

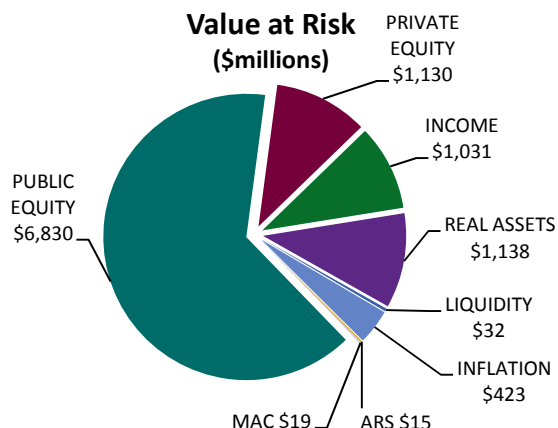
CIO Total Fund Performance & Risk Report
RISK MANAGEMENT SUMMARY



Period Ending May 31, 2015

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.

Total Fund Volatility Trends (%)				
	Policy Limit	Current 5/31/2015	Last Qtr 3/31/2015	Last Year 5/31/2014
Total Risk	n/a	9.15	9.25	9.84
Benchmark Risk	n/a	8.81	9.00	9.56
Active Risk	< 1.5%	0.75	0.70	0.78
Allocation Risk	< .75%	0.12	0.08	0.04
Selection Risk	n/a	0.63	0.62	0.74



Comments:

1) Forecast Total Risk for the PERF has declined by 69bps in the past year to 5/31/15 in line with the Policy Benchmark. Forecast Active risk has been in the 70-80bps range for the past year to 5/31/15. The proportion of Active Risk attributed to allocation rose from 4bps to 12bps due mainly to the reduction of the ARS program and the adjustment of Real Estate weighting to 10% from 9% in the interim Policy Benchmark.

Asset Class	Market Value (\$millions)	Total Risk (%)	% Contribution to Total Risk	Active Risk (%)	Correlation***	Value-at-Risk (\$millions)*	Conditional VaR(\$millions)**
PUBLIC EQUITY	\$ 166,177	12.9%	74.8%	0.2%	0.98	\$ 6,830	\$ 8,541
PRIVATE EQUITY	\$ 28,880	11.8%	11.1%	5.6%	0.91	\$ 1,130	\$ 1,372
INCOME	\$ 54,107	5.5%	1.6%	1.0%	0.15	\$ 1,031	\$ 1,277
REAL ASSETS	\$ 29,920	11.5%	9.8%	3.3%	0.80	\$ 1,138	\$ 1,405
LIQUIDITY	\$ 6,962	1.4%	0.0%	0.3%	(0.15)	\$ 32	\$ 38
INFLATION	\$ 15,658	8.0%	2.4%	2.1%	0.54	\$ 423	\$ 516
ARS	\$ 1,189	3.9%	0.1%	4.0%	0.71	\$ 15	\$ 18
MAC	\$ 1,221	5.3%	0.2%	5.3%	0.69	\$ 19	\$ 24
TOTAL FUND**	\$ 304,114	9.15	100.0%	0.75	1.00	\$ 9,003	\$ 11,225

*10 Day, 95% confidence Value at Risk (VaR)

** 10 Day, 95% confidence Value at Risk (VaR) simulation. Conditional VaR measures the mean of the tail distribution beyond the 95% confidence level

*** Correlations are vs. the entire PERF portfolio

Due to reporting constraints, all risk statistics are as of May 31, 2015 unless otherwise stated

