

# CIO Total Fund Performance & Risk Report

## RISK MANAGEMENT SUMMARY



Period Ending December 31, 2013

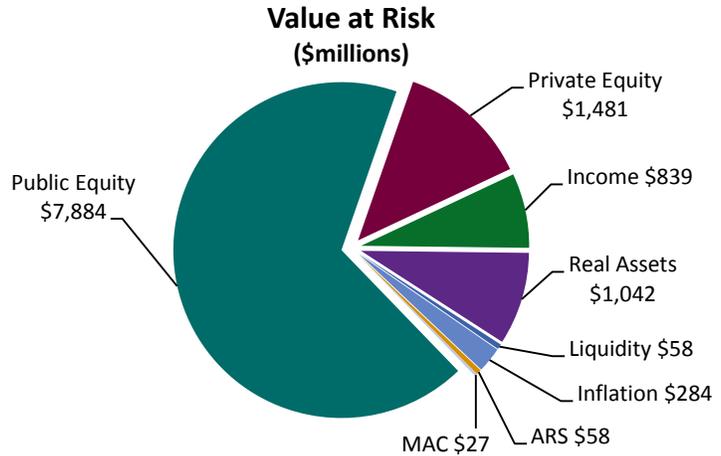
**Investment Belief 9:** Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error. CalPERS shall develop a broad set of investment and actuarial risk measures and clear processes for managing risk. The path of returns matters, because highly volatile returns can have unexpected impacts on contribution rates and funding status.

### Investment Objective

The Program is intended to manage CalPERS economic and investment risks. It is not intended to manage other risks that CalPERS faces, including operational risks and legal risks.

- CalPERS Investment Policy (2009)

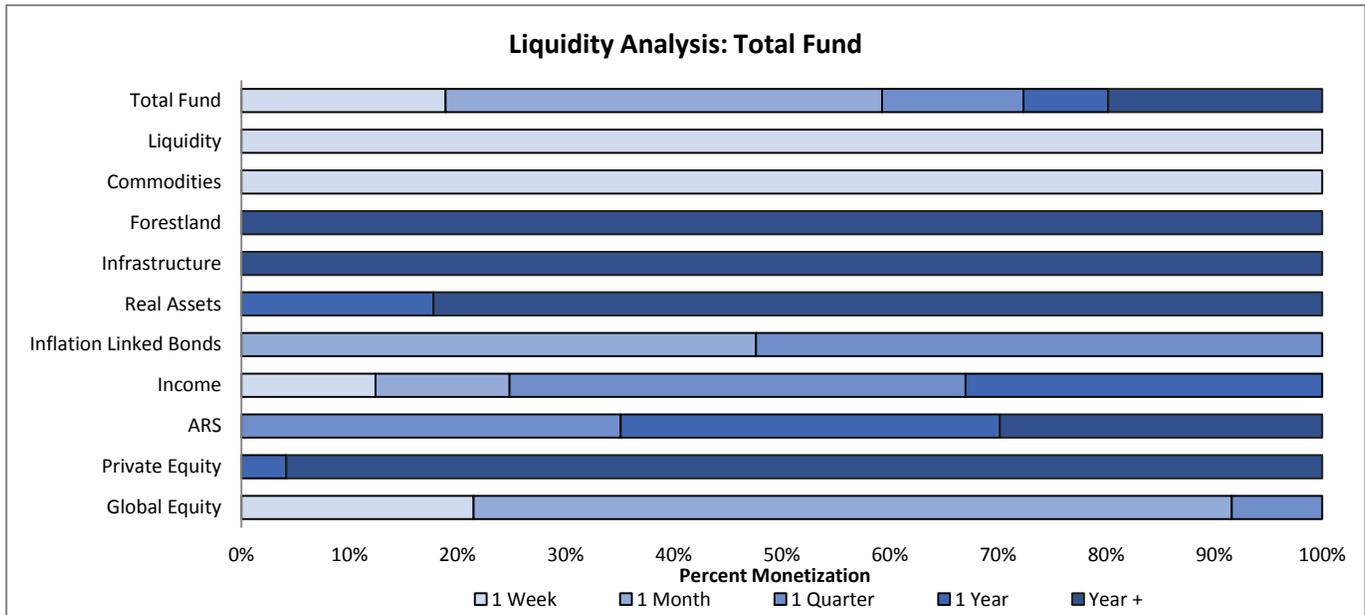
The Risk Management team reports on risk through a multitude of ways. Risk Management reports on Total Risk, Tracking Error, Liquidity Risk, Counterparty Risk, Leverage, Concentration Risk, and Scenario Analysis.



