CalPERS Chief Investment Officer
Total Fund Performance and Risk Report

Period Ending June 30, 2013
Joe Dear, CIO

Investment Committee

August 2013

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CalPERS CIO Total Fund Update

Economic and Market Conditions

Slow growth with low inflation, but the private sector's momentum is gradually building.

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.

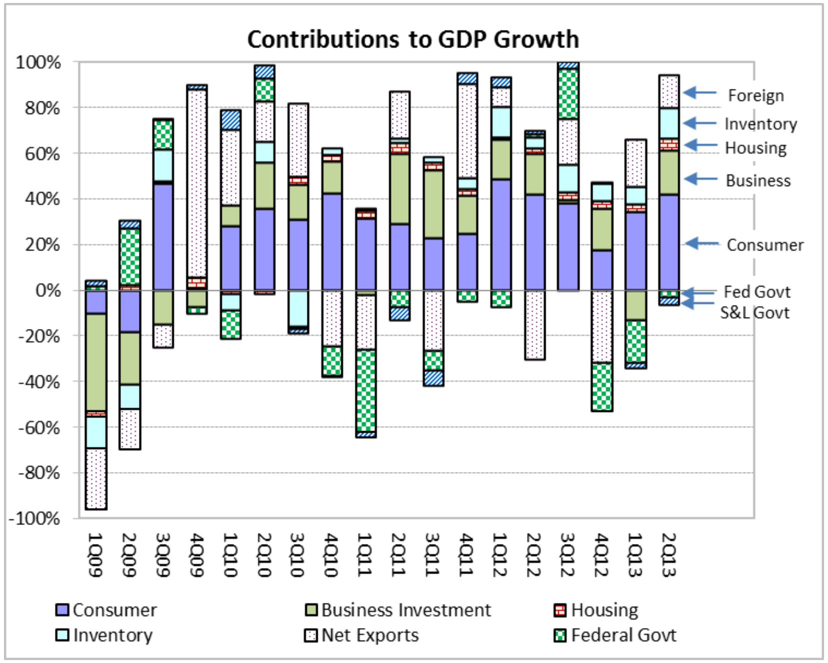
Economic Trends

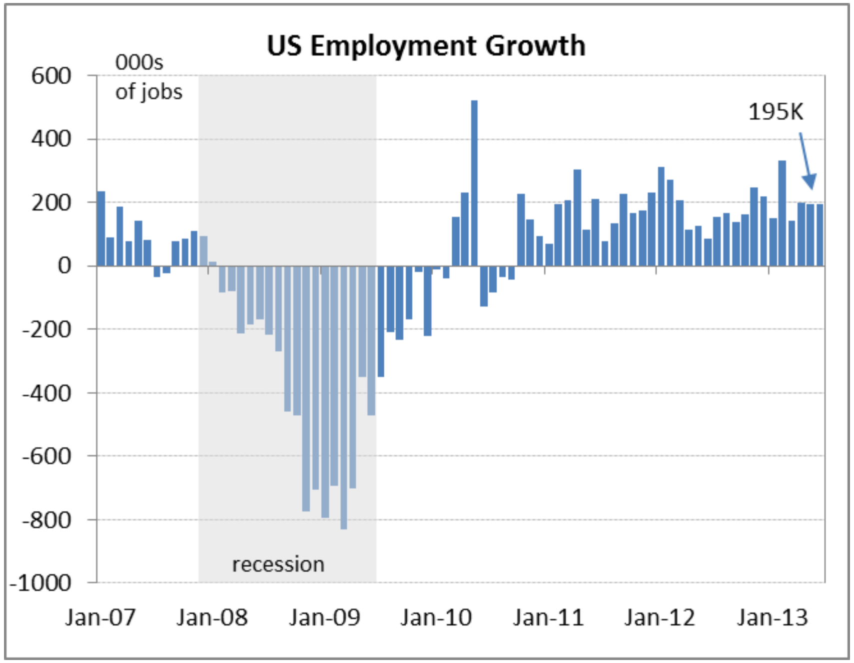
- US GDP grew only slowly in the past year, but the private sector is doing well and the drain on the economy from less government spending will recede.
- There are some signs that Europe is improving and Japan is growing faster.

Positive	Same Trend	Negative
- Jobs *215K per month in new private sector jobs since October.*	**- Inflation** *Most measures of US inflation are in the low 1% range, half thecentral bank target.*	**- GDP** *Real GDPgrew by only 1.4% in the year through 2Q 2013.*
- Personal income *Labor market strength and financial returns translating into income growth.*		**- Retail sales** *Retail and chain store sales softened in June.*
- Consumer sentiment *Mild correction in stocks hasn't prevented further sentiment gains.*		**- Housing starts, households** *Starts peaked in March. Less than 500K households formed in year to 2Q 2013.*
- Business capex *Business orders for aircraft, defense and capital goods surged in 2Q 2013.*		**- Mortgage refinancings** *Refinancings have fallen as rates rise, thus less income stream improvement.*
- Home sales *Strength in pending sales, new homes and builders' expectations*		**- Credit growth** *Has slowed to 3%, roughly in line with sub-par growth in economic activity.*
- Car sales *16 million units sold in June and fewer plants closed for retooling this year.*		**- Furlough effects** *Should hit personal income for government workers, starting July.*
- Central banks improve delivery *New forward guidance in Europe, better delivery in Japan and China.*		

US Economy and Employment

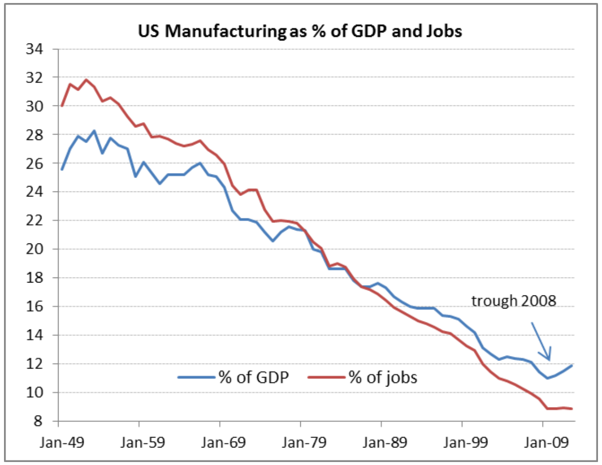
- US GDP growth was only 1.7% in 2Q 2013 and 1.4% on average in the past four quarters. Household spending on services, and federal government, are laggards.
- In contrast, private sector jobs growth has averaged a solid 215K per month since last October, while state and local government jobs appear to have stabilized.

