CalPERS

CIO Performance Report

PERIOD ENDING JUNE 30, 2017

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Section I

Total Fund & Affiliate Program Summary

PERIOD ENDING JUNE 30, 2017

TOTAL FUND SUMMARY	June 30, 2017			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[5]	Excess Bps[5]	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
GROWTH	182,058	56.3	47-61	N/M	N/M	4.19	(61)	18.82	(108)	(1,876)	18.82	(108)	5.78	(37)	11.52	(36)	4.97	(115)
PUBLIC EQUITY	156,166	48.3	39-53	0.70	(0)	4.23	(13)	19.65	(18)	(265)	19.65	(18)	5.30	5	11.64	26	4.30	(36)
PRIVATE EQUITY	25,892	8.0	4-12	N/M	N/M	3.92	(340)	13.92	(640)	(1,643)	13.92	(640)	8.06	(180)	11.46	(221)	9.33	(369)
INCOME	62,858	19.4	15-25	(0.01)	4	2.51	10	0.26	115	672	0.26	115	3.54	70	3.42	96	6.49	71
REAL ASSETS	36,291	11.2	8-18	N/M	N/M	1.70	18	7.43	43	144	7.43	43	8.57	(130)	10.04	(19)	(0.91)	(784)
REAL ESTATE	30,536	9.4	6-16	N/M	N/M	1.78	24	7.60	24	67	7.60	24	9.36	(141)	10.77	(29)	(1.31)	(907)
FORESTLAND	1,980	0.6	0-2	N/M	N/M	(0.20)	(97)	0.97	(268)	(53)	0.97	(268)	(3.08)	(875)	(0.12)	(726)	-	-
INFRASTRUCTURE	3,775	1.2	0-2	N/M	N/M	2.04	7	9.92	345	107	9.92	345	10.70	561	11.98	671	-	-
INFLATION	25,280	7.8	6-12	(1.14)	(8)	(0.68)	(6)	(2.67)	(83)	(208)	(2.67)	(83)	(6.02)	70	(2.07)	68	-	-
LIQUIDITY	15,491	4.8	(2)-7	0.09	1	0.28	8	0.77	29	40	0.77	29	0.68	(10)	0.37	(22)	1.27	(15)
TRUST LEVEL[4]	1,562	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-		-
TOTAL FUND	**323,541**	**100.0**		**0.43**	**(6)**	**2.96**	**(25)**	**11.19**	**(15)**	**(446)**	**11.19**	**(15)**	**4.64**	**(22)**	**8.83**	**23**	**4.39**	**(123)**
CALPERS POLICY INDEX [1]				***0.50***		***3.21***		***11.34***			***11.34***		***4.86***		***8.60***		***5.62***	

TOTAL FUND 20-YEAR NET RATE OF RETURN 6.61

TOTAL FUND INCEPTION DATE NET RATE OF RETURN (07/01/1988) 8.43

TOTAL FUND PLUS TAP SUMMARY	June 30, 2017		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	323,541	99.96	0.43	(6)	2.96	(25)	11.19	(15)	11.19	(15)	4.64	(22)	8.83	23	4.39	(123)
TERMINATED AGENCY POOL [3]	119	0.04	(0.69)	-	0.95	-	(2.01)	-	(2.01)	-	3.16	-	-	-	-	-
TOTAL FUND PLUS TAP	**323,659**	**100.0**	**0.43**		**2.96**		**11.19**		**11.19**		**4.64**		**8.83**		**4.39**	

[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.

[5] The notation "N/M" indicates that the return is not meaningful as Private Asset performance is measured on a quarterly cycle.