Source: BarraOne / CalPERS

RISK MANAGEMENT TIME SERIES

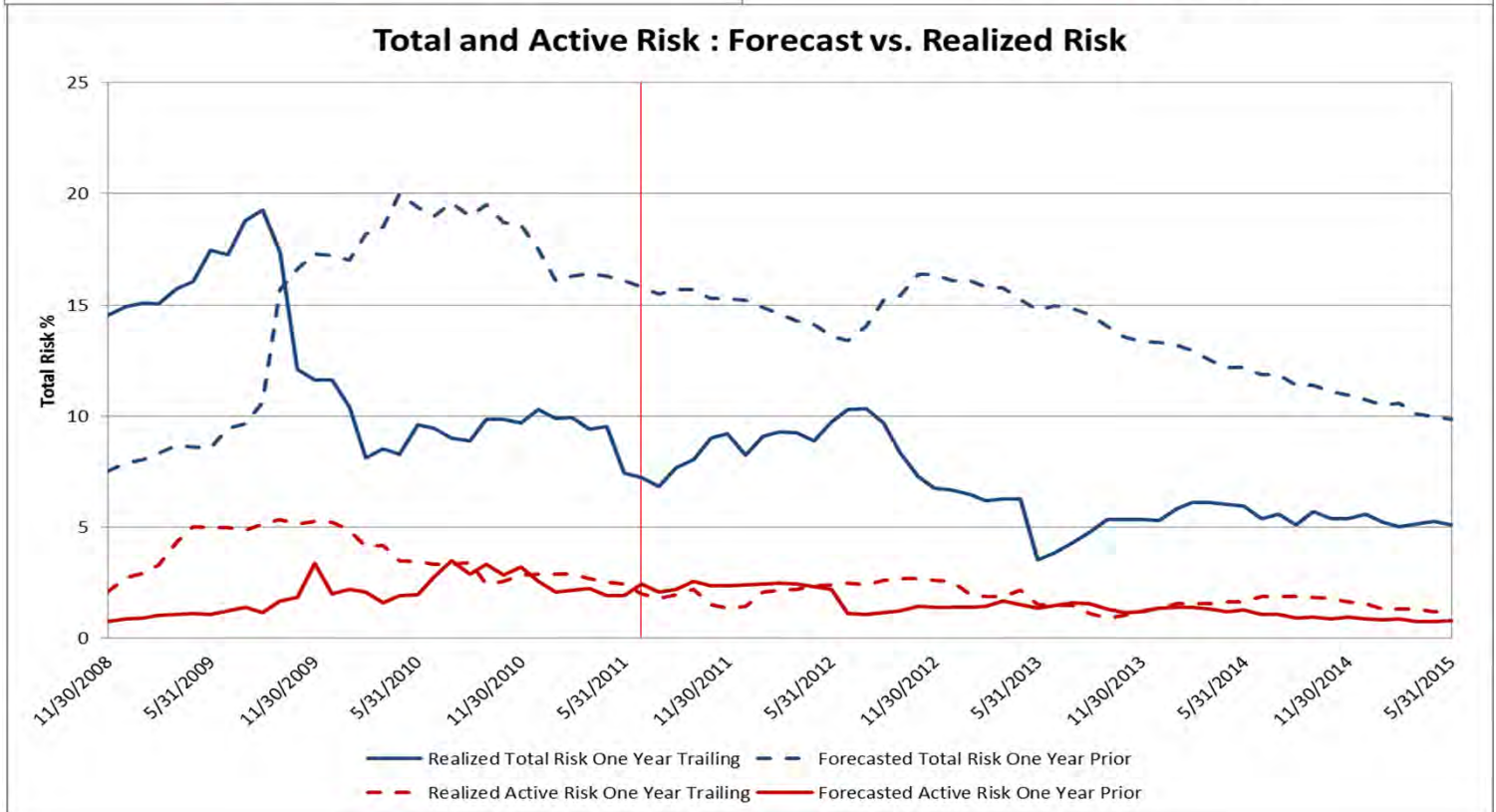
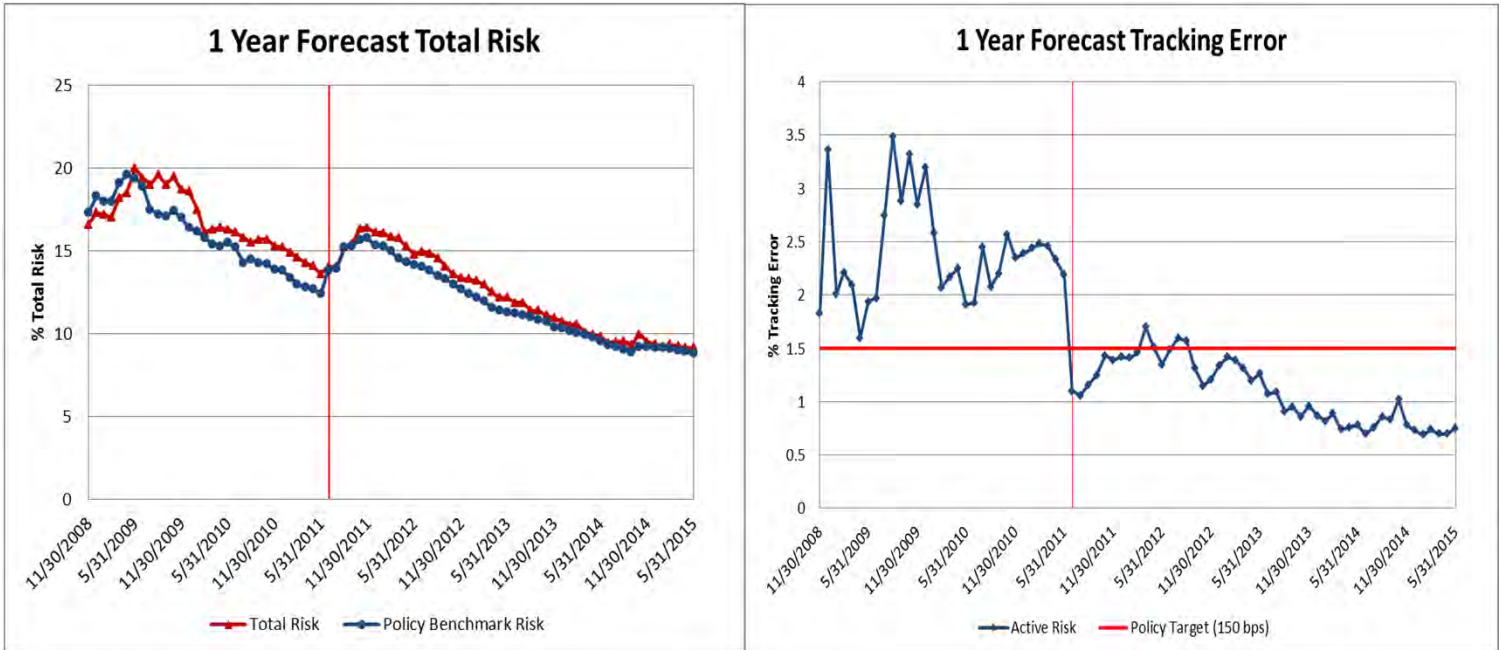
Top Charts:

1 year Forecast Total Risk (Volatility) and Forecast Tracking Error (Active Risk) for the Total Fund are shown. The charts highlight the increased volatility from the 2008-2009 period.

