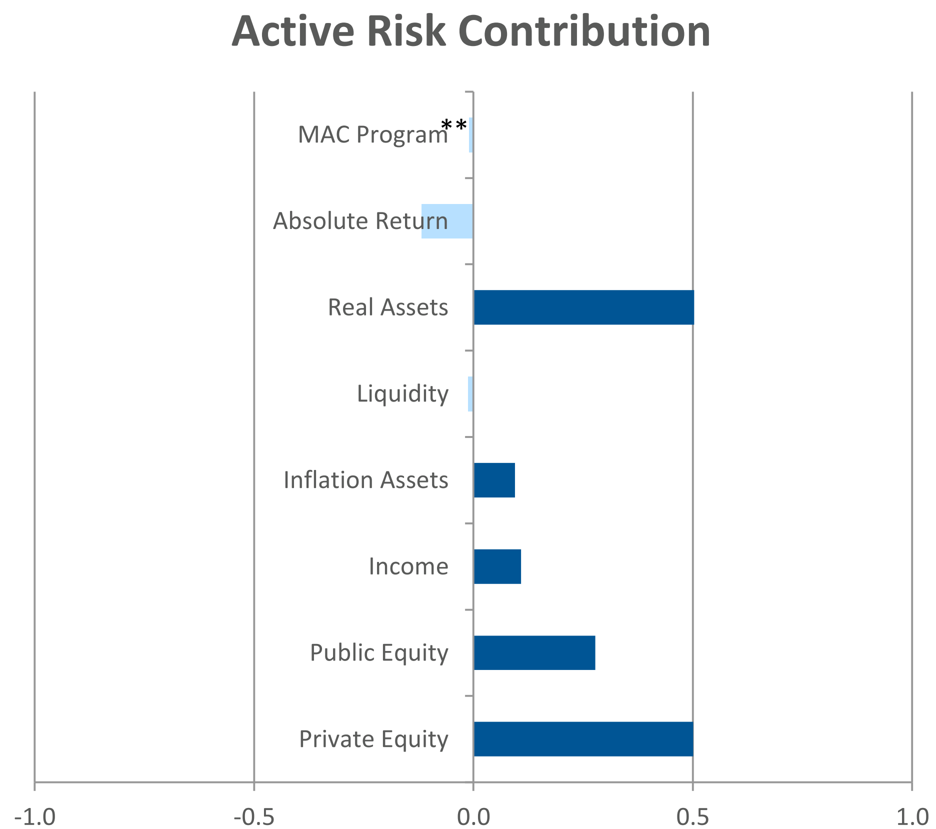
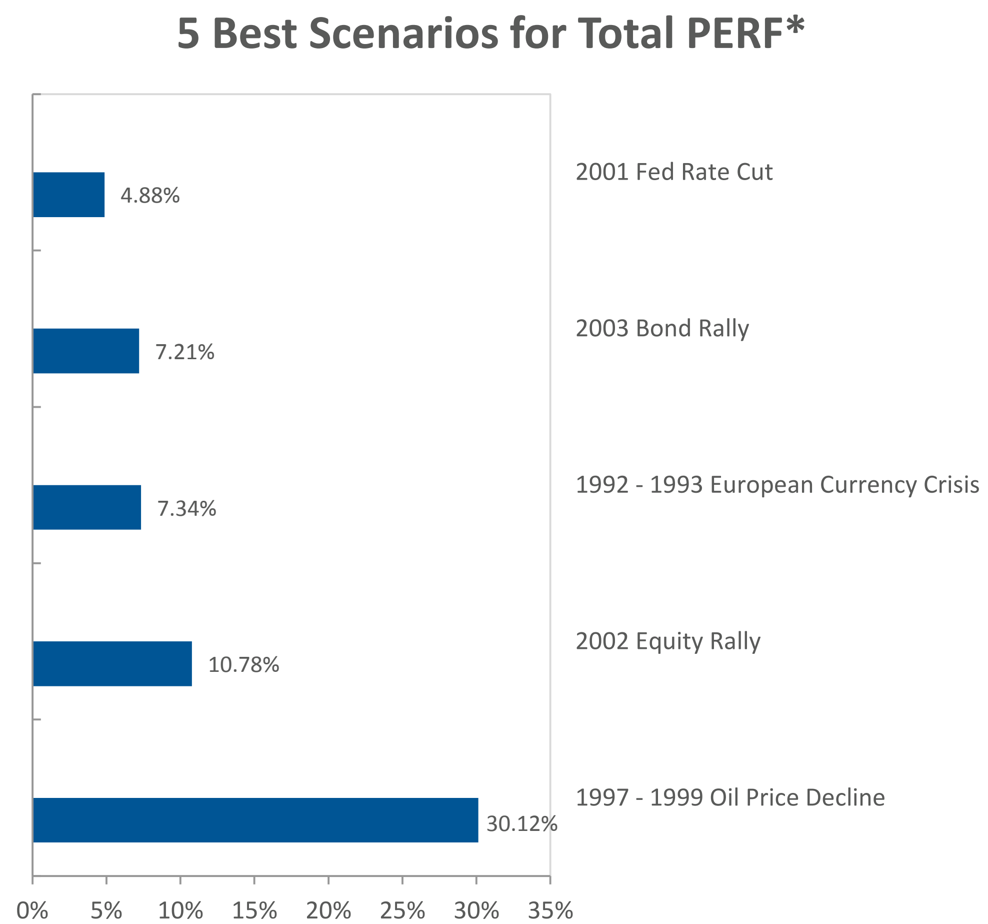
Active Portfolio Allocation





