

CalPERS Chief Investment Officer Total Fund Performance and Risk Report

Period Ending December 31, 2012
Joe Dear, CIO

Investment Committee
February 2013

CalPERS CIO Total Fund Update

Economic and Market Conditions

Global economic conditions continue slow improvement with resilient equity markets supporting strong total returns.

Portfolio Risk

Active and Total Risk have been reduced from prior periods with Active Risk remaining within established Policy limits.

Total Fund Performance

Total Fund portfolio has generated strong total and relative performance for the Fiscal Year to Date (FYTD) period.

Economic Trends

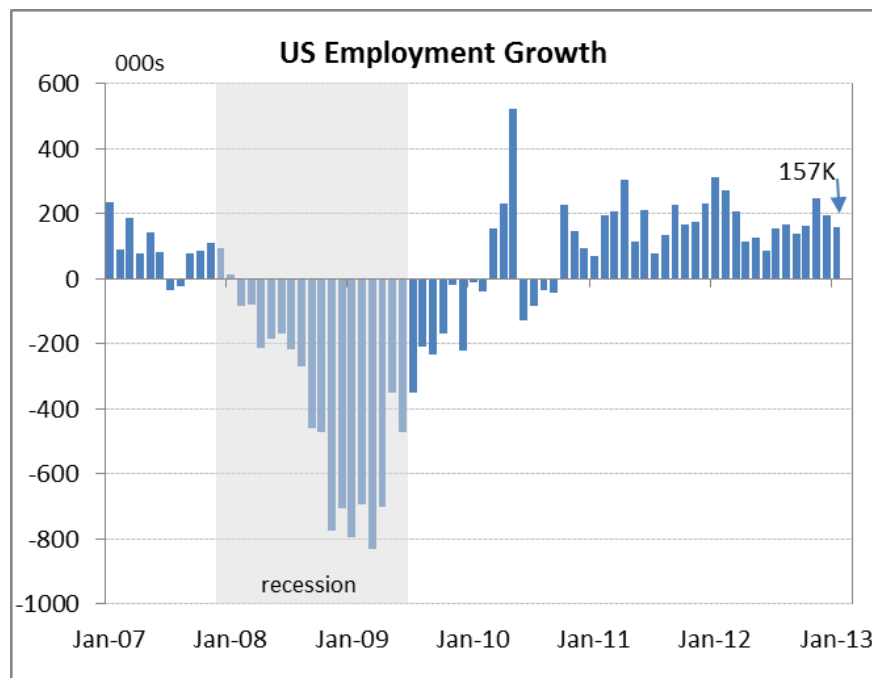
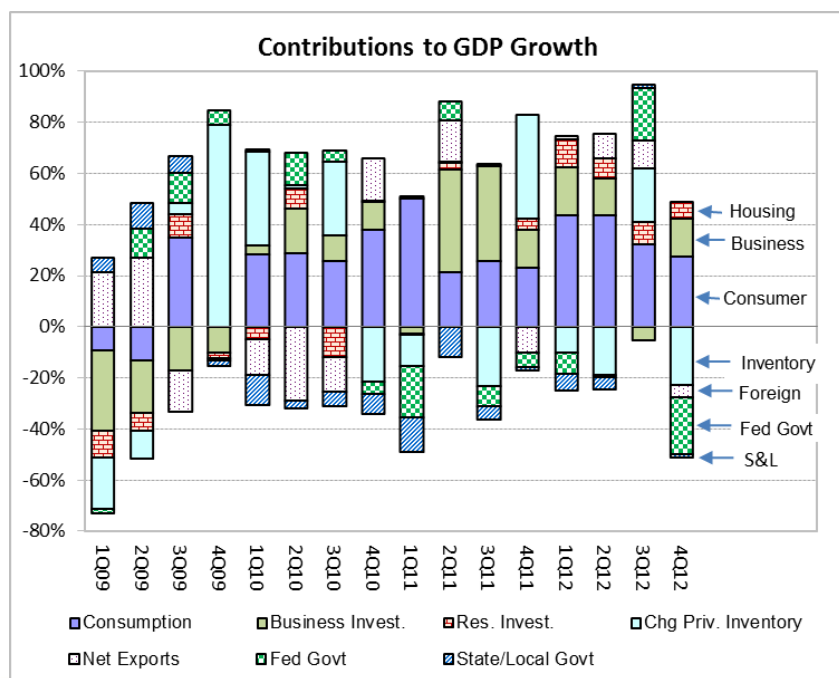
- US GDP growth turned slightly negative in 4Q 2012, largely due to weather events and transitory factors. Since the end of the recession the recovery has been slow and gradual, averaging 2.1% growth.
- Other economic data has on balance been encouraging, including housing, the jobs market and business orders for capital equipment.

Economic Indicator Summary *								TREND
		4Q11	1Q12	2Q12	3Q12	4Q12	1Q13	
National Accounts								
GDP	%	4.1%	2.0%	1.3%	3.1%	-0.1%		1.5%
Monthly Indicators								
Jobs per month	000s	190	262	108	152	201	157	
Unemployment rate	%	8.7	8.3	8.2	8.0	7.8	7.9	
Retail sales	\$bn	397	404	403	408	414		4.2%
Consumer Sentiment	Index	53.6	67.4	65.3	65.0	70.4	58.6	
Housing starts	000s	678	715	736	774	898		32.4%
Capex orders	\$bn	65.3	65.4	64.4	60.1	63.1		-3.3%
Fed budget balance	\$bn	-1250	-1246	-1231	-1089	-1060		
CPI inflation	%y	3.3	2.8	1.9	1.7	1.9		
Global								
GLOBAL PMI	Index	52.0	54.8	51.6	51.7	52.8		

* for monthly data, table shows quarter-to-date average

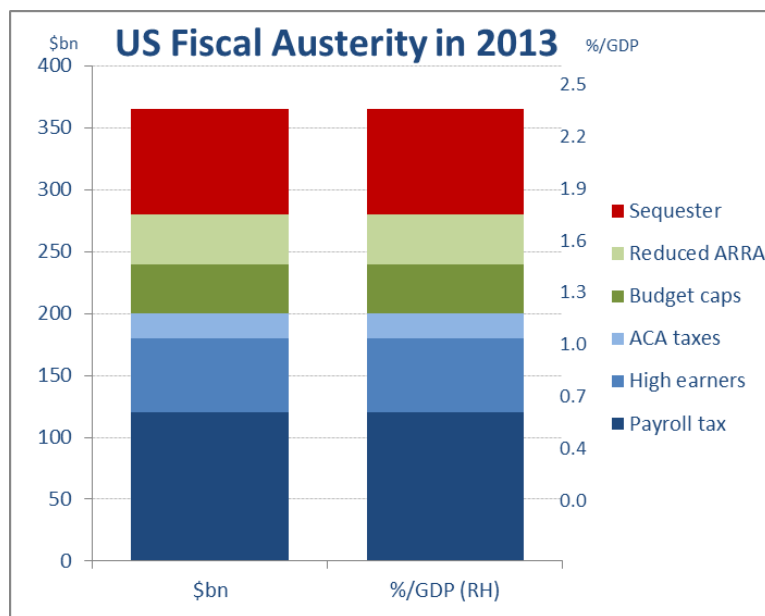
US Economy and Employment

- US 4Q 2012 GDP recorded its first drop since the recession, -0.1%. Private final demand recorded a 3.3% rise but there were sharp subtractions from inventories, exports and defense.
- The US economy created 157K jobs in January. There were upward revisions to last year, raising the average monthly jobs growth from 152K to 181K.



Current Issue – US Fiscal Hurdles

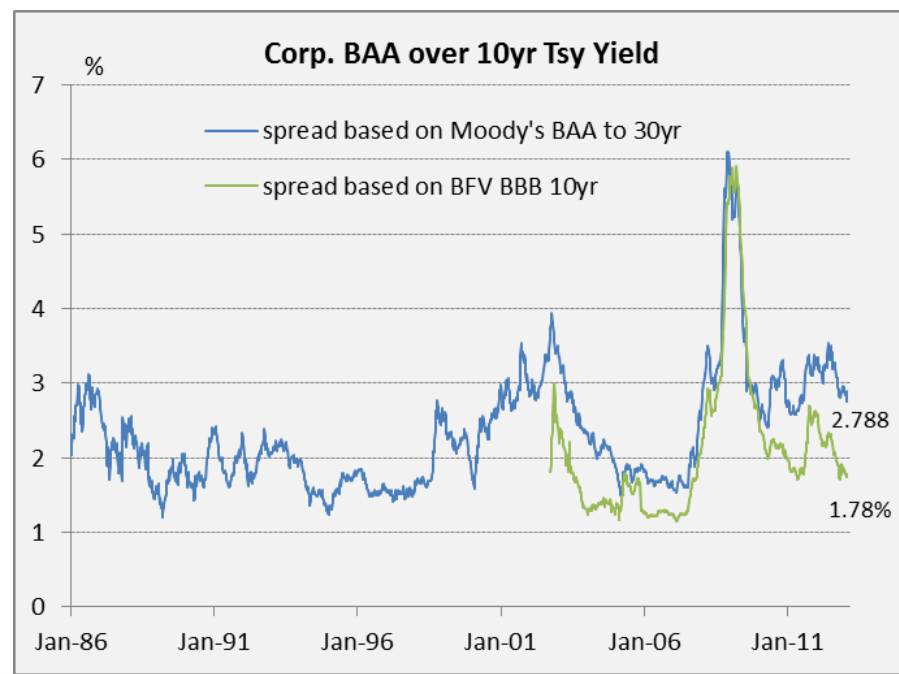
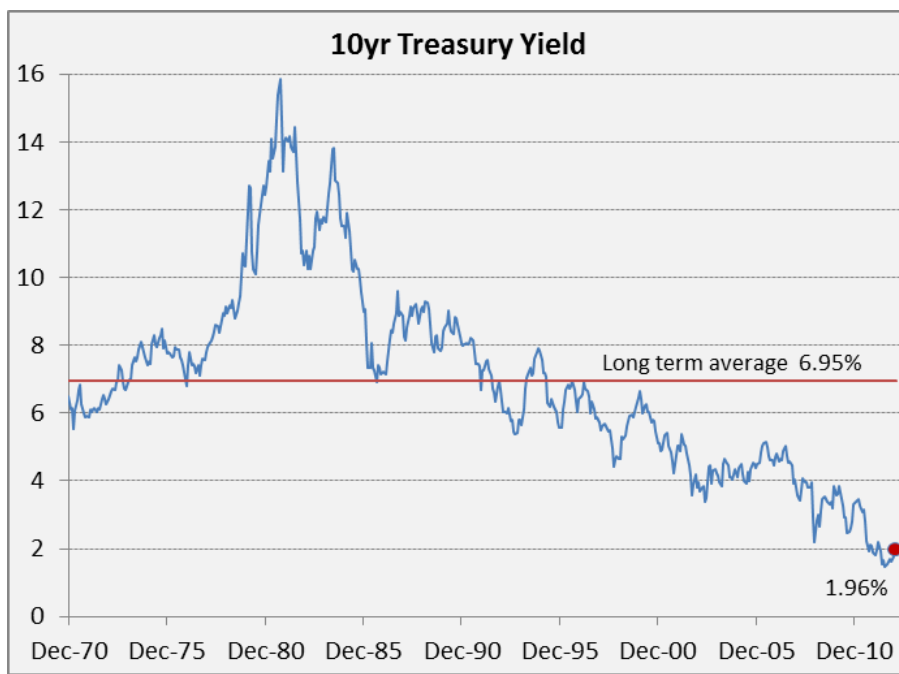
- US fiscal austerity could have up to a \$365 billion (2.3%/GDP) impact to the economy if sequestration starts on March 1 as scheduled.
- This would represent nearly twice the impact to the economy that was experienced in both 2011 and 2012 from a federal budget perspective.
- The economy is now stronger resulting in federal deficits falling from \$1,250bn during 2011 to \$1,060bn during 2012 and a forecasted ~\$800bn during 2013.