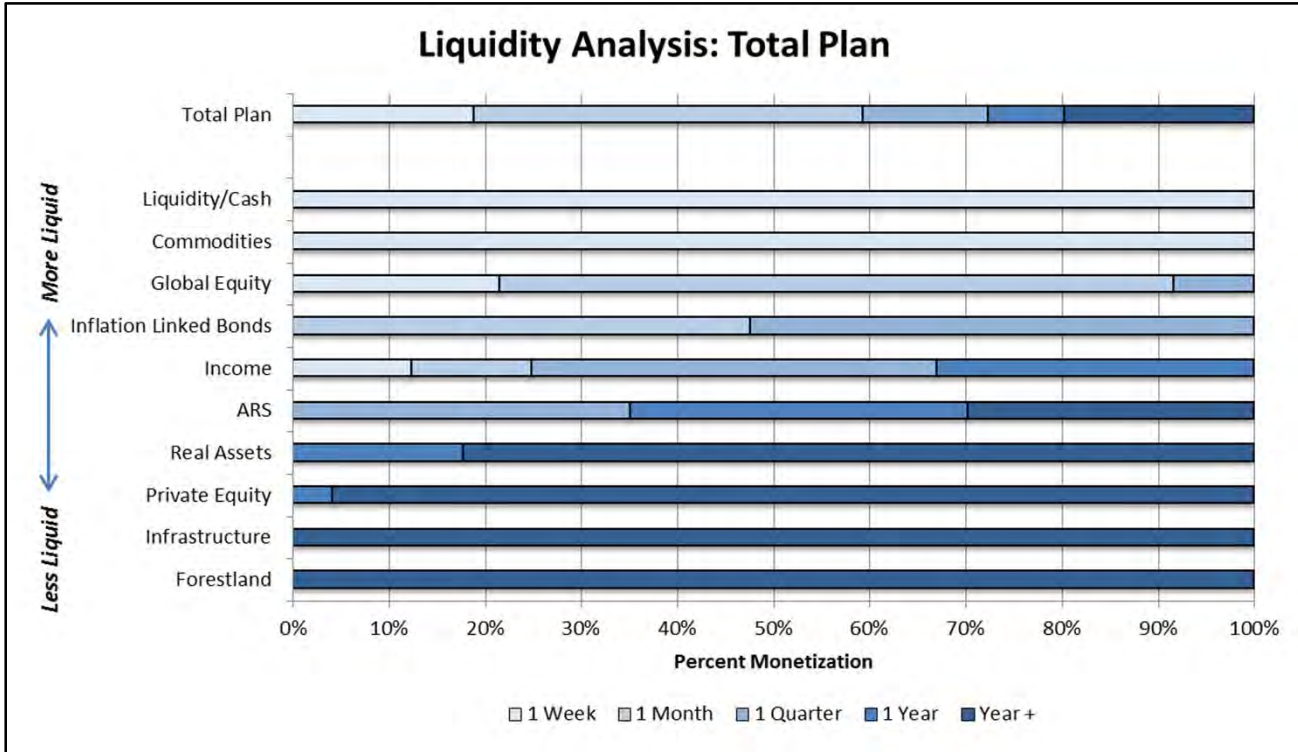
Bottom Chart:

The bottom chart plots the forecast Total and Active Risk for the Total Fund one year prior to each date vs. the Total and Active Risk realized for that date. The graph shows the lagged nature of long term risk models that incorporate a larger backward estimation window which you can see from the realized volatility leading the forecast from the model and highlights the importance of looking at changes in realized risk that may indicate a deviation from capital markets assumptions.

Source: BarraOne, SSB, CalPERS



LIQUIDITY

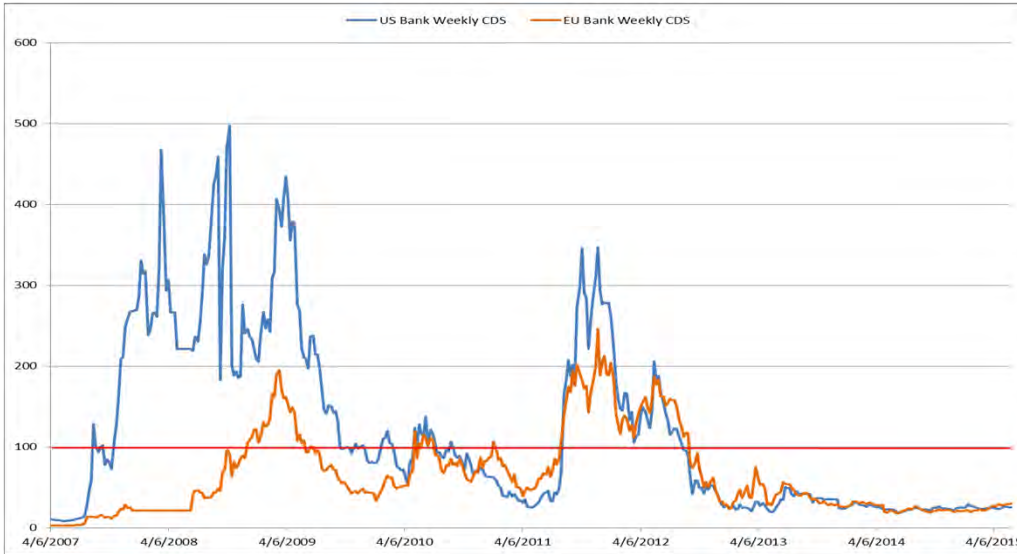


Transactional liquidity is estimated for each asset class /strategy based on the current market environment while also accounting for legal structures or other factors that may impact liquidity. *Source: SSB, CalPERS*

PERF TACTICAL LIQUIDITY SNAPSHOT		
As of June 30, 2015		
	Period Starting:	July 1, 2015
	Period Ending:	July 31, 2015
	Overnight	2 days - EOM
Sources:		
a Sources Total (cash flow in)	-	\$ 2,977,151,206
b Uses Total (cash flow out)	-	\$ (2,105,510,269)
c Sources in Excess (Deficit) of Uses		\$ 871,640,937 = a+b
d Contingency Use*		\$ (137,793,340)
e Total Cash and Cash Equivalents	\$ 5,845,831,473	\$ 6,717,472,410
Liquidity Coverage Ratio		393% = (a+e)/(b+d)
* Contingency Use is based on a 10 Day, 99% confidence VaR of derivatives positions + contingent exposure estimates		

The Tactical Liquidity snapshot is built from estimates of future cash inflows and outflows over a 1 year horizon. For this report the 1 month forward period is being shown along with a Liquidity Coverage ratio which can be interpreted as how many times (in this case 3.93 times) our available liquid cash /cash equivalents could cover our projected cash needs over a 1 month forward period assuming normal market conditions. *Source: BarraOne, SSB, CalPERS*

COUNTERPARTY RISK



Current CDS spreads are tracked for CalPERS counterparties. If the average of the CDS spreads rises above 100bps an internal meeting is held to discuss the change in trend and potential credit risk mitigating actions that might be taken.