	June 30, 2017		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	44	0.3	0.08	(0)	0.24	4	0.74	25	0	0.74	25	0.40	16	0.25	8	0.73	16
JUDGES' RETIREMENT SYSTEM II FUND	1,341	9.2	0.33	4	3.05	7	9.64	62	8	9.64	62	3.65	25	8.15	30	5.06	6
LEGISLATORS' RETIREMENT SYSTEM FUND	117	0.8	(0.06)	4	1.94	7	4.40	58	1	4.40	58	2.78	28	5.36	42	5.28	25
HEALTH CARE FUND	445	3.0	(0.11)	(1)	1.44	(1)	(0.28)	4	0	(0.28)	4	2.72	24	2.76	55	4.70	23
LONG-TERM CARE FUND	4,376	29.9	0.00	5	2.07	12	1.56	4	2	1.56	4	2.00	19	3.94	27	3.64	13
CERBT STRATEGY 1 FUND	5,655	38.7	0.32	5	3.15	11	10.58	71	34	10.58	71	3.71	48	8.13	41	4.62	38
CERBT STRATEGY 2 FUND	880	6.0	0.16	5	2.67	11	7.24	71	6	7.24	71	3.22	42	6.72	40	-	-
CERBT STRATEGY 3 FUND	261	1.8	(0.09)	5	1.91	9	4.12	64	1	4.12	64	2.73	42	5.18	46	-	-
SUPPLEMENTAL INCOME PLANS (457/SCP)																	
CALPERS TARGET INCOME FUND	105	0.7	0.09	(0)	1.72	3	3.79	10	0	3.79	10	2.50	15	4.11	23	-	-
CALPERS TARGET 2015 FUND	91	0.6	0.09	(0)	1.72	3	3.79	10	0	3.79	10	2.47	14	5.18	14	-	-
CALPERS TARGET 2020 FUND	143	1.0	0.13	0	1.91	3	5.02	8	0	5.02	8	2.45	14	5.93	14	-	-
CALPERS TARGET 2025 FUND	114	0.8	0.21	0	2.42	3	7.69	3	0	7.69	3	2.88	15	6.98	14	-	-
CALPERS TARGET 2030 FUND	107	0.7	0.27	0	2.72	3	9.63	(2)	(0)	9.63	(2)	3.09	15	7.87	11	-	-
CALPERS TARGET 2035 FUND	61	0.4	0.34	1	3.11	4	11.78	(8)	(0)	11.78	(8)	3.38	16	8.69	9	-	-
CALPERS TARGET 2040 FUND	53	0.4	0.41	0	3.49	5	13.96	(14)	(0)	13.96	(14)	3.62	17	9.32	11	-	-
CALPERS TARGET 2045 FUND	23	0.2	0.46	1	3.75	6	15.51	(14)	(0)	15.51	(14)	3.98	18	9.60	12	-	-
CALPERS TARGET 2050 FUND	10	0.1	0.44	(1)	3.72	3	15.47	(19)	(0)	15.47	(19)	3.96	16	9.58	10	-	-
CALPERS TARGET 2055 FUND	4	0.0	0.46	1	3.75	6	15.57	(9)	(0)	15.57	(9)	4.01	22	-	-	-	-
SSgA STIF	109	0.7	0.08	0	0.24	4	0.73	24	0	0.73	24	0.39	15	0.24	7	-	-
CALPERS SIP US SHORT TERM BOND CORE*	38	0.3	(0.05)	(1)	0.29	(2)	0.21	(14)	(0)	0.21	(14)	0.81	(14)	-	-	-	-
CALPERS SIP US BOND CORE*	59	0.4	(0.11)	(0)	1.45	0	(0.31)	1	0	(0.31)	1	2.57	9	-	-	-	-
CALPERS SIP REAL ASSET CORE*	6	0.0	(0.13)	(0)	(0.68)	6	1.79	(18)	(0)	1.79	(18)	(3.69)	(7)	-	-	-	-
CALPERS SIP RUSSELL ALL CAP CORE*	524	3.6	0.90	(0)	3.00	(1)	18.50	(1)	(0)	18.50	(1)	9.18	7	-	-	-	-
CALPERS SIP GLOBAL ALL CAP EX-US CORE*	65	0.4	0.33	1	5.94	9	19.87	(57)	(0)	19.87	(57)	1.33	19	-	-	-	-
TOTAL AFFILIATE INVESTMENT PROGRAMS	**14,631**	**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 II