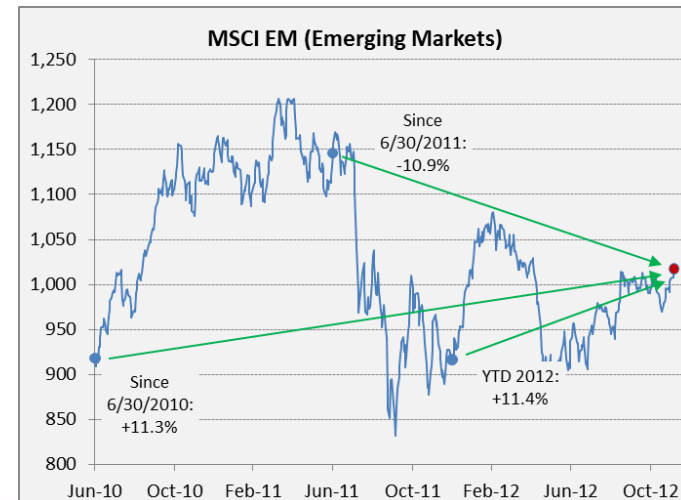
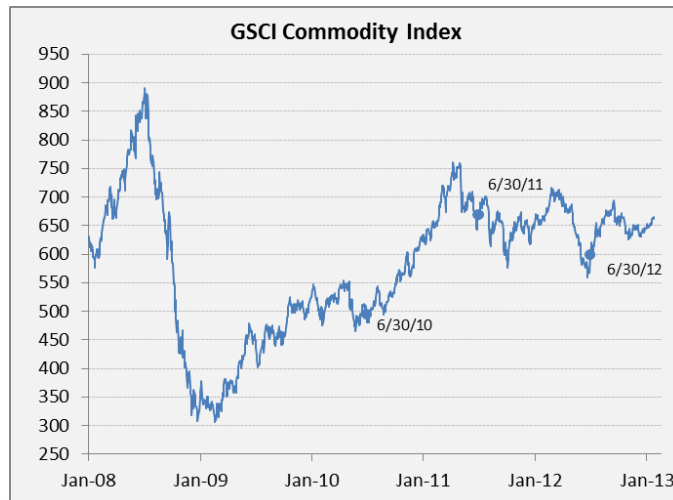
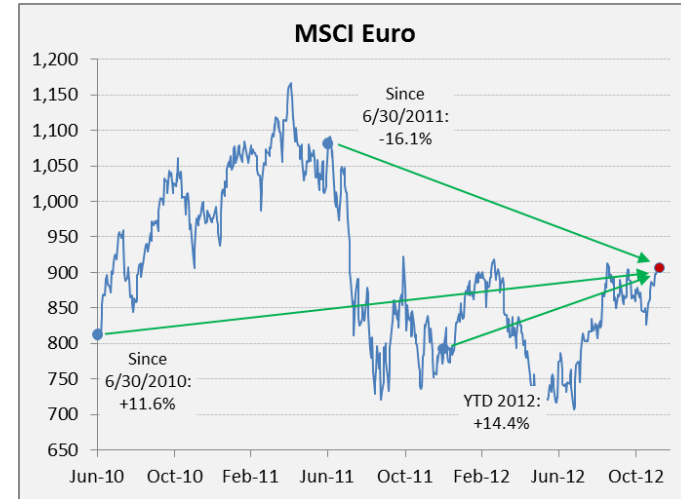
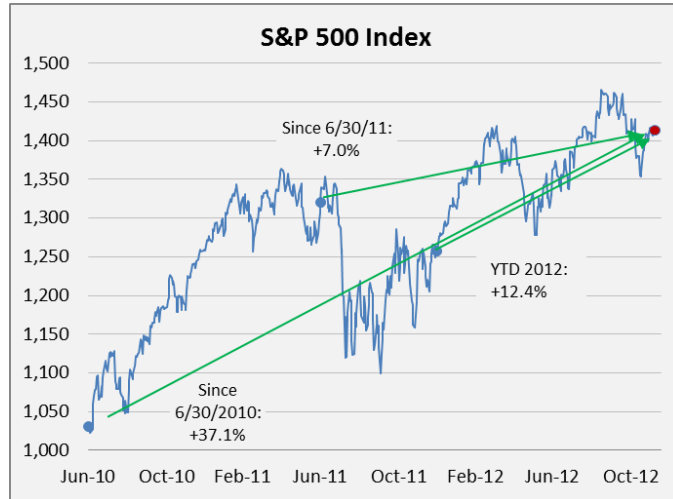
Key Fiscal Dates Remaining in 2013		
Date	Event	Comment
1-Mar	Revised 'sequestration' starts	If Congress does nothing, \$85bn of spending cuts kick in for Mar-Dec 2013 and another \$1trn for 2014-2021.
27-Mar	Continuing resolution expires	Six-monthly budget funding authorization expires, thus requiring another CR to avoid government shutdown.
15-Apr	Budget adoption	Congress bill required House and Senate to pass FY13 budgets by 4/15 or Congress' pay is suspended.
19-May	Debt ceiling extension expires	Congress allowed \$16.4trn debt ceiling to be extended to 5/19. However Treasury 'tricks' could extend to Aug.

Market Environment

- In recent weeks, US Treasury yields have increased toward 2% whilst equities, corporate bonds and commodities have all performed well.
- Risk-on has been encouraged by QE, partial resolution of the US fiscal cliff and a stronger outlook for China.

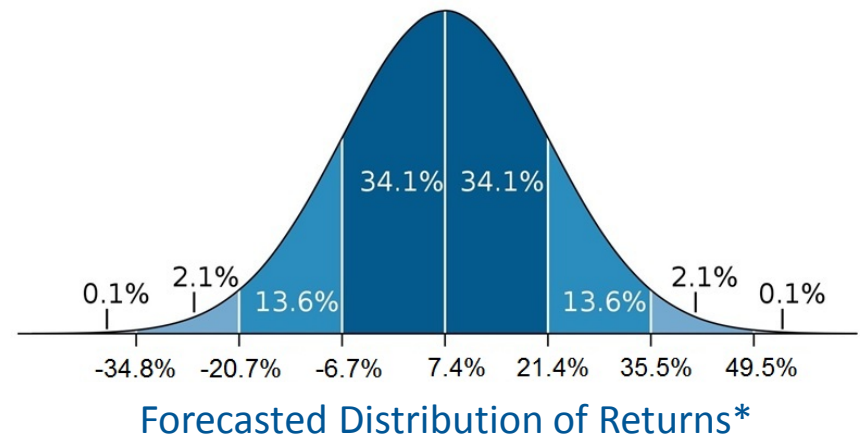
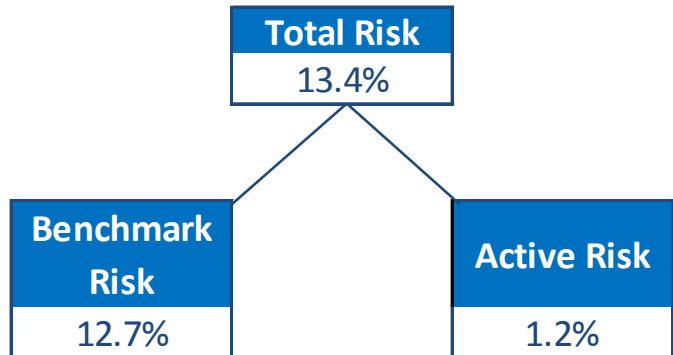


Market Environment



Total Fund Risk Profile

- Total Fund Forecast Risk is 13.4%
- Forecast Tracking Error is 1.2%
- Tracking Error Forecast is within Policy limits

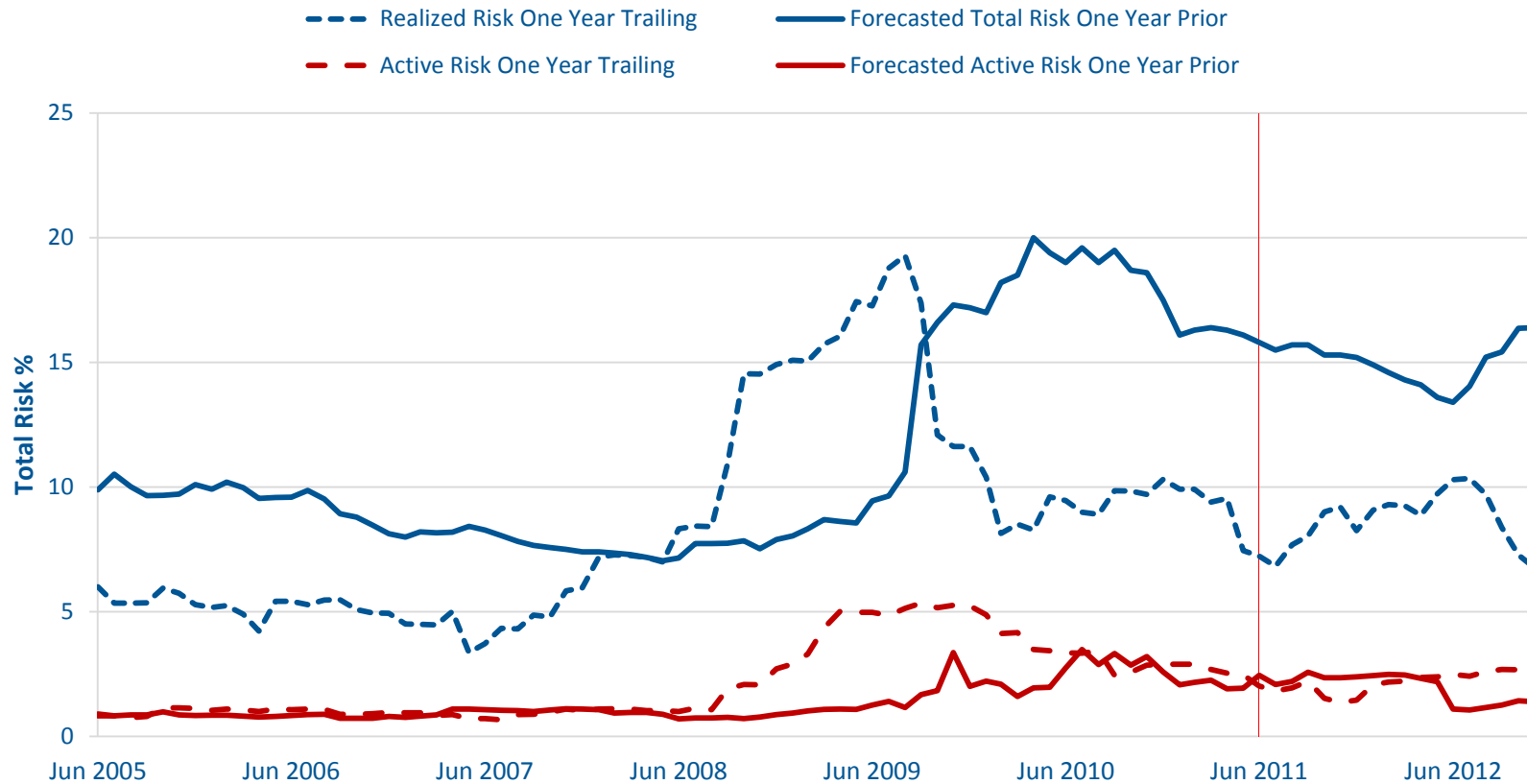


*Based on Forecasted Returns from Asset Liability Workshop of 7.4% and Predicted Risk of 13.4%