Counterparty	NET MTM FORWARDS (\$)	Net MTM OPTIONS (\$)	Net MTM SWAPS (\$)	CalPERS Exposure (\$)	Counter Party Exposure (\$)	Net MTM Total (\$)	Collateral Posted (\$)*	Net Credit Net Exposure (\$)	Threshold Limit (\$)#
Australia and New Zealand Banking	79,660.00			88,326.00	(8,666.00)	79,660.00	(110,000.00)	(30,340.00)	0.00
Bank of Montreal	3,754,127.00			5,837,697.00	(2,083,570.00)	3,754,127.00	(3,800,000.00)	(45,873.00)	0.00
Bank of America	2,464,664.00		881,274.00	14,756,130.00	(11,410,192.00)	3,345,938.00		3,345,938.00	10,000,000.00
BNP Paribas	5,853,450.00		(43,182,991.00)	15,399,634.00	(52,729,175.00)	(37,329,541.00)	33,650,000.00	(3,679,541.00)	10,000,000.00
Barclays	39,159.00		(52,169.00)	750,265.00	(763,275.00)	(13,010.00)		(13,010.00)	10,000,000.00
Commonwealth Bank of Australia	(3,061.00)				(3,061.00)	(3,061.00)		(3,061.00)	10,000,000.00
Citigroup	16,893,614.00	(93,615.00)	774,371.00	28,941,559.00	(11,367,189.00)	17,574,370.00	(8,149,962.00)	9,424,408.00	10,000,000.00
Canadian Imperial Bank of Commerce	(4,756,042.00)		(259,266.00)	16.00	(5,015,324.00)	(5,015,308.00)	5,020,000.00	4,692.00	0.00
Credit Suisse International	(4,669,100.00)		(6,248,601.00)	1,263,786.00	(12,181,487.00)	(10,917,701.00)	1,700,000.00	(9,217,701.00)	10,000,000.00
Deutsche Bank	(1,525,540.00)	19,063.00	124,508.00	5,363,131.00	(6,745,100.00)	(1,381,969.00)		(1,381,969.00)	15,000,000.00
Goldman Sachs Bank			4,594,030.00	6,432,538.00	(1,838,508.00)	4,594,030.00	(4,600,000.00)	(5,970.00)	0.00
Goldman Sachs Intl.	(18,548,022.00)	656,156.00	(2,751,424.00)	5,533,451.00	(26,176,741.00)	(20,643,290.00)	20,800,000.00	156,710.00	0.00
HSBC	14,325,314.00	(1,388.00)	101,067.00	20,624,760.00	(6,199,767.00)	14,424,993.00	(14,558,613.00)	(133,620.00)	0.00
JPMorgan Chase Bank	1,042,490.00	92,390.00	3,533,137.00	12,391,251.00	(7,723,234.00)	4,668,017.00		4,668,017.00	20,000,000.00
Macquarie			(249,359.00)		(249,359.00)	(249,359.00)	250,000.00	641.00	0.00
Morgan Stanley Capital Group			(169,029.00)		(169,029.00)	(169,029.00)		(169,029.00)	20,000,000.00
Morgan Stanley Capital Service	(9,582,628.00)	420,865.00	(445,786.00)	6,329,636.00	(15,937,185.00)	(9,607,549.00)		(9,607,549.00)	20,000,000.00
RBC Capital Markets	138,810.00			174,634.00	(35,824.00)	138,810.00	(230,000.00)	(91,190.00)	0.00
Standard Chartered Bank	(1,103,579.00)			79,092.00	(1,182,671.00)	(1,103,579.00)	1,170,000.00	66,421.00	0.00
Societe Generale	(807,411.00)	16,001.00	(1,615,584.00)	6,130,579.00	(8,537,573.00)	(2,406,994.00)		(2,406,994.00)	20,000,000.00
State Street	(1,125,437.00)			1,634,557.00	(2,759,994.00)	(1,125,437.00)	1,060,000.00	(65,437.00)	0.00
UBS AGG	178,337.00			1,922,918.00	(1,744,581.00)	178,337.00	185,745.00	364,082.00	20,000,000.00
WestPac Bank	3,159,583.00			3,261,239.00	(101,656.00)	3,159,583.00	(3,200,000.00)	(40,417.00)	0.00
Grand Total	5,808,388.00	1,109,472.00	(44,965,822.00)	136,915,199.00	(174,963,161.00)	(38,047,962.00)	29,187,170.00	(8,860,792.00)	

*As of 6/26 CalPERS posted 42mm to Counterparties which includes Internal and External Collateral

Internal Threshold Limit

Above: Total market value exposure and net credit exposures are monitored for all of our OTC(over-the-counter) positions. The green check box in the OTC exposure table indicates that the total market value exposure is within our procedural tolerances.