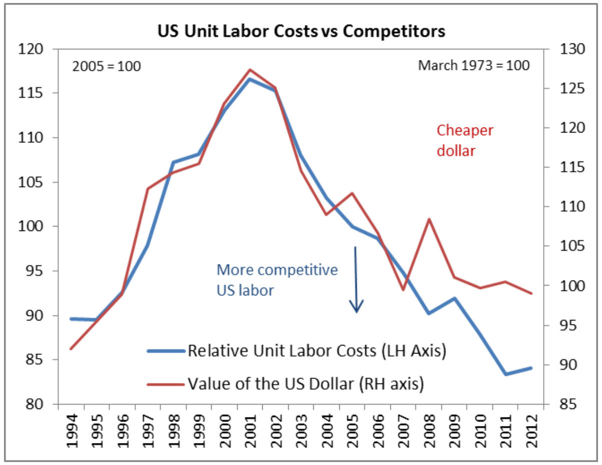


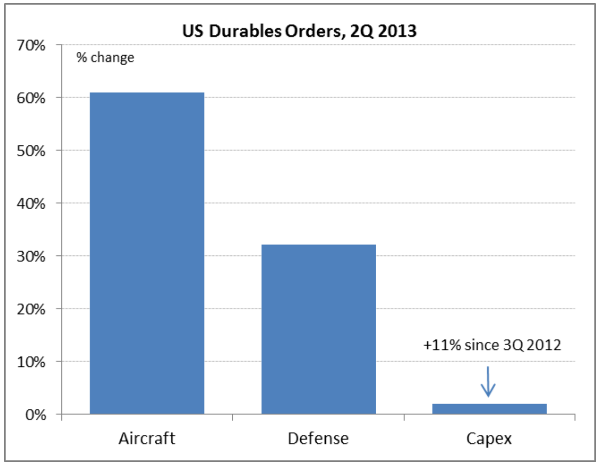


Current Issue – Manufacturing Rebound

- The manufacturing share of US GDP has leveled out and is likely to increase slightly in the next few years on the back of cheap energy, a low dollar and productivity improvements that have suppressed unit labor costs relative to our competitors.
- As economic uncertainties recede there has been a rebound in aircraft and defense orders in the latest quarter, and orders for capital goods have been solid for three quarters in a row.