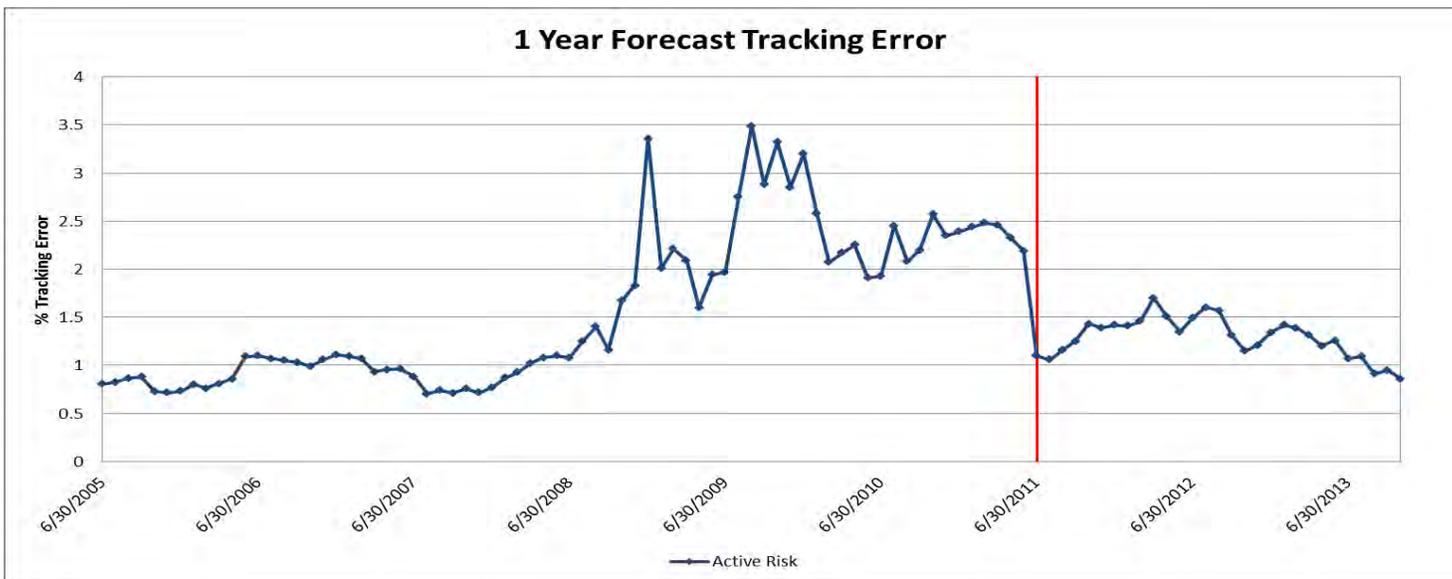
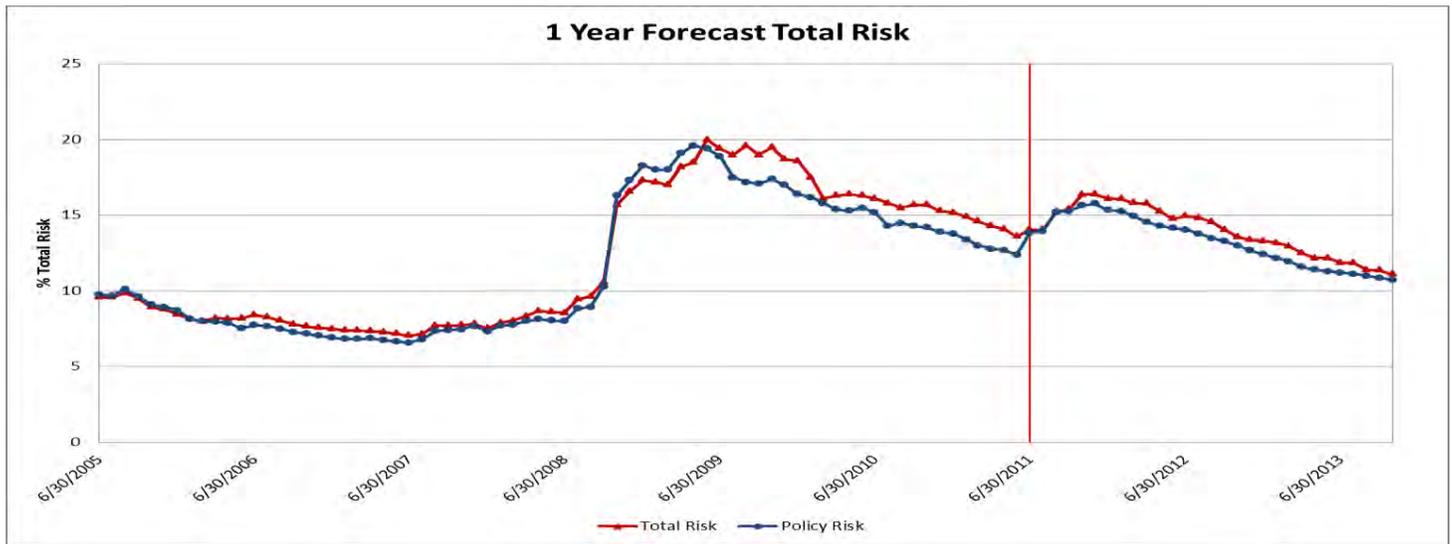
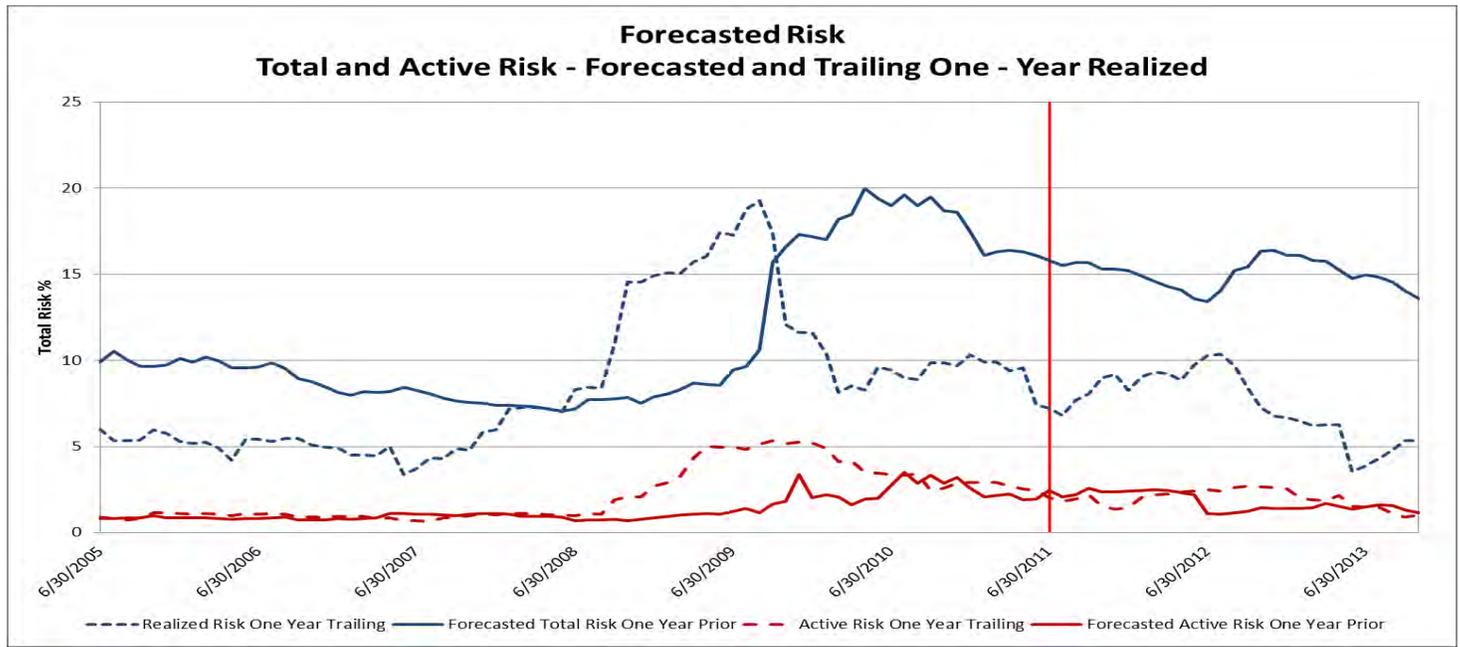
Asset Class	Market Value (\$millions)	Total Risk (%)	% Contribution to Total Risk	Active Risk	Correlation	Value-at-Risk (\$millions)	Conditional VaR(\$millions)*
PUBLIC EQUITY	\$ 152,620	15.3%	75.8%	0.33	0.99	\$ 7,883	\$ 9,554
PRIVATE EQUITY	\$ 31,229	14.3%	13.8%	5.47	0.94	\$ 1,480	\$ 1,824
INCOME	\$ 42,696	5.7%	1.2%	1.06	0.15	\$ 838	\$ 1,052
REAL ASSETS	\$ 26,685	12.2%	8.4%	4.28	0.79	\$ 1,042	\$ 1,321
LIQUIDITY	\$ 10,751	1.6%	-0.1%	0.30	(0.23)	\$ 57	\$ 72
INFLATION-LINKED BONDS	\$ 6,897	5.8%	0.6%	1.20	0.44	\$ 130	\$ 162
ARS	\$ 5,098	3.4%	0.5%	3.54	0.78	\$ 57	\$ 71
MAC	\$ 1,047	7.9%	0.2%	7.91	0.85	\$ 27	\$ 33
<b>TOTAL FUND**</b>	<b>\$ 279,485</b>	<b>11.0%</b>	<b>100.0%</b>	<b>1.0</b>	<b>1.0</b>	<b>\$ 10,203</b>	<b>\$ 12,493</b>