Public Equity

PERIOD ENDING JUNE 30, 2017

PUBLIC EQUITY SUMMARY	June 30, 2017		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
INTERNAL DOMESTIC EQUITY	73,016	46.8	1.03	4	2.93	(19)	18.89	18	126	18.89	18	8.75	8	14.71	25	7.43	27
INTERNAL INT'L DEVELOPED EQUITY	42,928	27.5	0.31	4	6.28	3	21.33	34	140	21.33	34	1.78	20	9.33	41	1.89	14
INTERNAL EMERGING MARKET EQUITY	7,731	5.0	0.80	4	4.07	(18)	21.11	44	32	21.11	44	1.35	(28)	4.25	(31)	2.51	11
EXTERNAL DOMESTIC TRADITIONAL EQUITY	5,948	3.8	0.79	(3)	1.31	(95)	19.69	151	89	19.69	151	7.95	(81)	14.68	18	6.31	(68)
EXTERNAL INT'L DEVELOPED TRADITIONAL EQUITY	19,517	12.5	0.21	(23)	5.88	79	18.95	(134)	(236)	18.95	(134)	3.27	78	10.02	143	2.47	62
EXTERNAL EMERGING MARKET EQUITY	3,707	2.4	0.15	(46)	3.53	(73)	15.34	(522)	(187)	15.34	(522)	(0.55)	(199)	3.49	(70)	1.97	5
CORPORATE GOVERNANCE	104	0.1	3.39	308	8.00	357	29.03	877	51	29.03	877	10.61	562	16.64	542	4.71	142
EMERGING MANAGER PROGRAM	3,204	2.1	1.21	(26)	3.93	(19)	19.43	(116)	(34)	19.43	(116)	-	-	-	-	-	-
OTHER[3]	10	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PUBLIC EQUITY[1]	**156,166**	**100**	**0.70**	**(0)**	**4.23**	**(13)**	**19.65**	**(18)**	**(265)**	**19.65**	**(18)**	**5.30**	**5**	**11.64**	**26**	**4.30**	**(36)**

[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, 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]Includes Public Equity Transition, Venture, and Internal Holding Accounts.

INTERNAL DOMESTIC EQUITY	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-YR Net Rate of Return	10-YR Excess Bps
DOMESTIC FUNDAMENTAL	5,430	7.4	1.71	71	0.63	(246)	17.46	(139)	(82)	17.46	(139)	6.94	(172)	14.37	(13)	6.73	(46)
INT DOM FTSE 3000 PERF ACCTG	51,730	70.8	1.01	1	3.11	1	19.08	24	117	19.08	24	8.74	8	14.61	11	7.35	17
INT MICROCAP PERF ACCTG	452	0.6	3.18	(47)	2.51	145	25.53	541	22	25.53	541	3.22	232	12.62	342	6.37	419
INT MOMENTUM US TIMI 3000	1,206	1.7	0.78	(21)	3.42	32	14.79	(405)	(48)	14.79	(405)	-	-	-	-	-	-
INTERNAL VOLADJ US TMI 3000	2,381	3.3	0.68	(31)	3.11	1	17.07	(177)	(42)	17.07	(177)	9.16	50	-	-	-	-
SYNTHETIC ENHANCED EQUITY	10,532	14.4	0.82	(7)	3.51	13	19.60	171	170	19.60	171	10.18	111	16.11	179	-	-
GE VOLATILITY CAPTURE FUND	63	0.1	1.00	38	4.88	179	22.20	431	2	22.20	431	-	-	-	-	-	-
INTERNAL QUALITY US TMI 3000	1,221	1.7	1.16	17	2.58	(52)	16.87	(197)	(22)	16.87	(197)	-	-	-	-	-	-
TOTAL INTERNAL DOMESTIC EQUITY	**73,016**	**100.0**	**1.03**	**4**	**2.93**	**(19)**	**18.89**	**18**	**126**	**18.89**	**18**	**8.75**	**8**	**14.71**	**25**	**7.43**	**27**