Source: Blackrock, CalPERS

Below: FCM (Futures Commission Merchant) exposures are monitored for how much initial margin we have posted with our FCM in addition to reviewing key metrics that provide some insight on the FCM's risk profile such as Excess Net Capital (amount of additional capital the FCM has to support the business) and customer assets. Large changes in these metrics could be an indicator of potential credit or operational issues with the FCM and would trigger

FUTURES CLEARING MERCHANT EXPOSURE

Futures Commission Merchant	Collateral Posted	Procedure Check	Excess Net Capital	Procedure Check	Customers' Assets	Procedure Check
CITIGROUP GLOBAL MARKETS INC	559,254,000	✔	5,789,411,631	✔	7,060,255,901	✔

*As of June 26, 2015

LEVERAGE

Total Fund Leverage Report

as of 5/31/15

Asset Class	Net Market Value (\$Billions)	CalPERS controlled leverage deployment (\$Billions)					Leverage Sources		Total Gross Exposure ⁸ (\$Billions)
		Notional Exposure	Non Recourse Debt	Recourse Debt ⁴	Contingent Claim	Policy Leverage Calc % ¹⁰	Policy Limit	Leverage embedded in company structure or investment vehicle (\$Billions)	
Public Equity ^{2,3}	165.1	6.2	-	-	-	4%	10%	56.6	\$ 227.9
Private Equity ⁵	28.8	-	-	-	-	-	-	13.0	41.8
Income	56.7	0.8	-	-	-	1%	10%	-	57.5
Liquidity	7.0	-	-	-	-	-	-	-	7.0
Real Estate	25.6	-	13.1	0.02	-	34%	50%	-	38.7
Infrastructure	2.1	-	1.9	-	-	47%	65%	-	4.0
Forestland	2.3	-	0.6	-	-	20%	50%	-	2.9
Inflation Linked	15.9	-	-	-	-	-	-	-	15.9
ARS (incl. MAC) ⁹	2.4	-	-	-	-	-	-	-	2.4
Transition + Overlay	0.1	-	-	-	-	-	-	-	0.1
Total Fund	\$ 306	6.9	15.6	0.02	-	-	-	69.6	\$ 398.2

Programs	Net Market Value (\$Billions)	Notional Exposure	Non Recourse Debt	Recourse Debt	Contingent Claim	Policy Leverage Calc %	Policy Limit	Embedded Leverage Sources	Total Gross Exposure ⁸ (\$Billions)
Credit Enhancement ⁶	-	-	-	-	0.6	-	-	-	0.6
Asset Based Lending ⁷	-	-	-	-	0.2	-	-	-	0.2
Securities Lending ¹	-	1.9	-	-	-	18%	70%	-	1.9
Total- Unfunded Programs/Overlays		1.9			0.8	-	-	-	\$ 2.7

Total Asset Class + Programs	\$ 306	8.8	15.6	0.02	0.8	-	-	69.6	\$ 400.8
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1. Securities Lending notional exposure is the dollar amount of reinvested capital with maturity greater than 90 days. Policy Leverage % for Securities Lending is calculated as the notional exposure divided by the total size of the program. The size of the Securities Lending program as of 5-31 was \$10.6 Billion.

2. Public Equity Notional Exposure is the net notional value of derivatives that are not backed by cash like instruments.

3. Embedded leverage represented for Public Equity is non-recourse debt. This amount is estimated using the average LT Debt/Capital ratio (currently at 34.29%) of the underlying holdings.

4. Recourse Debt in Real Estate decreased by \$42 Million from September 2014 Quarter end

5. Embedded leverage for Private Equity is non-recourse debt exposure at the investment company level or within commingled funds. This is estimated using the average Net Debt/Enterprise Value ratio (currently estimated at 45.2%) for all PE holdings.

6. Credit Enhancement - exposure is contingent upon default of underlying obligation being insured + estimated recovery ratio on the security.

7. Asset Based Lending - exposure is contingent upon default of underlying obligation + estimated sale of recoverable assets.

8. Total Gross Exposure is the sum of Net Market Value + Leverage Sources (within CalPERS direct control for implementation as well as embedded leverage).

9. For ARS and other strategies where limited transparency is available, net exposure is measured as the estimated global equity beta. The current estimated beta of ARS to global equity is .2

10. Policy Calculations - limits for leverage are typically set on leverage source(s) within an asset class/program where deployment is controlled or influenced by internal staff. The below table summarizes the specific policy limits shown in the table above and which leverage source they are specified against.

Asset Class / Program	Leverage Type	Policy Limit
Public Equity	Notional Leverage	10%
Income	Notional Leverage	10%
Real Estate	Non-Recourse + Recourse	50%
Infrastructure	Non-Recourse + Recourse	65%
Forestland	Non-Recourse + Recourse	50%
Securities Lending	Notional Leverage	70%