Note: All risk statistics As Of November 30, 2012

Forecasted Risk Time Series

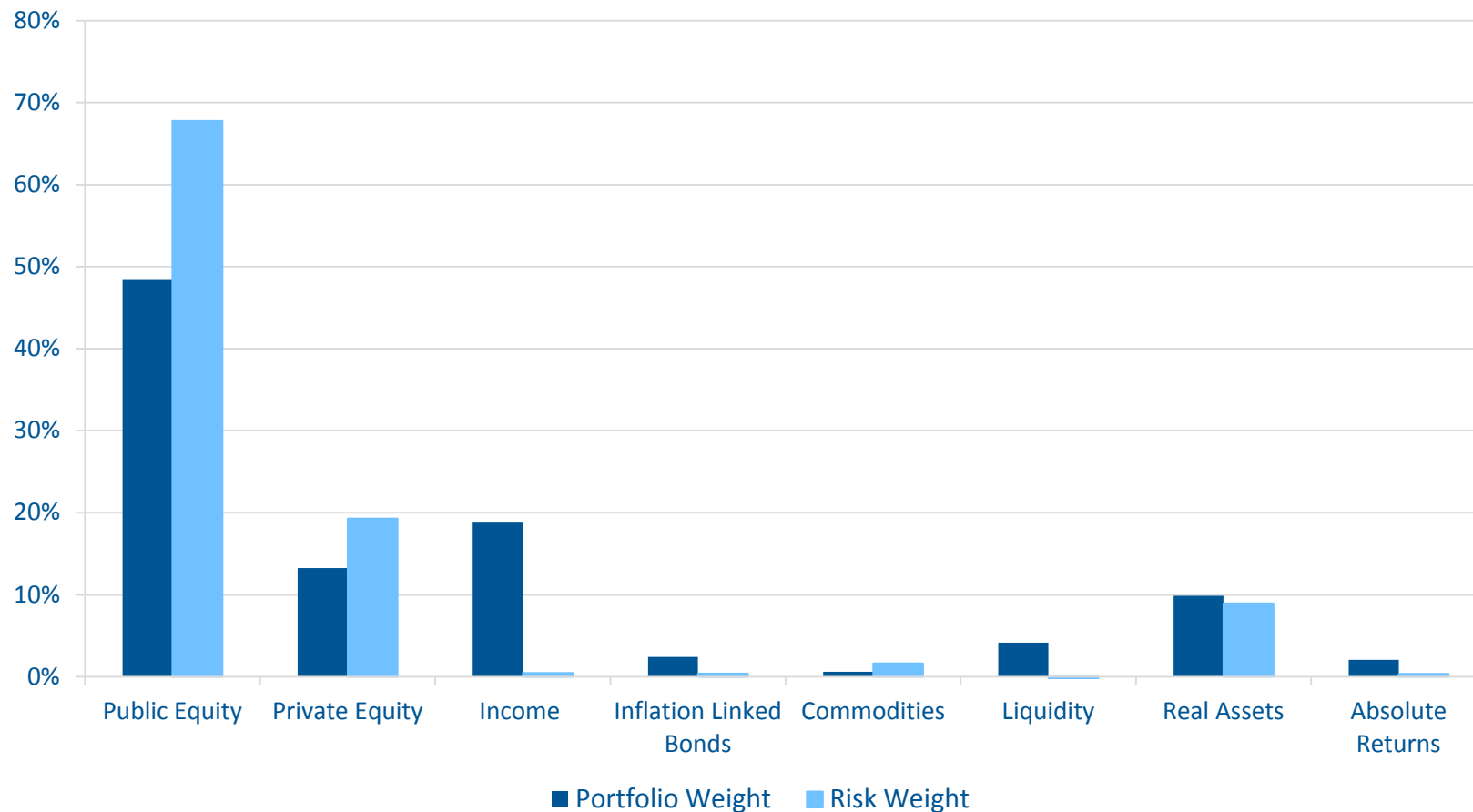
Total and Active Risk - Forecasted and Trailing 1 Year Realized



Note: All risk statistics As Of November 30, 2012

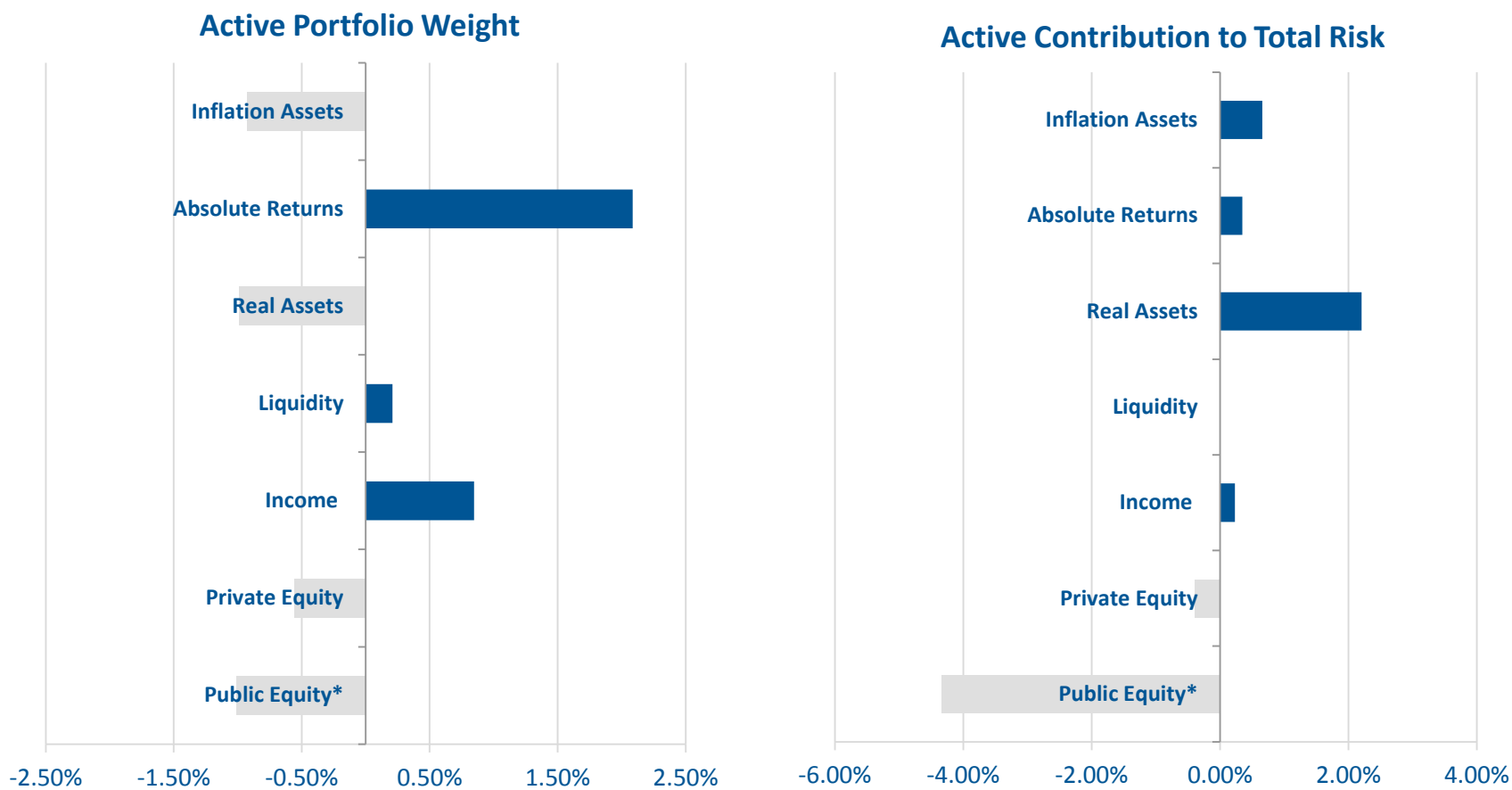
Contribution to Risk

Portfolio Weight and Contribution to Total Risk



Note: All risk statistics As Of November 30, 2012

Active Portfolio Allocation

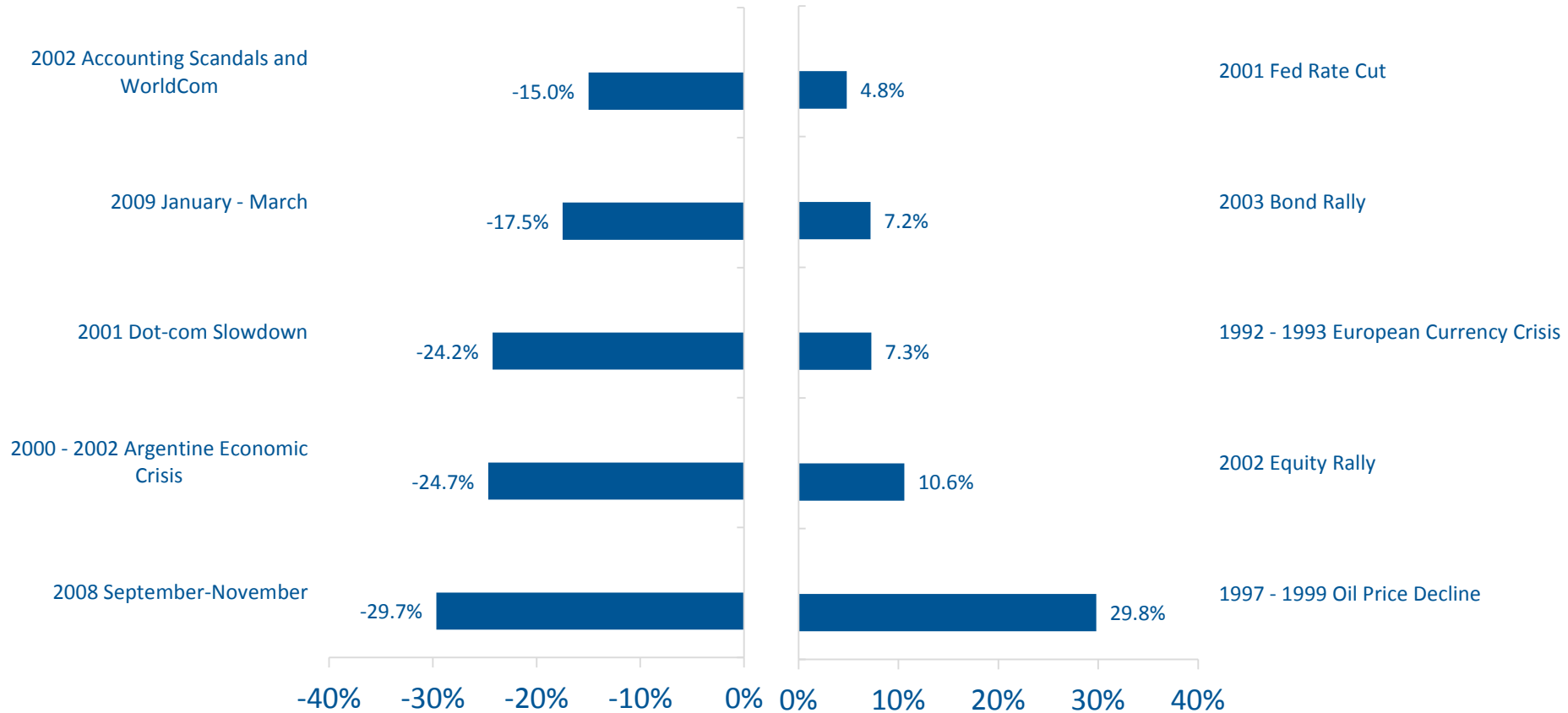


*Public Equity does not include ARS Equitization
Note: All risk statistics As Of November 30, 2012