INTERNAL INT'L DEVELOPED EQUITY	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-YR Net Rate of Return	10-YR Excess Bps
CALPERS DEV EX US DBI	1,674	3.9	(0.20)	(42)	6.18	0	15.46	(575)	(83)	15.46	(575)	1.44	(4)	9.04	30	-	-
FUNDAMENTAL DEVELOPED INTL(Ex Tobacco)	3,934	9.2	0.71	50	5.65	(52)	27.61	640	270	27.61	640	1.83	34	11.01	227	1.99	48
INT DEVELOPED SMALL CAP INDEX PERF ACCTG	4,393	10.2	0.69	4	7.23	11	20.00	59	24	20.00	59	2.35	39	10.46	42	-	-
INTERNAL GLBL ENV STRATEGY HSBCCCI	767	1.8	(0.14)	(84)	5.72	136	17.19	(264)	(18)	17.19	(264)	4.52	(73)	11.08	(30)	-	-
INTERNAL INTL EQ PERF ACCTG	28,822	67.1	0.23	2	6.20	3	21.33	11	31	21.33	11	1.59	11	8.87	13	1.59	8
INTERNAL DEVELOPED INTL VOLATILITY ADJ	1,633	3.8	0.21	(5)	6.97	69	19.46	(155)	(21)	19.46	(155)	2.45	91	-	-	-	-
INT MOMENTUM DEV EX US US ALLCAP	796	1.9	0.61	35	6.86	58	13.37	(765)	(50)	13.37	(765)	-	-	-	-	-	-
INTERNAL QUALITY DEVELOPED EX US	908	2.1	0.39	13	6.48	20	-	-		-	-	-	-	-	-	-	-
TOTAL INTERNAL INT'L DEVELOPED EQUITY	**42,928**	**100.0**	**0.31**	**4**	**6.28**	**3**	**21.33**	**34**	**140**	**21.33**	**34**	**1.78**	**20**	**9.33**	**41**	**1.89**	**14**

INTERNAL EMERGING MARKET EQUITY	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-YR Net Rate of Return	10-YR Excess Bps
CALPERS EMERGING MARKETS DBI	410	5.3	0.99	29	4.95	46	17.93	(280)	(14)	17.93	(280)	(0.05)	(177)	-	-	-	-
EM SMALL CAP PERF Acctg	876	11.3	1.31	9	3.03	40	22.21	147	9	22.21	147	1.95	107	-	-	-	-
FUNDAMENTAL EMERGING MARKETS	887	11.5	0.24	(47)	0.91	(357)	26.63	590	67	26.63	590	1.68	(4)	4.14	(31)	2.87	50
INTERNAL EMERGING MARKET PERF ACCTG	4,772	61.7	0.70	(0)	4.53	4	21.05	32	11	21.05	32	1.95	23	4.67	22	-	-
STRUCTURED EMERGING MARKETS	4	0.1	(4.73)	(543)	(0.53)	(502)	11.55	(919)	(78)	11.55	(919)	(1.75)	(347)	2.43	(202)	1.81	(55)
INT EMERGING MARKET VOL ADJ	379	4.9	0.99	31	6.40	221	19.49	(122)	(5)	19.49	(122)	-	-	-	-	-	-
EMERGING MARKETS QUALITY FUND	209	2.7	1.41	73	4.63	45	-	-	-	-	-	-	-	-	-	-	-
EM MOMENTUM STRATEGY	194	2.5	1.76	108	4.75	56	20.20	(50)	(1)	20.20	(50)	-	-	-	-	-	-
TOTAL INTERNAL EMERGING MARKET EQUITY	**7,731**	**100.0**	**0.80**	**4**	**4.07**	**(18)**	**21.11**	**44**	**32**	**21.11**	**44**	**1.35**	**(28)**	**4.25**	**(31)**	**2.51**	**11**

[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.

EXTERNAL DOMESTIC TRADITIONAL EQUITY	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-YR Net Rate of Return	10-YR Excess Bps
BOSTON COMPANY	1,069	18.0	1.87	87	0.51	(5)	20.79	480	48	20.79	480	8.42	51	16.11	191	6.97	126
FIRST QUADRANT LONG/SHORT	1,987	33.4	(0.20)	(99)	0.81	(235)	12.52	(590)	(111)	12.52	(590)	8.64	(32)	14.75	14	-	-
JP MORGAN LG/SH DOM EQUITY	1,979	33.3	0.21	(44)	2.14	(92)	23.14	524	94	23.14	524	9.37	(6)	16.30	169	-	-
PZENA INVESTMENT MANAGEMENT	913	15.3	3.03	202	1.57	101	29.49	1,351	112	29.49	1,351	8.77	86	16.19	198	5.40	(31)
TOTAL EXTERNAL DOMESTIC TRADITIONAL EQUITY	**5,948**	**100.0**	**0.79**	**(3)**	**1.31**	**(95)**	**19.69**	**151**	**89**	**19.69**	**151**	**7.95**	**(81)**	**14.68**	**18**	**6.31**	**(68)**