*Public Equity does not include ARS Equitization
** Multi-Asset Class (MAC) Program
Note: All risk statistics as of February 28, 2013

Scenario Analysis – Best and Worst



Note: All risk statistics as of February 28, 2013
* Public Employees' Retirement Fund (PERF)

Active Risk Summary Table

Asset Class	Market Value ($)	Total Risk (%)	%CR to Total Risk	Active Risk	Correlation	Value-at-Risk ($)	Conditional VaR($)*
Private Equity	31,712	19.08	20.2	5.97	0.95	1,945	2,447
Public Equity	130,177	17.88	79.8	0.38	0.93	7,447	9,347
Income	42,328	5.51	0.4	0.68	-0.03	784	995
Commodities	2,667	35.81	77.7	14.79	0.49	332	402
Inflation Linked Bonds	7,295	5.7	22.3	0.9	0.32	135	173
Real Assets	24,289	14.32	8.9	5.5	0.82	645	810
Liquidity	10,707	1.58	-0.2	0.48	-0.3	55	69
Absolute Return	5,178	3.74	0.5	3.87	0.78	54	68
MAC Program	509	7.37	0.1	7.37	0.71	12	15
Beta Overlay**	1,161	75.11	48	57.55	0.98	277	353
Currency Overlay***	243	365.8	52	365.83	-0.54	297	371
CalPERS PERF	**256,270**	**12.96**	**100**	**1.39**		**10,882**	**12,961**

*10 day, 95% confidence Monte Carlo VaR simulation

** Beta Overlay market value is collateral held in the portfolio

*** Currency Overlay market value is the net mark to market on the derivatives in the portfolio

Note: All risk statistics as of February 28, 2013

Top Equity* Issuer Value at Risk

Asset Name	Value-At-Risk($ mm)**	Mkt Value ($ mm)	Weight (%)
LYONDELLBASELL INDUSTRIES	136	826	0.51%
APPLE INC	87	835	0.52%
SAMSUNG ELECTRONICS	67	539	0.33%
EXXON MOBIL CORP	57	815	0.50%
HSBC HOLDINGS	53	529	0.33%
GENERAL ELECTRIC CO	43	490	0.30%
NESTLE	36	585	0.36%
CHEVRON CORP NEW	36	465	0.29%
MICROSOFT CORP	36	476	0.29%
BANK OF AMERICA CORPORATION	35	240	0.15%
BHP BILLITON LIMITED	35	315	0.19%
GOOGLE INC [A]	33	425	0.26%

*Public Equity including listed equity held via Private Equity partnerships
**10 day, 95% confidence Monte Carlo VaR simulation
Note: All risk statistics as of February 28, 2013