Scenario Analysis – Best and Worst

5 Worst Scenarios for Total PERF

5 Best Scenarios for Total PERF



Note: All risk statistics As Of November 30, 2012

Active Risk Summary Table

Asset Class	Market Value (millions)	Total Risk	%CR to Total Risk	Correlation	Active Risk	Value-At-Risk(\$)*	Conditional VAR(\$)*
Private Equity	32,691	20.13	19.3	0.95	6.16	2,193	2,757
Public Equity	119,169	18.9	67.77	0.92	0.36	7,695	9,430
Income	43,412	5.62	0.46	-0.02	0.71	964	1191
Inflation Linked Bonds	5,951	6.04	0.39	0.35	8.33	117	146
Commodities	1,526	67.09	1.65	0.51	45.12	343	433
Liquidity	10,239	1.99	-0.15	-0.29	0.4	55	69
Real Assets	24,356	14.37	8.97	0.81	5.03	638	794
Absolute Return	5,074	3.18	0.35	0.71	3.31	44	55
Beta Overlay**	832		2.7	0.98		311	382
Currency Overlay***	-16		-1.42	0.54		295	372
CalPERS Perf	243,234	13.37	100		1.21	10,901	13,446

Value at Risk (VaR): Represents the potential loss for a given probability over a given time frame.

Conditional VaR: An alternative to VaR that represents the expected loss in a portfolio beyond a given probability level, i.e. the expected loss when VaR is exceeded.

*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 November 30, 2012

Top Equity Issuer Value at Risk

Issuer*	Mkt Value (millions)	Weight (%)	\$ Value-At-Risk(millions)**
LYONDELLBASELL INDUS.	2,137	0.85%	236
APPLE INC	1,923	0.77%	177
EXXON MOBIL CORP	1,510	0.60%	113
SAMSUNG ELECTRONICS	674	0.27%	88
HSBC BANK	710	0.28%	76
GENERAL ELECTRIC CO	812	0.32%	74
MICROSOFT CORP	826	0.33%	67
ROYAL DUTCH SHELL A	777	0.31%	65
CHEVRON CORP NEW	759	0.30%	63
JPMORGAN CHASE & CO	631	0.25%	60

*Public Equity including listed equity held via Private Equity partnerships

**10 day, 95% confidence Monte Carlo VaR simulation

Note: All risk statistics As Of November 30, 2012

Total Fund Performance Summary

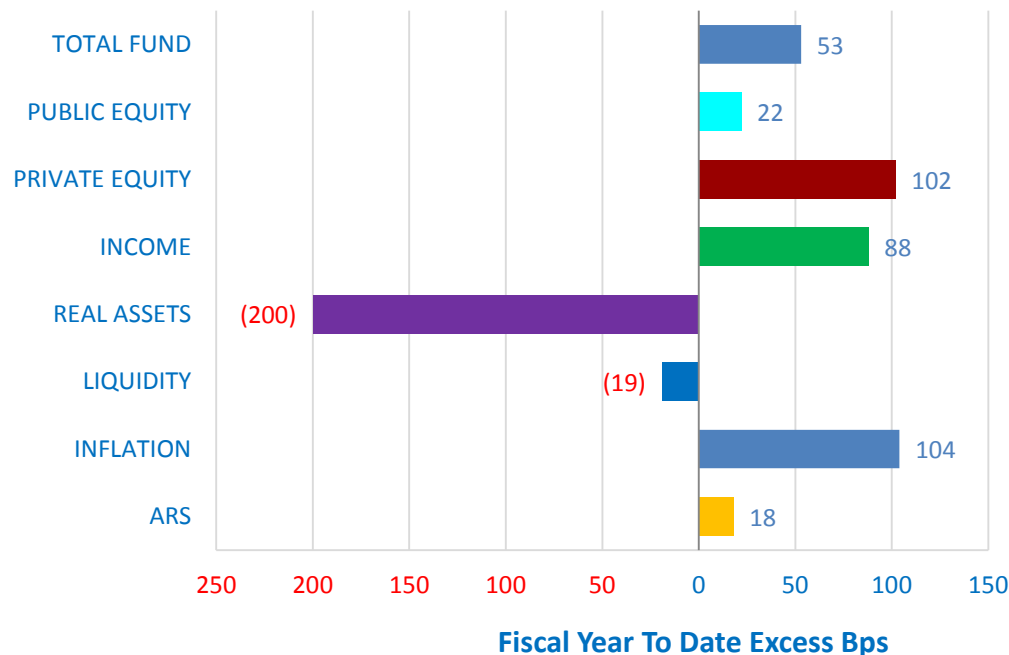
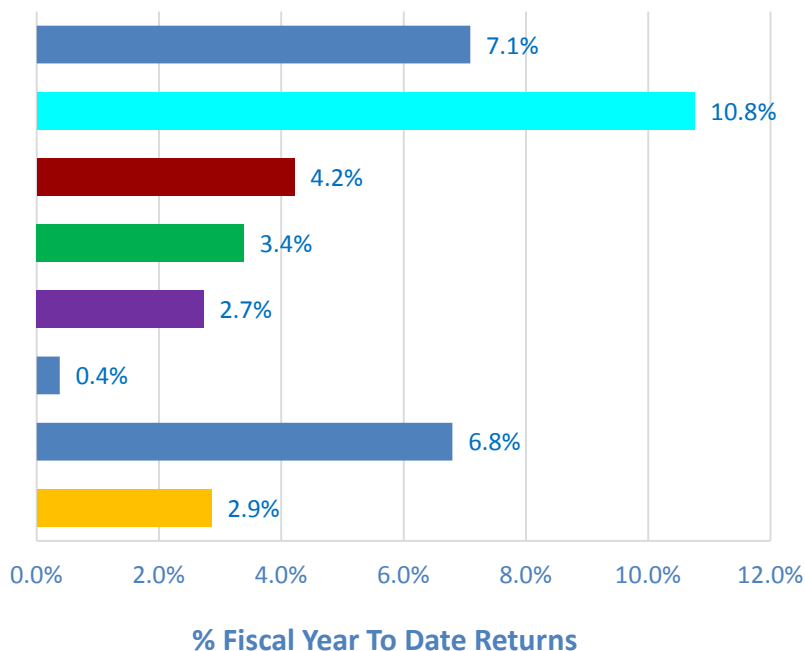
- Fiscal Year To Date Return 7.1%
- Outperformed benchmark by 53 basis points
- Positive \$1.3 billion of dollar value added
- 20 Year Return of 7.78% continues to underperform Policy Benchmark

	EMV (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
TOTAL FUND	\$248,773	7.09	13.26	8.80	0.98	7.46	7.78	8.47	07/88
<i>POLICY INDEX</i>		6.56	14.43	8.93	3.4	8.3	7.97		
<i>Excess Return</i>		0.53	(1.17)	(0.13)	(2.42)	(0.84)	(0.19)		

Note: Performance data As Of December 31, 2012

Total Returns and Relative Returns

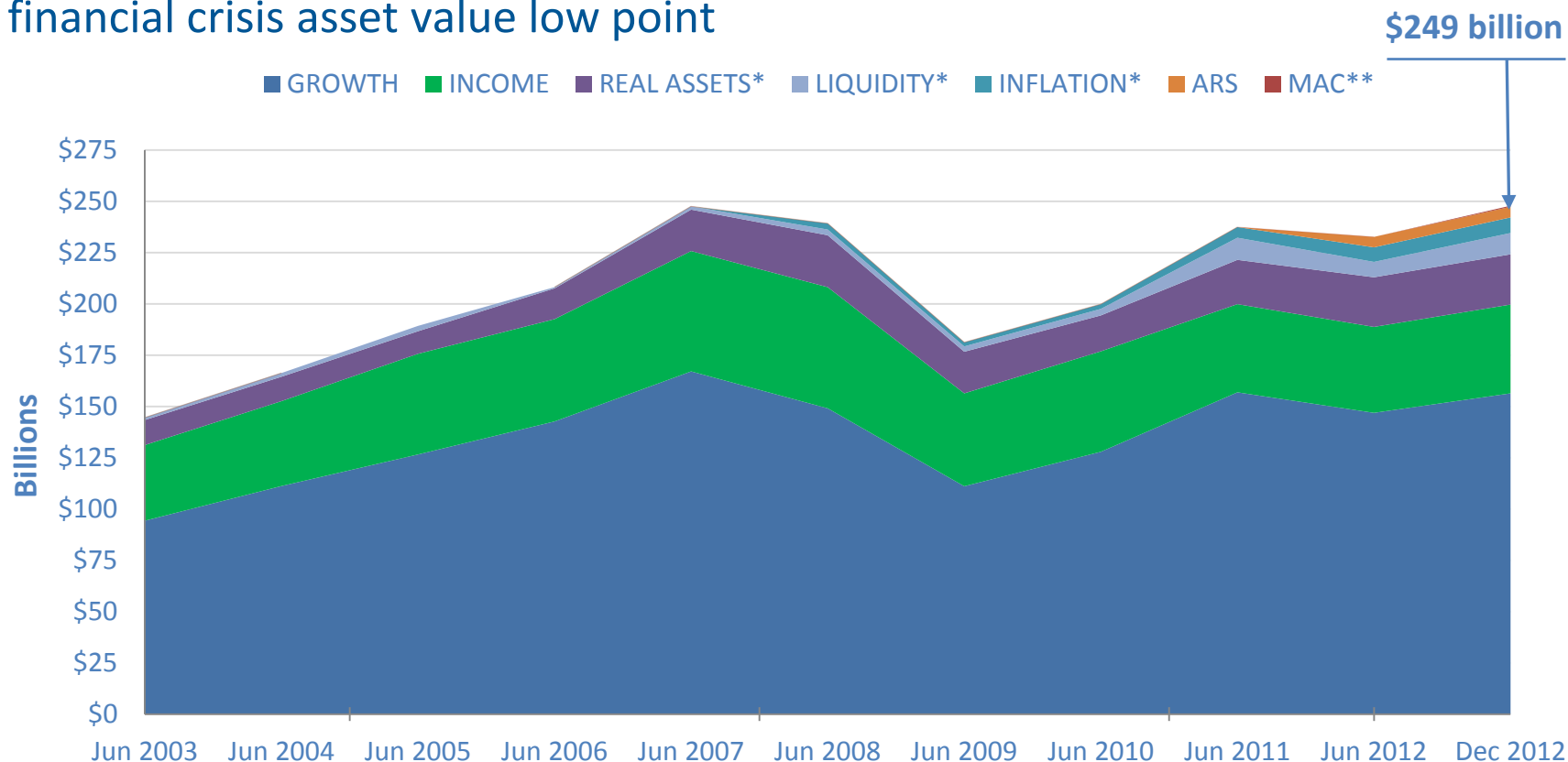
Global Equity and Fixed Income Support Strong Fiscal Year To Date Returns



