



CalPERS
CIO Performance Report

PERIOD ENDING JUNE 30, 2016



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Section I
Total Fund

PERIOD ENDING JUNE 30, 2016

Section I: Total Fund

Total Fund Summary and Total Fund Plus Terminated Agency Pool (TAP) Summary

	June 30, 2016			1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Fund Assets	Asset Allocation Target Range %	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
TOTAL FUND SUMMARY																		
GROWTH	179,470	60.8	54-68	(0.49)	(112)	1.18	(7)	(2.57)	51	928	(2.57)	51	7.25	(16)	6.77	(27)	5.41	(95)
PUBLIC EQUITY	153,076	51.9	44-58	(0.62)	15	1.32	14	(3.38)	58	910	(3.38)	58	6.79	25	6.10	23	4.67	(32)
PRIVATE EQUITY	26,393	8.9	6-14	0.24	(750)	0.38	(68)	1.70	253	701	1.70	253	9.95	(81)	9.73	(88)	10.19	(255)
INCOME	59,938	20.3	15 - 25	3.09	5	3.93	29	9.28	(3)	(17)	9.28	(3)	6.25	70	5.87	59	7.15	66
REAL ASSETS	31,838	10.8	7 - 17	N/A	N/A	1.88	14	5.97	(518)	(1,618)	5.97	(518)	10.55	(94)	11.08	3	(0.09)	(792)
REAL ESTATE	27,296	9.3	5 - 15	N/A	N/A	2.23	28	7.06	(557)	(1,490)	7.06	(557)	11.47	(112)	12.43	29	(0.51)	(916)
FORESTLAND	1,973	0.7	0 - 4	N/A	N/A	(2.64)	(238)	(9.56)	(1,247)	(270)	(9.56)	(1,247)	(2.59)	(1,030)	(2.61)	(924)	-	-
INFRASTRUCTURE	2,568	0.9	0 - 4	N/A	N/A	1.83	16	8.98	402	91	8.98	402	14.86	1,005	11.66	632	-	-
INFLATION	17,773	6.0	3 - 9	1.60	1	4.62	27	(3.64)	135	210	(3.64)	135	(2.61)	103	(1.52)	45	-	-
LIQUIDITY	4,464	1.5	(2) - 4	0.04	0	0.13	5	0.36	17	8	0.36	17	0.63	(46)	1.13	(40)	1.74	(17)
TRUST LEVEL ⁴	1,579	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL FUND	295,061	100.0		0.60	(69)	1.97	1	0.61	(41)	(1,194)	0.61	(41)	6.86	(4)	6.77	13	5.08	(112)
<i>CALPERS POLICY INDEX¹</i>				<i>1.29</i>		<i>1.96</i>		<i>1.02</i>			<i>1.02</i>		<i>6.90</i>		<i>6.64</i>		<i>6.20</i>	

TOTAL FUND 20-YEAR NET RATE OF RETURN 7.03

TOTAL FUND INCEPTION DATE NET RATE OF RETURN (07/01/1988) 8.33

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Fund Plus TAP Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	
TOTAL FUND PLUS TAP SUMMARY																	
TOTAL FUND	295,061	99.96	0.60	(69)	1.97	1	0.61	(41)	0.61	(41)	6.86	(4)	6.77	13	5.08	(112)	
TERMINATED AGENCY POOL ³	112	0.04	3.46	-	3.44	-	9.86	-	9.86	-	5.44	-	-	-	-	-	
TOTAL FUND PLUS TAP	295,173	100.0	0.60		1.97		0.62		0.62		6.86		6.76		5.08		

¹ See Section XII for components of CalPERS Policy Index. Current Asset Class Policy Benchmark performance is linked to their respective prior Policy Benchmark.

² Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

³ The Terminated Agency Pool (TAP) was funded in July 2013 and exists to provide benefit payments to members who are employees of agencies that have terminated their contract with CalPERS.

⁴ Trust Level includes Absolute Return Strategies, Multi-Asset Class, and Transition and Plan Level portfolios

Section I: Total Fund

Trust Level

TRUST LEVEL SUMMARY	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ³	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
ABSOLUTE RETURN STRATEGIES ¹	385	24.4	(0.17)	(81)	(0.66)	(219)	(1.67)	(729)	(40)	(1.67)	(729)	4.13	(127)	3.44	(191)	3.34	(342)
MULTI-ASSET CLASS COMPOSITE ²	1,184	75.0	(0.48)	(109)	0.33	(149)	(1.18)	(868)	(103)	(1.18)	(868)	5.31	(219)	-	-	-	-
TRANSITION + PLAN LEVEL PORTFOLIOS	10	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRUST LEVEL	1,579	100.0															

¹ Absolute Return Strategies performance history is included in Public Equity prior to July 1, 2011. Ending market value and returns includes Public Equity Transition portfolio.

² The Multi-Asset Class was initially funded in December 2012.

³ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section II
Public Equity

PERIOD ENDING JUNE 30, 2016

Section II: Public Equity
Public Equity Summary

PUBLIC EQUITY SUMMARY	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
INTERNAL DOMESTIC EQUITY	73,274	47.9	0.06	(2)	2.67	10	1.54	17	131	1.54	17	10.80	5	11.54	24	7.59	29
INTERNAL INT'L DEVELOPED EQUITY	43,266	28.3	(3.06)	(4)	(0.96)	4	(8.73)	28	130	(8.73)	28	3.03	39	1.80	29	-	-
INTERNAL EMERGING MARKET EQUITY	7,559	4.9	5.21	65	1.92	23	(11.19)	71	53	(11.19)	71	(0.77)	(34)	(3.13)	(34)	-	-
EXTERNAL DOMESTIC TRADITIONAL EQUITY	5,533	3.6	(1.67)	(209)	0.71	(235)	(2.58)	(512)	(281)	(2.58)	(512)	9.87	(92)	10.95	(69)	6.33	(82)
EXTERNAL INT'L DEVELOPED TRADITIONAL EQUITY	16,408	10.7	(0.24)	106	0.66	30	(5.85)	118	169	(5.85)	118	4.67	171	3.44	195	3.37	75
EXTERNAL EMERGING MARKET EQUITY	3,521	2.3	4.38	(22)	3.54	186	(8.27)	363	123	(8.27)	363	(0.40)	18	(2.60)	46	4.32	37
CORPORATE GOVERNANCE	829	0.5	0.04	313	4.87	770	5.49	2,013	355	5.49	2,013	10.62	572	7.98	168	4.25	96
EMERGING MANAGER FUND OF FUNDS ³	1	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EMERGING MANAGER PROGRAM	2,677	1.7	(0.47)	19	2.53	103	(8.50)	(162)	(37)	(8.50)	(162)	-	-	-	-	-	-
OTHER ⁴	13	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PUBLIC EQUITY¹	153,076	100.0	(0.62)	15	1.32	14	(3.38)	58	910	(3.38)	58	6.79	25	6.10	23	4.67	(32)

¹Absolute Return Strategies performance history is included in Public Equity prior to July 1, 2011. Ending market value and returns includes Public Equity Transition, Venture, and Internal Holding accounts.

² Value Added is the Excess BPS converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

³ Total Emerging Manger Fund of Funds (FOF) Transition portfolios are included in Ending Market Value.

⁴Includes Public Equity Transition, Venture, and Internal Holding Accounts.

Section II: Public Equity

Internal Equity

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
INTERNAL DOMESTIC EQUITY																	
DOMESTIC FUNDAMENTAL	5,358	7.3	0.28	22	3.21	59	1.38	22	9	1.38	22	9.23	(151)	11.21	(12)	7.13	(18)
INT DOM FTSE 3000 PERF ACCTG	50,570	69.0	(0.07)	(12)	2.51	(12)	1.16	(0)		1.16	(0)	10.77	3	11.42	8	7.49	18
INT MICROCAP PERF ACCTG	360	0.5	(0.98)	(37)	2.34	(78)	(12.89)	(10)	(0)	(12.89)	(10)	4.07	140	7.49	439	5.48	369
INTERNAL FAN LONG ONLY	737	1.0	0.26	20	3.34	72	(2.97)	(414)	(30)	(2.97)	(414)	9.36	(138)	10.03	(131)	-	-
INT MOMENTUM US TMI 3000	1,345	1.8	1.17	111	3.40	77	3.27	211	37	3.27	211	-	-	-	-	-	-
INTERNAL VOLADJ US TMI 3000	2,652	3.6	0.86	80	2.75	13	3.18	202	51	3.18	202	11.21	46	-	-	-	-
SYNTHETIC ENHANCED EQUITY	11,153	15.2	0.20	(1)	2.91	72	3.96	88	88	3.96	88	12.11	109	12.78	152	-	-
GE VOLATILITY CAPTURE FUND	52	0.1	1.64	138	5.74	329	-	-	-	-	-	-	-	-	-	-	-
INTERNAL QUALITY US TMI 3000	1,046	1.4	0.02	(4)	2.08	(54)	-	-	-	-	-	-	-	-	-	-	-
TOTAL INTERNAL DOMESTIC EQUITY	73,274	100.0	0.06	(2)	2.67	10	1.54	17	131	1.54	17	10.80	5	11.54	24	7.59	29

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
INTERNAL INT'L DEVELOPED EQUITY																	
CALPERS DEV EX US DBI	1,145	2.6	(1.80)	112	(1.23)	(22)	(6.05)	341	39	(6.05)	341	4.57	231	-	-	-	-
FUNDAMENTAL DEVELOPED INTL(Ex Tobacco)	4,215	9.7	(4.12)	(120)	(1.46)	(45)	(11.96)	(250)	(92)	(11.96)	(250)	2.95	69	1.97	61	-	-
INT DEVELOPED SMALL CAP INDEX PERF ACCTG	4,493	10.4	(4.09)	5	(1.02)	13	(5.52)	37	18	(5.52)	37	5.54	33	2.54	36	-	-
INTERNAL GLBL ENV STRATEGY HSBCCCI	655	1.5	0.77	153	2.80	161	2.30	627	39	2.30	627	7.89	136	2.81	(306)	-	-
INTERNAL INTL EQ PERF ACCTG	31,353	72.5	(2.91)	1	(0.97)	4	(9.33)	13	45	(9.33)	13	2.37	11	1.50	13	-	-
INTERNAL DEVELOPED INTL VOLATILITY ADJ	972	2.2	(3.08)	(2)	(1.16)	(13)	(7.52)	156	16	(7.52)	156	-	-	-	-	-	-
INT MOMENTUM DEV EX US US ALLCAP	433	1.0	(1.30)	175	0.74	177	(2.16)	693	68	(2.16)	693	-	-	-	-	-	-
TOTAL INTERNAL INT'L DEVELOPED EQUITY	43,266	100.0	(3.06)	(4)	(0.96)	4	(8.73)	28	130	(8.73)	28	3.03	39	1.80	29	-	-