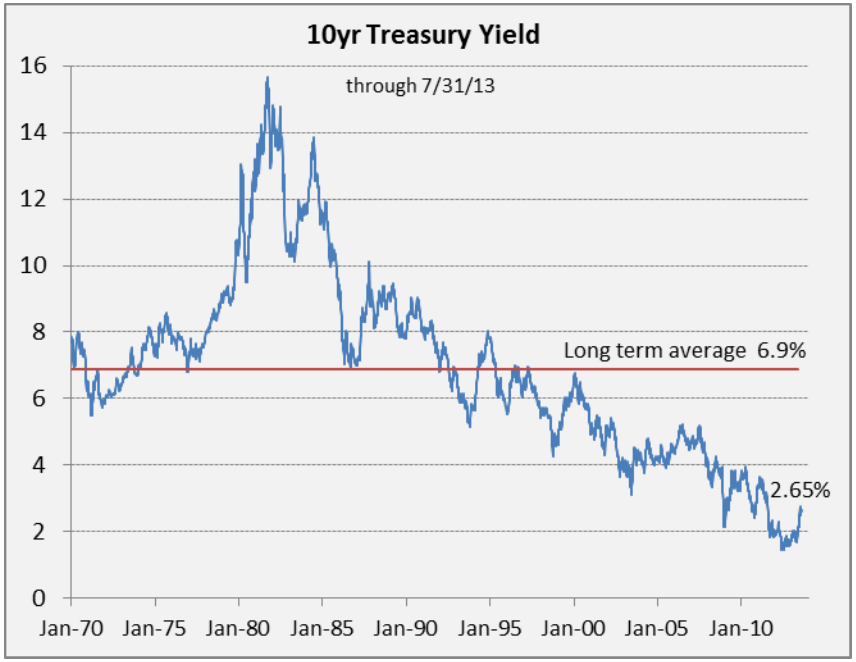


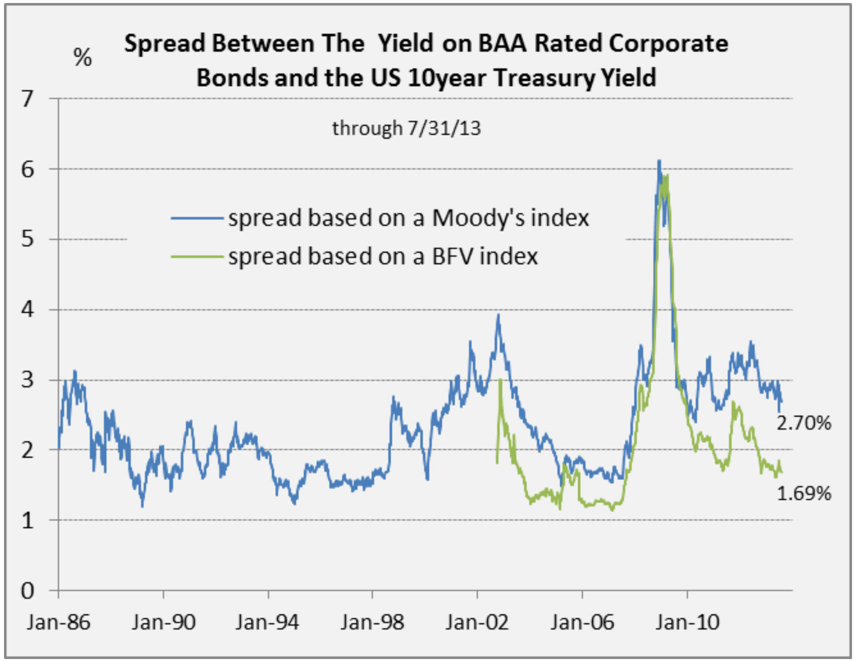




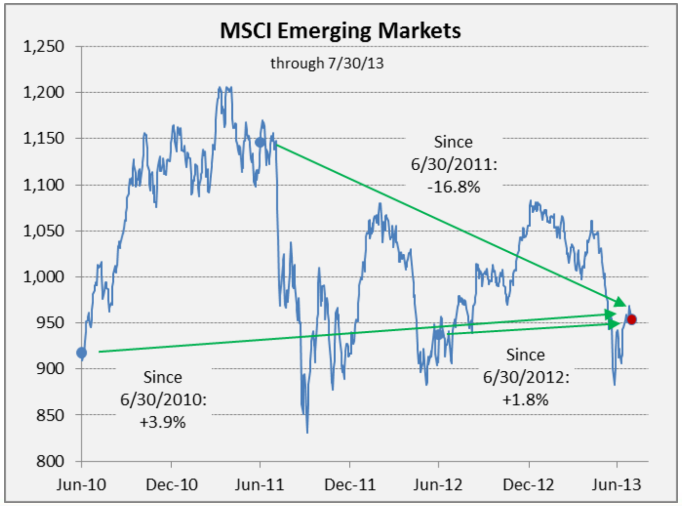
Market Environment

- The Federal Reserve is likely to taper its bond purchases from the market later this year. That and the gradual repair of the private economy has re-priced the 10year bond yield to beyond 2.50% despite tame inflation and deficit reduction.
- Corporate spreads to Treasuries have leveled out, still wider than pre-recession.





Market Environment



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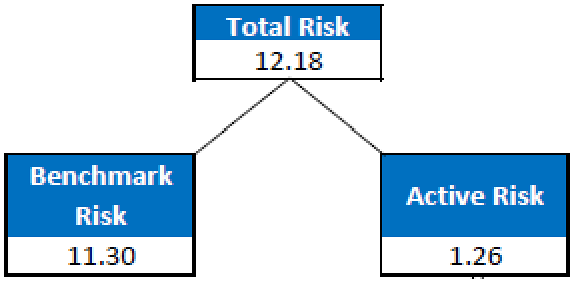
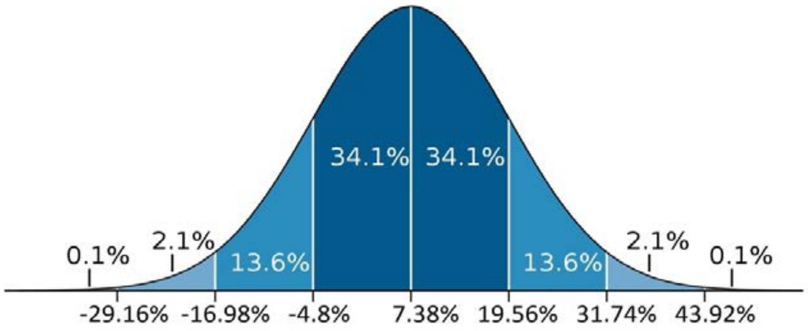
Total Fund Risk Profile

As of May 31, 2013

- Total Fund Forecast Risk is 12.18%
- Forecast Tracking Error is 1.26% and is within guidelines
- 10-Day Value-at-Risk is $9.9 billion
- 10-Day Expected Shortfall is $12.4 billion



