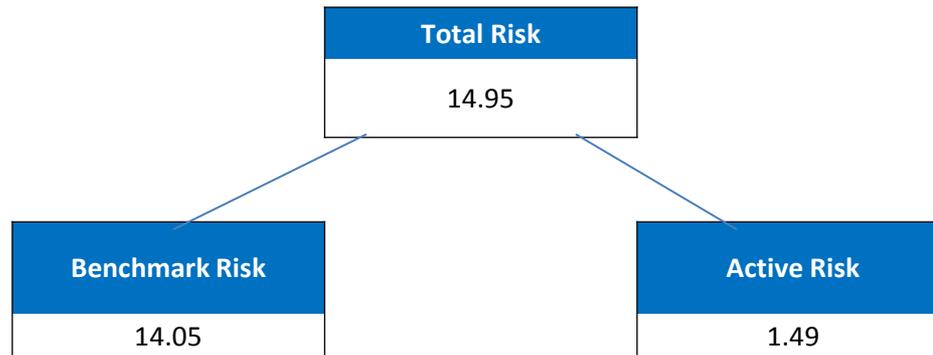


CalPERS Total Plan Investment Risk Analysis

September 10, 2012

Total Fund Projected Risk*

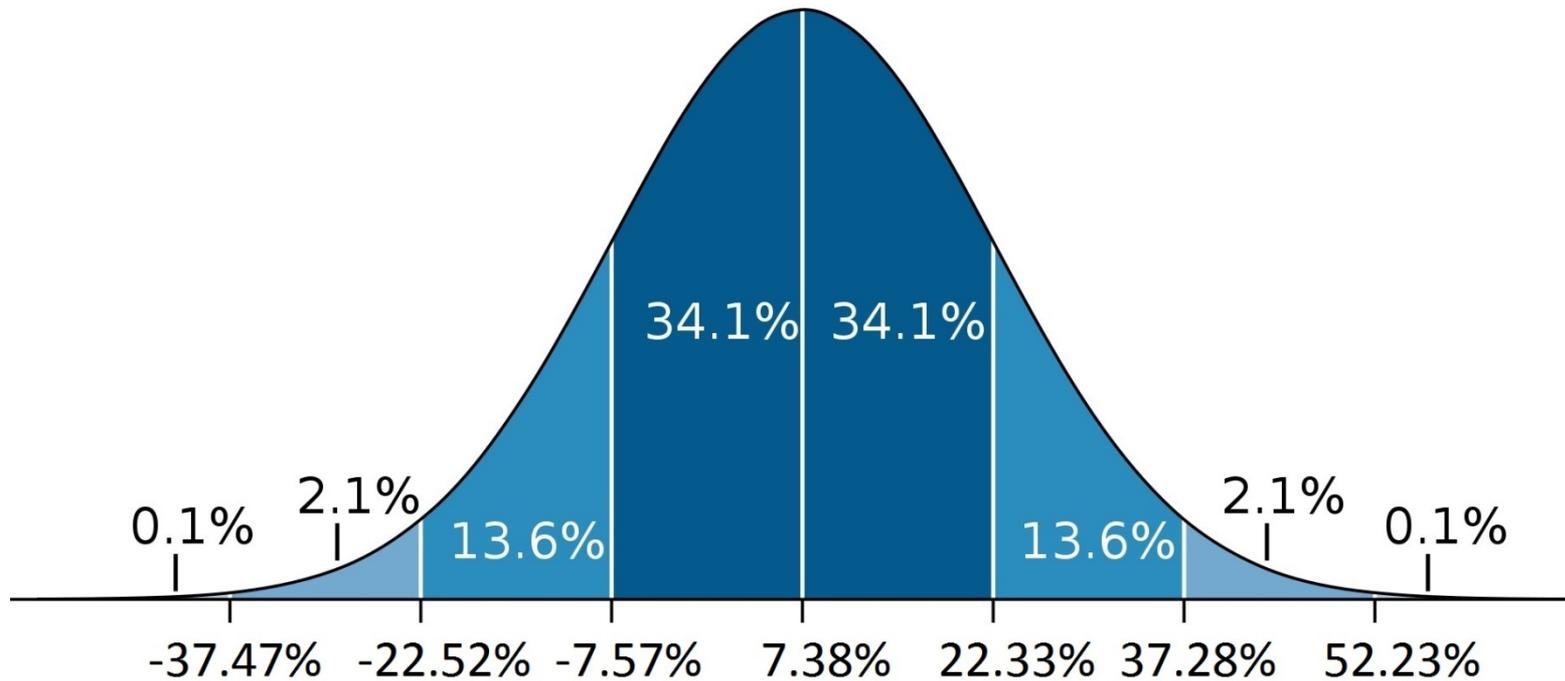
June 30, 2012 – One-Year Forecast



*Risk is annualized predicted volatility (%)