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
INTERNAL EMERGING MARKET EQUITY																	
CALPERS EMERGING MARKETS DBI	848	11.2	3.98	(62)	(0.52)	(217)	(11.27)	79	7	(11.27)	79	(2.92)	(251)	-	-	-	-
EM SMALL CAP PERF Acctg	446	5.9	4.09	10	2.56	33	(9.31)	88	4	(9.31)	88	0.07	78	-	-	-	-
FUNDAMENTAL EMERGING MARKETS	1,557	20.6	8.63	403	4.14	249	(10.97)	110	13	(10.97)	110	(1.00)	(59)	(3.70)	(83)	-	-
INTERNAL EMERGING MARKET PERF ACCTG	3,013	39.9	4.61	1	1.75	10	(11.85)	21	7	(11.85)	21	(0.20)	21	(2.75)	12	-	-
STRUCTURED EMERGING MARKETS	830	11.0	4.79	19	1.42	(24)	(9.91)	215	17	(9.91)	215	(1.42)	(101)	(2.87)	(0)	-	-
INT EMERGING MARKET VOL ADJ	519	6.9	3.68	(87)	0.84	(89)	(11.05)	74	4	-	74	-	-	-	-	-	-
EM MOMENTUM STRATEGY	346	4.6	3.41	(114)	1.95	22	(11.12)	67	4	-	-	-	-	-	-	-	-
TOTAL INTERNAL EMERGING MARKET EQUITY	7,559	100.0	5.21	65	1.92	23	(11.19)	71	53	(11.19)	71	(0.77)	(34)	(3.13)	(34)	-	-

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section II: Public Equity

External Equity

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
EXTERNAL DOMESTIC TRADITIONAL EQUITY																	
BOSTON COMPANY	885	16.0	(1.71)	(286)	3.62	(52)	(2.24)	(654)	(57)	(2.24)	(654)	9.46	(65)	10.52	(123)	7.37	132
FIRST QUADRANT LONG/SHORT	1,766	31.9	0.14	8	(0.82)	(335)	5.34	338	58	5.34	338	13.05	188	13.37	172	-	-
JP MORGAN LG/SH DOM EQUITY	1,607	29.0	(2.76)	(291)	0.62	(174)	(3.05)	(654)	(105)	(3.05)	(654)	10.92	(59)	11.87	(9)	-	-
PZENA INVESTMENT MANAGEMENT	705	12.7	(2.88)	(402)	1.34	(281)	(6.14)	(1,044)	(73)	(6.14)	(1,044)	7.21	(290)	9.99	(175)	5.11	(88)
HUBER SMID	570	10.3	(2.48)	(249)	0.61	(304)	(17.33)	(1,051)	(63)	(17.33)	(1,051)	-	-	-	-	-	-
TOTAL EXTERNAL DOMESTIC TRADITIONAL EQUITY	5,533	100.0	(1.67)	(209)	0.71	(235)	(2.58)	(512)	(281)	(2.58)	(512)	9.87	(92)	10.95	(69)	6.33	(82)

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
EXTERNAL INT'L DEVELOPED TRADITIONAL EQUITY																	
ARROWSTREET CAPITAL	3,334	20.3	0.68	221	1.20	164	(8.59)	96	32	(8.59)	96	4.11	221	3.47	281	6.32	387
BAILLIE GIFFORD	2,226	13.6	(2.45)	(91)	(1.19)	(74)	(7.08)	248	56	(7.08)	248	4.40	250	3.55	289	5.17	272
PYRAMIS GLOBAL	955	5.8	(3.31)	(50)	(1.66)	(75)	(11.54)	(249)	(25)	(11.54)	(249)	2.31	(10)	1.90	37	-	-
TOBAM ANTI-BENCHMARKING	992	6.0	2.31	307	1.61	42	(1.72)	225	22	(1.72)	225	-	-	-	-	-	-
HERMES	652	4.0	(4.58)	(23)	(2.68)	(30)	(8.26)	206	14	(8.26)	206	-	-	-	-	-	-
ALLIANZ - GLOBAL	1,905	11.6	(1.43)	(67)	(1.32)	(250)	-	-	-	-	-	-	-	-	-	-	-
EPOCH GLOBAL	2,208	13.5	1.88	265	2.61	143	-	-	-	-	-	-	-	-	-	-	-
WELLINGTON	2,092	12.7	(0.69)	7	2.28	110	-	-	-	-	-	-	-	-	-	-	-
ARROWSTREET GLOBAL	2,043	12.5	1.86	263	1.75	57	-	-	-	-	-	-	-	-	-	-	-
TOTAL EXTERNAL INT'L DEVELOPED TRADITION EQ	16,408	100.0	(0.24)	106	0.66	30	(5.85)	118	169	(5.85)	118	4.67	171	3.44	195	3.37	75

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
EXTERNAL EMERGING MARKET EQUITY																	
GENESIS ASSET MANAGERS	1,210	34.4	4.10	(50)	3.38	171	(6.26)	564	64	(6.26)	564	(0.85)	(27)	(1.54)	153	6.35	240
LAZARD EMERGING MKTS	1,527	43.4	5.90	130	4.72	305	(7.28)	462	64	(7.28)	462	(1.78)	(120)	(1.71)	136	-	-
ASHMORE EMERGING MARKETS SMALL CAP	95	2.7	3.93	(11)	0.71	(151)	(9.32)	47	0	(9.32)	47	-	-	-	-	-	-
WASATCH ADVISORS	689	19.6	1.70	(234)	1.65	(57)	(9.77)	1	0	(9.77)	1	-	-	-	-	-	-
TOTAL EXTERNAL EMERGING MARKET EQUITY	3,521	100.0	4.38	(22)	3.54	186	(8.27)	363	123	(8.27)	363	(0.40)	18	(2.60)	46	4.32	37

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section II: Public Equity
Corporate Governance

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
CORPORATE GOVERNANCE																	
CARTICA CAPITAL PARTNERS, LP	393	47.4	2.89	(182)	2.20	34	(3.92)	796	30	(3.92)	796	(1.94)	(151)	2.45	535	-	-
CORPORATE GOVERNANCE PASSTHROUGH	4	0.5	N/M	128	N/M	-	N/M	-	-	N/M	-	N/M	-	N/M	-	-	-
KNIGHT VINKE INSTITUTIONAL PARTNERS	70	8.5	(8.01)	(325)	18.67	2,307	102.07	11,570	58	102.07	11,570	23.37	2,419	8.44	956	3.48	263
RELATIONAL INVESTORS MID-CAP FUND	4	0.5		(48)		(367)	(55.73)	(5,701)	(57)	(55.73)	(5,701)	(17.76)	(2,789)	(5.73)	(1,604)	-	-
TAIYO FUND MGMT	356	43.0	(2.31)	740	0.29	782	5.69	2,928	254	5.69	2,928	12.98	979	9.91	195	4.78	717
TOTAL CORPORATE GOVERNANCE	829	100.0	0.04	313	4.87	770	5.49	2,013	355	5.49	2,013	10.62	572	7.98	168	4.25	96

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

N/M = Not Meaningful

Section II: Public Equity
Emerging Manager Program

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
Value (MM)	% of Total Assets																
LEADING EDGE EMERGING MANAGER FUND OF FUNDS																	
LEADING EDGE TRANSITION	0	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WESTWOOD EMERGING MARKETS	1	99.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EMERGING MANAGER FUND OF FUNDS²	1	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
Value (MM)	% of Total Assets																
EMERGING MANAGER PROGRAM																	
PROGRESS INVESTMENT II	467	17.4	0.72	(119)	2.77	16	(6.89)	(109)	(5)	-	-	-	-	-	-	-	-
LEGATO EMERGING MANAGER	706	26.4	1.47	186	5.41	456	(0.67)	735	48	-	-	-	-	-	-	-	-
STRATEGIC INVESTMENTS II	502	18.8	(1.20)	(101)	1.21	(165)	-	-	-	-	-	-	-	-	-	-	-
LEIA GEM INVESTMENTS	491	18.4	(1.52)	(14)	1.52	(56)	-	-	-	-	-	-	-	-	-	-	-
FIS CALBEAR FUND	510	19.1	(2.39)	65	0.49	86	-	-	-	-	-	-	-	-	-	-	-
TOTAL EMERGING MANAGER PROGRAM	2,677	100.0	(0.47)	19	2.53	103	(8.50)	(162)	(37)	-	-	-	-	-	-	-	-

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

² Total Emerging Manger FOF Transition portfolios are included in Ending Market Value.

Section III

Total Private Equity

PERIOD ENDING JUNE 30, 2016

Section III: Private Equity

Private Equity Summary and Performance by Strategy

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
TOTAL PRIVATE EQUITY SUMMARY ¹																	
PE PARTNERSHIP INVESTMENTS	26,354	99.9	0.27	(748)	0.42	(64)	1.84	267	739	1.84	267	10.01	(75)	9.83	(79)	10.28	(247)
PRIVATE EQUITY DISTRIBUTION STOCK ³	39	0.1	(4.13)	(1,187)	(7.02)	(808)	(54.07)	(5,324)	(12)	(54.07)	(5,324)	(31.37)	(4,214)	(31.29)	(4,191)	(11.56)	(2,431)
TOTAL PRIVATE EQUITY	26,393	100.0	0.24	(750)	0.38	(68)	1.70	253	701	1.70	253	9.95	(81)	9.73	(88)	10.19	(255)

	June 30, 2016		3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
PRIVATE EQUITY STRATEGY ¹								
Buyout	15,089	57.2	1.26	4.38	4.38	10.99	10.57	11.21
Growth Expansion	4,413	16.7	1.33	(0.16)	(0.16)	10.39	9.01	8.29
Credit Related	2,842	10.8	(1.82)	(8.65)	(8.65)	3.67	7.70	10.73
Venture Capital	1,293	4.9	(4.47)	(4.94)	(4.94)	8.86	6.97	5.58
Opportunistic	2,563	9.7	(0.57)	9.28	9.28	12.25	8.70	6.08
Currency/Unclassified	193	0.7	NM	NM	NM			
TOTAL PRIVATE EQUITY STRATEGY	26,393	100.0	0.38	1.70	1.70	9.95	9.73	10.19

¹ Private Equity time weighted rate of returns are computed by State Street Bank and are based on General Partners' most recent received financial statements and any cash adjustments received prior to two business days before the end of the quarter.

² Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

³ Private Equity Stock Distribution Portfolio is highly concentrated and significant tracking errors are expected due to its use of the Global Equity based Private Equity Policy Benchmark.

NM = Not Meaningful data

Section III: Private Equity

Private Equity Top 20 General Partner by Exposure

TOP 20 PRIVATE EQUITY PARTNERS EXPOSURE ¹	June 30, 2016	
	Ending Market Value (MM)	% of Total Private Equity
Blackstone Group	2,482	9.4%
Carlyle Group	2,130	8.1%
Apollo Management	1,887	7.1%
CERBERUS	1,480	5.6%
TPG Capital	1,282	4.9%
Advent International	993	3.8%
KKR and Co.	983	3.7%
Asia Alternative Assets	717	2.7%
57 STARS	667	2.5%
CVC Capital Partners	652	2.5%
CFIG	646	2.4%
California Emerging Ventures	642	2.4%
Silver Lake	624	2.4%
Yucaipa	623	2.4%
Oak Hill Capital Partners	519	2.0%
Bridgepoint Capital	497	1.9%
Hellman and Friedman Capital Partners	489	1.9%
Ares Management LLC	407	1.5%
Permira	374	1.4%
New Mountain Capital LLC	322	1.2%
TOP 20 PRIVATE EQUITY PARTNERS EXPOSURE	18,416	69.8%
OTHER PRIVATE EQUITY PARTNERS EXPOSURE	7,977	30.2%
TOTAL PRIVATE EQUITY PARTNERS EXPOSURE	26,393	100%

¹ Private Equity Partners exposure data is based on General Partners' most recent received financial statements and any cash adjustments received prior to two business days before the end of the quarter.