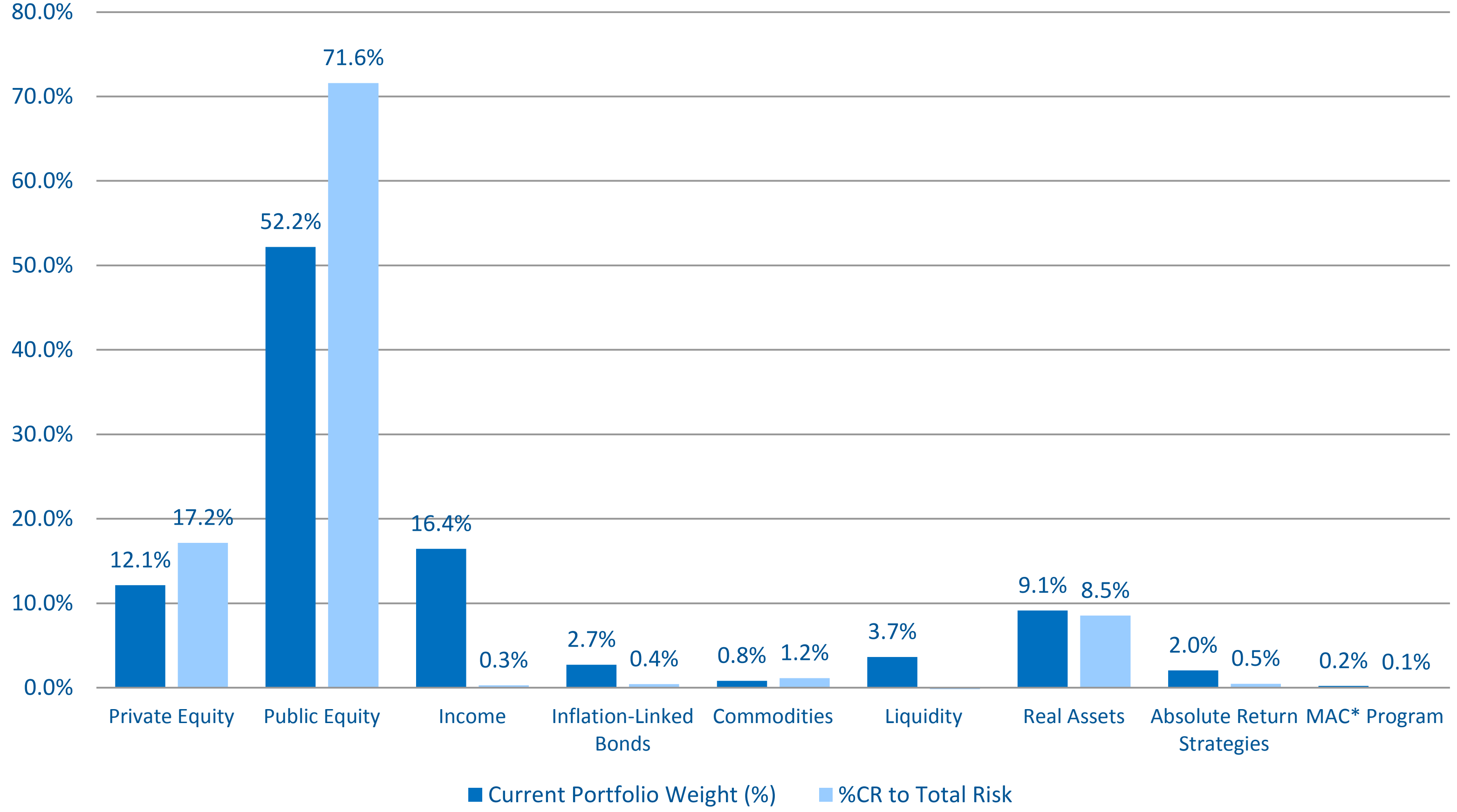


Forecasted Distribution of Returns*

*Based on Forecasted Returns from 2010 Asset Liability Workshop of 7.4% and Predicted Risk of 12.18%

Contribution to Risk (CR)

Portfolio Weight and Contribution to Total Risk – as of May 31, 2013

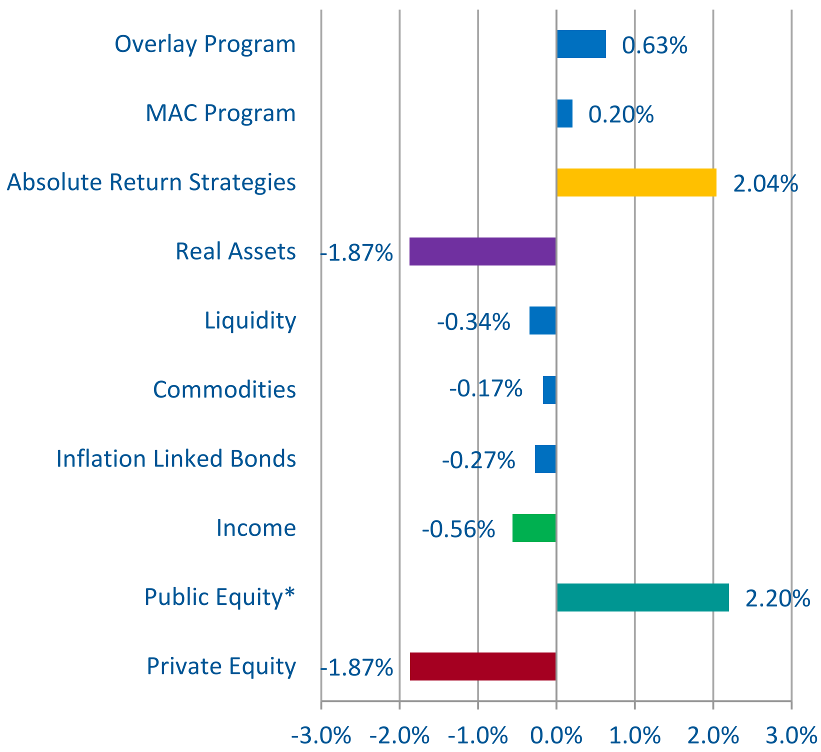


* Multi-Asset Class (MAC) Program

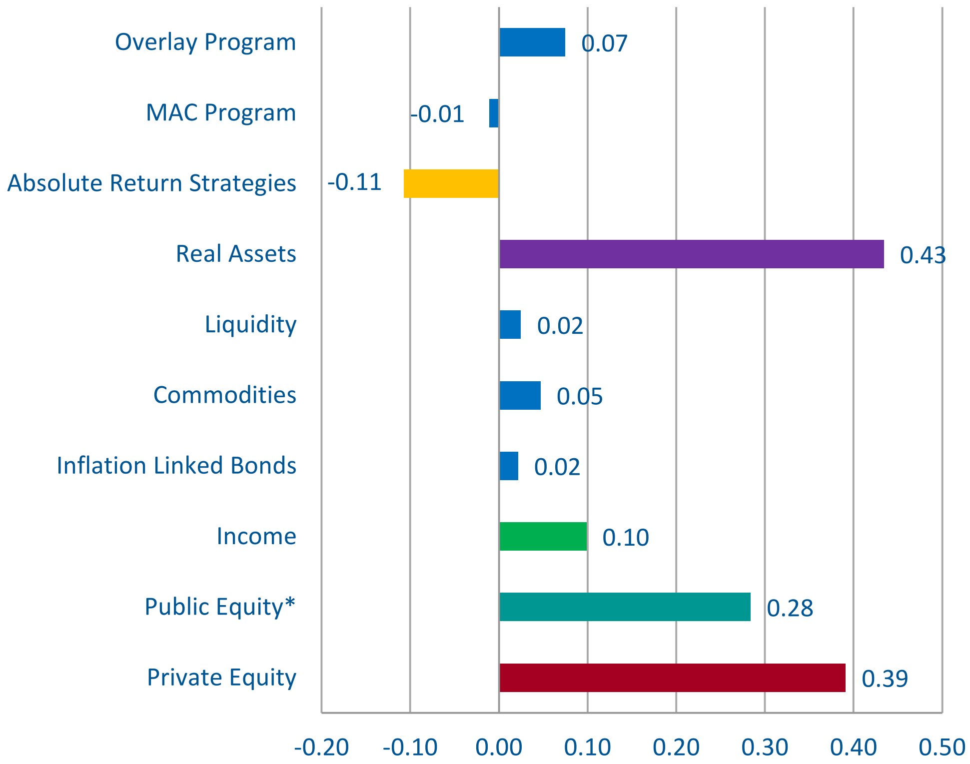
Active Portfolio Allocation

As of May 31, 2013

Active Weight (%)