Total Fund Performance Summary

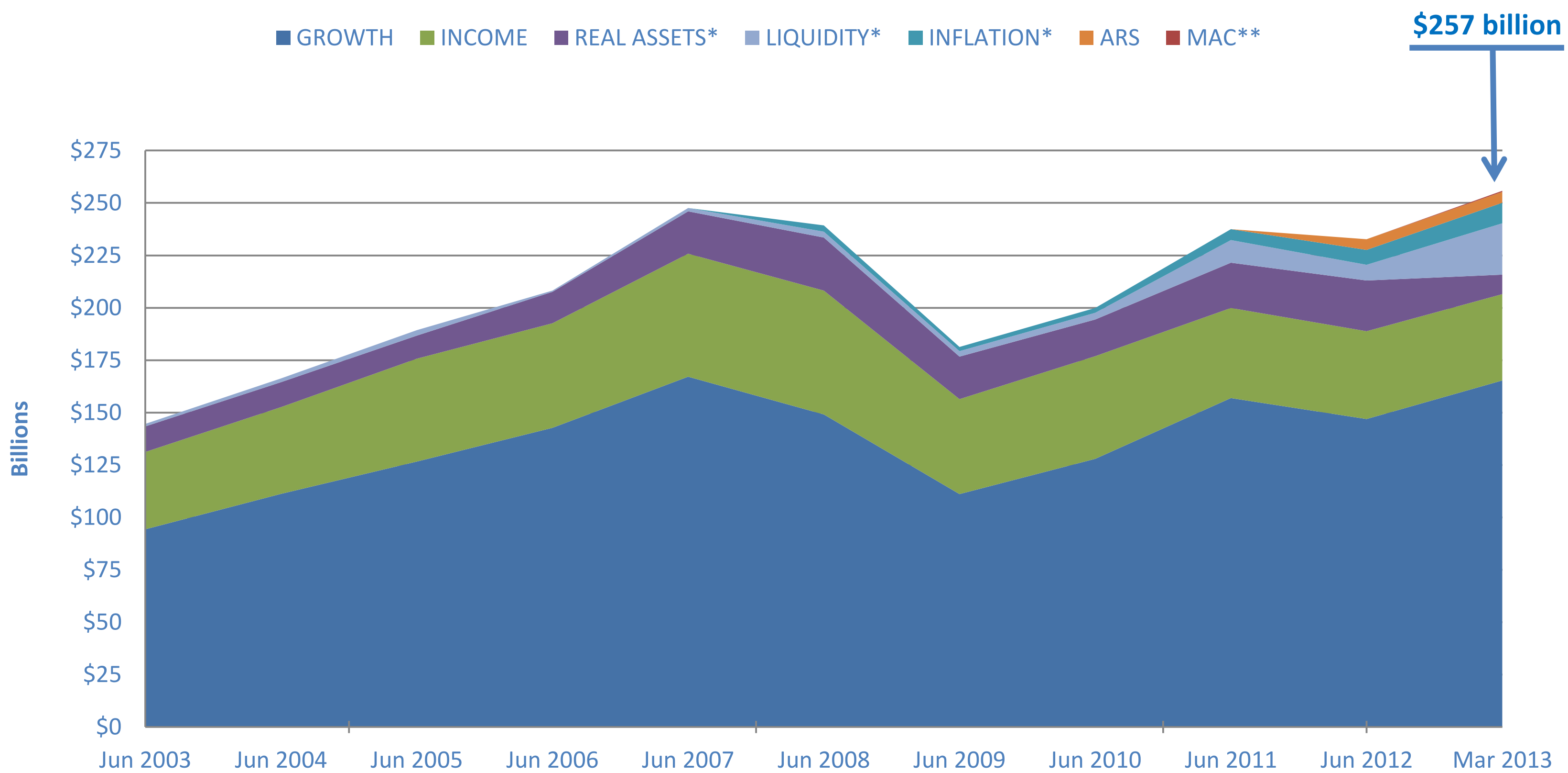
- Fiscal year-to-date return of 11.9% outperformed strategic benchmark by 136 basis points (BPS)
- Both 10-year and 20-year returns underperformed strategic policy benchmark by 83 BPS and 12 BPS respectively
- 10-year return of 8.1% and 20-year return of 7.8% are above current actuarial return expectation of 7.5%