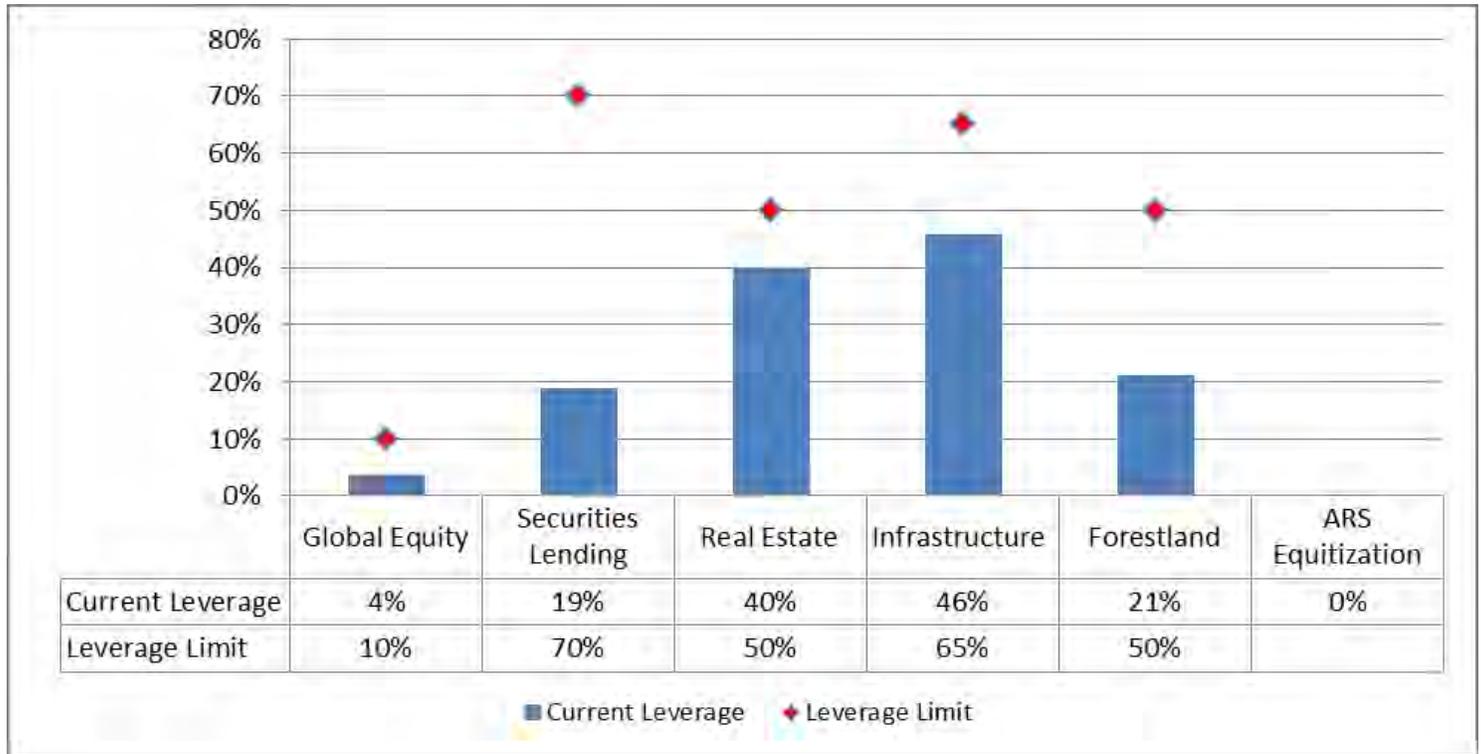
\*10 Day, 95% confidence Monte Carlo Value-at-Risk (VaR) simulation

