# CalPERS Chief Investment Officer Total Fund Update

Appendix B: Portfolio Risk

Period Ending February 28, 2013
Joe Dear, CIO

Investment Committee
May 2013

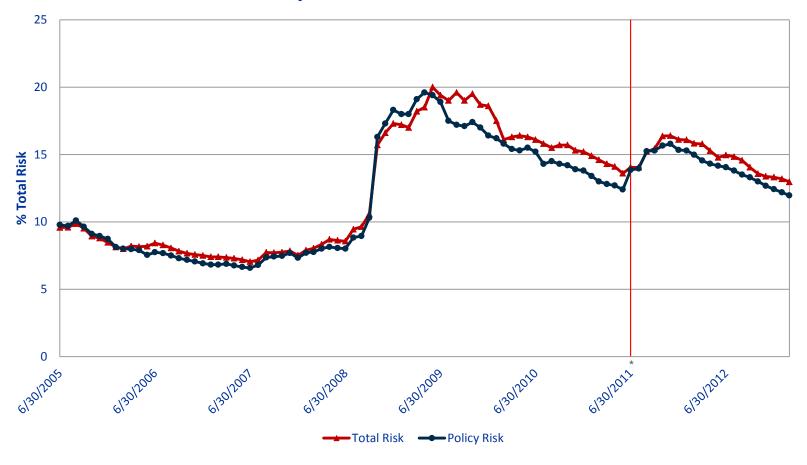


## **Topics**

- Total Risk Time Series Forecasted
- Active Risk Time Series Forecasted
- CalPERS Leverage
- Derivative Counterparty Exposure Report
- Liquidity Analysis

## **Total Risk Time Series - Forecasted**

#### **History of 1 Year Forecast Total Risk**

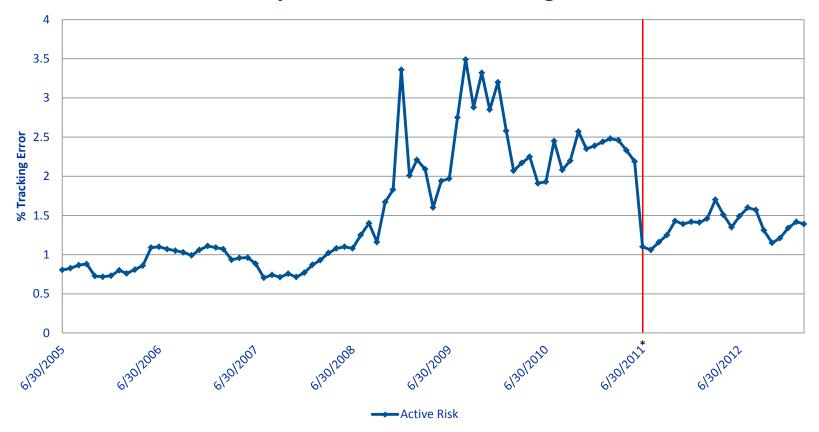




<sup>\*</sup> The red line denotes the cutover to BarraOne and the new BIM 301 model for 6/30/12 month end. The BIM 301 model introduced several changes including a new Real Estate model, new currency model, and more frequent observations in building the covariance matrix.

## **Active Risk Time Series - Forecasted**

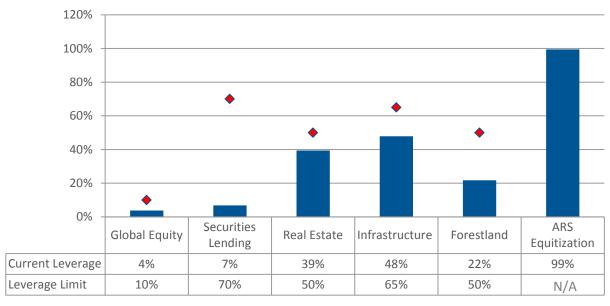
#### **History of 1 Year Forecast Tracking Error**