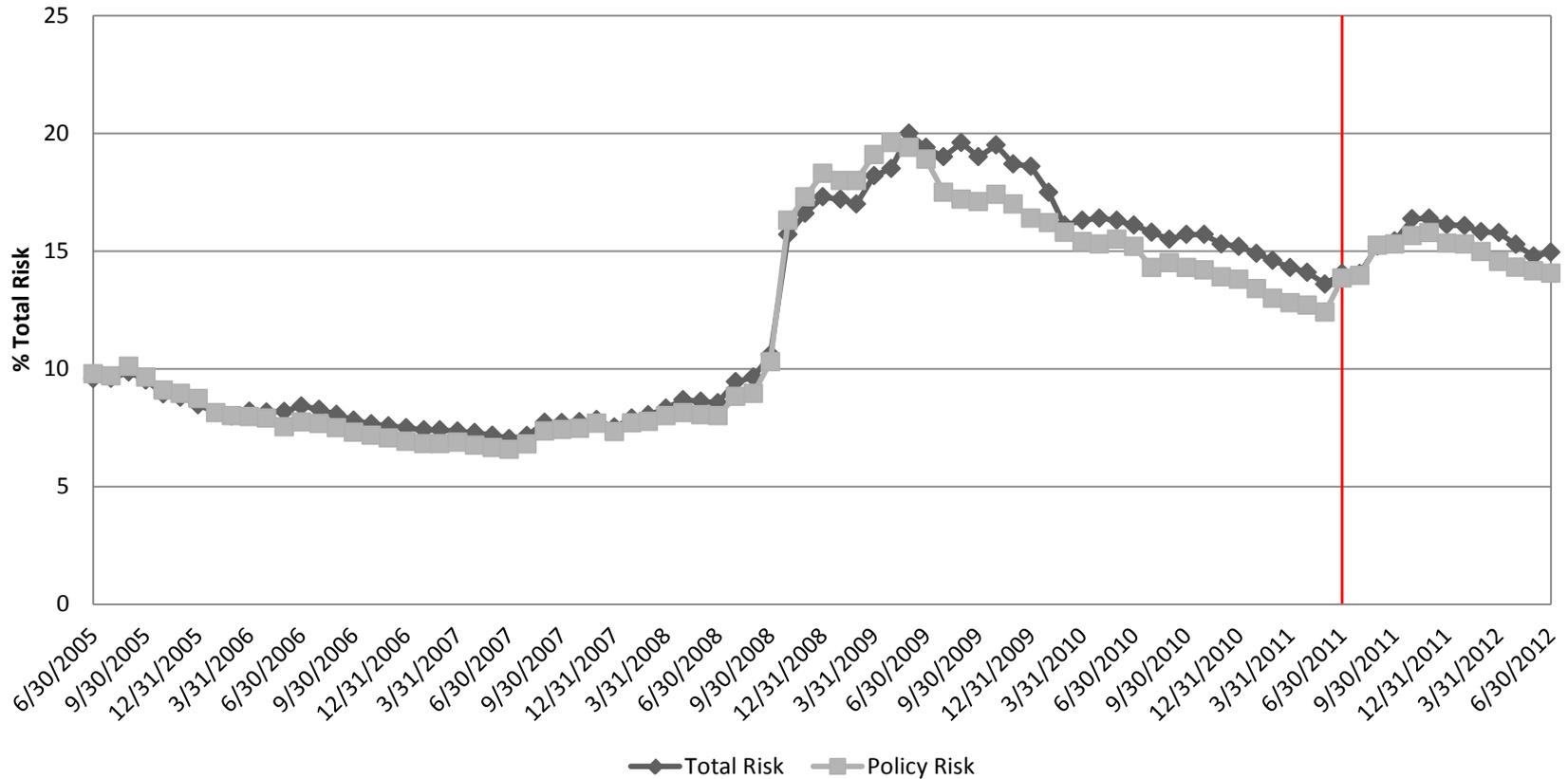
Forecasted Distribution of Expected Return

Expected Return from ALM Workshop = 7.38%
 One Standard Deviation Forecasted Volatility = 14.95%



Total Risk Time Series (Forecasted)