Section III: Private Equity

Private Equity Performance by General Partner

PRIVATE EQUITY GENERAL PARTNERS ¹	June 30, 2016		3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
57 STARS	667	2.5	(0.01)	1.04	1.04	5.73	4.51	
Aberdare	36	0.1	(22.33)	(12.83)	(12.83)	11.88	9.68	(1.08)
Advent International	993	3.8	5.52	12.40	12.40	13.51	14.18	22.16
Affinity Equity Partners	54	0.2	(0.00)	(20.39)	(20.39)	0.92	10.14	
Aisling Capital	88	0.3	(12.34)	(22.53)	(22.53)	15.51	11.46	4.32
Alta California Partners	14	0.1	(6.07)	15.70	15.70	32.49	21.14	
Alta Partners	0	0.0	(82.85)	(83.22)	(83.22)	(45.40)	(30.90)	
American River Ventures	0	0.0						
Apollo Management	1,887	7.1	0.79	(13.46)	(13.46)	4.88	11.08	11.77
ArcLight	37	0.1	(2.36)	18.56	18.56	21.27	14.59	10.29
Ares Management LLC	407	1.5	8.66	12.12	12.12	15.03	17.66	13.34
Asia Alternative Assets	717	2.7	3.65	6.18	6.18	43.37	28.67	
Aurora Capital Group	0	0.0						
Avenue Capital Partners	142	0.5	(5.86)	(23.08)	(23.08)	(5.12)	(1.65)	3.92
Bank of America	34	0.1	(4.22)	(4.33)	(4.33)	5.35	4.97	(0.35)
Baring	38	0.1	10.26	(1.39)	(1.39)	(13.81)	(3.45)	
Bastion Capital	24	0.1	(1.12)	2.57	2.57	12.33	7.42	
Birch Hill Equity Partners	143	0.5	8.74	13.35	13.35	18.00	7.24	5.51
Blackstone Group	2,482	9.4	(1.07)	0.88	0.88	12.58	12.44	10.25
Bridgepoint Capital	497	1.9	2.76	25.03	25.03	12.41	10.10	11.99
California Emerging Ventures	642	2.4	0.32	2.24	2.24	13.05	11.21	8.64
Capital Dynamics	212	0.8	(3.82)	(8.10)	(8.10)	(5.97)	(9.46)	
Carlyle Group	2,130	8.1	0.46	0.70	0.70	7.47	7.01	12.91

¹ Private Equity time weighted rate of returns are computed by State Street Bank and are based on General Partners' most recent received financial statements and any cash adjustments received prior to two business days before the end of the quarter.

Section III: Private Equity

Private Equity Performance by General Partner

	June 30, 2016		3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
PRIVATE EQUITY GENERAL PARTNERS ¹								
CERBERUS	1480	5.6	(0.28)	20.21	20.21	21.51		
CFIG	646	2.4	0.03	1.77	1.77	13.94	11.44	
Clarus Ventures	64	0.2	(2.22)	8.34	8.34	27.63	19.74	7.18
CLEARLAKE CAPITAL	85	0.3	10.60	28.03	28.03	25.36		
Clearwater Capital	74	0.3	(3.77)	(11.04)	(11.04)	(1.86)	(1.68)	2.14
Coller Capital	103	0.4	(4.03)	(6.13)	(6.13)	10.17	8.56	9.06
Craton Equity Partners	7	0.0	(35.80)	(38.91)	(38.91)	(34.36)	(24.25)	
Crimson Capital China	0	0.0						
Currency	38	0.1	34.14	3,435.29	3,435.29			
CVC Capital Partners	652	2.5	3.08	6.07	6.07	11.73	10.70	10.96
EM Alternatives	74	0.3	0.00	0.58	0.58	6.18	5.25	
Essex Woodlands Health Ventures	111	0.4	(6.44)	(8.95)	(8.95)	4.32	6.50	
First Reserve	204	0.8	(32.87)	(52.70)	(52.70)	(31.61)	(18.81)	(2.57)
Francisco Partners	183	0.7	5.58	3.21	3.21	12.12	11.00	9.32
Gael Partners, LLC	10	0.0	(0.91)	12.81	12.81	(2.55)	4.59	6.03
Garage Ventures	5	0.0	(0.33)	4.00	4.00	8.29	(3.76)	
GCM Grosvenor	24	0.1	(6.13)	20.16	20.16			
Generation Partners	0	0.0	(0.38)	(3.29)	(3.29)	(2.09)	(6.78)	(4.17)
Granite Global Ventures	65	0.2	0.68	25.42	25.42	29.37	14.23	13.47
Green Equity Investors	274	1.0	5.27	7.94	7.94	16.00	16.36	30.01
Hamilton Lane	241	0.9	(0.43)	4.22	4.22	14.94	15.68	
Hellman and Friedman Capital Partners	489	1.9	0.80	27.62	27.62	32.76	23.12	21.83
Inner City Venture	11	0.0	8.50	105.86	105.86	41.94	30.01	26.14
Insight Capital	228	0.9	1.30	(2.42)	(2.42)	17.17	16.35	17.79

¹ Private Equity time weighted rate of returns are computed by State Street Bank and are based on General Partners' most recent received financial statements and any cash adjustments received prior to two business days before the end of the quarter.

Section III: Private Equity

Private Equity Performance by General Partner

PRIVATE EQUITY GENERAL PARTNERS ¹	June 30, 2016		3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
Khosla Ventures	317	1.2	(1.01)	(7.25)	(7.25)	3.84	10.57	
KKR and Co.	983	3.7	1.12	9.60	9.60	13.60	11.76	8.46
Kline Hawkes California	20	0.1	(0.06)	(6.24)	(6.24)	0.78	(17.03)	(4.08)
KMCP	105	0.4	(6.60)	(23.77)	(23.77)	2.88	5.17	9.66
KPS	62	0.2	6.73	11.86	11.86	24.44	22.60	
Levine Leichtman Capital Partners	79	0.3	7.68	15.34	15.34	9.91	9.06	4.58
Lime Rock	95	0.4	(4.53)	(4.31)	(4.31)	(2.00)	(2.52)	1.12
Lion Capital	17	0.1	(11.13)	(28.87)	(28.87)	(20.65)	(16.96)	
Lombard Investments	13	0.0	3.65	(5.54)	(5.54)	(1.05)	10.48	15.38
Madison Dearborn Partners	109	0.4	2.00	3.73	3.73	11.94	13.32	9.74
Magnum Capital	58	0.2	4.55	53.35	53.35	24.35	7.42	
MHR	169	0.6	6.97	(17.48)	(17.48)	(4.09)	4.96	5.11
New Mountain Capital LLC	322	1.2	4.96	37.04	37.04	19.04	19.01	14.30
NGEN	0	0.0	(0.00)	32.90	32.90	(1.16)	(40.83)	(32.36)
Nogales	1	0.0	0.00	36.89	36.89	18.15	1.78	(9.54)
Oak Hill Capital Partners	519	2.0	1.98	8.76	8.76	18.73	16.51	8.38
Oaktree Capital Management	149	0.6	(0.01)	(8.72)	(8.72)	1.34		
Onex	212	0.8	4.58	11.01	11.01			
PAGAsi	73	0.3	4.60	32.24	32.24	20.24		
Palladium	104	0.4	(10.45)	(19.27)	(19.27)	9.73	17.14	9.95
Permira	374	1.4	6.95	11.66	11.66	9.73	9.33	8.59
Polish Enterprise	136	0.5	2.33	19.53	19.53	19.17	10.00	10.98
Providence Equity Partners	203	0.8	0.27	15.58	15.58	11.51	7.70	5.78
Rhone Partners	16	0.1	(2.34)	(1.05)	(1.05)	34.12	20.31	
Richardson Financial Group	10	0.0	6.00	(4.88)	(4.88)	(2.99)	3.69	(0.97)

¹ Private Equity time weighted rate of returns are computed by State Street Bank and are based on General Partners' most recent received financial statements and any cash adjustments received prior to two business days before the end of the quarter.

Section III: Private Equity

Private Equity Performance by General Partner

	June 30, 2016		3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
PRIVATE EQUITY GENERAL PARTNERS ¹								
RIVERSTONE GLOBAL ENERGY	259	1.0	(3.47)	(27.72)	(27.72)	0.95		
Riverstone LLC	243	0.9	(7.74)	(22.95)	(22.95)	(1.74)		
Riverwood Capital LLC	112	0.4	0.41	7.04	7.04	20.63	31.93	
Sageview Capital LLC	82	0.3	0.00	1.35	1.35	3.58	2.13	
SAIF Partners	292	1.1	(0.20)	17.94	17.94	11.39	7.36	
Sankaty Advisors	237	0.9	0.64	0.69	0.69			
Silver Lake	624	2.4	8.59	17.89	17.89	23.85	15.90	14.61
Standard Life	283	1.1	(0.41)	11.97	11.97	6.54	4.45	
Tailwind	116	0.4	6.44	10.68	10.68	14.44	16.32	
Technology Partners	1	0.0	(0.22)	67.39	67.39	8.29	(4.89)	
The Resolute Fund	110	0.4	7.23	14.86	14.86	12.88	13.28	
THL Equity Advisors	177	0.7	1.29	0.89	0.89	16.89	13.34	7.13
TowerBrook Capital Partners	256	1.0	8.03	14.61	14.61	12.93	11.90	13.75
TPG Capital	1282	4.9	(1.85)	2.40	2.40	11.77	11.02	11.27
Trident	171	0.6	4.78	5.14	5.14			
Unclassified	0	0.0						
VantagePoint Venture Partners	53	0.2	(7.84)	(13.87)	(13.87)	(17.92)	(17.50)	(6.16)
W Capital Partners	44	0.2	(1.79)	(3.39)	(3.39)	(2.46)	(1.79)	4.70
Wellspring Capital Management	189	0.7	6.08	46.87	46.87	17.45	(0.44)	
Welsh and Carson and Anderson and Stowe	203	0.8	(2.02)	2.44	2.44	13.32	13.55	10.38
WLR Recovery	115	0.4	0.58	(7.78)	(7.78)	3.08	0.94	3.46
Yucaipa	623	2.4	(5.56)	(18.09)	(18.09)	(4.31)	0.16	1.83
PRIVATE EQUITY PARTNERSHIP INVESTMENTS ²	26,393	100.0	0.38	1.70	1.70	9.95	9.73	10.19

¹ Private Equity time weighted rate of returns are computed by State Street Bank and are based on General Partners' most recent received financial statements and any cash adjustments received prior to two business days before the end of the quarter.

² Private Equity Partnership Investments totals include Currency and unclassified investments.