Active Risk Contribution



*Public Equity does not include the ARS equitization

Total Fund Performance Summary

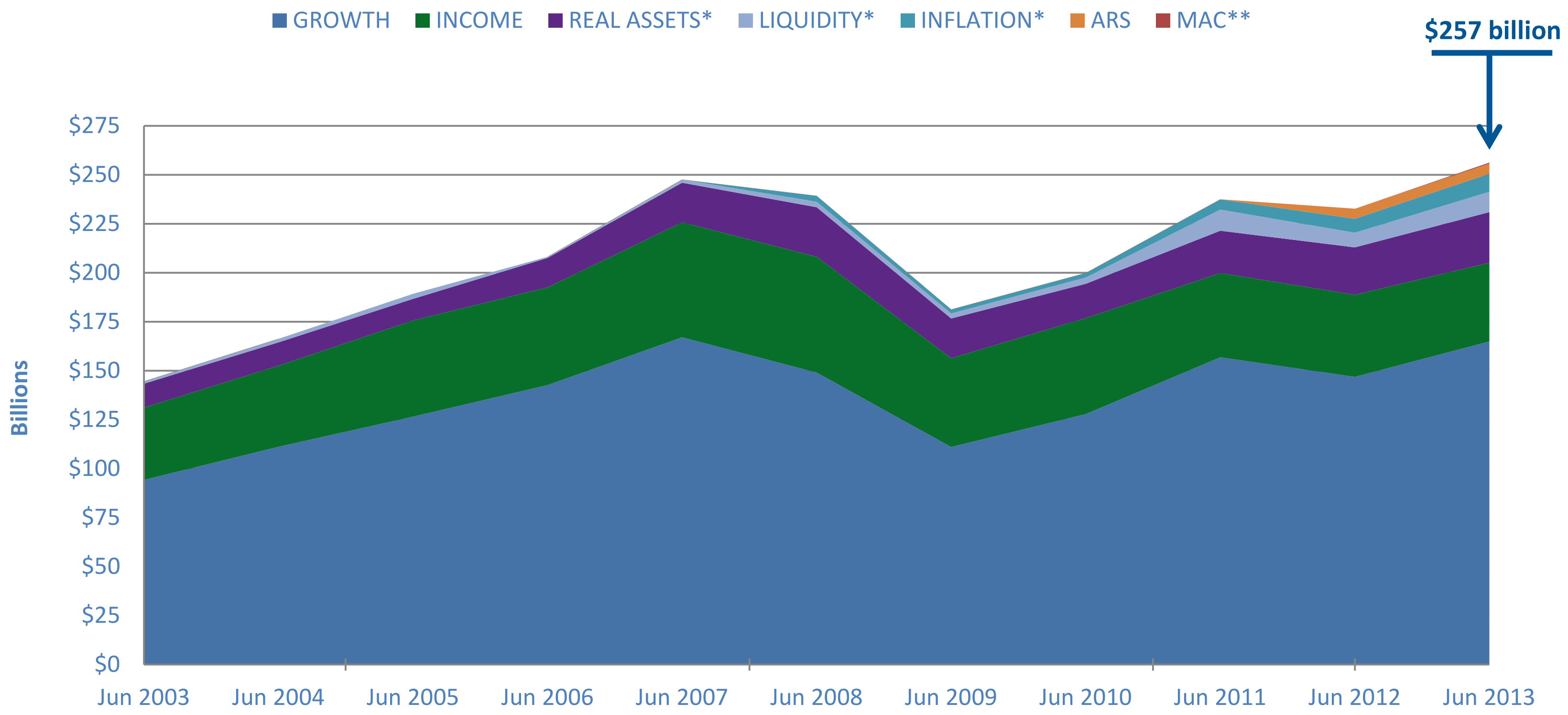
- 1-year return of 12.5% outperformed strategic benchmark by 148 basis points (BPS)
- Both 10-year and 20-year returns underperformed strategic policy benchmark by 84 BPS and 7 BPS respectively
- 10-year return of 7% is below current actuarial return expectation of 7.5%, 20-year return of 7.6% is above

As of June 30, 2013	EMV* (Millions)	FYTD	1-YR	3-YR	5-YR	10-YR	20-YR	ITD**	Inception Date
TOTAL FUND	**$257,876**	**12.54**	**12.54**	**11.10**	**3.10**	**7.01**	**7.64**	**8.51**	**07/88**
POLICY INDEX		*11.06*	*11.06*	*10.67*	*5.31*	*7.85*	*7.71*		
Excess Return		*1.48*	*1.48*	*0.43*	*(2.21)*	*(0.84)*	*(0.07)*		

*Ending market value (EMV)
** Inception to date (ITD)