HISTORICAL SCENARIOS

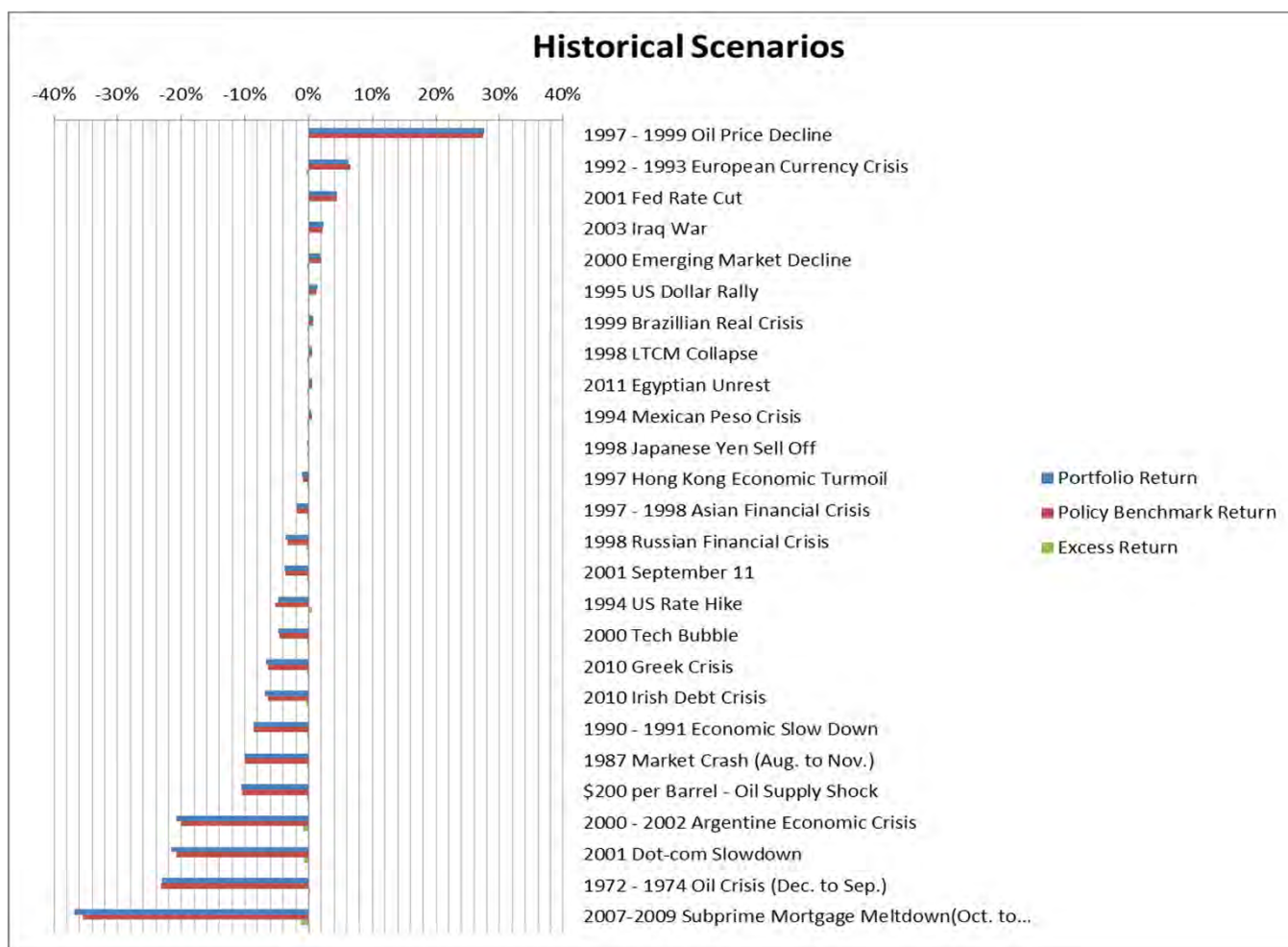
Historical scenarios highlight the sensitivity of the portfolio to past economic regimes or specific events. The scenarios can be used as a "what if" gauge of current portfolio positioning to understand the potential impact if a similar event or regime were to repeat.