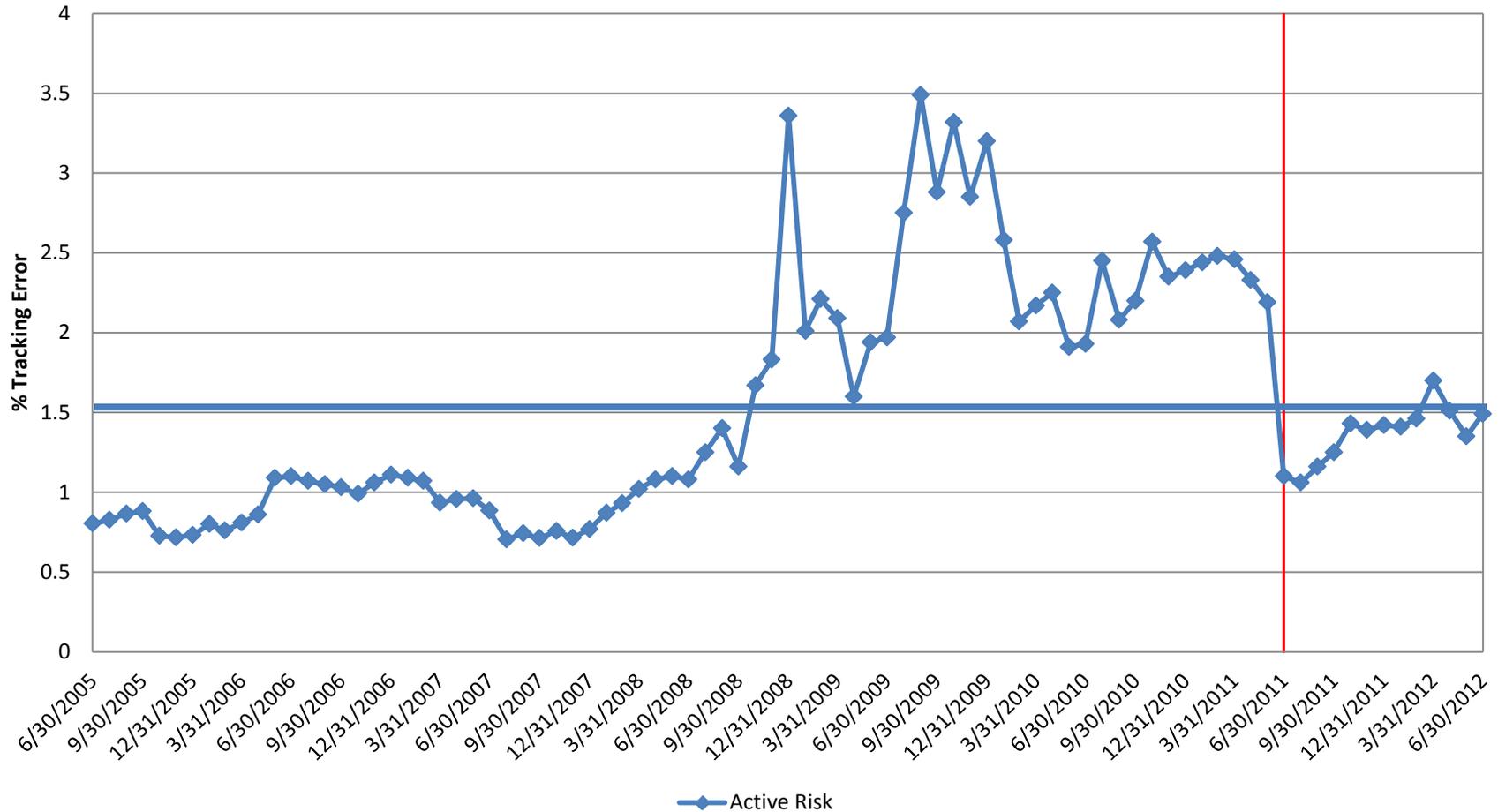
History of One-Year Forecast Total Risk



* The vertical line denotes the cutover to BarraOne and the new BIM 301 model for June 30 month end. The BIM 301 model introduced several changes including a new Real Estate model, new currency model and more frequent observations in building the covariance matrix.

Active Risk Time Series (Forecasted)

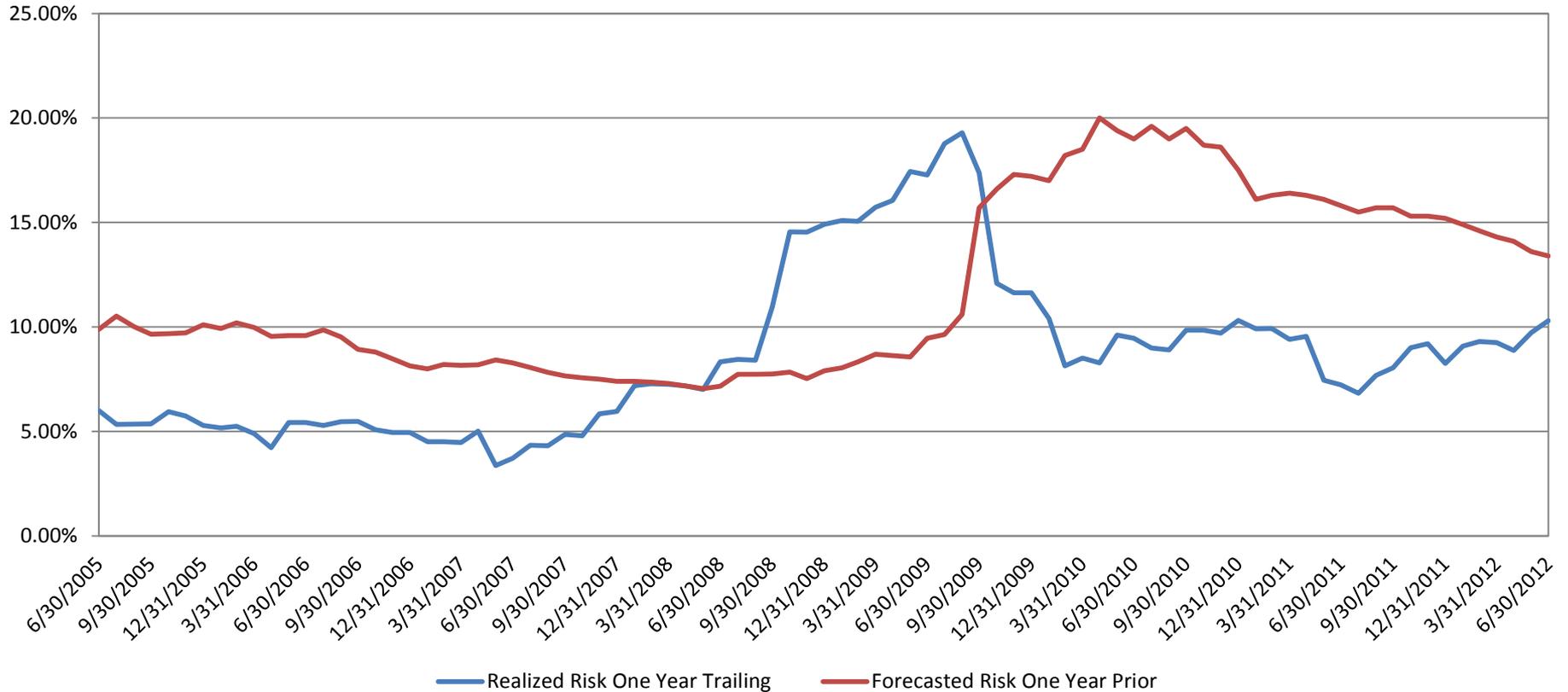
History of One-Year Forecast Tracking Error



* The vertical line denotes the cutover to BarraOne and the new BIM 301 model for June 30 month end as well as the change to the new risk based asset allocation framework. Both asset class and policy benchmark changes for the new allocation framework were incorporated for the 6/30 reporting period resulting in a recasting of active risk vs. this new information set.