	EMV* (Millions)	FYTD	1-YR	3-YR	5-YR	10-YR	20-YR	ITD**	Inception Date
TOTAL FUND	**$257,395**	**11.94**	**10.93**	**9.09**	**2.79**	**8.11**	**7.76**	**8.57**	**07/88**
POLICY INDEX		*10.58*	*10.57*	*9.31*	*5.09*	*8.94*	*7.88*		
Excess Return		*1.36*	*0.36*	*(0.22)*	*(2.30)*	*(0.83)*	*(0.12)*		

*Ending market value (EMV)
** Inception to date (ITD)
Note: Performance data As Of March 31, 2013

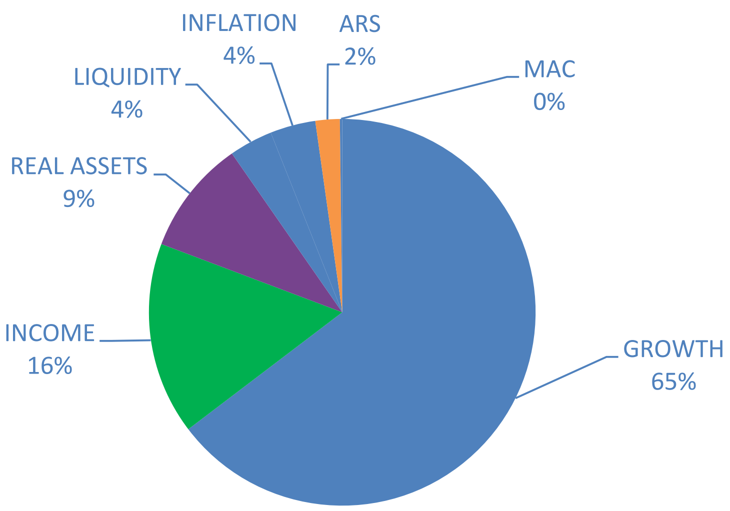
Total Fund Allocation Trend

Total Fund up $92 billion from February 2009

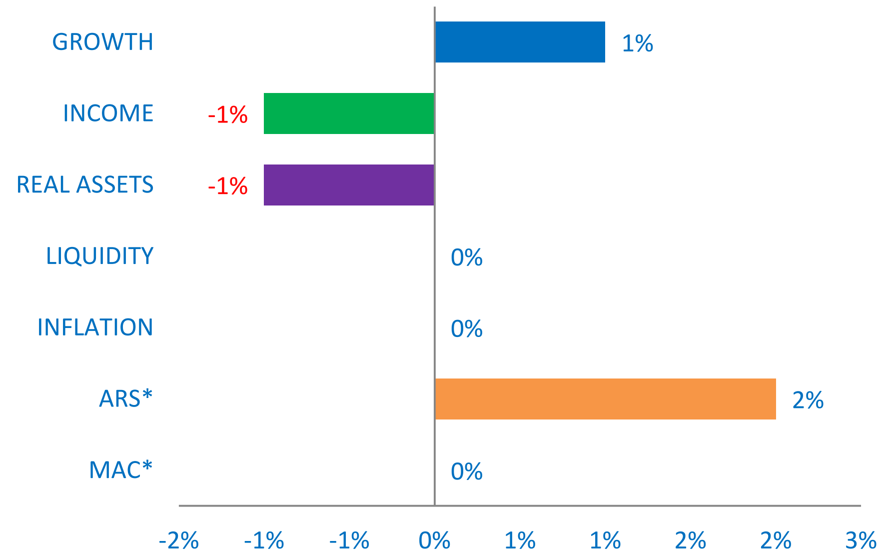


* Inflation, Liquidity and Real Assets were created on July 1, 2011 from existing portfolios; therefore historical values are being represented for prior years.
** MAC funded in December 2012.