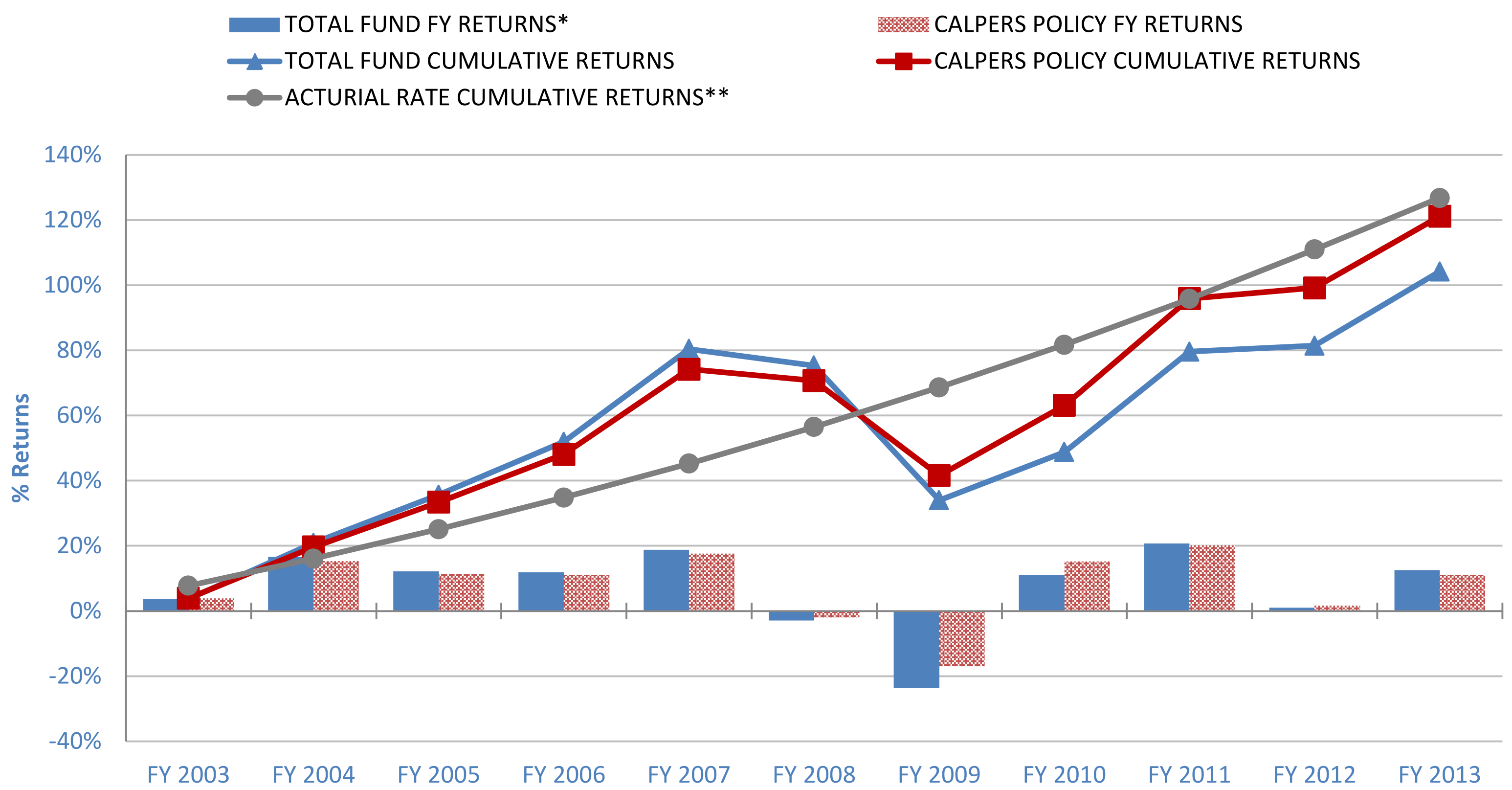
Total Fund Allocation Trend

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.

Total Fund Cumulative Returns



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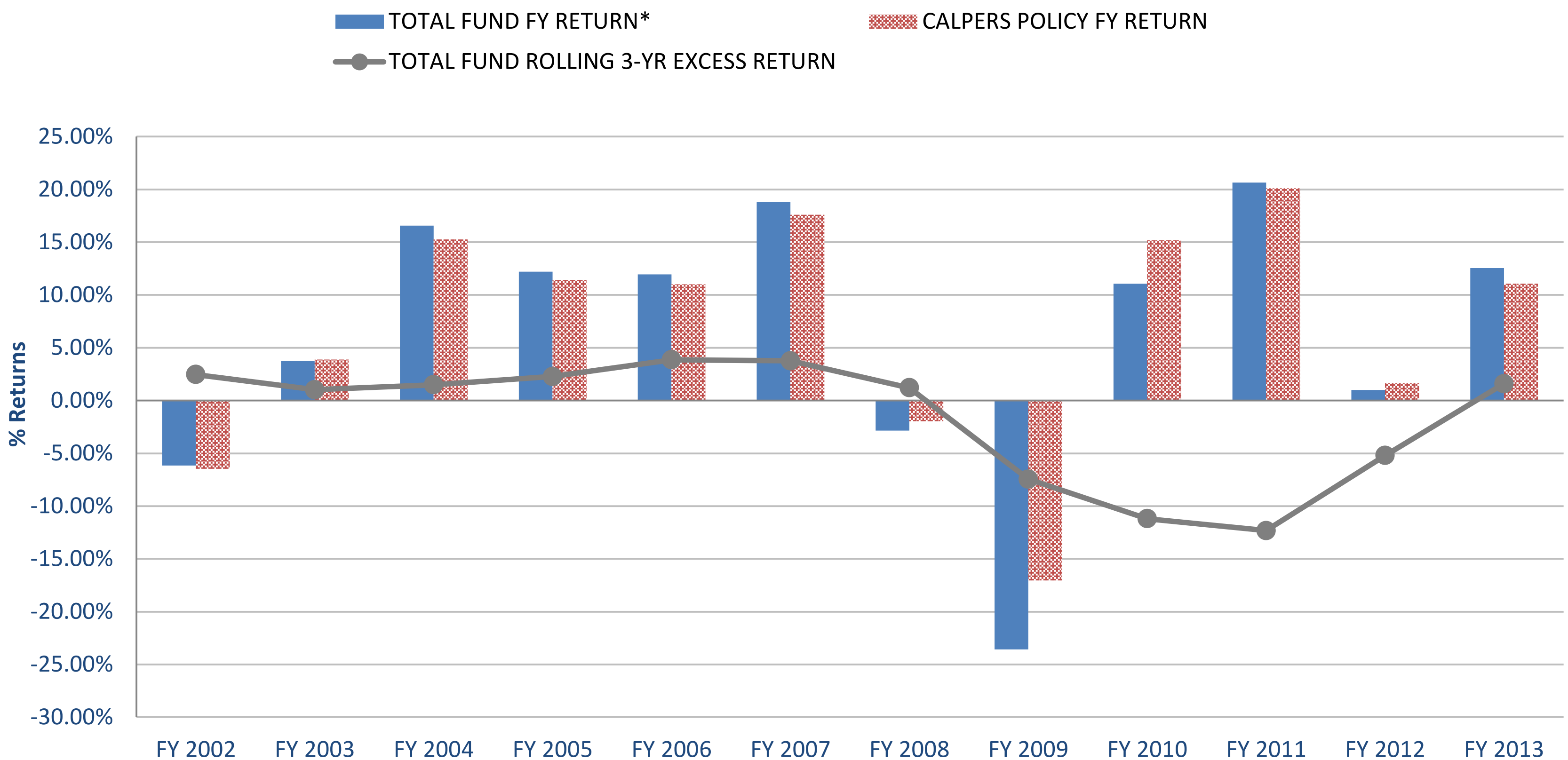
** Actuarial Rate FY 2003-12 was 7.75%, FY 2012-13 rate is 7.5%