EXTERNAL INT'L DEVELOPED TRADITIONAL EQUITY	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-YR Net Rate of Return	10-YR Excess Bps
ARROWSTREET CAPITAL	4,063	20.8	0.30	4	5.89	9	21.83	104	38	21.83	104	2.72	118	10.97	307	5.27	361
BAILLIE GIFFORD	2,794	14.3	0.66	40	9.31	351	25.52	473	116	25.52	473	5.39	385	10.36	246	4.72	306
PYRAMIS GLOBAL	1,130	5.8	0.01	(14)	6.21	8	18.37	(246)	(25)	18.37	(246)	0.87	(68)	8.30	(43)	-	-
TOBAM ANTI-BENCHMARKING	1,049	5.4	0.41	(29)	4.57	21	5.74	(1,408)	(141)	5.74	(1,408)	-	-	-	-	-	-
HERMES	787	4.0	(1.79)	(73)	7.53	(6)	20.75	(94)	(7)	20.75	(94)	-	-	-	-	-	-
ALLIANZ - GLOBAL	2,305	11.8	0.78	8	5.14	78	21.04	121	25	21.04	121	-	-	-	-	-	-
EPOCH GLOBAL	2,397	12.3	(0.68)	(138)	3.19	(117)	8.56	(1,126)	(252)	8.56	(1,126)	-	-	-	-	-	-
WELLINGTON	2,516	12.9	0.75	5	6.14	178	20.27	45	10	20.27	45	-	-	-	-	-	-
ARROWSTREET GLOBAL	2,475	12.7	0.04	(66)	5.11	75	21.12	130	29	21.12	130	-	-	-	-	-	-
TOTAL EXTERNAL INT'L DEVELOPED TRADITION EQ	**19,517**	**100.0**	**0.21**	**(23)**	**5.88**	**79**	**18.95**	**(134)**	**(236)**	**18.95**	**(134)**	**3.27**	**78**	**10.02**	**143**	**2.47**	**62**

EXTERNAL EMERGING MARKET EQUITY	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-YR Net Rate of Return	10-YR Excess Bps
GENESIS ASSET MANAGERS	1,400	37.8	0.49	(12)	4.93	67	15.69	(486)	(62)	15.69	(486)	(0.81)	(225)	3.91	(29)	4.42	251
LAZARD EMERGING MKTS	1,804	48.6	(0.43)	(104)	1.58	(268)	18.11	(244)	(41)	18.11	(244)	(1.35)	(279)	3.38	(82)	-	-
WASATCH ADVISORS	0	0.0	(2.37)	(359)	1.36	(128)	3.49	(1,726)	(83)	3.49	(1,726)	(1.92)	(296)	-	-	-	-
CARTICA CAPITAL PARTNERS, LP	504	13.6	1.32	76	6.94	281	28.22	765	34	28.22	765	3.16	175	7.64	336	-	-
TOTAL EXTERNAL EMERGING MARKET EQUITY	**3,707**	**100.0**	**0.15**	**(46)**	**3.53**	**(73)**	**15.34**	**(522)**	**(187)**	**15.34**	**(522)**	**(0.55)**	**(199)**	**3.49**	**(70)**	**1.97**	**5**

[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.

CORPORATE GOVERNANCE	June 30, 2017		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
KNIGHT VINKE INSTITUTIONAL PARTNERS	99	95.7	15.57	1,681	11.63	542	41.23	2,331	19	41.23	2,331	24.93	2,779	27.49	2,149	4.62	501
RELATIONAL INVESTORS MID-CAP FUND	4	3.8	-	-	-	-	-	-	0	-	-	(25.66)	(3,315)	(5.95)	(2,060)	-	-
TAIYO PEARL FUND (PUBLIC)	0	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CORPORATE GOVERNANCE	**104**	**100.0**	**3.39**	**308**	**8.00**	**357**	**29.03**	**877**	**51**	**29.03**	**877**	**10.61**	**562**	**16.64**	**542**	**4.71**	**142**