Section IV
Income

PERIOD ENDING JUNE 30, 2016

Section IV: Income

Global Income Summary

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
TOTAL GLOBAL FIXED INCOME SUMMARY																	
TOTAL DOMESTIC FIXED INCOME	53,413	89.1	3.05	6	4.18	37	9.62	4	20	9.62	4	6.92	76	6.56	84	7.50	84
FI TOTAL INTERNATIONAL	6,525	10.9	3.49	2	2.09	(8)	6.70	1	0	6.70	1	0.52	66	(0.46)	74	4.04	87
TOTAL GLOBAL FIXED INCOME	59,938	100.0	3.09	5	3.93	29	9.28	(3)	(17)	9.28	(3)	6.25	70	5.87	59	7.15	66

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section IV: Income
Domestic Income

DOMESTIC FIXED INCOME	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
BB HIGH YIELD FUND ¹	637	1.2	1.31	48	5.09	104	3.16	64	4	3.16	64	-	-	-	-	-	-
PASSIVE FALLEN ANGELS	78	0.1	5.70	475	8.43	262	1.14	25	0	1.14	25	7.66	399	-	-	-	-
DURATION MANAGEMENT ¹	10,364	19.4	4.64	30	4.62	28	13.87	98	103	13.87	98	6.84	(29)	7.15	(2)	6.99	(39)
EQUITABLE CCMF	3	0.0	0.67	(19)	2.03	86	8.36	395	0	8.36	395	8.27	453	8.75	567	8.33	341
GOVERNMENTS ¹	9,256	17.3	4.28	(7)	4.36	2	12.70	(20)	(17)	12.70	(20)	7.10	(3)	6.95	(22)	-	-
HIGH YIELD BOND MANAGERS ACCOUNTING ¹	1,246	2.3	0.94	(1)	5.53	(28)	2.61	171	19	2.61	171	5.20	152	7.14	170	7.71	62
HIGH YIELD MORTGAGE ¹	323	0.6	0.49	(46)	2.14	(367)	1.09	19	1	1.09	19	5.95	228	9.56	412	-	-
HIGH YIELD SOVEREIGN ¹	90	0.2	2.15	(264)	1.85	(305)	9.34	(89)	(1)	9.34	(89)	7.80	4	-	-	-	-
HIGH YIELD ¹	260	0.5	1.29	34	5.80	(1)	6.97	608	11	6.97	608	7.88	421	7.68	224	11.42	433
HIGHLAND CLN - LONGHORN A ¹	335	0.6	0.04	0	3.69	82	(0.79)	(172)	(8)	(0.79)	(172)	1.91	(113)	3.53	(47)	-	-
HIGHLAND CLN - LONGHORN B ¹	141	0.3	1.45	51	15.95	1,014	(7.09)	(799)	(12)	(7.09)	(799)	3.96	29	6.15	71	-	-
INTERNAL INV-GRADE CORP ¹	11,454	21.4	3.26	(19)	6.00	20	10.09	(147)	(168)	10.09	(147)	7.75	24	8.13	62	8.35	53
LONG DURATION CORPORATES ¹	2,606	4.9	3.62	62	5.36	155	15.60	601	117	15.60	601	6.61	45	9.51	350	9.64	253
LONG DURATION MTG ¹	3,918	7.3	1.41	(159)	2.49	(131)	7.42	(217)	(84)	7.42	(217)	5.56	(60)	5.23	(78)	7.26	22
MHLP-BRS ¹	72	0.1	1.00	13	1.75	58	6.02	161	1	6.02	161	8.40	465	10.18	710	6.98	207
NON-TRADITIONAL HIGH YIELD ¹	116	0.2	(0.02)	(97)	4.00	(182)	4.04	314	5	4.04	314	20.82	1,715	10.17	473	-	-
OPPORTUNISTIC ¹	180	0.3	-	-	-	-	-	-	-	-	-	0.00	-	(14.93)	-	-	-
AGENCY MORTGAGE ¹	6,098	11.4	0.87	5	1.28	17	4.56	22	14	4.56	22	4.05	29	-	-	-	-
INTERNAL MTG STRUCTURE ¹	3,633	6.8	1.29	43	1.88	71	5.18	77	27	5.18	77	8.38	463	6.19	311	6.65	174
PERS INTERNAL BONDS SOVEREIGN ¹	2,090	3.9	5.39	60	5.47	58	10.30	7	2	10.30	7	7.92	16	6.75	33	7.55	(39)
TACTICAL HIGH YIELD CORPORATES	513	1.0	1.77	(85)	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL DOMESTIC FIXED INCOME	53,413	100.0	3.05	6	4.18	37	9.62	4	20	9.62	4	6.92	76	6.56	84	7.50	84

¹ Unitized portfolios owned by other retirement plans. Ending Market Value represents the PERP's ownership in the portfolio.

² Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section IV: Income

External International and External High Yield

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
FI TOTAL INTERNATIONAL ³																	
ALLIANCE BERNSTEIN INSTITUTIONAL INVESTM	629	9.6	3.66	19	2.31	13	6.42	(27)	(1)	6.42	(27)	0.11	26	(0.99)	21	-	-
BARING ASSET MANAGEMENT	628	9.6	3.08	(19)	1.57	(70)	5.24	(78)	(4)	5.24	(78)	(0.04)	32	(1.22)	11	3.48	37
INT INTL FIXED INCOME	2,104	32.2	3.41	(5)	1.87	(31)	6.81	11	2	6.81	11	0.77	91	-	-	-	-
PIMCO	1,195	18.3	3.46	(1)	2.23	6	6.30	(39)	(4)	6.30	(39)	0.69	83	0.17	137	-	-
INTL EMERGING MARKETS FIXED INCOME	210	3.2	4.48	27	2.00	23	(1.86)	(2)	(0)	(1.86)	(2)	-	-	-	-	-	-
INTL DEVELOPED MARKETS FIXED INCOME	1,316	20.2	3.11	(17)	2.05	(22)	10.13	24	2	10.13	24	-	-	-	-	-	-
INTL FIXED INCOME TRANSITION ACCOUNT	1	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BLUEBAY ASSET MANAGEMENT	206	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
INVESTEC ASSET MANAGEMENT EM	237	3.6	4.30	9	1.92	15	-	-	-	-	-	-	-	-	-	-	-
FI TOTAL INTERNATIONAL	6,525	100.0	3.49	2	2.09	(8)	6.70	1	0	6.70	1	0.52	66	(0.46)	74	4.04	87

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
EXTERNAL HIGH YIELD FIXED INCOME																	
COLUMBIA HIGH YIELD ¹	358		0.65	(43)	4.27	(356)	1.52	249	9	1.52	249	4.76	236	6.91	199	-	-
HIGH YIELD NOMURA ¹	980		1.20	25	6.50	69	2.67	178	14	2.67	178	5.35	290	7.69	258	8.81	176

¹ Unitized portfolios owned by multiple retirement plans. Portfolios roll up to the PERF High Yield Bond Managers portfolio.

² Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

³ Ending market value and returns includes Fixed Income Transition portfolio.

Section V
Real Assets

PERIOD ENDING JUNE 30, 2016

Section V: Real Assets

Real Assets Summary

REAL ASSETS ¹	June 30, 2016		1- Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ²	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
FORESTLAND	1,973	6.2	N/M	N/M	(2.64)	(238)	(9.56)	(1,247)	(270)	(9.56)	(1,247)	(2.59)	(1,030)	(2.61)	(924)	-	-
INFRASTRUCTURE	2,568	8.1	N/M	N/M	1.83	16	8.98	402	91	8.98	402	14.86	1,005	11.66	632	-	-
REAL ESTATE	27,296	85.7	N/M	N/M	2.23	28	7.06	(557)	(1,490)	7.06	(557)	11.47	(112)	12.43	29	(0.51)	(916)
TOTAL REAL ASSETS	31,838	100.0	N/M	N/M	1.88	14	5.97	(518)	(1,618)	5.97	(518)	10.55	(94)	11.08	3	(0.09)	(792)

¹ Partnership Market Values and Returns are based on the General Partners' March 31, 2016 financial statements.

² Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section V: Real Assets

Real Estate Top 20 Partners by Exposure

TOP 20 REAL ESTATE PARTNERS EXPOSURE ¹	As of March 31, 2016	
	Ending Market Value (MM)	% of Total Private Real Estate
Miller Capital Advisory	5,130	18.8
GI Partners	4,523	16.6
CommonWealth Partners	4,504	16.5
GID Investment Advisors, LLC	2,905	10.6
First Washington	1,697	6.2
CIM	1,469	5.4
Hines	1,151	4.2
Institutional Housing Partners	987	3.6
ARA Management	852	3.1
Pacific Urban Residential	584	2.1
Invesco	526	1.9
Resmark Equity Partners	487	1.8
Bentall Kennedy	411	1.5
Klein Financial Corporation	295	1.1
Canyon Capital Realty Advisors	252	0.9
Stockbridge Capital	119	0.4
AGI Resmark Partners	68	0.2
Procaccianti Group	49	0.2
Xander Group	49	0.2
Hearthstone Advisors	41	0.1
TOP 20 REAL ESTATE PARTNERS EXPOSURE	26,097	95.6
OTHER REAL ESTATE PARTNERS EXPOSURE	1,199	4.4
TOTAL REAL ESTATE PARTNERS EXPOSURE	27,296	100.0

¹Partnership Market Values and Returns are based on the General Partners' March 31, 2016 financial statements.

Section V: Real Assets

Real Estate Partnerships Performance

	As of March 31, 2016		QTR	FYTD	1 Yr	3 Yr	5 Yr
	Ending Market Value (MM)	% Of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
REAL ESTATE PARTNERSHIPS¹							
301 Capitol Mall, LP	17	0.1%	(0.83)	(2.94)	(2.90)	3.4	(3.5)
AEW Senior Housing Company LLC	1	0.0%	(0.34)	(0.08)	(0.10)	19.70	15.60
AEW-SHP Managed Portfolio	3	0.0%	(7.00)	(12.41)	(12.40)	(4.90)	
AGI Resmark Housing Fund, LLC	68	0.2%	2.65	23.34	23.30		
AGI-TMG Housing Partners I, LLC	1	0.0%	12.42	(32.83)	(32.80)	(12.60)	13.70
ARA Asia Dragon Fund	1	0.0%	(17.56)	(42.78)	(42.80)	(16.40)	(6.60)
ARA Asia Dragon Fund II	42	0.2%	1.34	20.14	20.10	3.70	
ARA China Long Term Hold	809	3.0%	3.67	13.22	13.20	6.90	
BlackRock Europe Parallel Property Fund II L.P.	3	0.0%	0.00	(30.08)	(30.10)	(35.30)	(25.30)
CalEast Industrial Investors, LLC	139	0.5%	3.93	13.39	13.40	3.80	3.00
CalEast Solstice - Base	2338	8.6%	1.91	1.91			
CalEast Solstice - DT Land	507	1.9%	(0.78)	(0.78)			
CalEast Solstice - DT Other	645	2.4%	8.06	8.06			
CalEast Solstice, LLC	-61	-0.2%	0.05	0.75	0.70	11.50	13.70
CalWest - CalPERS	144	0.5%	1.09	7.91	7.90	0.50	
Canyon Catalyst Fund, LLC	234	0.9%	7.10	13.81	13.80	16.40	
Canyon Johnson Urban Fund, III	17	0.1%	2.80	17.05	17.10	18.50	15.80
CBRE Strategic Partners UK Fund II	-24	-0.1%					
CIM Fund III, LP	727	2.7%	1.14	6.48	6.50	9.00	12.90
CIM Urban Real Estate Fund, LP	180	0.7%	(8.48)	(8.19)	(8.20)	0.50	4.30
CIM Urban REIT LLC	545	2.0%	1.73	4.48	4.50	6.00	7.60
CUC III, LLC	1	0.0%	(2.01)	33.47	33.50	30.50	38.20
FSP - Base	1562	5.7%	0.22	12.69	12.70	19.20	
FSP - DT 2011	731	2.7%	0.91	12.26	12.30	17.40	
FSP - DT 2012 and Beyond	1056	3.9%	2.18	12.40	12.40		
Global Innovation Partners, LLC	10	0.0%					
Global Retail Investors LLC	1200	4.4%	2.36	17.05	17.00	13.50	17.30
GRI - Base	373	1.4%	1.63	12.79	12.80	13.20	
GRI - DT 2011	123	0.5%	(1.88)	12.27	12.30	19.50	
HC Green Development Fund LP	183	0.7%	(0.20)	(0.82)	(0.80)	27.50	15.30
HCB Interests II LP	111	0.4%	2.02	11.75	11.70	15.20	19.10
HCB LTH	465	1.7%	11.91	(9.93)	(9.90)	(16.20)	
HCC Interests LP	22	0.1%	(53.69)	(51.85)	(51.80)	(22.50)	(15.40)
HCM Holdings II LP	6	0.0%	(69.22)	(77.34)	(77.30)	(38.30)	(26.60)
HCR LTH LLC	359	1.3%	(2.76)	(12.65)	(12.60)		
Hearthstone Housing Partners II, LLC	4	0.0%	35.57	82.33	82.30	47.90	29.10
Hearthstone Housing Partners III, LLC	29	0.1%	(8.53)	(18.74)	(18.70)	(3.90)	(5.40)
Hearthstone Path-of-Growth Fund, LLC	15	0.1%	(24.53)	(28.60)	(28.60)	(18.90)	(16.90)
Hines European Development Fund LP	4	0.0%	1.11	(7.97)	(8.00)		
IHP Investment Fund I, L.P.	95	0.3%	(1.36)	(22.46)	(22.50)	12.80	6.80
IHP Investment Fund II, L.P.	27	0.1%	1.08	36.18	36.20	19.20	11.50
IHP Investment Fund III, L.P.	337	1.2%	(10.07)	(4.47)	(4.50)	8.60	5.60
IMI - Base	4714	17.3%	5.67	14.47	14.50	21.90	

¹Partnership Market Values and Returns are based on the General Partners' March 31, 2016 financial statements.