Total Fund 3-Year Rolling Excess Return



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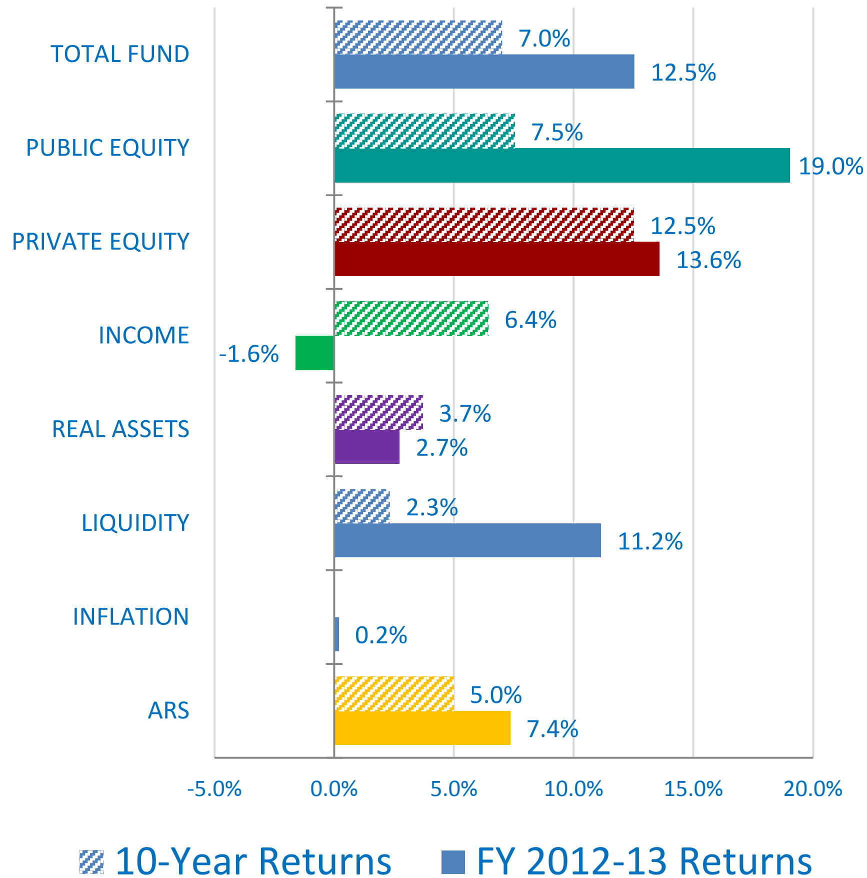
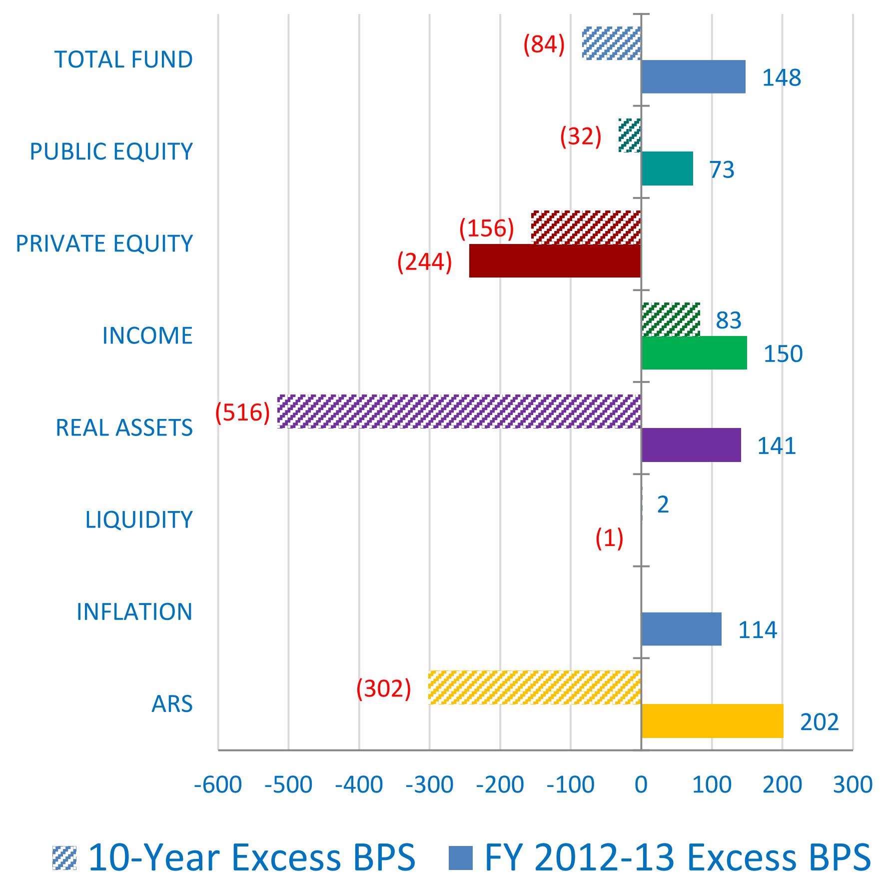
Total Returns and Relative Returns