Asset Allocation



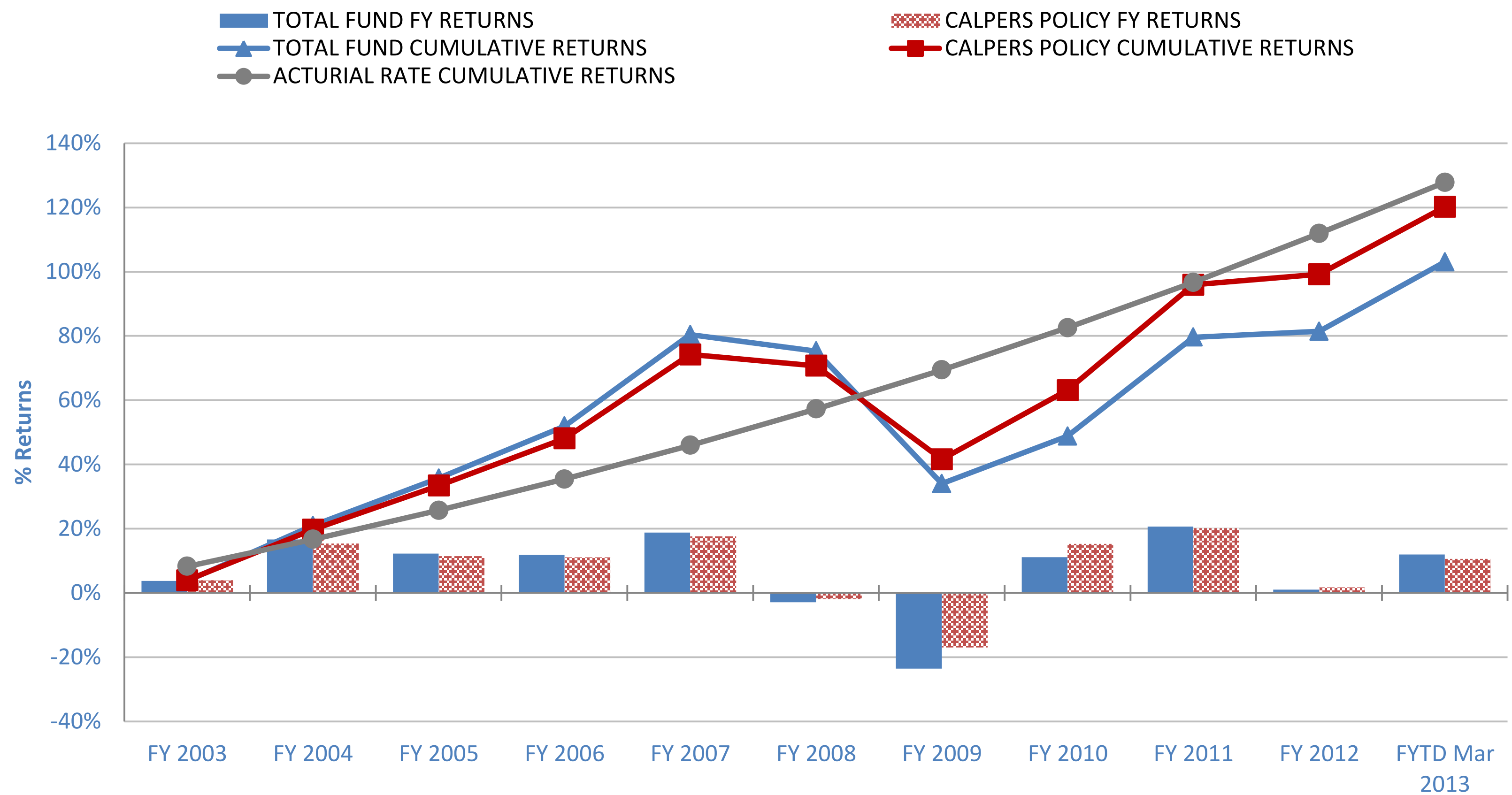
Actual Portfolio Allocation**



Active Portfolio Allocation

*ARS and MAC do not have Policy Target Allocations.
** Portfolio Allocation is based on interim allocation targets and does not include Currency Overlay, Transition and Plan Level Portfolios
Note: As of March 31, 2013

Total Fund Cumulative Returns



Data as of March 31, 2013

*Inflation, Liquidity and Real Assets created July 1, 2011 from existing portfolios; historical values represented for prior years.