Note: Performance data As Of December 31, 2012

Total Fund Allocation Trend

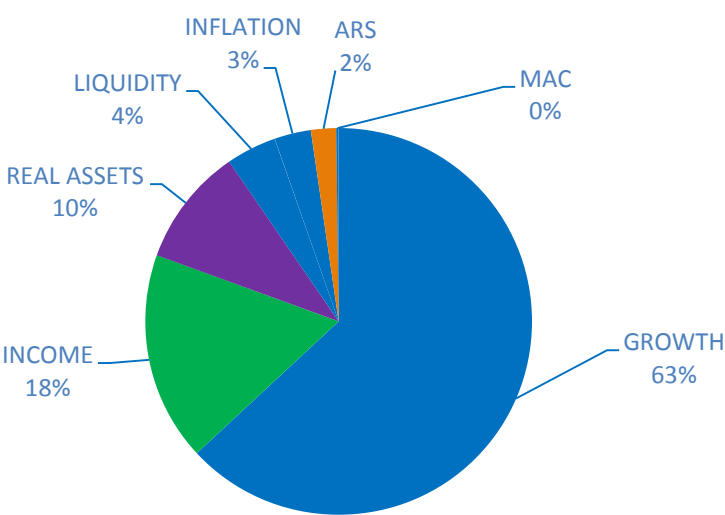
Total Fund up \$84 billion from February 2009 which represents the post financial crisis asset value low point



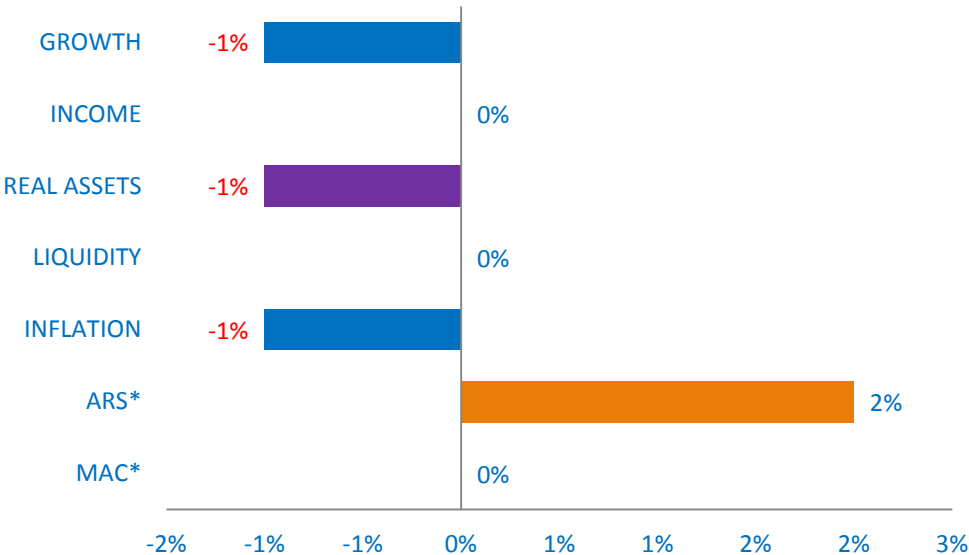
* Inflation, Liquidity and Real Assets were created on July 1, 2011 from existing portfolios; therefore historical values are being represented for prior years.

** Multi-Asset Class funded in December 2012.

Asset Allocation



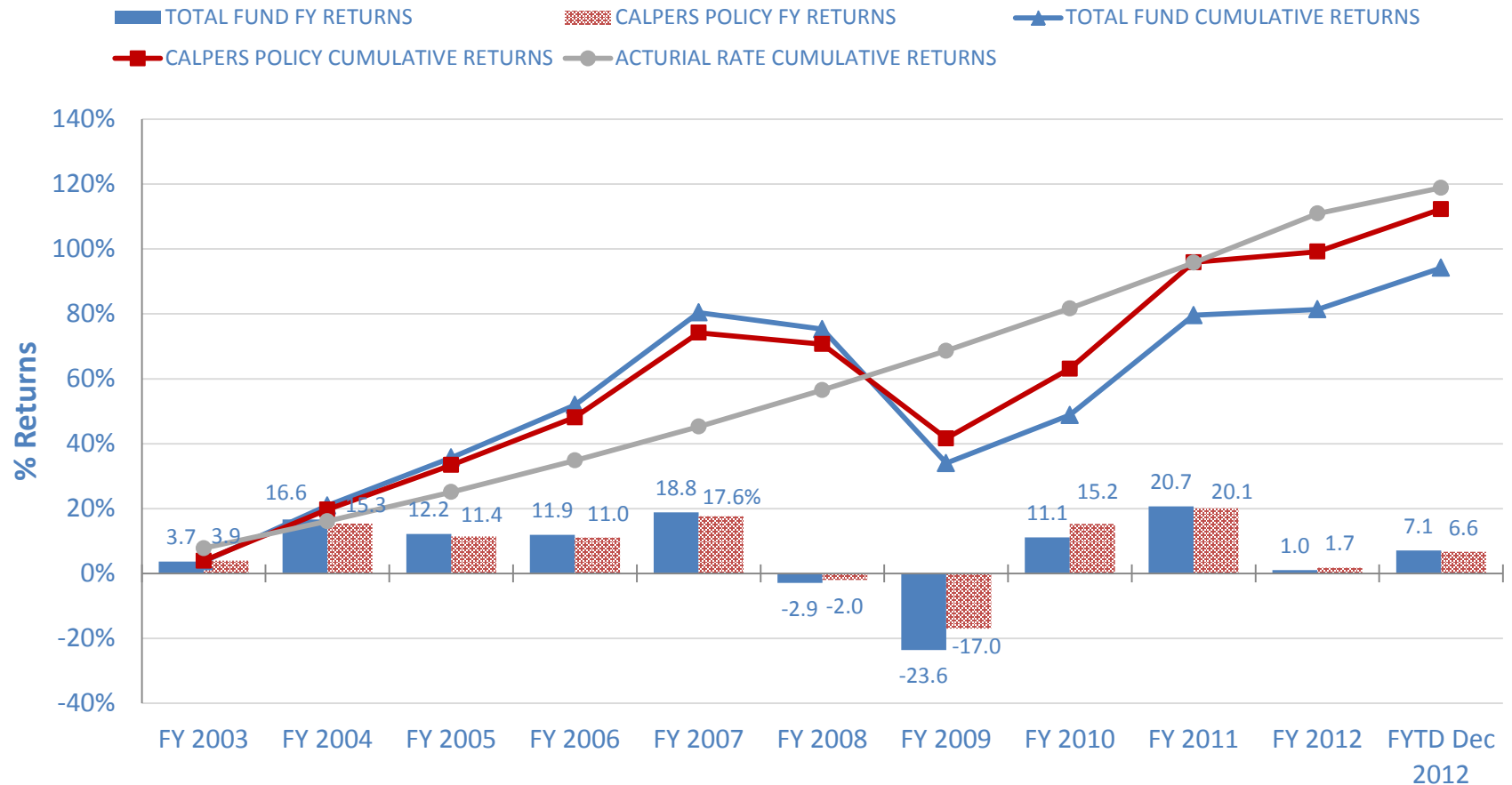
Actual Portfolio Allocation



Active Portfolio Allocation

* ARS and MAC do not have Policy Target Allocations.
Note: As of December 31, 2012

Total Fund Cumulative Returns



Data as of December 31, 2012

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

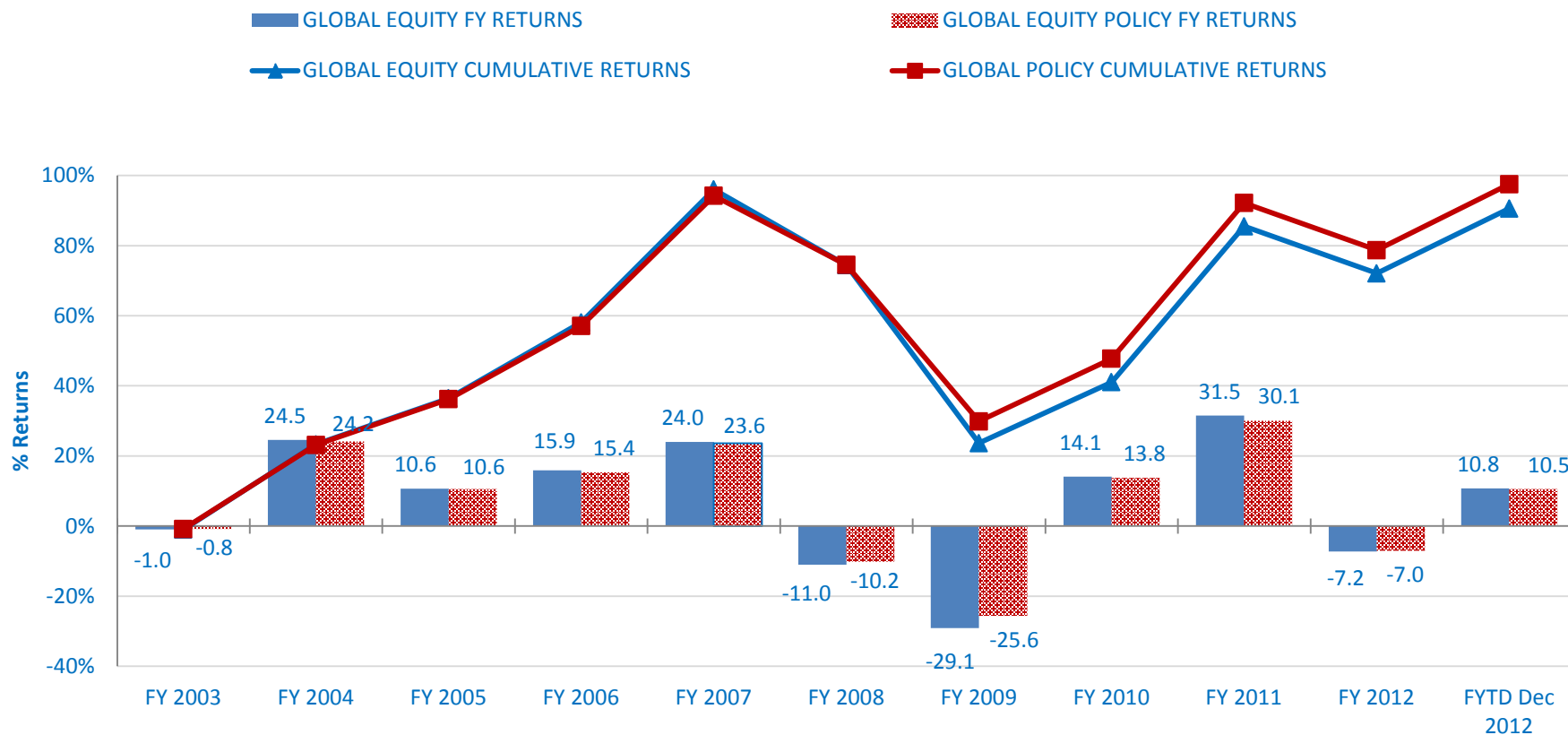
Global Equity Performance Summary

- Int'l Developed and Emerging Mkts. Fiscal Year To Date Return 14.8% and 13.9% respectively
- Fiscal Year to Date Return 10.8%
- Outperformed benchmark by 22 basis points
- Positive \$257 million of dollar value added