Total Fund FY 2012-13 Performance

Asset Class	Average Weight (%)	FYTD Return (%)	Contribution to Return (%)
Total	**100.0**	**12.5**	**12.5**
Strategic Asset Class			
GROWTH	63.0	17.6	10.8
PUBLIC EQUITY	*49.7*	*19.0*	*9.1*
PRIVATE EQUITY	*13.3*	*13.6*	*1.7*
INCOME	17.3	(1.6)	(0.1)
REAL ASSETS	9.9	11.1	1.1
INFLATION	3.3	0.2	0.0
LIQUIDITY	3.9	(0.8)	(0.0)
Tactical Programs			
ARS	2.1	7.4	0.2
MAC	0.1	3.2	0.0
OVERLAY, TRANS., PLAN LEVEL	0.5	*146.8**	0.7

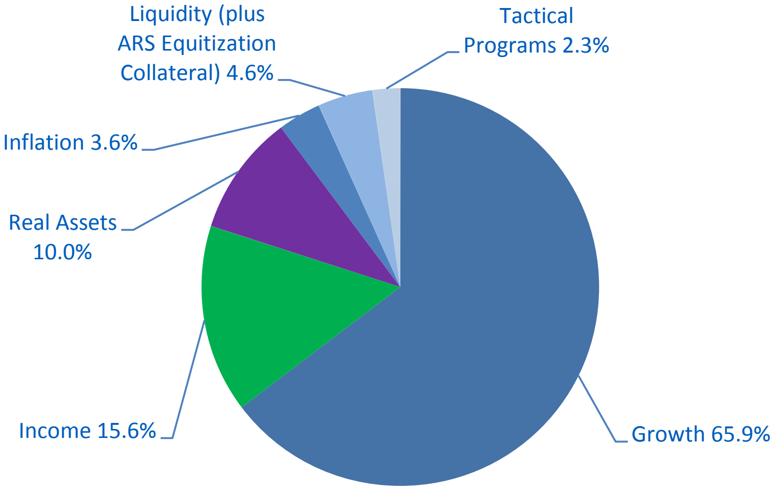
- Growth assets are primary contributors to returns accounting for 10.8% of 12.5% total return.
- Overlay and Transition strategies accounted for 0.7% of 12.5% total return.

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.

Asset Allocation

As of June 30, 2013

Asset Class	Policy Target	Actual Effective Weight	Variance
Strategic Asset Class			
GROWTH	**64%**	**65.9%**	**1.9%**
PUBLIC EQUITY (Plus ARS Equitization)	*50%*	*53.8%*	*3.8*
PRIVATE EQUITY	*14%*	*12.2%*	-1.8%
INCOME	**17%**	**15.6%**	**-1.4%**
REAL ASSETS	**11%**	**10.0%**	**-1.0%**
INFLATION	**4%**	**3.6%**	**-0.4%**
LIQUIDITY (Plus ARS Equitization Collateral)	**4%**	**4.6%**	**0.6%**
Tactical Programs		**2.3%**	
ARS	N/A	**2.0%**	**2.0%**
MAC	N/A	**0.2%**	**0.2%**
OVERLAY + TRANS + PLAN LEVEL	N/A	**0.1%**	**0.1%**
Total Allocation	**100%**	**102%**	



Actual Effective Portfolio Allocation

Total Fund Positioning

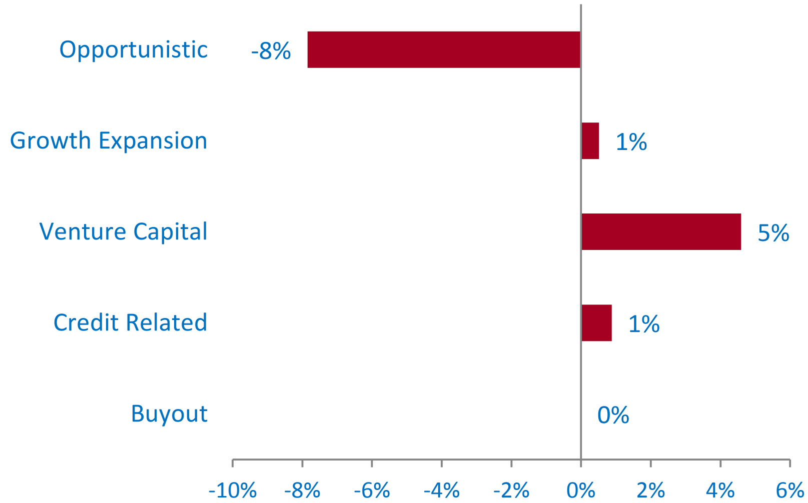
- Increased allocation to Public Equity driven by overlay of ARS Program
  - ARS Program is funded through Public Equity assets
  - Overlay is implemented through a Equity Futures strategy
- Over allocation to Public Equity and under allocation to Real Assets and Inflation had a positive impact to returns
- Under allocation to Private Equity and Real Assets were driven by the challenges to effectively deploy capital

Asset Class Positioning

- Public Equity positioning:
  - Region: Overweight Japan, Developed Europe; Underweight U.S.
  - Sector: Overweight Global Industrials; Underweight Global Financials
  - Common Factor: Overweight Value, Small Cap, and Volatility
- Global Fixed Income has the following active positions:
  - Overweight to Financial Corporate Bonds by 1%
  - Overweight position in AAA Commercial Mortgage-Backed Securities (CMBS) by 2%
  - Initiated overweight position in High Yield Bonds of 3%
  - Underweight to International Bonds by 2.5%

Asset Class Positioning

- Private Equity (PE) continues to focus on manager selection within a strategic allocation
- Restructuring plan presented to the Investment Committee in September 2011 is on track and progressing well
- Currently overweight by 5% to Venture Capital



PE Active Portfolio Allocation

Asset Class Positioning

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

Real Estate	EMV (millions)	3-YR	5-YR	10-YR
Legacy	6,622	6.3%	-17.3%	-1.6%
Strategic	15,822	13.6%	2.8%	15.3%
Total	**22,444**	**12.5%**	**-10.8%**	**3.1%**

  - 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

- Favorable market conditions prevail. Risks associated with build up of economic imbalances are gradually receding and central banks are supportive.
- 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 2009 financial crisis.