EMERGING MANAGER PROGRAM	#REF!		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
PROGRESS INVESTMENT II	563	17.6	1.99	(28)	3.55	32	20.51	(36)	(2)	20.51	(36)	-	-	-	-	-	-
LEGATO EMERGING MANAGER	835	26.1	0.11	(70)	3.27	(111)	17.96	(102)	(8)	17.96	(102)	-	-	-	-	-	-
STRATEGIC INVESTMENTS II	600	18.7	1.91	(6)	2.83	(26)	19.10	(142)	(8)	19.10	(142)	-	-	-	-	-	-
LEIA GEM INVESTMENTS	602	18.8	2.19	(13)	3.28	(28)	22.35	(23)	(1)	22.35	(23)	-	-	-	-	-	-
FIS CALBEAR FUND	603	18.8	0.40	(10)	7.04	103	17.86	(256)	(14)	17.86	(256)	-	-	-	-	-	-
BLUM STRATEGIC PARTNERS II	0	0.0	(1.04)	(168)	(1.04)	(298)	105.27	9,727	0	105.27	9,727	(22.01)	(1,797)	(9.97)	(1,797)	-	-
GRANTHAM, MAYO, VAN OTTERLOO & CO.	0	0.0								-		-	-	-	-	-	-
TOTAL EMERGING MANAGER PROGRAM	**3,204**	**100.0**	**1.21**	**(26)**	**3.93**	**(19)**	**19.43**	**(116)**	**(34)**	19.43	**(116)**	-	-	-	-	-	-

[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 III

Private Equity

PERIOD ENDING JUNE 30, 2017

TOTAL PRIVATE EQUITY SUMMARY [1]	June 30, 2017		1-Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-YR	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return[4]	Excess Bps[4]	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
PE PARTNERSHIP INVESTMENTS	25,828	99.8	N/M	N/M	3.94	(338)	13.99	(633)	(1,622)	13.99	(633)	8.14	(172)	11.53	(214)	9.43	(359)
PRIVATE EQUITY DISTRIBUTION STOCK [3]	65	0.2	N/M	N/M	10.36	304	11.20	(912)	(4)	11.20	(912)	(25.72)	(3,559)	(23.33)	(3,699)	(12.64)	(2,566)
TOTAL PRIVATE EQUITY	**25,892**	**100.0**	**N/M**	**N/M**	**3.92**	**(340)**	**13.92**	**(640)**	**(1,643)**	**13.92**	**(640)**	**8.06**	**(180)**	**11.46**	**(221)**	**9.33**	**(369)**

PRIVATE EQUITY STRATEGY [1]	June 30, 2017		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
Buyout	15,349	59.3	5.12	14.82	14.82	9.16	12.17	10.12
Growth Expansion	4,367	16.9	4.78	22.61	22.61	10.83	12.83	8.55
Credit Related	3,034	11.7	1.70	10.53	10.53	1.15	8.12	10.20
Venture Capital	982	3.8	(6.47)	(8.86)	(8.86)	(1.59)	4.71	3.10
Opportunistic	2,067	8.0	2.82	11.74	11.74	16.62	13.36	6.74
Other[5]	92	0.4	-	-	-	-	-	-
TOTAL PRIVATE EQUITY STRATEGY	**25,892**	**100.0**	**3.92**	**13.92**	**13.92**	**8.06**	**11.46**	**9.33**

[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.

[4] The notation "N/M" indicates that the return is not meaningful as Private Asset performance is measured on a quarterly cycle.

[5] Other includes Cash, Unclassified & Distributed Stock

TOP 20 PRIVATE EQUITY PARTNERS EXPOSURE [1]	June 30, 2017	
	Ending Market Value (MM)	% of Total Private Equity
Blackstone Group	2,715	10.5%
Apollo Management	2,090	8.1%
Carlyle Group	1,581	6.1%
CERBERUS	1,305	5.0%
CVC Capital Partners	1,163	4.5%
Advent International	1,055	4.1%
TPG Capital	1,001	3.9%
KKR and Co.	929	3.6%
57 STARS	677	2.6%
Asia Alternative Assets	628	2.4%
GCM Grosvenor	613	2.4%
Silver Lake	611	2.4%
Yucaipa	607	2.3%
Hellman and Friedman Capital Partners	585	2.3%
Riverstone LLC	576	2.2%
Bridgepoint Capital	529	2.0%
California Emerging Ventures	481	1.9%
Permira	469	1.8%
Insight Capital	445	1.7%
Sankaty Advisors	370	1.4%
TOP 20 PRIVATE EQUITY PARTNERS EXPOSURE	**18,427**	**71.2%**
EXPOSURE FROM ALL OTHER PARTNERS	**7,465**	**28.8%**
TOTAL PRIVATE EQUITY PARTNERS EXPOSURE	**25,892**	**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.