Section V: Real Assets

Real Estate Partnerships Performance

	As of March 31, 2016		QTR	FYTD	1-Yr	3-Yr	5-Yr
	Ending Market Value (MM)	% Of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
REAL ESTATE PARTNERSHIPS¹							
IMI - DT 2011	416	1.5%	2.18	14.50	14.50	17.10	
IMP - Base	1,101	4.0%	1.57	4.68	4.70	11.70	
IMP - DT 2011	78	0.3%	9.67	18.55	18.60	16.00	
IMP - DT 2012 and Beyond	314	1.1%	6.83	24.91	24.90		
Institutional Core Multifamily Investors	526	1.9%	4.19	15.79	15.80	8.40	
Institutional Logistics Partners, LLC	411	1.5%	4.93	12.42	12.40	13.60	
Institutional Multifamily Partners	1,411	5.2%	1.97	17.84	17.80	13.00	19.90
KAREC California Development Program, LLC	4	0.0%	(0.31)	(13.38)	(13.40)	(2.60)	(17.00)
KC 2011, LLC	204	0.7%	3.11	27.63	27.60	6.80	10.90
KSC Affordable Housing Investment Fund, LLC	91	0.3%	11.62	5.72	5.70	8.10	6.60
Land Management Company, LLC	490	1.8%	(3.66)	(12.20)	(12.20)		
LaSalle French Fund II LP	4	0.0%	0.25	(22.40)	(22.40)	(7.20)	(7.90)
Market Street Capital Partners, LP	18	0.1%	0.95	2.97	3.00	5.40	9.40
Meriwether Farms LLC	8	0.0%	2.20	52.81	52.80	19.30	(39.30)
National Office Partners, LLC (CWP)	1,155	4.2%	0.62	8.55	8.50	18.60	26.40
Newland National Partners IV, LLC	6	0.0%	(15.72)	5.09	5.10	(32.70)	(19.00)
ORA Multifamily Investments I, LLC	269	1.0%	3.09	16.82	16.80	22.20	
ORA Residential Investments I, L.P.	218	0.8%	3.08	16.67	16.70	26.90	24.00
Pacific Multifamily Investors, LLC	584	2.1%	2.43	10.60	10.60		
Pacific Vineyard Partners LLC	9	0.0%	(1.97)	(8.19)	(8.20)	4.20	(13.30)
PERS-400 R STREET	19	0.1%	4.38	12.64	12.60	17.10	18.20
PLA Retail Fund I, LP	2	0.0%	(2.87)	(30.79)	(30.80)	(3.70)	1.80
PRECO Account Partnership III, LP	14	0.1%	(0.59)	(12.41)	(12.40)	(5.70)	(3.70)
Project Knight Note Receivable - Secondary Sale	984	3.6%	0.00	0.00			
Stockbridge Hollywood Park Co-Investors, LP	88	0.3%	3.69	6.57	6.60	24.30	13.70
Stockbridge Real Estate Fund II -B, LP	32	0.1%	(8.71)	(6.92)	(6.90)	19.00	12.60
TechCore, LLC	943	3.5%	1.95	11.02	11.00	13.10	
TPG Hospitality Investments IV, LLC	49	0.2%	18.41	(21.39)	(21.40)	(12.70)	
Whitney Ranch Venture, LLC	37	0.1%	(13.82)	(27.42)	(27.40)		
Xander Co-Investment	33	0.1%	(0.33)	(1.71)	(1.70)	(22.80)	(25.00)
Xander JV Fund I (India Realty)	15	0.1%	(0.81)	(1.10)	(1.10)	(0.80)	0.80
Trailing Partnerships(Legacy)	-5	0.0%					
Trailing Partnerships(Strategic)	2	0.0%					
TOTAL REAL ESTATE	27,296	100.0%	2.23	7.06	7.06	11.47	12.43

¹Partnership Market Values and Returns are based on the General Partners' March 31, 2016 financial statements.

Section V: Real Assets

Forestland and Infrastructure Partnerships

	As of March 31, 2016		QTR	FYTD	1-Yr	3-Yr	5-Yr
	Ending Market Value (MM)	% of Total Forestland Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
FORESTLAND PARTNERSHIPS¹							
Lincoln Timber L.P.	1,534	77.72%	-4.59	-14.25	-14.30	-3.20	-3.90
Sylvanus LLC	440	22.28%	4.82	11.62	11.60	-0.40	2.40
TOTAL FORESTLAND	1,973	100%	(2.64)	(9.56)	(9.56)	(2.59)	(2.61)
	As of March 31, 2016		QTR	FYTD	1-Yr	3-Yr	5-Yr
	Ending Market Value (MM)	% of Total Infrastructure Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
INFRASTRUCTURE PARTNERSHIPS¹							
Alinda Infrastructure Fund I, L.P.	91	3.54%	1.94	12.33	12.30	14.30	10.70
Alinda Infrastructure Fund II, L.P.	339	13.19%	1.25	8.95	8.90	11.20	7.40
CIM Infrastructure Fund, L.P.	444	17.27%	-2.67	1.10	1.10	14.90	8.60
Carlyle Infrastructure Partners, L.P.	53	2.06%	2.16	-3.26	-3.30	6.20	1.70
Global Infrastructure Partners II, L.P. (GIP II)	165	6.44%	7.20	18.18	18.20	23.20	
Golden Reef Infrastructure Trust	-1	-0.04%					
Golden State Matterhorn, LLC	0	0.00%					
Harbert Gulf Pacific Power, LLC (HGPP)	708	27.58%	-1.47	-1.25	-1.20		
Harbert Power Fund V, L.P. (HPF V)	26	1.02%	1.14	7.59	7.60		
North Haven Infrastructure Partners II LP	42	1.62%	0.15	1.26	1.30		
Infrastructure Direct Investments	673	26.22%	6.80	25.90	25.90	27.00	26.60
UBS International Infrastructure Fund II (B), L.P.	9	0.35%	5.43				
UBS International Infrastructure Fund II (C), L.P.	19	0.74%	5.43				
Total Infrastructure	2,568	100%	1.83	8.98	8.98	14.86	11.66

¹Partnership Market Values and Returns are based on the General Partners' March 31, 2016 financial statements.

Section VI
Inflation

PERIOD ENDING JUNE 30, 2016

Section VI: Inflation
Inflation Summary

INFLATION	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
CORE INFLATION LINKED BONDS	12,120	68.2	2.01	(7)	1.46	(12)	2.37	2	2	2.37	2	2.30	40	2.60	38	-	-
INTERNAL COMMODITIES PERF ACCTG	2,992	16.8	0.08	0	12.60	(7)	(25.99)	9	2	(25.99)	9	(20.01)	(20)	(14.27)	(25)	-	-
TACTICAL INFLATION ASSETS	2,661	15.0	1.47	39	11.61	443	(5.04)	648	141	(5.04)	648	(6.49)	239	-	-	-	-
TOTAL INFLATION²	17,773	100.0	1.60	1	4.62	27	(3.64)	135	210	(3.64)	135	(2.61)	103	(1.52)	45	-	-

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

² Policy Benchmark for Total Inflation is a static 75/25% ratio. Actual program weights differ significantly resulting in an un-intuitive degree of excess performance.

TACTICAL INFLATION ASSETS	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
TACTICAL COMMODITIES	1,702	64.0	1.11	103	18.09	542	(20.05)	603	66	(20.05)	603	(17.81)	200	-	-	-	-
TACTICAL TIPS	958	36.0	2.10	2	1.71	0	4.17	(18)	(2)	4.17	(18)	2.11	(20)	-	-	-	-
TACTICAL INFLATION ASSETS	2,661	100.0	1.47	39	11.61	443	(5.04)	648	141	(5.04)	648	(6.49)	239	-	-	-	-

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section VII
Liquidity

PERIOD ENDING JUNE 30, 2016

Section VII: Liquidity
Liquidity Summary

LIQUIDITY	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
PERS INTERNAL SHORT TERM PORTFOLIO	4,464	100.0	0.05	1	0.14	3	0.40	11	5	0.40	11	0.24	10	0.19	9	1.24	6
TOTAL LIQUIDITY	4,464	100.0	0.04	0	0.13	5	0.36	17	8	0.36	17	0.63	(46)	1.13	(40)	1.74	(17)

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section VIII

Absolute Return Strategies

PERIOD ENDING JUNE 30, 2016

Section VIII: Absolute Return Strategies

ARS Equitization and Total ARS Summary

ABSOLUTE RETURN EQUITIZATION STRATEGIES	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
TOTAL ARS	385	100.0	(0.17)	(81)	(0.66)	(219)	(1.67)	(729)	(40)	(1.67)	(729)	4.13	(127)	3.44	(191)	3.34	(342)
ARS OVERLAY PORTFOLIO ²																	
TOTAL ARS WITH EQUITIZATION	385	100.0	(0.17)	60	(0.66)	(185)	(1.67)	229	13	(1.67)	229	6.84	30	8.37	(17)	5.78	(259)

ABSOLUTE RETURN STRATEGIES SUMMARY ³	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
DIRECT INVESTMENTS	376	97.6	0.08	(57)	(0.55)	(207)	(1.90)	(752)	(40)	(1.90)	(752)	4.31	(108)	3.56	(180)	3.73	(303)
FUND OF HEDGE FUNDS	7	1.8	(8.40)	(905)	(8.27)	(979)	(0.65)	(627)	(1)	(0.65)	(627)	4.08	(131)	3.36	(200)	2.50	(426)
ARS TRANSITION	2	0.6															
TOTAL ARS	385	100.0	(0.17)	(81)	(0.66)	(219)	(1.67)	(729)	(40)	(1.67)	(729)	4.13	(127)	3.44	(191)	3.34	(342)

ABSOLUTE RETURN STRATEGIES SUMMARY ³ (Preliminary month-end returns provided by International Fund Services (IFS))	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
DIRECT INVESTMENTS	372	98.1	(0.96)	(160)	(2.49)	(401)	(2.65)	(827)		(2.65)	(827)	3.52	(187)	3.21	(215)	3.73	(304)
FUND OF HEDGE FUNDS	7	1.9	-	(64)	(7.80)	(932)	(1.81)	(743)		(1.81)	(743)	3.27	(213)	2.74	(262)	-	(451)
TOTAL ARS	379	100.0	(0.94)	(158)	(2.60)	(412)	(2.45)	(807)		3.45	(807)	3.45	(194)	3.08	(227)	3.33	(343)

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

² Portfolio market value and returns roll directly to Total Fund and the Absolute Return Equitization strategy. The portfolio funded October 2011 and the returns are not shown on the report at the portfolio level because the returns are not meaningful (N/M).