	Ending Market Value (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
GLOBAL EQUITY	\$124,327	10.76	17.18	7.47	(0.47)	7.96	8.06	9.11	7/88
<i>POLICY INDEX</i>		<i>10.54</i>	<i>17.08</i>	<i>7.04</i>	<i>0.23</i>	<i>8.36</i>	<i>7.84</i>	<i>N/A</i>	
<i>Excess Return</i>		<i>0.22</i>	<i>0.10</i>	<i>0.43</i>	<i>(0.70)</i>	<i>(0.40)</i>	<i>0.22</i>		

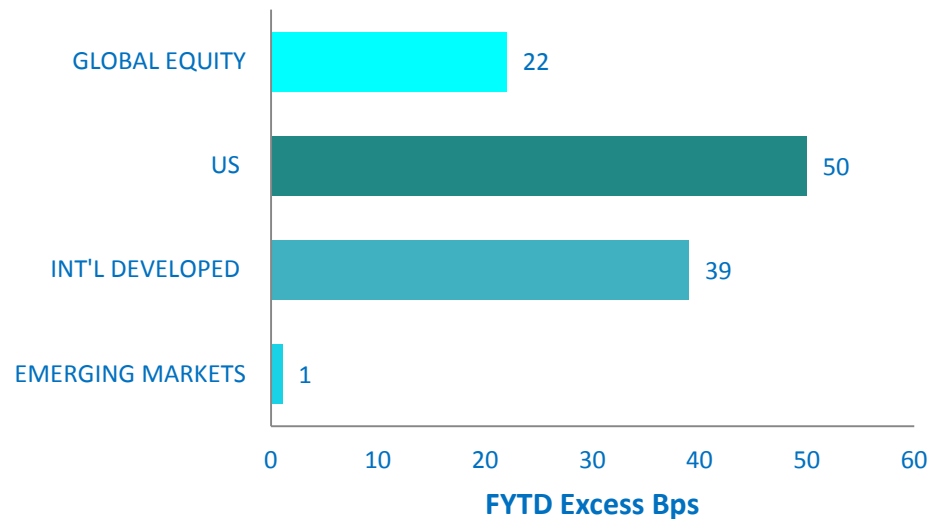
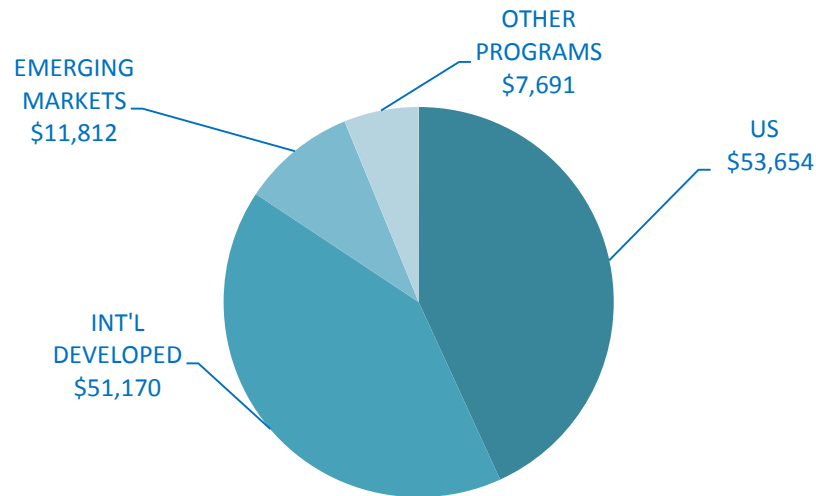
Performance Data as of December 31, 2012

Global Equity Cumulative Returns



Performance as of December 31, 2012

Global Equity Allocation & Relative Performance*



Allocation & Relative Performance of December 31, 2012

* Public Equity allocation in millions and US, Int'l Developed and Emerging Markets FYTD excess bps are measured against asset weighted benchmarks.

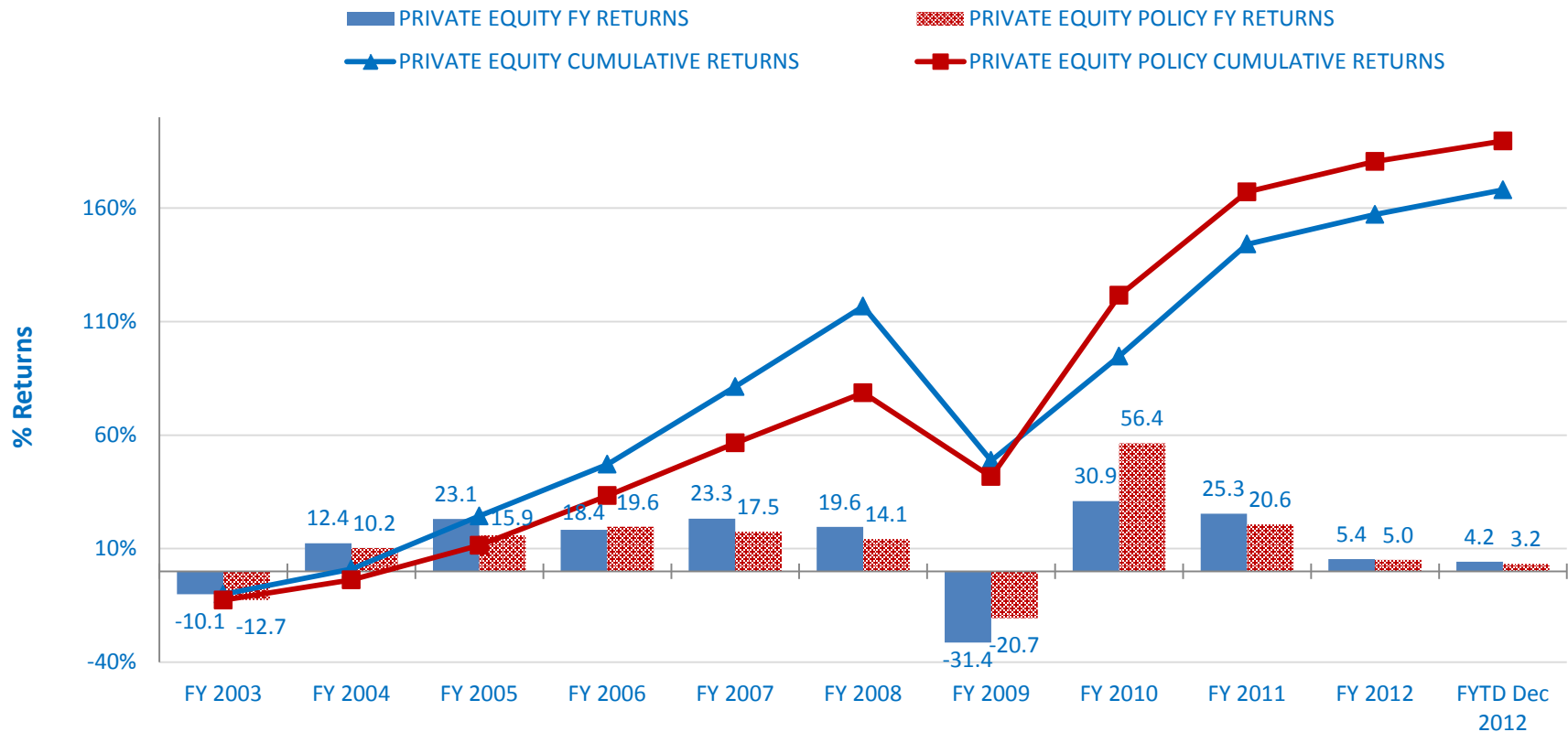
Private Equity Performance Summary

- 5 and 10 Year returns continue to be positively impacted by Buyout and Credit Related strategies
- 10 Year Return 11.5%

	Ending Market Value (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
PRIVATE EQUITY	\$32,071	4.22	12.24	15.28	5.79	11.46	11.63	9.57	3/90
<i>POLICY INDEX</i>		3.20	28.45	14.17	11.13	12.18	10.56	10.98	
<i>Excess Return</i>		1.02	(16.21)	1.11	(5.34)	(0.72)	1.07	(1.41)	

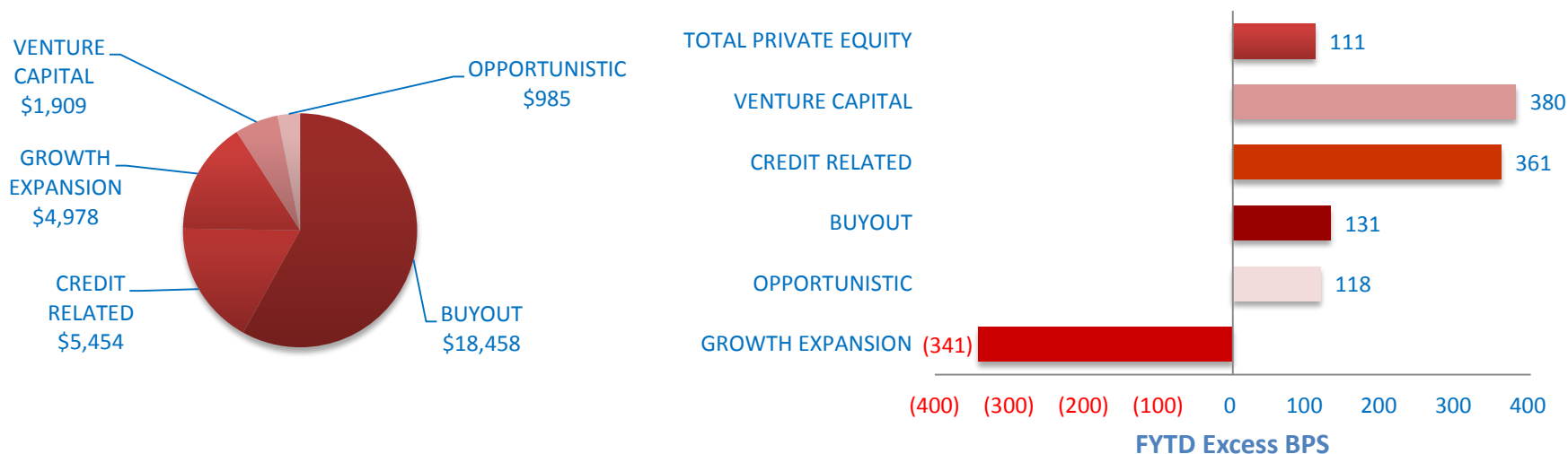
Performance Data as of December 31, 2012

Private Equity Historical Performance



Performance as of December 31, 2012

Private Equity Allocation & Relative Performance*



Allocation & Relative Performance as of December 31, 2012**

* Private equity allocation in millions and FYTD excess bps is compared to Total Private Equity Policy benchmark since the strategies do not have a specified benchmark.

** Private Equity performance is based on General Partners' most recent received financial statements plus any cash adjustments made by State Street Bank thru December 31, 2012.