Best and Worst Scenarios - Excess Return

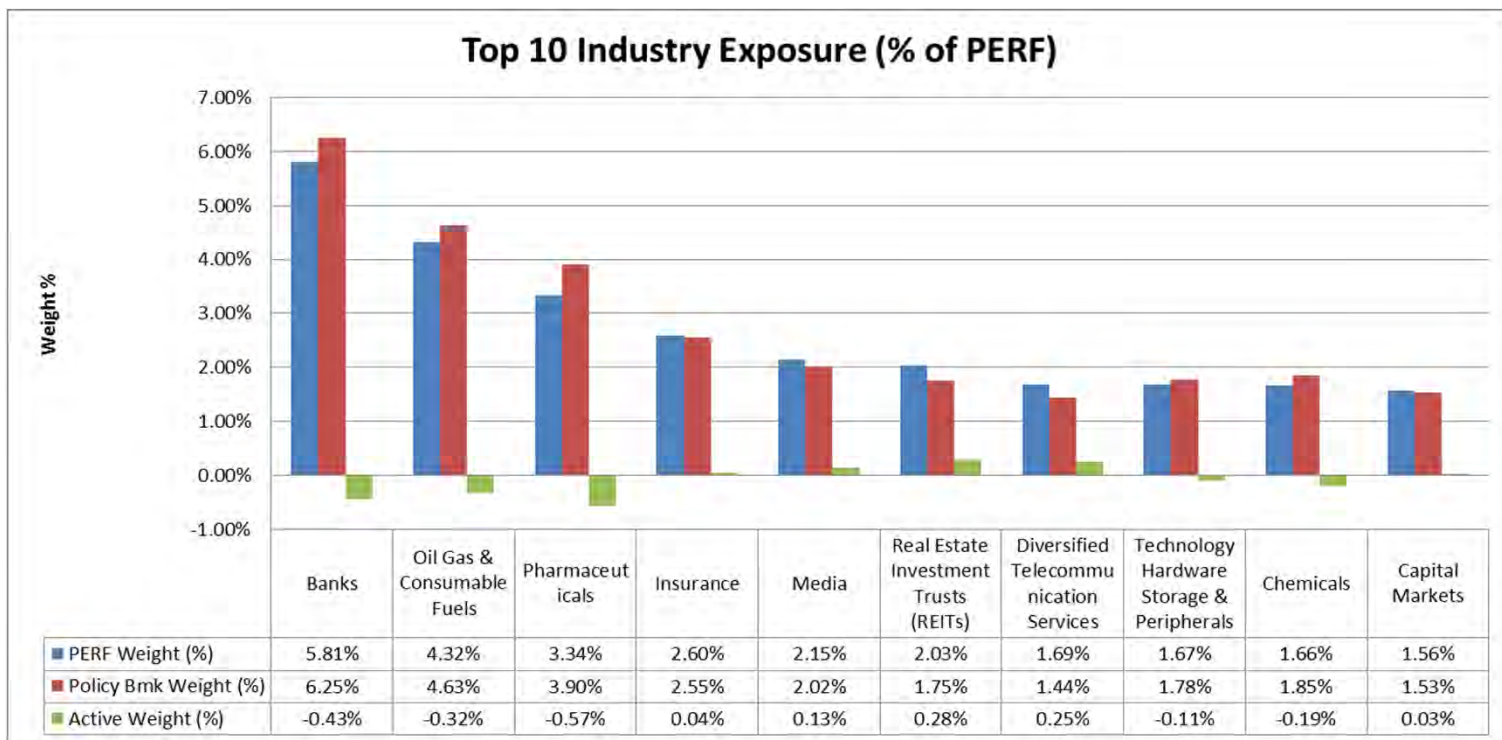
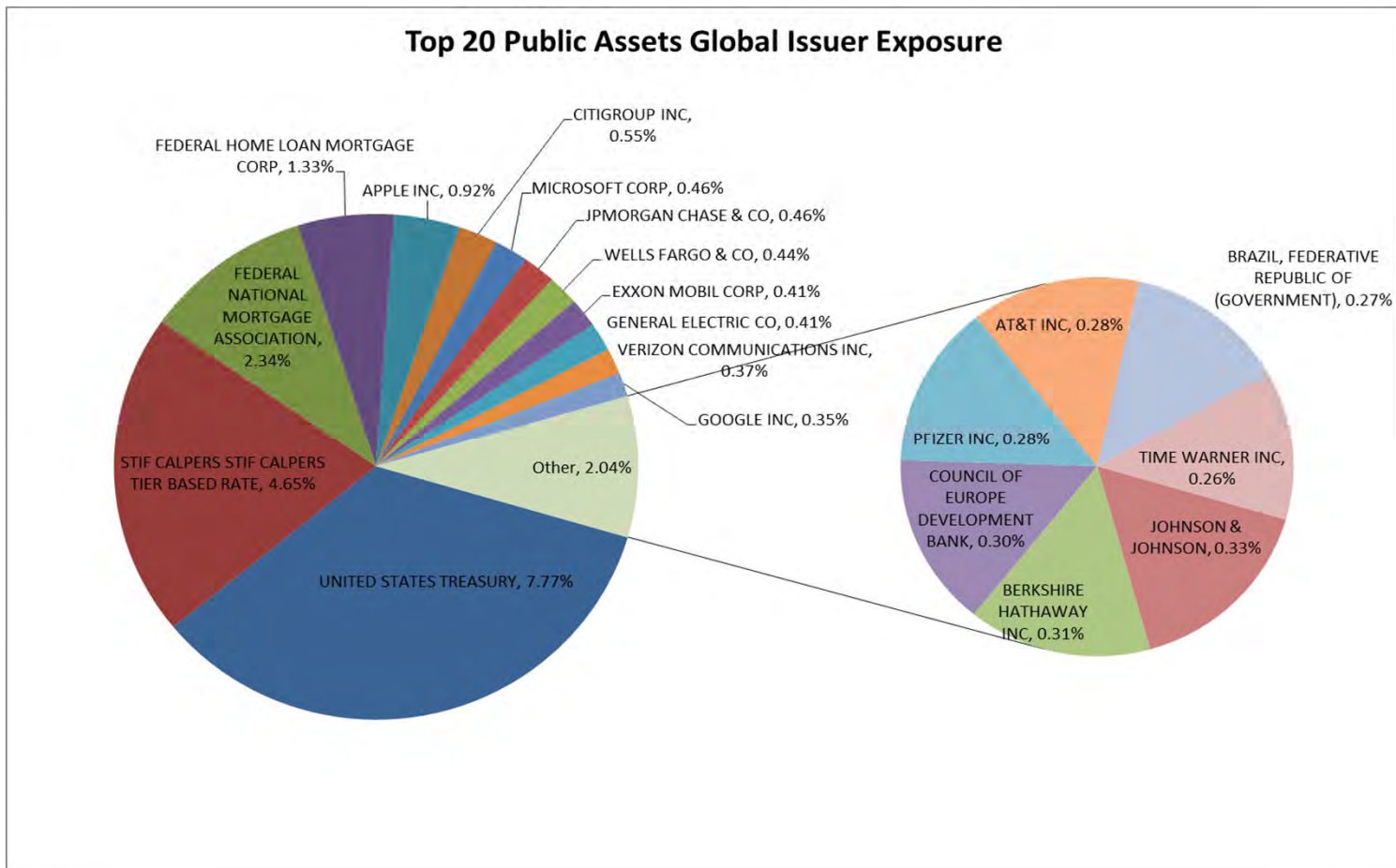
Scenario	Portfolio Return	Policy Benchmark Return	Excess Return
1997 - 1999 Oil Price Decline	28.0%	27.6%	0.31%
1992 - 1993 European Currency Crisis	6.0%	5.9%	0.11%
2001 Fed Rate Cut	4.5%	4.5%	0.03%
2001 Dot-com Slowdown	-21.8%	-21.1%	-0.68%
1972 - 1974 Oil Crisis (Dec. to Sep.)	-23.7%	-23.0%	-0.67%
2007-2009 Subprime Mortgage Meltdown(Oct. to Feb.)	-36.7%	-35.4%	-1.31%

Best and Worst Scenarios - Portfolio Return

Scenario	Portfolio Return	Policy Benchmark Return	Excess Return
1997 - 1999 Oil Price Decline	27.5%	27.4%	0.07%
1992 - 1993 European Currency Crisis	6.2%	6.6%	-0.42%
2001 Fed Rate Cut	4.5%	4.5%	0.06%
2001 Dot-com Slowdown	-21.5%	-20.8%	-0.71%
1972 - 1974 Oil Crisis (Dec. to Sep.)	-23.0%	-23.2%	0.17%
2007-2009 Subprime Mortgage Meltdown(Oct. to Feb.)	-36.8%	-35.5%	-1.29%