³ Absolute Return Strategies(ARS) Program Performance Review is based on the Absolute Total Return Strategy and not the Absolute Return Equitization Strategy.

Section VIII: Absolute Return Strategies

Direct Investments

	June 30, 2016		1-Month	3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
DIRECT INVESTMENTS (Preliminary month-end returns provided by IFS)									
Black River Commodity Multi - Strategy Fund LLC	1	0.4	0.00	(38.43)	(68.07)	(68.07)	(44.26)	(35.03)	-
Brookside Capital Partners Fund, L.P.	2	0.6	0.00	2.09	0.97	0.97	1.78	(0.58)	9.11
Carlyle Multi Strat Partners LP	1	0.3	0.00	(5.63)	11.55	11.55	0.86	0.51	-
Chatham Eureka Fund LP	258	69.2	(1.20)	(4.23)	(1.16)	(1.16)	4.61	3.97	-
Deephaven Global Multi-Strategy Fund LLC	0	0.1	0.00	(4.37)	4.39	4.39	25.88	13.74	4.80
OZ Domestic Partners II, L.P.	7	1.8	(0.92)	(1.43)	(2.68)	(2.68)	2.11	1.29	5.03426
OZ Eureka Fund, LP	102	27.3	(0.39)	2.38	(1.25)	(1.25)	6.72	7.83	-
SuttonBrook Eureka Fund LP	1	0.2	0.00	(0.09)	(67.72)	(67.72)	(53.38)	(39.70)	-
TOTAL DIRECT INVESTMENTS	372	100.0	(0.96)	(2.49)	(2.65)	(2.65)	3.52	3.21	3.73

Section VIII: Absolute Return Strategies

Fund of Funds

	June 30, 2016		1-Month	3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
FUND OF FUNDS (Preliminary month-end returns provided by IFS)									
STUBS FOF	4	59.8		(13.07)	26.02	26.02	86.95	45.16	-
EUROPEAN FUND OF FUNDS	0	5.7		(3.74)	(15.90)	(15.90)	0.16	1.21	-
FUND OF EMERGING HEDGE FUNDS	3	34.5		2.05	(1.46)	(1.46)	2.83	2.86	-
TOTAL FUND OF FUNDS	7	100.0	-	(7.80)	(1.81)	(1.81)	3.27	2.74	-

	June 30, 2016		1-Month	3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
STUBS FOF (Preliminary month-end returns provided by IFS)									
AIS Highbury Liquidating SPV Fund, LP	4	100.0		(14.88)	29.49	29.49	109.42	17.22	-
TOTAL STUB FUND OF FUNDS	4	100.0	-	(13.07)	26.02	26.02	86.95	45.16	-

	June 30, 2016		1-Month	3-Months	FYTD	1-Yr	3-Yr	5-Yr	10-Yr
	Ending Market Value	% of Total Assets	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return	Net Rate of Return
FUND OF EMERGING HEDGE FUNDS (Preliminary month-end returns provided by IFS)									
PAAMCO 1848 Fund, LP - 1848 Separate Investment	1	35.5		6.49	9.46	9.46	9.34	8.23	-
Rock Creek 1848 Fund, LP	2	64.5		0.16	(5.92)	(5.92)	0.57	1.31	-
TOTAL FUND OF EMERGING HEDGE FUNDS	3	100.0	-	2.05	(1.46)	(1.46)	2.83	2.86	-

Section IX
Total Fund Portfolios

PERIOD ENDING JUNE 30, 2016

Section IX: Total Fund Portfolios

Multi-Asset Class and Total Plan Level Portfolios

	June 30, 2016		1-Month		3-Months		FYTD		1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
MULTI-ASSET CLASS																
STANDARD LIFE INVESTMENTS MAC LP	559	47.2	(4.02)	(463)	(2.27)	(409)	(6.75)	(1,425)	(6.75)	(1,425)	2.68	(482)	-	-	-	-
AQR MULTI-ASSET CLASS FUND LP	625	52.8	2.91	230	2.78	95	4.39	(311)	4.39	(311)	-	-	-	-	-	-
TOTAL MULTI-ASSET CLASS	1,184	100.0	(0.48)	(109)	0.33	(149)	(1.18)	(868)	(1.18)	(868)	5.31	(219)				

	June 30, 2016		1-Month		3-Months		FYTD		1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
PLAN LEVEL PORTFOLIOS																
CALPERS PLAN LEVEL GLOBAL FIXED INCOME	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-
GLOBAL EQUITY PLAN LEVEL TRANSITION	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-
MHLP PERSONAL LOANS	10		1.33	46	1.65	48	5.04	62	5.04	62	4.47	72	-	-	-	-

Section X

Affiliate Investment Programs

PERIOD ENDING JUNE 30, 2016

Section X: Affiliate Investment Programs
Affiliate Investment Programs Summary

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
DEFINED BENEFIT, HEALTH, AND OPEB PLANS																	
JUDGES' RETIREMENT FUND	35	0.3	0.04	1	0.13	6	0.34	15	0	0.34	15	0.16	7	0.11	3	1.19	14
JUDGES' RETIREMENT SYSTEM II FUND	1,157	9.2	1.01	(3)	2.74	8	1.65	(7)	(1)	1.65	(7)	6.38	14	6.59	1	5.64	(5)
LEGISLATORS' RETIREMENT SYSTEM FUND	119	0.9	1.82	(1)	3.00	10	4.04	(11)	(0)	4.04	(11)	5.58	24	5.78	13	6.08	21
HEALTH CARE FUND	446	3.6	1.82	3	2.23	1	5.99	(1)	(0)	5.99	(1)	4.50	43	4.26	50	5.10	(3)
LONG-TERM CARE FUND	4,321	34.5	2.32	4	3.59	(13)	5.48	27	11	5.48	27	4.91	29	4.31	16	4.96	13
CERBT STRATEGY 1 FUND	4,180	33.3	0.83	4	2.52	17	1.00	29	11	1.00	29	6.14	38	6.01	19	-	-
CERBT STRATEGY 2 FUND	735	5.9	1.39	1	2.86	15	2.91	16	1	2.91	16	5.83	30	-	-	-	-
CERBT STRATEGY 3 FUND	180	1.4	1.83	1	2.96	14	4.14	8	0	4.14	8	5.52	40	-	-	-	-
DEFERRED COMPENSATION 457 PLAN																	
CALPERS TARGET INCOME FUND	85	0.7	0.79	5	1.30	1	2.06	(21)	(0)	2.06	(21)	3.33	(25)	3.62	(40)	-	-
CALPERS TARGET 2015 FUND	77	0.6	0.79	5	1.30	1	2.06	(21)	(0)	2.06	(21)	3.86	(28)	4.17	(58)	-	-
CALPERS TARGET 2020 FUND	110	0.9	0.70	8	1.37	3	1.07	(18)	(0)	1.07	(18)	4.20	(26)	4.43	(59)	-	-
CALPERS TARGET 2025 FUND	78	0.6	0.52	13	1.45	8	0.13	(11)	(0)	0.13	(11)	4.46	(21)	4.63	(63)	-	-
CALPERS TARGET 2030 FUND	76	0.6	0.45	16	1.59	12	(0.74)	(7)	(0)	(0.74)	(7)	4.72	(19)	4.99	(63)	-	-
CALPERS TARGET 2035 FUND	43	0.3	0.33	21	1.68	16	(1.56)	(2)	(0)	(1.56)	(2)	4.96	(17)	5.16	(69)	-	-
CALPERS TARGET 2040 FUND	37	0.3	0.23	25	1.80	20	(2.48)	3	0	(2.48)	3	5.09	(12)	5.28	(67)	-	-
CALPERS TARGET 2045 FUND	13	0.1	0.17	27	1.86	22	(2.76)	6	0	(2.76)	6	5.06	(11)	5.26	(67)	-	-
CALPERS TARGET 2050 FUND	6	0.0	0.17	27	1.86	22	(2.77)	5	0	(2.77)	5	5.05	(11)	5.26	(67)	-	-
CALPERS TARGET 2055 FUND	3	0.0	0.17	27	1.86	22	(2.78)	4	0	(2.78)	4	-	-	-	-	-	-
STATE STREET STIF	106	0.8	0.01	(2)	0.03	(4)	(0.04)	(23)	(0)	(0.04)	(23)	-	-	-	-	-	-
STATE STREET US SHORT TERM BOND	41	0.3	0.57	(4)	0.53	(14)	1.09	(50)	(0)	1.09	(50)	-	-	-	-	-	-
STATE STREET US BOND INDEX SL	63	0.5	1.78	(1)	2.12	(9)	5.62	(38)	(0)	5.62	(38)	-	-	-	-	-	-
STATE STREET REAL ASSET NL	4	0.0	3.93	3	7.21	(13)	(0.99)	(34)	(0)	(0.99)	(34)	-	-	-	-	-	-
STATE STREET RUSSELL ALL CAP INDEX SL	454	3.6	0.17	(3)	2.52	(11)	1.89	(25)	(1)	1.89	(25)	-	-	-	-	-	-
STATE STREET GLBL ALL CAP EQ EX-US SL	54	0.4	(1.09)	64	0.00	68	(9.14)	47	0	(9.14)	47	-	-	-	-	-	-
SUPPLEMENTAL CONTRIBUTION PLAN																	
CALPERS TARGET INCOME FUND	21	0.2	0.78	4	1.27	(3)	1.93	(34)	(0)	1.93	(34)	3.20	(37)	3.57	(44)	-	-
CALPERS TARGET 2015 FUND	20	0.2	0.78	4	1.27	(3)	1.93	(34)	(0)	1.93	(34)	3.73	(40)	4.13	(62)	-	-
CALPERS TARGET 2020 FUND	25	0.2	0.69	7	1.33	(0)	0.94	(31)	(0)	0.94	(31)	4.06	(39)	4.38	(63)	-	-
CALPERS TARGET 2025 FUND	22	0.2	0.51	12	1.41	5	(0.00)	(24)	#N/A	(0.00)	(24)	4.35	(32)	4.59	(67)	-	-
CALPERS TARGET 2030 FUND	15	0.1	0.44	15	1.55	8	(0.87)	(20)	(0)	(0.87)	(20)	4.58	(32)	4.89	(73)	-	-
CALPERS TARGET 2035 FUND	7	0.1	0.32	20	1.65	12	(1.69)	(15)	(0)	(1.69)	(15)	-	-	-	-	-	-
CALPERS TARGET 2040 FUND	3	0.0	0.22	24	1.77	17	(2.61)	(10)	(0)	(2.61)	(10)	4.96	(25)	5.23	(72)	-	-
CALPERS TARGET 2045 FUND	1	0.0	0.16	26	1.83	18	(2.89)	(7)	(0)	(2.89)	(7)	-	-	-	-	-	-
CALPERS TARGET 2050 FUND	0	0.0	0.30	40	1.97	33	(2.76)	6	0	(2.76)	6	-	-	-	-	-	-
CALPERS TARGET 2055 FUND	0	0.0	0.16	26	1.83	19	(2.90)	(8)	(0)	(2.90)	(8)	-	-	-	-	-	-
STATE STREET STIF	1	0.0	0.00	(4)	0.00	(7)	(0.17)	(36)	(0)	(0.17)	(36)	-	-	-	-	-	-
STATE STREET US SHORT TERM BOND	0	0.0	0.56	(5)	0.49	(18)	0.96	(63)	#N/A	0.96	(63)	-	-	-	-	-	-
STATE STREET US BOND INDEX SL	1	0.0	1.77	(3)	2.09	(13)	5.49	(51)	(0)	5.49	(51)	-	-	-	-	-	-
STATE STREET REAL ASSET NL	0	0.0	3.92	2	7.18	(17)	(1.11)	(47)	(0)	(1.11)	(47)	-	-	-	-	-	-
STATE STREET RUSSELL ALL CAP INDEX SL	3	0.0	0.16	(4)	2.49	(14)	1.76	(38)	(0)	1.76	(38)	-	-	-	-	-	-
STATE STREET GLBL ALL CAP EQ EX-US SL	0	0.0	(1.10)	63	(0.03)	65	(9.26)	35	0	(9.26)	35	-	-	-	-	-	-
TOTAL AFFILIATE INVESTMENT PROGRAMS	12,540	100.0															