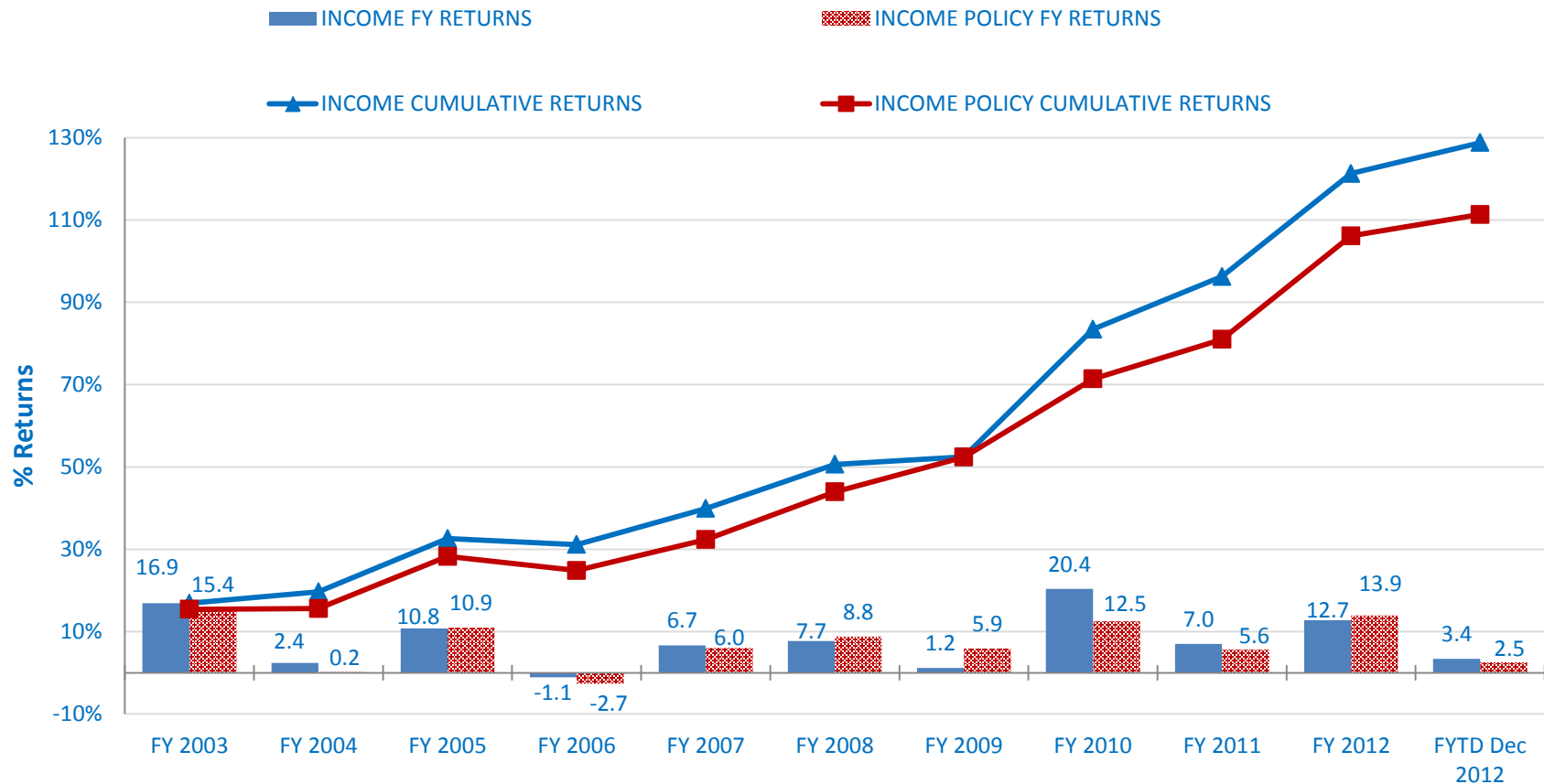
Income Performance Summary

- Investment Grade Corporate portfolio Fiscal Year to Date Return 8.9%
- Income Fiscal Year to Date Return 3.4%
- Outperformed benchmark by 88 basis points
- Positive \$378 million of dollar value added

	Ending Market Value (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
GLOBAL INCOME	\$43,324	3.39	7.64	10.53	8.77	7.85	7.95	8.82	7/88
<i>POLICY INDEX</i>		2.51	6.29	9.67	8.24	6.87	7.46	8.16	
<i>Excess Return</i>		0.88	1.35	0.86	0.53	0.98	0.49	0.66	

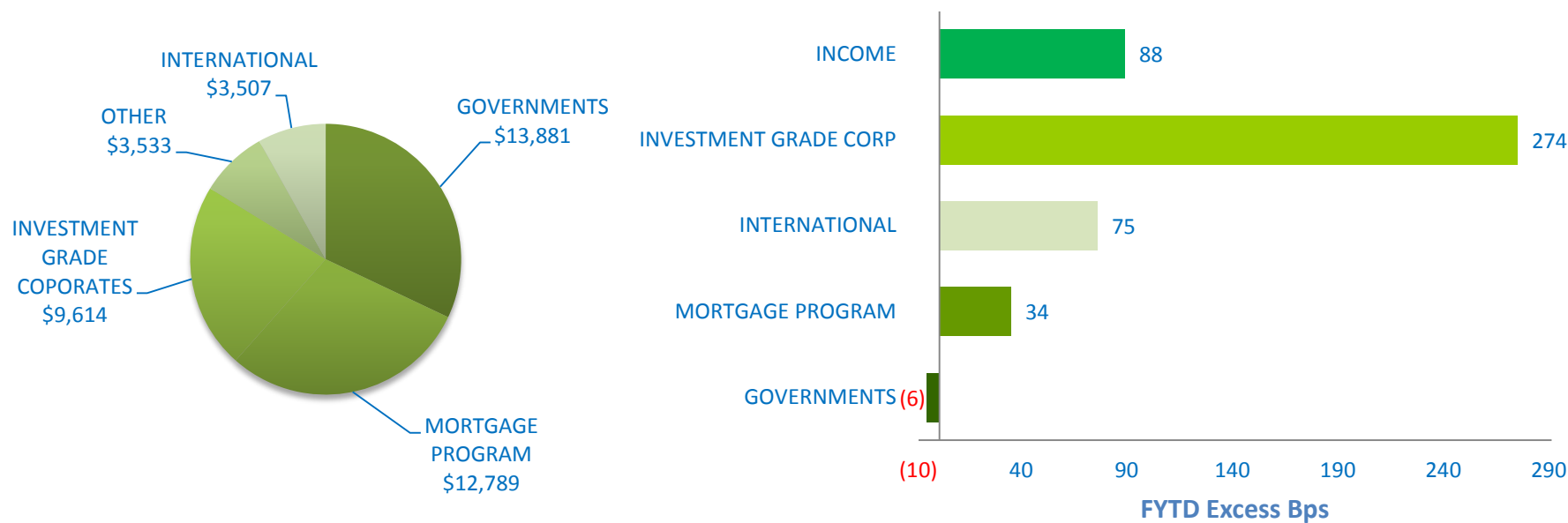
Performance as of December 31, 2012

Income Cumulative Returns



Performance as of December 31, 2012

Income Allocation & Relative Performance*



Allocation & Relative Performance as of December 31, 2012

* Income allocation in millions and FYTD excess bps are measured against each allocation's policy benchmark.

Liquidity Performance Summary

- Fiscal Year to Date Return 0.4%
- Underperformed benchmark by 19 basis points
- Negative \$18 million of dollar value added

	Ending Market Value (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
LIQUIDITY	\$10,376	0.38	1.20	1.79	1.72	2.52	3.83	3.84	7/92
<i>POLICY INDEX</i>		<i>0.57</i>	<i>1.63</i>	<i>2.04</i>	<i>1.84</i>	<i>2.50</i>	<i>3.61</i>	<i>3.61</i>	
<i>Excess Return</i>		<i>(0.19)</i>	<i>(0.43)</i>	<i>(0.25)</i>	<i>(0.12)</i>	<i>0.02</i>	<i>0.22</i>	<i>0.23</i>	

Performance Data as of December 31, 2012

Inflation Performance Summary

- Internal Commodities generated Fiscal year to Date Return of 7.1%
- Fiscal Year to Date Return 6.8%
- Outperformed benchmark by 104 basis points
- Positive \$77 million of dollar value added

	Ending Market Value (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
INFLATION	\$7,556	6.80	5.02	7.91	2.27			4.29	10/07
<i>POLICY INDEX</i>		5.76	6.45	6.70	2.82			3.94	
<i>Excess Return</i>		1.04	(1.43)	1.21	(0.55)			0.35	

Performance as of December 31, 2012

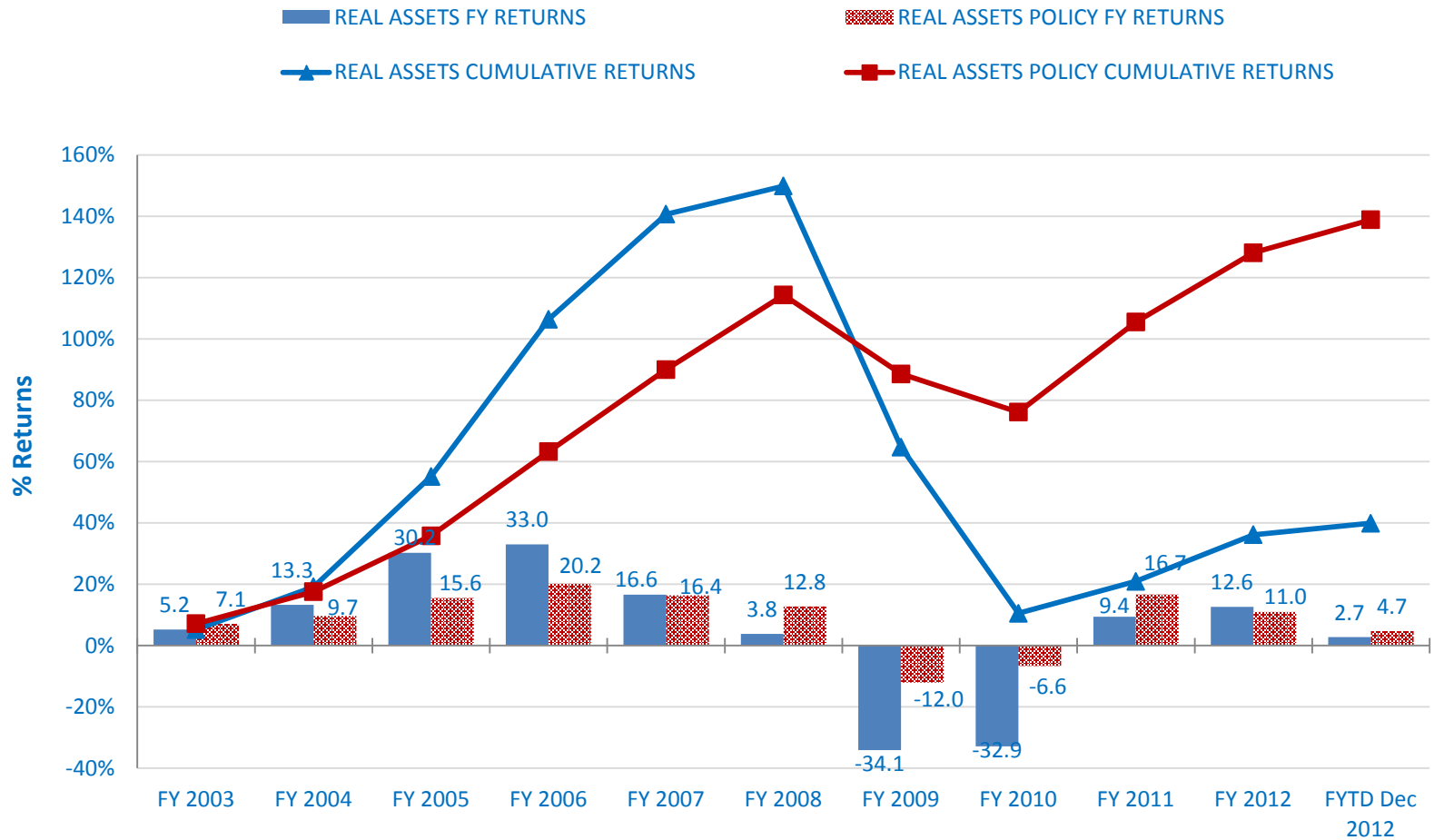
Real Assets Performance Summary

- Returns continue to be impacted by financial crisis over 5 and 10 year periods
- Forestland underperformance attributable to large investments acquired in 2007 and 2008 and impact of ongoing weakness in home construction
- 10 Year Return 3.5%