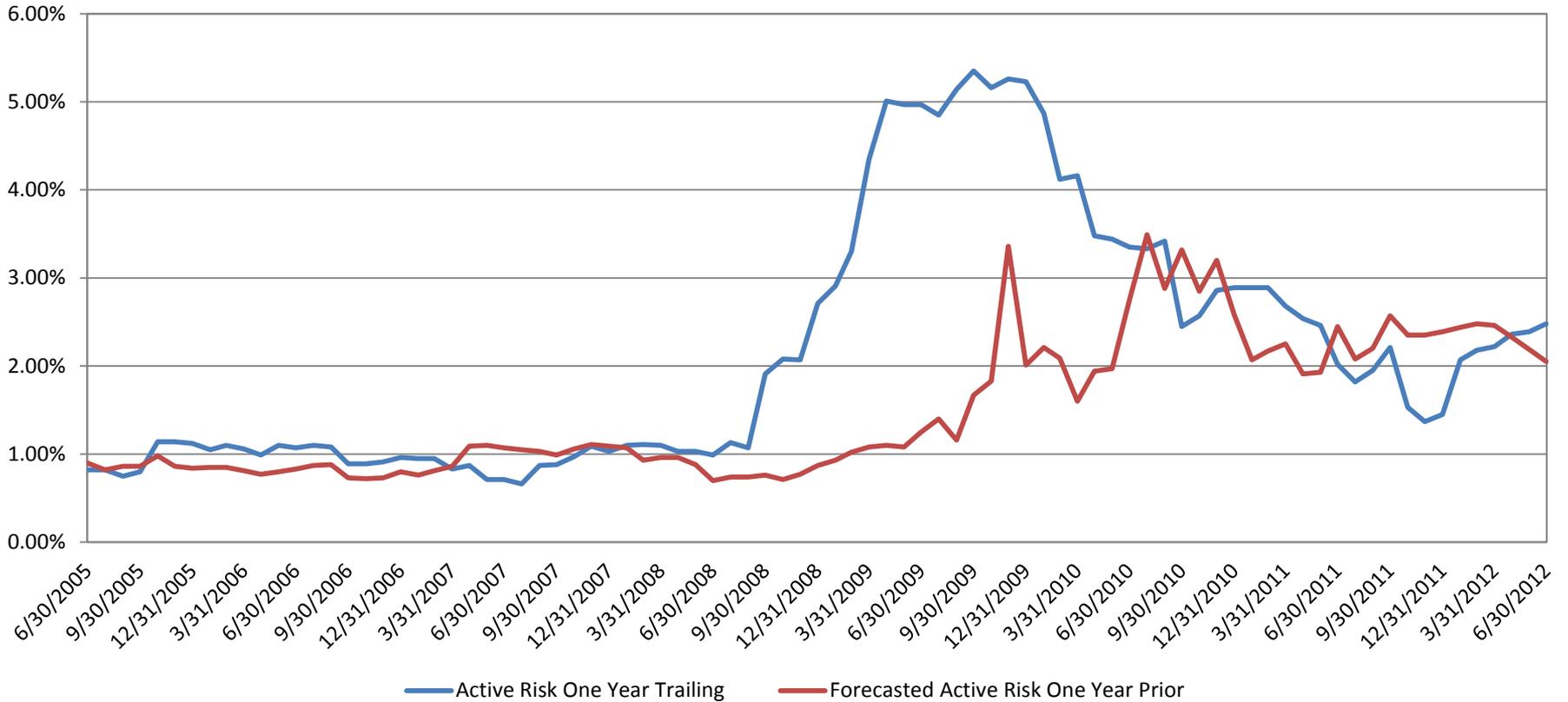
Time Series Analysis

Forecasted vs. Realized Total Risk



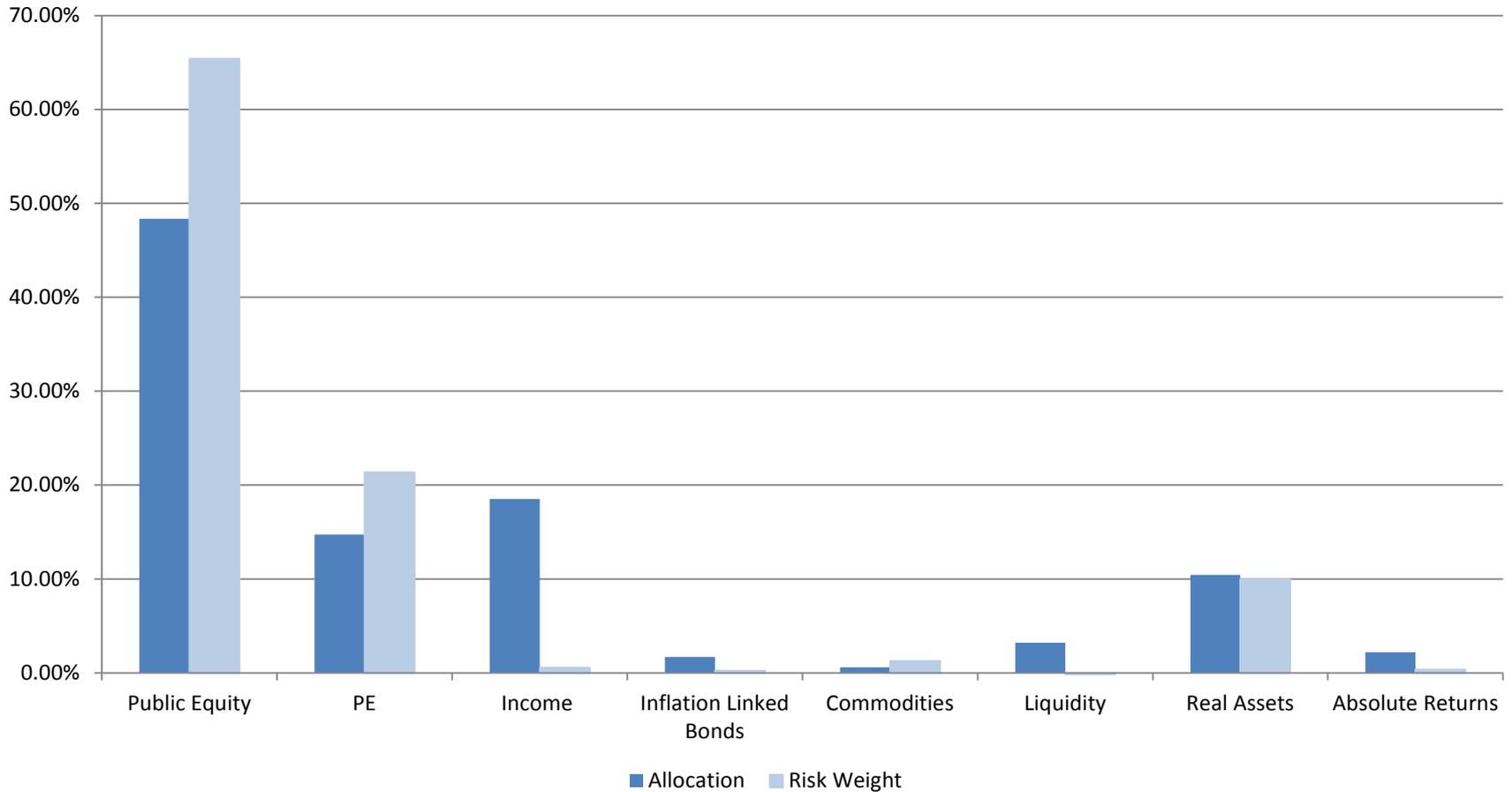
Time Series Analysis

Forecasted vs. Realized Active Risk



Asset Class Contribution to Total Risk

June 30, 2012



Asset Class Risk and Contribution to Total Fund Risk

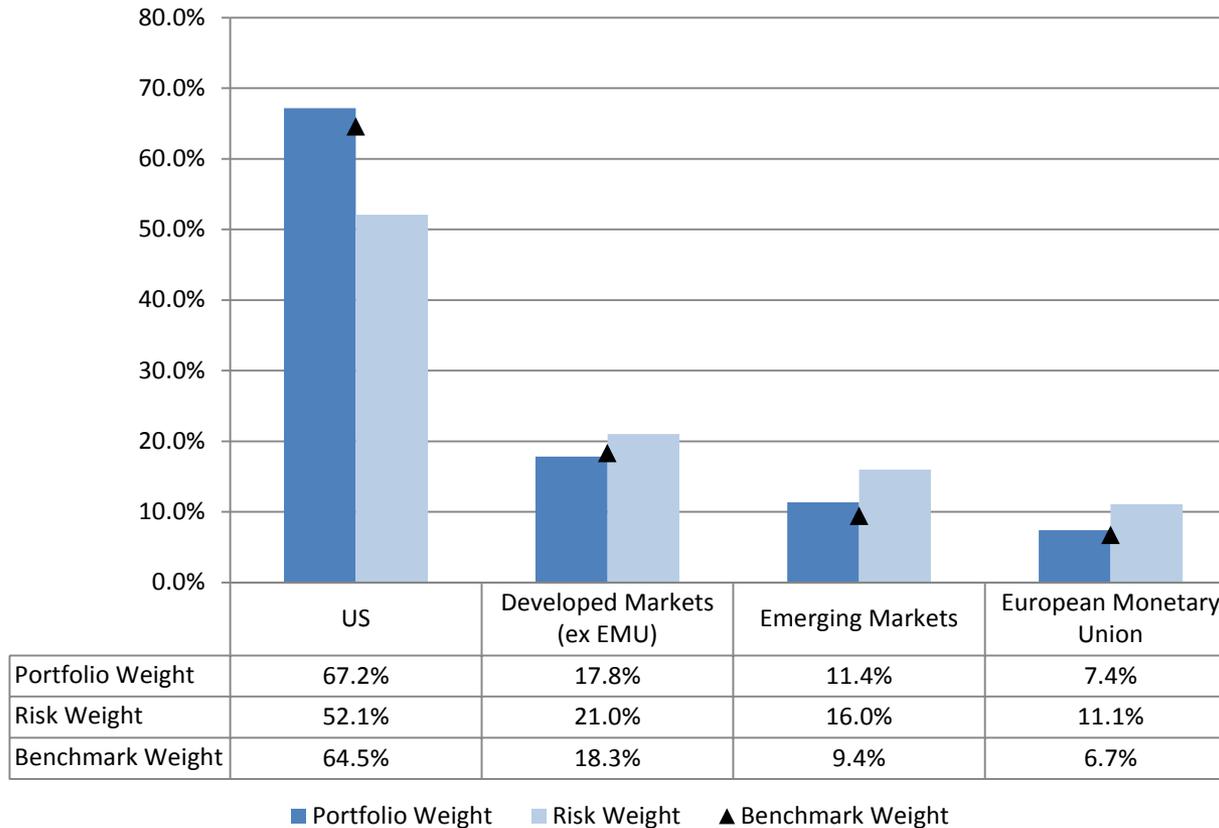
June 30, 2012

Asset Class	Market Value (\$ millions)	Current Portfolio Weight (%)	Effective Weight (%)	Policy Weight (%)	Active Weight (%)	Active Effective Weight (%)	Total Risk	% Contribution to Total Risk	Correlation	Active Risk	Value-At-Risk(\$)*
PE	34,242	14.51	14.51	14.00	0.51	0.51	22.70	21.35	0.97	7.08	2,547
Public Equity	112,424	47.64	49.63	50.00	-2.36	-0.37	20.69	65.39	0.99	0.33	7,623
Income	44,445	18.83	18.85	17.00	1.83	1.85	6.10	0.55	0.07	0.74	888
Inflation Linked Bonds	3,928	1.66	1.66	3.00	-1.34	-1.34	6.27	0.24	0.34	0.74	81
Commodities	2,955	1.25	1.25	1.00	0.25	0.25	28.54	1.29	0.54	4.91	276
Liquidity	8,121	3.44	3.44	4.00	-0.56	-0.56	2.32	-0.15	-0.27	0.39	66
Real Assets	24,259	10.28	10.28	11.00	-0.72	-0.72	16.73	9.99	0.87	6.05	1,330
Absolute Return	5,110	2.17	2.17	0.00	2.17	2.17	3.27	0.35	0.73	3.43	55
Beta Overlay	490	0.21	1.99 [#]	0.00	0.21	1.99		2.33	0.98		274
Currency Overlay	6	0.01	0.04	0.00	0.00	0.04		-1.34	-0.52		300
CalPERS PERF	235,980	100	103.78	100	0	3.78	14.95	100	1.00	1.64	11,562