¹ Value Added is the excess bps converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section X: Affiliate Investment Programs

Judges' II Retirement Fund, Legislators' Retirement System Fund and Long-Term Care Fund

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
JUDGES' RETIREMENT SYSTEM II FUND																	
JRS II CASH	0	0.0	0.04	(0)	0.12	5	0.34	15	0	0.34	15	0.56	47	0.35	26	1.31	26
JRS II COMMODITIES	33	2.9	0.43	35	13.05	38	(25.45)	64	0	(25.45)	64	(19.96)	(15)	-	-	-	-
JRS II DOMESTIC FIXED INCOME	403	34.8	3.06	6	4.18	38	9.65	7	0	9.65	7	6.90	73	6.55	55	7.32	48
JRS II GLOBAL EQUITY	569	49.2	(0.83)	(6)	1.14	(5)	(3.83)	14	(0)	(3.83)	14	6.63	9	6.13	7	4.47	5
JRS II REITS	95	8.2	3.71	(4)	3.67	(8)	12.48	(9)	1	12.48	(9)	8.96	2	8.59	(4)	3.41	31
JRS II TIPS	57	4.9	2.09	1	1.71	0	4.31	(4)	(0)	4.31	(4)	2.15	(16)	-	-	-	-
TOTAL JUDGES' RETIREMENT SYSTEM II FUND	1,157	100.0	1.01	(3)	2.74	8	1.65	(7)	(1)	1.65	(7)	6.38	14	6.59	1	5.64	(5)

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
LEGISLATORS' RETIREMENT SYSTEM FUND																	
LRS CASH	0	0.0	0.02	(2)	0.11	4	0.38	19	0	0.38	19	0.17	8	0.12	3	1.19	14
LRS COMMODITIES	3	2.9	0.47	39	13.08	41	(25.43)	65	0	(25.43)	65	(19.97)	(16)	-	-	-	-
LRS DOMESTIC FIXED INCOME	47	39.8	3.06	6	4.18	37	9.63	5	0	9.63	5	6.91	75	6.56	56	7.35	49
LRS GLOBAL EQUITY	28	23.4	(0.82)	(5)	1.15	(3)	(3.77)	20	0	(3.77)	20	6.64	11	6.29	8	4.54	6
LRS REITS	10	8.1	3.71	(4)	3.66	(8)	12.50	(7)	(0)	12.50	(7)	8.96	3	-	-	-	-
LRS TIPS	31	25.8	2.09	1	1.71	(0)	4.31	(5)	(0)	4.31	(5)	2.16	(16)	2.57	(7)	4.84	5
TOTAL LEGISLATORS' RETIREMENT SYSTEM FUND	119	100.0	1.82	(1)	3.00	10	4.04	(11)	(0)	4.04	(11)	5.58	24	5.78	13	6.08	21

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
LONG-TERM CARE FUND																	
LTC CASH	0	0.0	0.04	1	0.16	9	0.36	17	0	0.36	17	0.02	(7)	0.02	(6)	1.12	7
LTC COMMODITIES	225	5.2	0.08	(0)	12.70	2	(25.88)	20	0	(25.88)	20	(19.74)	7	-	-	-	-
LTC DOMESTIC FIXED INCOME	2,698	62.5	2.98	(1)	3.71	(10)	9.60	2	0	9.60	2	6.18	1	5.97	(4)	7.04	20
LTC GLOBAL EQUITY	597	13.8	(0.69)	2	1.15	10	(3.51)	36	2	(3.51)	36	6.44	31	6.37	17	4.55	7
LTC REITS	541	12.5	3.60	5	3.23	14	12.06	91	5	12.06	91	8.32	72	8.09	43	2.96	31
LTC TIPS	259	6.0	2.07	(1)	1.69	(2)	4.33	(3)	(0)	4.33	(3)	2.30	(1)	2.60	(4)	4.86	6
TOTAL LONG-TERM CARE FUND	4,321	100.0	2.32	4	3.59	(13)	5.48	27	11	5.48	27	4.91	29	4.31	16	4.96	13

Section X: Affiliate Investment Programs

California Employers' Retirement Benefit Trust (CERBT) Fund

CERBT STRATEGY 1	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
CERBT S1 CASH	61	1.5	0.03	(0)	0.12	4	0.31	12	0	0.31	12	0.12	3	0.09	(0)	-	-
CERBT S1 COMMODITIES	128	3.1	(0.14)	(22)	12.28	(40)	(26.46)	(37)	(0)	(26.46)	(37)	(20.24)	(44)	-	-	-	-
CERBT S1 DOMESTIC FIXED INCOME	1,131	27.0	3.05	5	4.17	36	9.65	7	1	9.65	7	6.92	76	6.57	56	-	-
CERBT S1 GLOBAL EQUITY	2,328	55.7	(0.63)	9	1.23	17	(3.44)	43	10	(3.44)	43	6.50	37	6.25	24	-	-
CERBT S1 REITS	333	8.0	3.62	7	3.26	17	12.05	90	3	12.05	90	8.37	77	8.11	45	-	-
CERBT S1 TIPS	199	4.8	2.09	1	1.71	0	4.32	(3)	(0)	4.32	(3)	2.16	(16)	-	-	-	-
CERBT STRATEGY 1	4,180	100.0	0.83	4	2.52	17	1.00	29	12	1.00	29	6.14	38	6.01	19	-	-

CERBT STRATEGY 2	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
CERBT S2 CASH	7	0.9	0.04	0	0.13	5	0.33	14	0	0.33	14	0.19	10	-	-	-	-
CERBT S2 COMMODITIES	24	3.2	0.09	1	12.49	(18)	(26.35)	(27)	(0)	(26.35)	(27)	(20.17)	(36)	-	-	-	-
CERBT S2 DOMESTIC FIXED INCOME	287	39.0	3.06	6	4.18	37	9.64	6	0	9.64	6	6.91	75	-	-	-	-
CERBT S2 GLOBAL EQUITY	287	39.0	(0.67)	4	1.18	12	(3.53)	34	1	(3.53)	34	6.45	31	-	-	-	-
CERBT S2 REITS	59	8.0	3.61	6	3.24	15	12.03	88	1	12.03	88	8.30	70	-	-	-	-
CERBT S2 TIPS	72	9.8	2.09	1	1.71	0	4.30	(5)	(0)	4.30	(5)	2.12	(20)	-	-	-	-
CERBT STRATEGY 2	735	100.0	1.39	1	2.86	15	2.91	16	1	2.91	16	5.83	30	-	-	-	-

CERBT STRATEGY 3	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
CERBT S3 CASH	5	2.5	0.04	(0)	0.12	5	0.34	15	0	0.34	15	0.32	23	-	-	-	-
CERBT S3 COMMODITIES	6	3.2	0.08	(0)	12.59	(9)	(26.33)	(24)	(0)	(26.33)	(24)	(20.08)	(28)	-	-	-	-
CERBT S3 DOMESTIC FIXED INCOME	69	38.4	3.05	5	4.17	37	9.64	6	0	9.64	6	6.86	70	-	-	-	-
CERBT S3 GLOBAL EQUITY	42	23.1	(0.66)	6	1.19	13	(3.46)	40	0	(3.46)	40	6.49	36	-	-	-	-
CERBT S3 REITs	14	7.9	3.60	5	3.22	13	12.01	87	0	12.01	87	8.37	77	-	-	-	-
CERBT S3 TIPS	45	24.9	2.09	2	1.71	0	4.31	(4)	(0)	4.31	(4)	2.19	(12)	-	-	-	-
TOTAL CERBT STRATEGY 3	180	100.0	1.83	1	2.96	14	4.14	8	0	4.14	8	5.52	40	-	-	-	-

¹ Value Added is the Excess BPS converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

Section XI
Other Programs

PERIOD ENDING JUNE 30, 2016

Section XI: Other Programs

Securities Lending Program, Short Term Liquidity, and Terminated Agency Pool Performance Summary

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Exc ess Bps
SECURITIES LENDING PROGRAM																	
CALPERS ESEC CASH COLLATERAL	9,845	78.7	0.03	(0)	0.08	(1)	0.44	18	15	0.44	18	0.33	18	0.27	13	-	-
EXTERNAL COLLATERAL PORTFOLIO ²	0	0.0					-	-	-	-	-	-	-	-	-	-	-
INTERNAL SEC LEND PORTFOLIO	2,665	21.3	0.05	1	0.17	6	0.47	18	5	0.47	18	0.31	20	0.26	21	-	-
SEC LENDING INT & EXT REINVEST	12,510	100.0	0.03	(0)	0.10	1	0.40	14	15	0.40	14	0.54	40	0.63	50	1.32	28

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	\$ Value Added (MM) ¹	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Exc ess Bps
SHORT TERM LIQUIDITY																	
SHORT TERM LIQUIDITY	8,595		0.05	1	0.14	3	0.41	12	6	0.41	12	0.22	8	-	-	-	-

	June 30, 2016		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps		Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Exc ess Bps
TERMINATED AGENCY POOL																	
TERMINATED AGENCY POOL ³	112		3.46	-	3.44	-	9.86	-		9.86	-	5.44	-	-	-	-	-

¹ Value Added is the Excess BPS converted into a dollar value by multiplying the excess bps by the fiscal year-to-date average market value.