	Ending Market Value (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
REAL ASSETS	\$24,540	2.73	12.79	6.05	(10.99)	3.52	6.21	7.25	7/82
<i>POLICY INDEX</i>		4.73	10.26	10.24	3.13	8.73	8.75	8.10	
<i>Excess Return</i>		(2.00)	2.53	(4.19)	(14.12)	(5.21)	(2.54)	(0.85)	

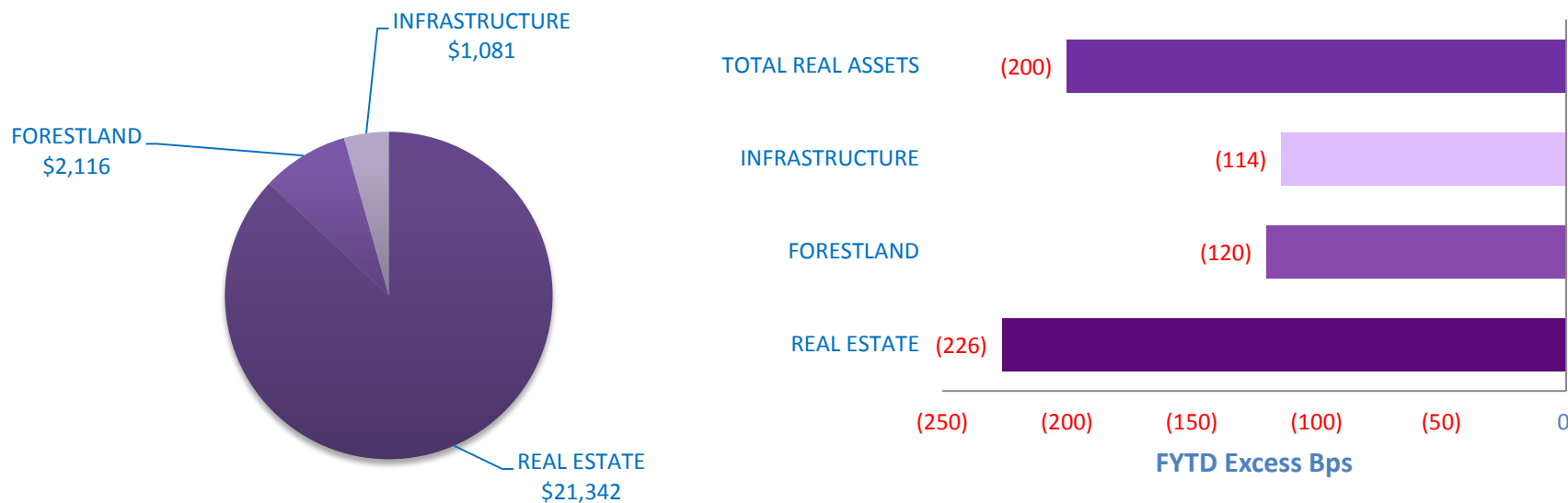
Performance as of December 31, 2012

Real Assets Cumulative Returns



Performance as of December 31, 2012

Real Assets Allocation & Relative Performance*



Allocation & Relative Performance as of December 31, 2012**

* Real Asset's allocation in millions and FYTD excess bps are measured against each allocation's policy benchmark.

** Private Real Estate, Forestland and Infrastructure performance is based on General Partners' September 30, 2012 financial statements.

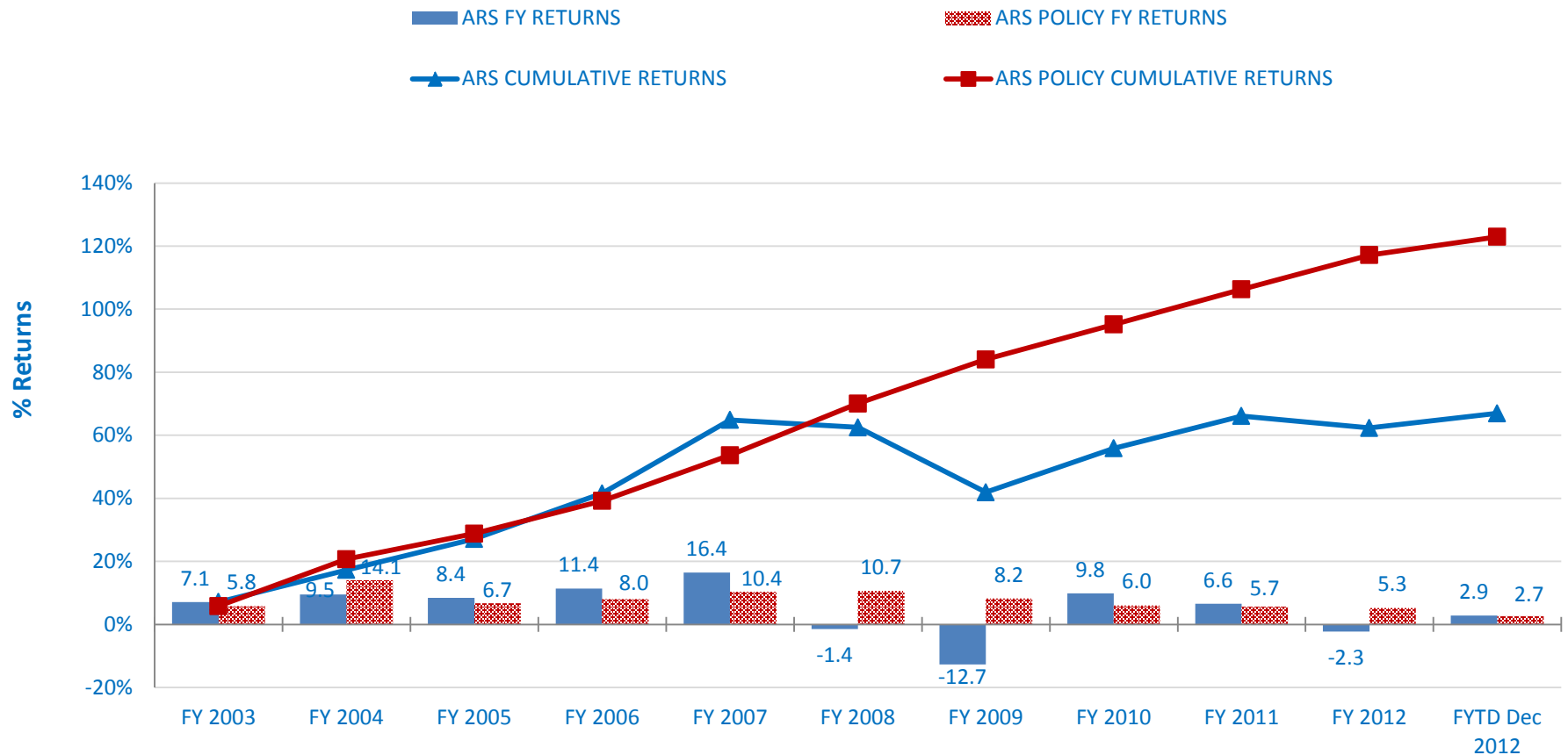
Absolute Return Strategy Performance

- Fund of Hedge Funds generated Fiscal Year to Date Return of 3.2%
- Fiscal Year to Date Return 2.9%
- Outperformed benchmark by 18 basis points
- Positive \$9 million of dollar value added

	EMV (Millions)	FYTD	1 YR	3 YR	5 YR	10 YR	20 YR	ITD	Inception Date
REAL ASSETS	\$5,151	2.86	3.23	2.96	(0.08)	5.23		4.73	4/02
<i>POLICY INDEX</i>		2.68	5.25	5.57	6.49	8.62		7.22	
<i>Excess Return</i>		0.18	(2.02)	(2.61)	(6.57)	(3.39)		(2.49)	

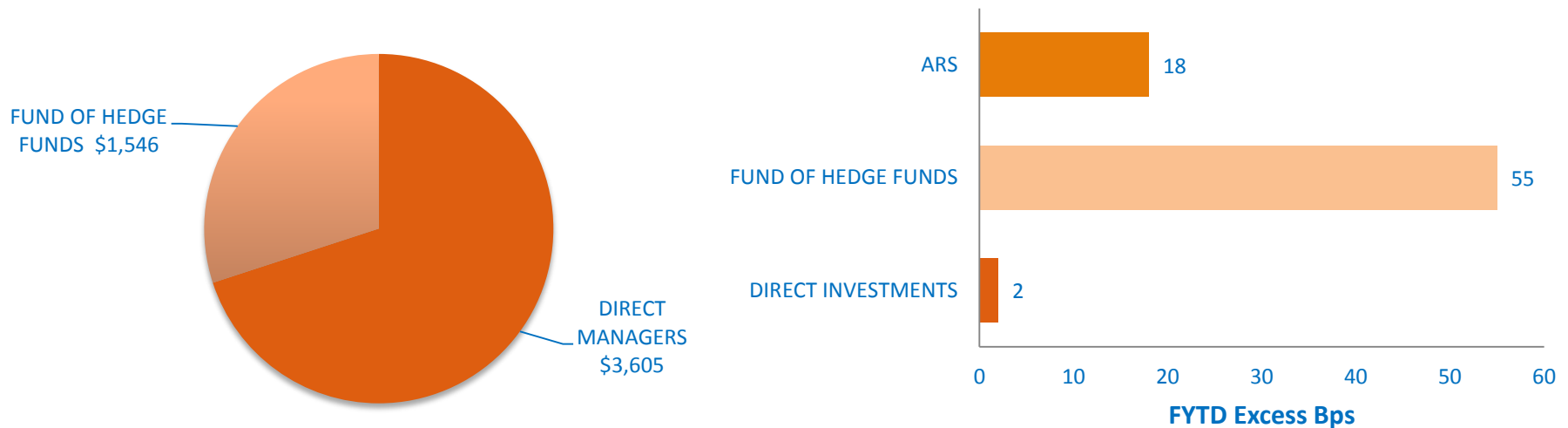
*ARS Performance Based on 3rd Week Estimates from IFS due to period end reporting timing.

ARS Cumulative Returns



*ARS Performance Based on 3rd Week Estimates from IFS due to period end reporting timing.

ARS Allocation & Relative Performance*



*ARS Performance Based on 3rd Week Estimates from IFS due to period end reporting timing.

*ARS allocation in millions and FYTD return excess bps is compared to ARS Policy benchmark since the allocations do not have a specified benchmark.

Conclusion

- Steady improvement in economic conditions support a cautiously optimistic long-term macroeconomic view.
- 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.