** Actuarial Rate FY 2003 – FY 2011 is 7.75%, FY 2012 – FYTD March 2013 is 7.5%

Total Fund Long-Term Performance

- Long-term returns continue to be dominated by a sizable allocation to Growth assets with a 64% policy target:
  - Public Equity has delivered 9.2% return over the 10 year period while underperforming the policy benchmark by 36 bps.
  - Private Equity has delivered 11.9% return over the 10 year period while underperforming a challenging policy benchmark by 99 bps.
- Income continues to generate consistent, stable returns with a 10-year return of 7.4%.
- Real Estate continues to have a negative long-term impact with a 10-year return of 2.5%, however short-term returns have improved.

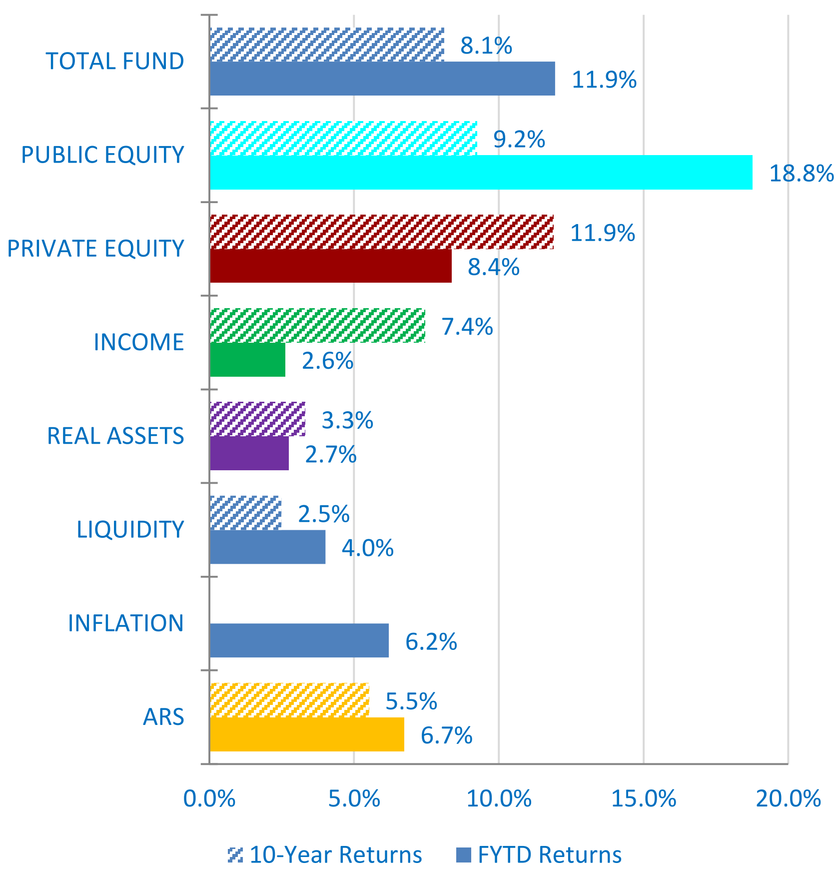
Total Fund FYTD Performance

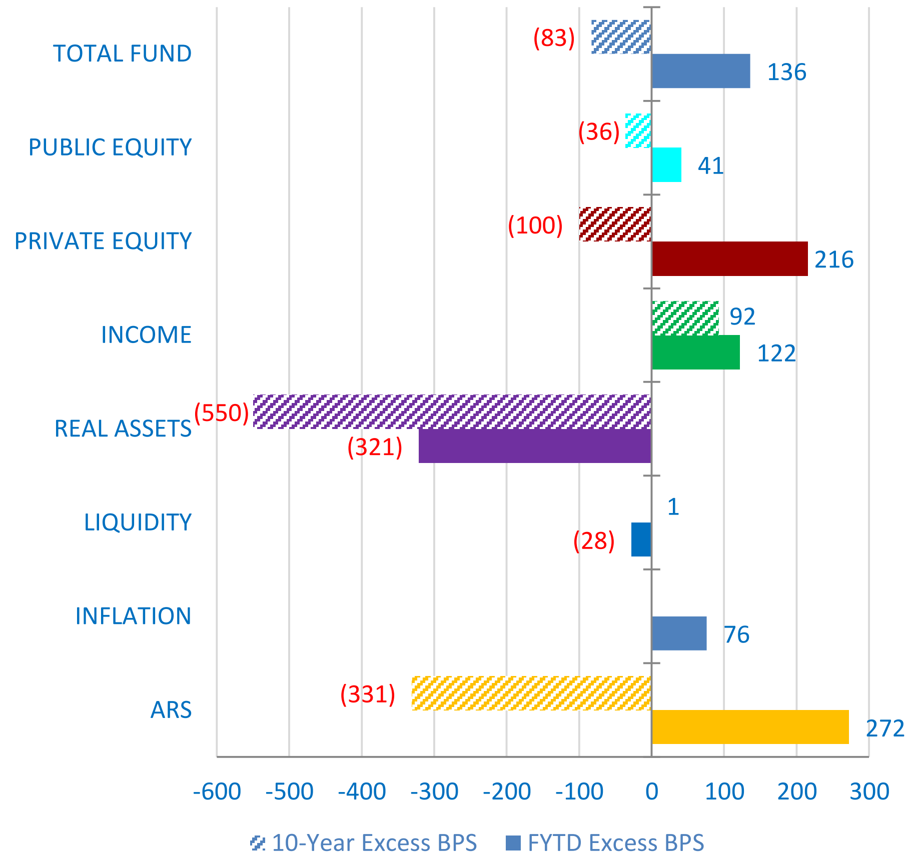
Asset Class	Average Weight (%)	FYTD Return (%)	Contribution to Return (%)
Total	**100.0**	**11.9**	**11.9**
GROWTH	62.9	16.4	10.1
PUBLIC EQUITY	*49.5*	*18.8*	*9.0*
PRIVATE EQUITY	*13.4*	*8.4*	*1.1*
INCOME	17.4	2.6	0.5
REAL ASSETS	10.0	4.0	0.4
INFLATION	3.2	6.2	0.2
LIQUIDITY	3.9	0.4	0.0
ARS	2.1	6.7	0.1
MAC	0.1	3.5	0.0
OVERLAY, TRANS., PLAN LEVEL	0.5	*135.4**	0.4

- Growth assets are primary contributors to FYTD returns accounting for 10.1% of total return.
- Overlay and Transition strategies accounted for 0.4% of total return.

Source: FactSet; Weights and returns calculated utilizing monthly linked returns.
*Returns in the Overlay strategy are significantly impacted through the use of derivatives with capital allocated to other asset classes thus returns are not directly comparable to those of the other asset classes.

Total Returns and Relative Returns





Note: Performance data as of March 31, 2013

Asset Class Positioning

- Public Equity is currently positioned with the following overweight positions:
  - Region and Country: Japan, European Financials, Emerging Markets