² Structured Investment Vehicle

³ Terminated Agency Pool funded July 2013

Current Emerging Manager and Transition Manager Performance Summary

December 31, 2015		1-Month		3-Months		FYTD		1-Yr		3-Yr		5-Yr		10-YR	
CURRENT EMERGING MANAGER SUMMARY ¹	Ending Market Value (MM)	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	3-Yr	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
PUBLIC EQUITY ²															
Funds Held in Fund of Fund Structure	2,600	(2.30)	(15)	4.27	(28)	(11.14)	(167)	N/A		N/A		N/A		N/A	
<i>International</i>	1,524	(0.85)	130	4.79	24	(10.89)	(142)	N/A		N/A		N/A		N/A	
<i>Domestic</i>	1,076	(4.28)	(213)	3.55	(100)	(13.88)	(441)	N/A		N/A		N/A		N/A	
PRIVATE EQUITY ³															
Non Fund of Fund Investments	4,733	N/A		(2.95)		(6.79)		(2.08)		10.66		9.58		8.13	
REAL ESTATE															
Non Fund of Fund Investments	439	N/A		0.08	(303)	2.10	(836)	7.64	(631)	3.00	(977)	11.27	(127)	(5.11)	(1,394)
<i>International</i>	N/A	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
<i>Domestic</i>	439	N/A		0.08	(303)	2.10	(836)	7.64	(631)	3.00	(977)	11.27	(127)	(5.11)	(1,394)
Funds Held in Fund of Fund Structure ⁴	235	N/A		2.77	(34)	3.05	(742)	37.03	2,308	N/M		N/A		N/A	
<i>International</i>	N/A	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
<i>Domestic</i>	235	N/A		2.77	(34)	3.05	(742)	37.03	2,308	N/M		N/A		N/A	
December 31, 2015		1-Month		3-Months		FYTD		1-Yr		3-Yr		5-Yr		10-YR	
TRANSITION MANAGER SUMMARY ¹	Ending Market Value (MM)	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps	Net Rate of Return	Excess Bps
PUBLIC EQUITY ²															
Non Fund of Fund Investments	2,232	(2.33)	57	3.15	(69)	(7.32)	(36)	N/A		N/A		N/A		N/A	
<i>International</i>	1,633	(1.27)	163	3.76	(8)	(5.02)	194	N/A		N/A		N/A		N/A	
<i>Domestic</i>	599	(5.09)	(219)	1.50	(234)	(13.06)	(610)	N/A		N/A		N/A		N/A	

¹ The data contained in this report reflects funds identified as current emerging managers or transition managers and their performance as of 12/31/15. This report does not include fund of fund advisors except for private equity. Excess basis points were calculated using the appropriate asset class policy benchmark (unless otherwise footnoted). Performance for this report is shown as Time-Weighted Return (unless otherwise footnoted).

² Public Equity performance is performance of the composite of underlying managers. Managers' performance is compared to a composite benchmark consisting of asset-weighted individual benchmarks of the total current emerging manager or transition manager universe (i.e. at the asset class level each emerging manager is compared to their respective benchmark, not the Public Equity policy benchmark).

³ Private Equity returns reported here are Internal Rate of Returns (IRRs) as Time Weighted Returns are not currently available in this breakout from State Street Bank. Comparison to policy benchmark is not shown as the policy benchmark uses time weighted returns.

⁴ N/M means that time weighted returns cannot be calculated because the partnership had negative net assets for at least one quarter during the time period.

Section XII
**Asset Class Benchmarks &
Definitions**

PERIOD ENDING JUNE 30, 2016

Section XII: Asset Class Benchmarks Definitions

Asset Class Benchmarks

BENCHMARK	TARGET WEIGHTS OF BENCHMARK COMPONENTS AS OF JULY 1, 2015	BENCHMARK COMPONENTS PRIOR TO JUNE 30, 2015
Total Fund*	Growth 61% Income 20% Real Assets 12% Inflation 6% Liquidity 1%	Growth 61% Income 19% Real Assets 12% Inflation 6% Liquidity 2%
Growth Benchmark	Public Equity 84% FSTE CalPERS Global (All-World, All Capitalization) customized to exclude Board directed divestments Private Equity 16% (67% FTSE U.S. TMI + 33% FTSE AW ex US TMI) + 3% 1 Qtr Lag	Public Equity 84% FSTE CalPERS Global (All-World, All Capitalization) customized to exclude Board directed divestments Private Equity 16% (67% FTSE U.S. TMI + 33% FTSE AW ex US TMI) + 3% 1 Qtr Lag
Income Benchmark	90% Barclays Long Liability + 10% Barclays International Fixed Income Index GDP weighted ex-US	90% Barclays Long Liability + 10% Barclays International Fixed Income Index GDP weighted ex-US
Liquidity Benchmark	Liquidity Portfolio 100% 91-Day Treasury Bills	Liquidity Portfolio 75% Barclays Treasury 2 - 10-Yr Cash 25% 1-Month T-Bill
Real Assets Benchmark	Real Estate 83% NCREIF ODCE (Net) Infrastructure 8.5% CPI + 4% 1 Qtr Lag Forestland 8.5% NCREIF Timberland (Gross) 1 Qtr lag	Real Estate 83% NCREIF ODCE (Net) Infrastructure 8.5% CPI + 4% 1 Qtr Lag Forestland 8.5% NCREIF Timberland (Gross) 1 Qtr lag
Inflation Benchmark	Inflation Linked Bonds Portfolio 75% 67% Barclays Capital Global Inflation US + 33% Barclays Capital Global Inflation Linked Bonds (U.K., France, Italy, Germany, Canada) Commodities Portfolio 25% S&P GSCI 500 Total Return Index	Inflation Linked Bonds Portfolio 75% 67% Barclays Capital Global Inflation US + 33% Barclays Capital Global Inflation Linked Bonds (U.K., France, Italy, Germany, Canada) Commodities Portfolio 25% S&P GSCI 500 Total Return Index

*Benchmark linked to prior policy benchmarks from inception

Section XII: Asset Class Benchmarks Definitions

Total Fund Policy Benchmark Target Weights Transition Schedule

ASSET CLASS	Interim Targets¹	POLICY TARGETS¹
Global Equity	51%	47%
Private Equity	<u>10%</u>	<u>12%</u>
GROWTH	61%	59%
INCOME	20%	19%
Infrastructure/Forestland	2%	3%
Real Estate	<u>10%</u>	<u>11%</u>
REAL ASSETS	12%	14%
INFLATION	6%	6%
LIQUIDITY	1%	2%
TOTAL FUND POLICY	100%	100%

¹ Total Fund Investment Policy Targets approved by Investment Committee at June 2015 Board Meeting.

Section XII: Asset Class Benchmarks

Affiliate Investment Program Benchmarks

Program	ASSET CLASS BENCHMARK	POLICY BENCHMARK
Judge's Retirement System Fund	Cash	91-day Treasury Bill
Judge's Retirement System II Fund	Global Equity U.S. Fixed Income TIPS Commodities REITs	CalPERS Custom FTSE Global Composite Barclays Long Liability Index Barclays U.S. TIPS Index, Series L S&P GSCI Total Return Daily FTSE EPRA/NAREIT Developed Index
Legislators' Retirement System Fund	Global Equity U.S. Fixed Income TIPS Commodities REITs	CalPERS Custom FTSE Global Composite Barclays Long Liability Index Barclays U.S. TIPS Index, Series L S&P GSCI Total Return Daily FTSE EPRA/NAREIT Developed Index
Public Employees' Health Care Fund	U.S. Fixed Income	Barclays U.S. Aggregate Bond Index
Long-Term Care Fund	Global Equity U.S. Fixed Income TIPS Commodities REITs Liquidity	MSCI ACWI IMI (Net) Barclays Long Liability Index Barclays U.S. Treasury Inflation Protected Securities(TIPS) Index S&P GSCI Total Return Daily FTSE EPRA/NAREIT Developed Liquid (Net) 91-day Treasury Bill
California Employers' Retiree Benefit Trust (CERBT) Funds 1, 2 & 3	Global Equity U.S. Fixed Income TIPS Commodities REITs	MSCI ACWI IMI (Net) Barclays Long Liability Index Barclays U.S. TIPS Index, Series L S&P GSCI Total Return Daily FTSE EPRA/NAREIT Developed Liquid (Net)

Section XII: Asset Class Benchmarks Definitions

Definitions

CASH IN – The total contributions, net of temporary returns of capital, made by CalPERS towards investments.

CASH OUT – The total distributions received by CalPERS from its investments.

CONTRIBUTIONS – The total amount of cash that has been called from limited partners.

DISTRIBUTIONS – The total amount of cash and stock that has been paid out to limited partners.

EXCESS BPS – Excess basis points (BPS) is the difference between the portfolio or composite return and the benchmark return multiplied by 100 to convert the Excess BPS to a whole number.

Excess BPS Calculation

Excess BPS = (Portfolio or Composite Return – Benchmark Return) x 100

INTERNAL RATE OF RETURN (IRR) – Dollar weighted rate of return that shows profitability as a percentage, showing the return on each dollar invested. IRR equates the present value of a partnership's estimated cash flows (CF) with the present value of the partnership's costs. Before fees (BF) IRR is calculated before all expensed fees such as Asset Management, Disposition, Incentive Fees, etc. After fees (AF) IRR is calculated after all expensed fees such as Asset Management, Disposition, Incentive Fees, etc.

IRR is the quarterly discount rate that makes the following relationship hold:

$$\text{Present Value (inflows)} = \text{Present Value (investment costs)}$$

IRR Calculation

$$\text{IRR} = \text{CFO} + \text{CF1} / (1+\text{IRR}) + \text{CF2} / (1+\text{IRR})^2 + \text{CF3} / (1+\text{IRR})^3 \dots \text{CFn} / (1+\text{IRR})^n$$

IRR COMPARED TO TIME WEIGHTED RATE OF RETURN (TWRR) - According to the Global Investment Performance Standards (GIPS); using IRR is a more accurate method than TWRR to measure private equity funds. An IRR reflects the effects of the timing of cash flows in a portfolio. The IRR is required for private equity assets because the firm controls the cash flows into and out of the portfolio. A time-weighted rate of return (TWRR) will not offer the best measure for an investor to compare returns between private equity funds because the TWRR will not capture the critical effects of cash flow management within the control of the private equity manager.

INVESTMENT MULTIPLE – A measure of a fund's performance showing the fund's total value as a multiple of its cost basis. The computation is as follows:

Investment Multiple Calculation

$$(\text{Distributions} + \text{Market Value}) / \text{Contributions}$$

MARKET VALUE: PRIVATE ASSETS - An opinion of value as of a certain date as stated by either the investment advisor or independent appraiser. Market value differs from amount funded or net investment in that the value includes unrealized gains or losses during the holding period.

MARKET VALUE: PUBLIC ASSETS AT SECURITY LEVEL - Ending market value in the performance system is calculated as the shares * price + income accrual. Market Value is generally computed by the Custodian based on CalPERS pricing hierarchy.

MARKET VALUE: PUBLIC ASSETS AT PORTFOLIO LEVEL - Ending market value in the performance system is calculated as the sum of the underlying securities' ending market values as described above +/- any open receivables or payables (uninvested assets). This is consistent with the Net Asset Value or Total Net Assets reported in accounting.

REALIZED GAIN OR LOSS – The gain or loss CalPERS realized from the disposition of an asset.

RATE OF RETURNS - CalPERS performance uses a daily Modified-Dietz methodology which is geometrically linked to produce time-weighted returns for longer periods.

Daily Return Calculation

Rate of Return_{Daily} = Dollar Value Added / Average Balance

Where:

Dollar Value Added = Gains/losses due to price appreciation and income

Average Balance = Beginning Market Value + Net Cash Flows

Daily returns are then geometrically linked to produce multi-period returns. The linking formula is as follows:

$$R_{Monthly} = ((1 + R_1) \times (1 + R_2) \times \dots \times (1 + R_n)) - 1$$

TOTAL EXPOSURE – Total Exposure is the current reported value of investments plus remaining amount of unfunded commitments.

UNREALIZED GAIN OR LOSS – The difference between an asset's cost and market value.

VALUE ADDED – Value Added is the excess BPS converted into a dollar value by multiplying the excess BPS multiplied by the fiscal year-to-date average market value.

Value Added Calculation

Value Added = ((Portfolio or Composite Return – Benchmark Return) x 100) x fiscal year-to-date average market value

DISCLAIMER - Only actively traded portfolios are listed in CIO Report

XII - 3 CalPERS CIO Performance Report

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