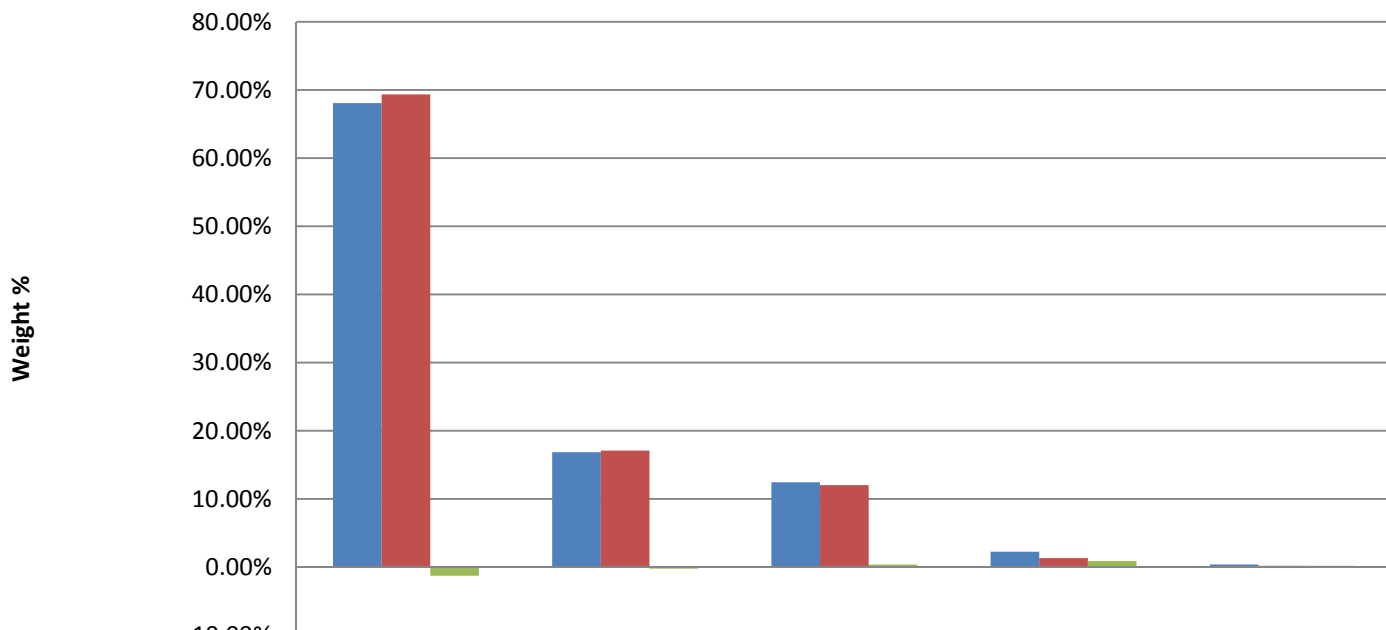


CONCENTRATION REPORT



CONCENTRATION REPORT

Regional Exposures



	North America	EMEA (Europe, Middle East, Africa)	Asia Pacific	Latin-S America	Rest of World
■ PERF Weight (%)	68.08%	16.86%	12.43%	2.25%	0.38%
■ Policy Bmk Weight (%)	69.35%	17.08%	12.05%	1.34%	0.18%
■ Active Weight (%)	-1.27%	-0.22%	0.39%	0.91%	0.20%

Country	PERF Weight (%)	Policy Bmk Weight (%)	Active Weight (%)
United States	65.81%	67.23%	-1.41%
Japan	5.15%	5.12%	0.03%
United Kingdom	5.15%	5.65%	-0.50%
Canada	2.26%	2.12%	0.14%
France	2.10%	2.18%	-0.08%
Germany	2.05%	1.98%	0.08%
Switzerland	1.50%	1.77%	-0.27%
Australia	1.41%	1.46%	-0.05%
Brazil	1.27%	0.64%	0.63%
China International	1.07%	1.21%	-0.14%

Currency	PERF Weight (%)	Policy Bmk Weight (%)	Active Weight (%)
US Dollar	67.48%	69.30%	-1.82%
Euro	7.04%	6.91%	0.12%
Japanese Yen	5.15%	5.11%	0.04%
British Pound	4.88%	4.91%	-0.03%
Canadian Dollar	2.01%	1.90%	0.10%
Hong Kong Dollar	1.86%	2.04%	-0.17%
Swiss Franc	1.50%	1.77%	-0.27%
Australian Dollar	1.41%	1.44%	-0.03%
Brazilian Real	1.16%	0.54%	0.62%
Korean Won	0.85%	0.86%	-0.01%

Appendix

1. How to interpret the OTC Counterparty Risk Exposure section

OTC Derivative Counterparty Exposure Report								
Counterparty	Net MTM FORWARDS (\$)	Net MTM OPTIONS (\$)	Net MTM SWAPS (\$)	CalPERS Exposure (\$)	Counter Party Exposure (\$)	Net MTM Total (\$)	Collateral Posted (\$)	Net Credit Exposure (\$)
Counterparty 123	10,386,714	(84,745)	11,735,283	27,147,091	(5,109,839)	22,037,252	(6,749,962)	15,287,290

NET MTM BY PRODUCT TYPE

- Columns reflect the net mark to market (MTM) of all OTC trades by product type with a Counterparty
- + amount = CalPERS has a gain on the positions
- amount = CalPERS has a loss on the positions

DIRECTIONAL EXPOSURE

- The exposure columns reflect an un-net profit or loss (P&L) grouping across product type and is equivalent to the directional unwind exposure at a point in time
- Trades with positive P&L are bucketed together = CalPERS Exposure
- Trades with negative P&L are bucketed together = Counterparty Exposure

NET MTM TOTAL

- The net market to market column reflects the total current net profit or loss position across all open OTC trades with a counterparty
- + amount = CalPERS is owed money
- amount = CalPERS owes money

COLLATERAL POSTED

- The collateral posted column reflects the dollar amount of collateral that is either posted to CalPERS or that CalPERS has posted to a counterparty to offset credit risk
- + amount = CalPERS has posted money out
- amount = Counterparty has posted money to CalPERS

NET CREDIT EXPOSURE

- The net credit exposure column reflects the open uncollateralized credit exposure at risk if a Counterparty were to default with no change in mark to market prices
- + amounts reflect open credit risk where CalPERS is owed money

*Net mark to market (MTM): positions are adjusted to reflect current market values and then summed