  - Style: Value and Small Cap
- Global Fixed Income has the following active positions:
  - Overweight Financial Corporate Bonds of 1%
  - Overweight position in AAA Commercial Mortgage-Backed Securities (CMBS) of 2%
  - Initiated overweight position in High Yield Bonds of 2%
  - Underweight position in International Bonds of 2.5%

Asset Class Positioning

- Private Equity (PE) continues to focus on manager selection within a strategic allocation:
  - Portfolio is being restructured while performance continues to be driven by Buy Out that represent 60 % of the PE portfolio
  - Separate account and co-investment strategies implemented in 2012 have shown strong early performance, mitigating the J-curve for the 2012 vintage year investments with a 16.4% one year return
  - Restructuring plan presented to the Investment Committee in September 2011 is on track and progressing well

Asset Class Positioning

- Real Assets continues to seek opportunities aligned with Strategic Plan:
  - Real Estate continues to implement the transition plan from Legacy Portfolio to Strategic Portfolio:

Real Estate	EMV (millions)	3-YR	5-YR	10-YR
Legacy	7,416	4.1%	-16.0%	-0.6%
Strategic	14,428	13.4%	0.7%	14.3%
Total	**21,844**	**7.9%**	**-12.0%**	**2.6%**

  - Real Estate and Infrastructure remain below their respective strategic targets with staff seeking investable opportunities to reach target
  - Real Estate strategic domestic portfolio is overweight in retail sector and underweight in office sector

Conclusion

- The US economic expansion continues at a modest pace with low inflation, while underlying fundamentals continue to slowly improve.
- Portfolio Total Risk levels remain elevated versus pre-crisis levels but Active Risk remains within established Policy limits.
- Strong FYTD performance continues trend of performance recovery since financial crisis.