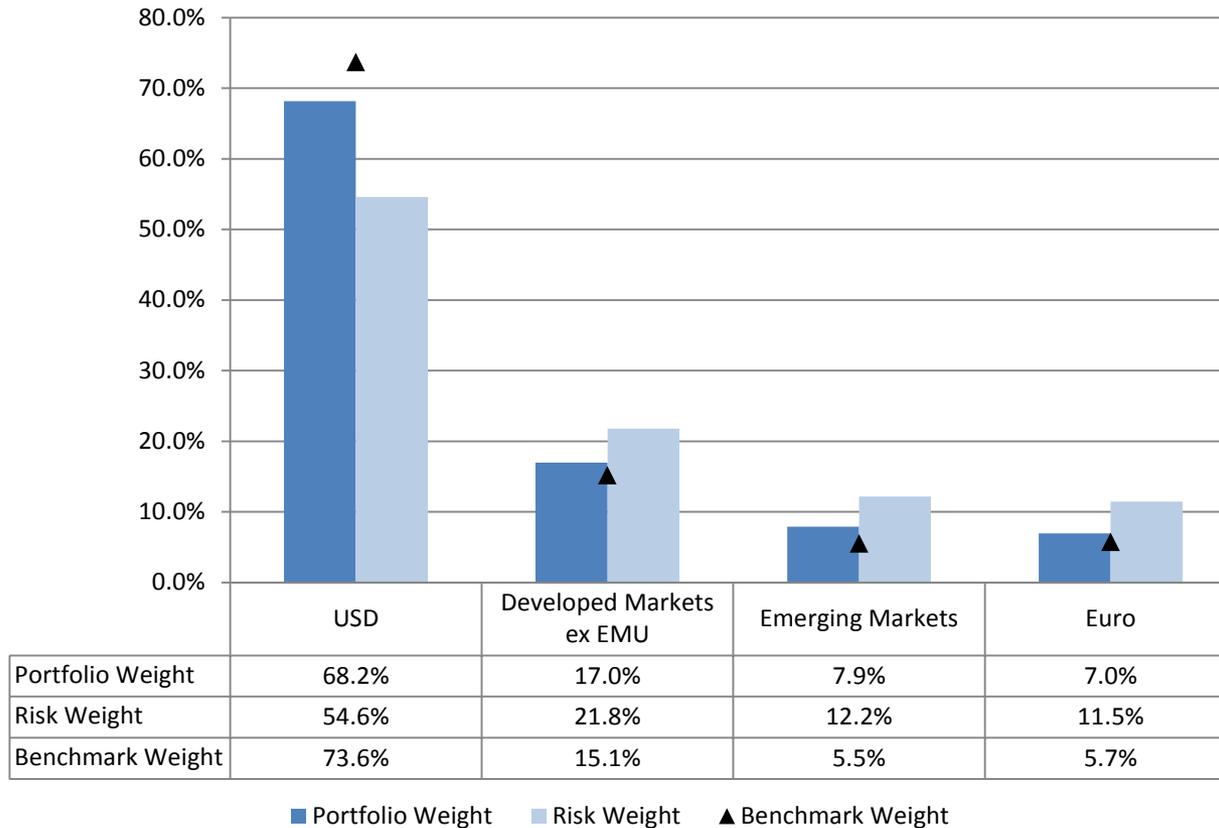
*The maximum loss over 10 days at 95% confidence

[#] Represents ARS Equity futures overlay of \$4Bn

Regional Exposure



Currency Exposure



Top Industry Exposures and Contribution to Risk

June 30, 2012

Industry Group	Total Fund Market Value (in Bn)	Weight (%)	% Contribution to Total Risk
Energy	14,632	6.30%	9.13%
Materials	11,054	4.76%	8.57%
Capital Goods	11,196	4.82%	7.20%
Banks	11,435	4.93%	6.84%
Diversified Financials	8,692	3.74%	4.97%
Software & Services	8,655	3.73%	4.71%
Technology Hardware & Equipment	6,255	2.69%	3.65%
Insurance	5,964	2.57%	3.36%
Retailing	5,702	2.46%	3.28%
Pharmaceuticals Biotechnology & Life Sciences	7,797	3.36%	3.08%
Sum	91,382	39%	55%

Top Corporate Exposures & Contribution to Risk*

June 30, 2012

Issuer	Market Value	Weight (%)	% Contribution to Total Risk
LYONDELL BASELL IND.	1,614,526,301	0.70%	1.90%
APPLE INC	1,595,258,279	0.69%	0.76%
EXXON MOBIL CORP	1,286,664,757	0.55%	0.61%
JPMORGAN CHASE & CO	987,356,438	0.43%	0.38%
GENERAL ELECTRIC CO	939,935,499	0.40%	0.49%
CITIGROUP INC	893,683,963	0.38%	0.30%
AT&T INC	867,501,040	0.37%	0.24%
MICROSOFT CORP	800,134,649	0.34%	0.37%
WELLS FARGO & CO	723,702,156	0.31%	0.33%
INTERNATIONAL BUSINESS MACHINES CORP	664,855,058	0.29%	0.22%
SUM	10,373,618,139	4.47%	5.59%