# CalPERS Leverage\*

As of December 31, 2012



■ Current Leverage ◆ Leverage Limit

#### \*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



## **Derivative Counterparty Exposure Report**

As of February 28, 2013

Counterparty	FORWARD	<u>OPTION</u>	SWAP	CalPERS Exposure	Counter Party Exposure	<u>Total</u>	Collateral Posted*	Net Exposure	CDS Spread	Credit Rating	Above Average
Bank of America	16,307,274		(12,755,840)	18,313,849	(14,762,415)	3,551,434		3,551,434	29	Α	NO
BPS	40,767,571	(25)	(6,711,580)	54,533,393	(20,477,427)	34,055,966	(25,050,000)	9,005,966	30	A+	YES
Barclays PLC	10,274,657		60,290	34,205,426	(23,870,479)	10,334,947	(1,100,000)	9,234,947	49	А	YES
CommonWealth Bank of Australia	38,967,313			39,595,911	(628,598)	38,967,313	(32,150,000)	6,817,313	92	AA-	YES
Citigroup	4,181,705		(8,032,220)	20,756,339	(24,606,854)	(3,850,515)		(3,850,515)	22	Α	YES
Credit Suisse	48,607,045			60,615,844	(12,008,799)	48,607,045		48,607,045	26	Α	YES
Credit Suisse International	1,280,489		(26,849,796)	13,285,334	(38,854,641)	(25,569,307)	12,350,000	(13,219,307)	26	Α	YES
Deutsche Bank	11,767,967	(4,612,408)	(10,779,390)	32,225,058	(35,848,889)	(3,623,831)	(150,000)	(3,773,831)	36	A+	YES
Goldman Sachs & Co.			(102,396)		(102,396)	(102,396)		(102,396)	31	Α	YES
Goldman Sachs Intl.	16,508,490	(6,805,975)	(11,924,664)	71,758,802	(73,980,951)	(2,222,149)		(2,222,149)	31	Α	YES
HSBC	(3,261,056)		1,034,090	12,013,972	(14,240,938)	(2,226,966)		(2,226,966)	47	AA-	YES
PMorgan	9,693,123	1,271,095	(38,451,863)	54,104,044	(81,591,689)	(27,487,645)	1,500,000	(25,987,645)	16	A+	NO
Mellon Bank	(331,492)			11,616,458	(11,947,950)	(331,492)		(331,492)	65	AA-	NO
Morgan Stanley Capital Service	6,541,830		(7,030,800)	14,648,138	(15,137,108)	(488,970)		(488,970)	34	Α	NO
RBS	(6,660,829)			15,764,784	(22,425,613)	(6,660,829)		(6,660,829)	52	Α	NO
Standard Chartered Bank	1,273,578			1,440,242	(166,664)	1,273,578		1,273,578	46	AA-	NO
Societe Generale	11,117,384			11,199,196	(81,812)	11,117,384		11,117,384	37	A+	YES
Toronto Dominion	7,203,404			17,373,788	(10,170,384)	7,203,404		7,203,404	40	AA-	YES
UBS	2,668,384	(551)	549,982	37,481,407	(34,263,592)	3,217,815		3,217,815	22	Α	YES
WestPac Bank	(11,470,520)			13,614,617	(25,085,137)	(11,470,520)		(11,470,520)	17	AA-	YES
Grand Total	205,436,317	(10,147,864)	(120,994,187)	534,546,602	(460,252,336)	74,294,266	(44,600,000)	29,694,266	37		

<sup>\*</sup> As of 2/28 the fund had 14mm posted to counterparties

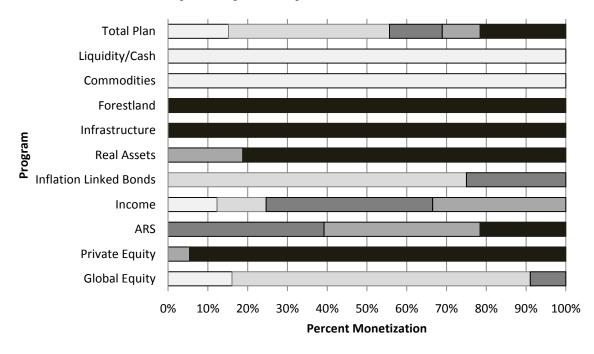
# As of 2/28 Mortgage TBA Exposure was 3mm in mark to market value i.e. CalPERS had exposure to counterparties



# **Liquidity Analysis**

As of February 28, 2013

### **Liquidity Analysis: Total Plan**



	□1 Week	■1 Month	■1 Quarter	■1 Year	■ Year +
	1 Week	1 Month	1 Quarter	1 Year	Year +
Total Fund by Time Bucket	16%	42%	13%	8%	20%
Total Fund Cumulative	16%	59%	71%	80%	100%