\*\*Due to reporting constraints, all risk statistics are as of November 30, 2013



**RISK MANAGEMENT TIME SERIES**



**TOTAL FUND LEVERAGE****COUNTERPARTY RISK REPORT**

<u>Counterparty</u>	<u>FORWARD</u> <u>(\$millions)</u>	<u>OPTION</u> <u>(\$millions)</u>	<u>SWAP</u> <u>(\$millions)</u>	<u>CalPERS</u> <u>Exposure</u> <u>(\$millions)</u>	<u>Counter Party</u> <u>Exposure</u> <u>(\$millions)</u>	<u>Total</u> <u>(\$millions)</u>	<u>Collateral</u> <u>Posted</u> <u>(\$millions)*</u>	<u>Net Exposure</u> <u>(\$millions)</u>
Bank of America	23.80	(3.55)	1.25	42.76	(21.25)	21.50	(14.80)	6.70
BPS	16.47		3.95	44.96	(24.55)	20.41	(8.50)	11.91
Barclays PLC	(1.33)			3.22	(4.55)	(1.33)		(1.33)
CommonWealth Bank of Australia	41.14			45.20	(4.05)	41.14	(32.00)	9.14
Citigroup	(3.87)			18.19	(22.06)	(3.87)		(3.87)
Credit Suisse	0.60			0.72	(0.13)	0.60		0.60
Credit Suisse International	(11.81)		9.36	11.27	(13.71)	(2.44)		(2.44)
Deutsche Bank	(3.12)	0.96	4.94	7.56	(4.77)	2.79		2.79
Goldman Sachs Intl.	10.52	0.01	12.07	53.14	(30.53)	22.60		22.60
HSBC	8.35			36.72	(28.37)	8.35	(8.05)	0.30
JPMorgan	0.92	2.72	21.83	36.03	(10.56)	25.47		25.47
Macquarie			6.14	6.14		6.14	(4.30)	1.84
Morgan Stanley			(2.91)	2.41	(5.33)	(2.91)		(2.91)
Morgan Stanley Capital Service	16.10			18.97	(2.87)	16.10		16.10
RBC Capital Markets	0.03			0.03		0.03		0.03
RBS		(0.03)			(0.03)	(0.03)		(0.03)
Standard Chartered Bank	1.10			1.10		1.10		1.10
Societe Generale	0.79	(0.21)		10.50	(9.92)	0.58		0.58
State Street	0.04			0.14	(0.10)	0.04		0.04
UBS	(11.33)			2.22	(13.54)	(11.33)		(11.33)
WestPac Bank	(1.34)			9.78	(11.11)	(1.34)		(1.34)
<b>Grand Total</b>	<b>87.07</b>	<b>(0.09)</b>	<b>56.63</b>	<b>351.05</b>	<b>(207.44)</b>	<b>143.61</b>	<b>(67.65)</b>	<b>75.96</b>

\*As of 12/30 Counterparties posted 68mm to CalPERS

Note: As of 12/31 CalPERS Exposure Mortgage TBA Exposure was 5mm in mark to market value, i.e. CalPERS had exposure to counterparties