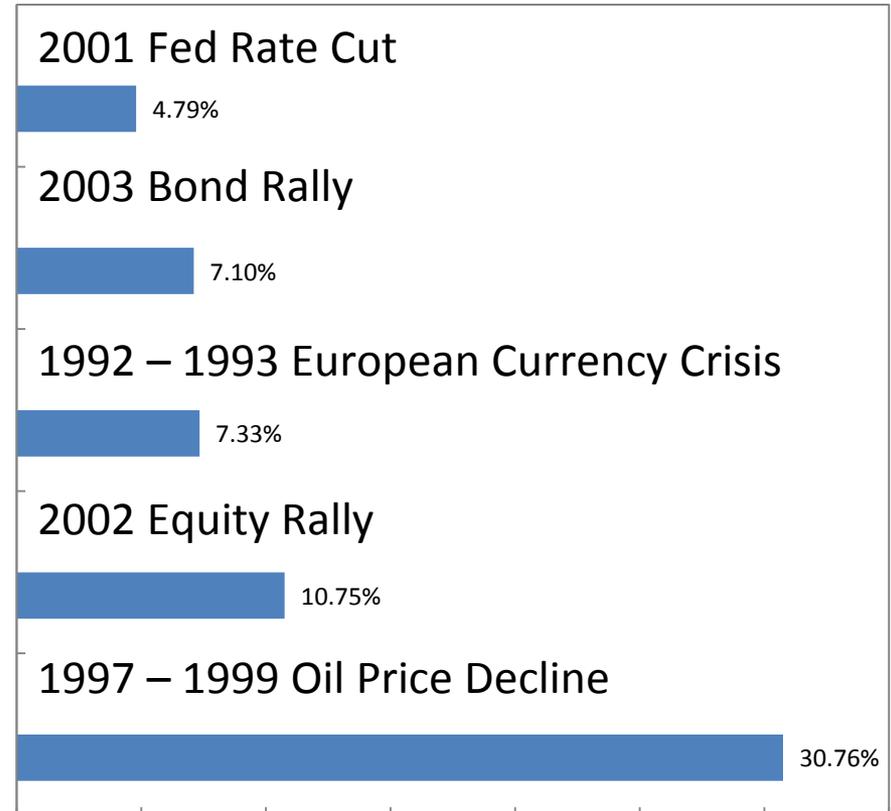
* Includes: Public & Selected Private Equity, Fixed Income, Corporate Bond holdings and excludes Government Agency, Private Equity and Real Estate holdings

Comparison: Best & Worst Scenarios

Five Worst Scenarios for Total PERF



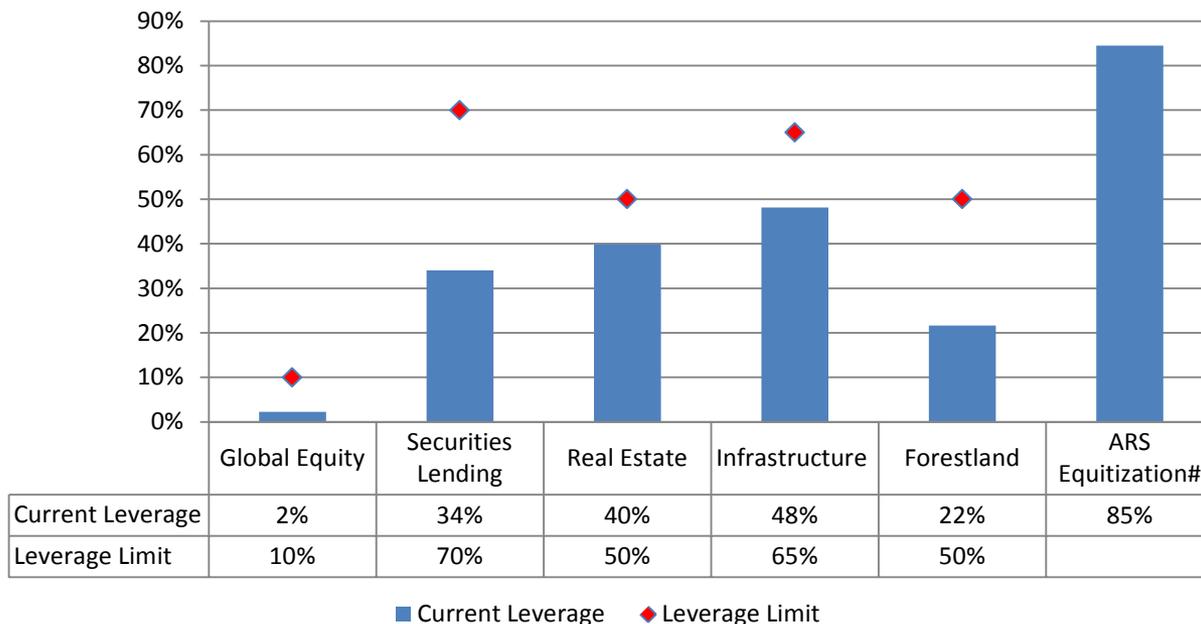
Five Best Scenarios for Total PERF



-35.00% -30.00% -25.00% -20.00% -15.00% -10.00% -5.00% 0.00% 0.00% 5.00% 10.00% 15.00% 20.00% 25.00% 30.00% 35.00%

CalPERS Leverage*

July 20, 2012



*Leverage Definitions

Global Equity, Real Estate, Infrastructure, Forestland: (Market Exposure / Equity Capital) -1

Securities Lending: Reinvestment Pool with Maturity > 90 Days / Total Reinvestment Pool

ARS: Equity Beta Futures Overlay Notional Value / ARS Fair Market Value

The notional value of non-cash collateralized equitization shall not exceed the gross notional value of the ARS program

Derivative Counterparty Exposure

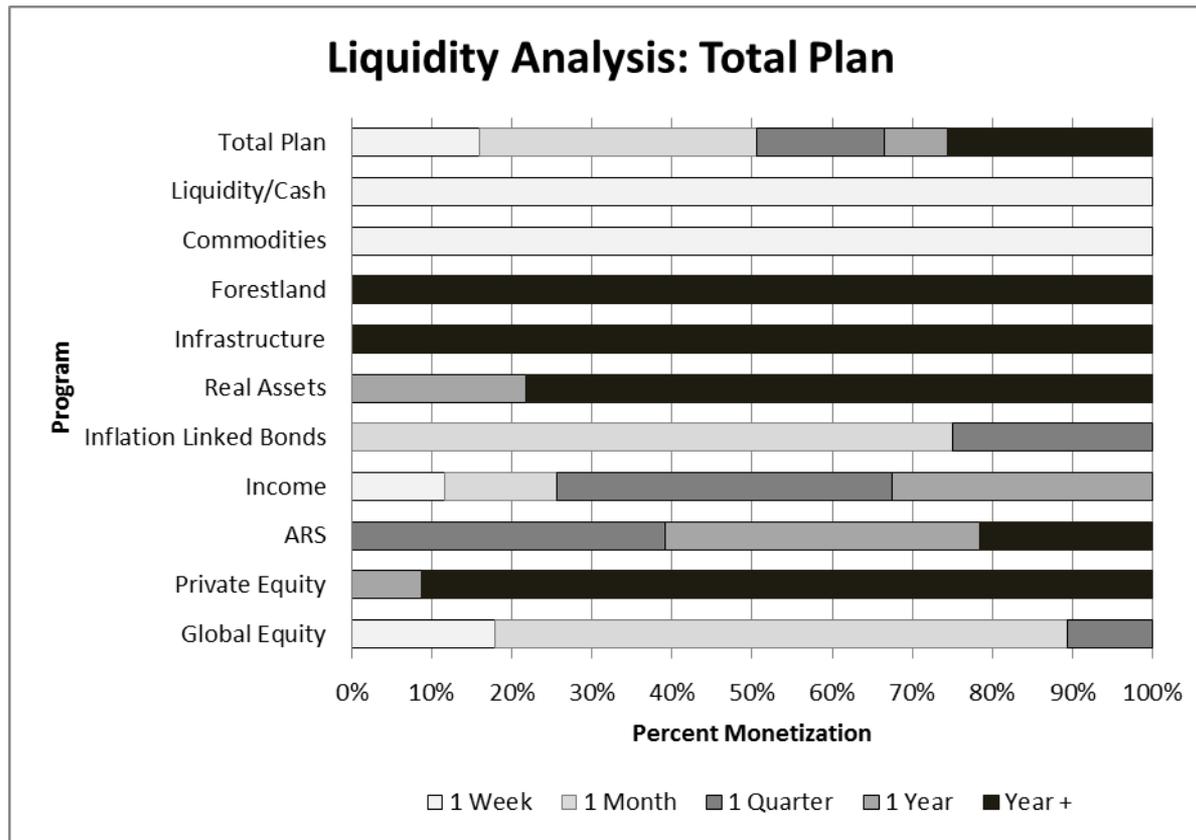
July 31, 2012

Counterparty	FORWARD	OPTION	SWAP	CalPERS Exposure	Counter Party Exposure	Total	Collateral Posted*	Net Exposure	CDS Spread	Credit Rating	Above Average
Bank of Montreal	2,935,610			11,656,620	(8,721,010)	2,935,610		2,935,610	75	A+	NO
Bank of America	(428,987)		54,845	224,398	(598,540)	(374,142)		(374,142)	122	A-	YES
BPS	(1,772,241)				(1,772,241)	(1,772,241)		(1,772,241)	134	A	YES
Barclays PLC	31,335,146		44,037,517	89,054,716	(13,682,053)	75,372,663	59,100,000	16,272,663	126	A	YES
CommonWealth Bank of Australia	(4,033,422)			61,786	(4,095,208)	(4,033,422)		(4,033,422)	63	AA-	NO
Citigroup	25,468		13,799,035	13,925,575	(101,072)	13,824,503	2,900,000	10,924,503	113	A-	YES
Credit Suisse	5,989,369			6,854,889	(865,520)	5,989,369		5,989,369	73	A	NO
Credit Suisse International	(5,123,400)		52,658,763	52,942,330	(5,406,967)	47,535,363	34,400,000	13,135,363	73	A	NO
Deutsche Bank	(13,795,464)		19,775,789	28,123,777	(22,143,452)	5,980,325		5,980,325	90	A+	NO
Goldman Sachs & Co.			(1,536,036)	969,244	(2,505,280)	(1,536,036)		(1,536,036)	159	A-	YES
Goldman Sachs Intl.	3,361,968	(30,897,480)	47,941,131	74,585,198	(54,179,579)	20,405,619		20,405,619	159	A-	YES
JPMorgan	17,372,895		67,864,877	116,494,208	(31,256,436)	85,237,772	57,650,000	27,587,772	38	A	NO
Mellon Bank	1,304,644			5,240,578	(3,935,934)	1,304,644		1,304,644	125	A+	YES
Morgan Stanley Capital Service			7,717,262	7,720,702	(3,440)	7,717,262		7,717,262	238	A-	YES
RBS	(3,577,769)			622,873	(4,200,642)	(3,577,769)		(3,577,769)	165	A-	YES
Standard Chartered Bank	(1,135,695)			759,300	(1,894,995)	(1,135,695)		(1,135,695)	52	A+	NO
Toronto Dominion	2,835,569			12,089,037	(9,253,468)	2,835,569		2,835,569	50	AA-	NO
UBS	17,326,520		10,926,896	32,726,785	(4,473,369)	28,253,416	50,000	28,203,416	78	A	NO
WestPac Bank	6,320,349			22,845,912	(16,525,563)	6,320,349		6,320,349	66	AA-	NO
Grand Total	58,940,560	(30,897,480)	263,240,079	476,897,928	(185,614,769)	291,283,159	154,100,000	137,183,159	107		

* As of 7/31 the fund held 154mm from counterparties

Liquidity Analysis

July 20, 2012



	1 Week	1 Month	1 Quarter	1 Year	Year +
Total Fund by Time Bucket	16%	34%	16%	8%	26%
Total Fund Cumulative	0%	0%	0%	0%	0%