PRIVATE EQUITY GENERAL PARTNERS [1]	June 30, 2017 Ending Market Value (MM)	June 30, 2017 % of Total Assets	3-Months Net Rate of Return	FYTD Net Rate of Return	1-Yr Net Rate of Return	3-Yr Net Rate of Return	5-Yr Net Rate of Return	10-Yr Net Rate of Return
57 STARS	677	2.6	0.19	5.12	5.12	4.77	5.35	5.57
Aberdare	42	0.2	15.24	16.81	16.81	0.59	14.91	2.15
Advent International	1,055	4.1	8.21	18.04	18.04	12.08	15.12	20.02
Affinity Equity Partners	41	0.2	8.02	(16.62)	(16.62)	(7.84)	2.28	(20.70)
Aisling Capital	76	0.3	21.29	31.67	31.67	12.36	17.25	5.84
Alta Communications	0	0.0	(8.01)	(39.27)	(39.27)	(53.56)	(37.27)	(37.69)
American River Ventures	0	0.0	-	-	-	-	-	-
Apollo Management	2,090	8.1	4.67	33.01	33.01	5.52	16.92	13.96
ArcLight	33	0.1	4.48	94.35	94.35	40.42	28.67	17.85
Ares Management LLC	362	1.4	6.37	15.91	15.91	14.52	16.60	14.85
Asia Alternative Assets	628	2.4	(1.51)	0.47	0.47	30.66	27.94	15.87
Avenue Capital Partners	38	0.1	(8.94)	(11.01)	(11.01)	(12.11)	(3.25)	0.73
Baring	52	0.2	32.21	51.69	51.69	(6.00)	(1.94)	N/M
Birch Hill Equity Partners	155	0.6	3.61	17.02	17.02	15.60	12.14	10.94
Blackstone Group	2,715	10.5	4.30	15.70	15.70	9.90	13.36	9.58
Bridgepoint Capital	529	2.0	1.03	6.17	6.17	8.57	10.52	5.13
CDH Fund	112	0.4	4.04	3.85	3.85	4.89	-	-
Cerberus	1,305	5.0	0.39	12.28	12.28	17.76	21.86	-
Clearlake Capital	143	0.6	27.51	54.42	54.42	26.64	-	-
CVC Capital Partners	1,163	4.5	(1.22)	29.11	29.11	15.23	14.24	11.02
California Emerging Ventures	481	1.9	(3.12)	2.31	2.31	8.00	10.05	6.99
Capital Dynamics	186	0.7	1.19	(11.45)	(11.45)	(7.07)	(9.96)	(8.24)
Carlyle Group	1,581	6.1	5.84	12.01	12.01	9.85	11.16	12.92
Castlelake Partners	24	0.1	(1.47)	(6.37)	(6.37)	(9.05)	1.59	3.67

[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.

The notation "N/M" indicates that the return is not meaningful

PRIVATE EQUITY GENERAL PARTNERS [1]	June 30, 2017 Ending Market Value (MM)	June 30, 2017 % of Total Assets	3-Months Net Rate of Return	FYTD Net Rate of Return	1-Yr Net Rate of Return	3-Yr Net Rate of Return	5-Yr Net Rate of Return	10-Yr Net Rate of Return
Centerbridge Partners	50	0.2	4.94	13.78	13.78	-	-	-
Centinela Investment Partners	3	0.0	0.00	-	-	-	-	-
Clarus Ventures	74	0.3	(0.75)	16.87	16.87	12.51	24.76	11.17
Clearwater Capital	61	0.2	2.00	(0.37)	(0.37)	(4.05)	(1.51)	1.34
Coller Capital	59	0.2	5.16	1.60	1.60	4.98	6.90	7.77
Craton Equity Partners	5	0.0	(7.91)	(5.06)	(5.06)	(24.86)	(24.69)	(20.70)
Crimson Capital China	0	0.0	-	-	-	-	-	-
EM Alternatives	70	0.3	(0.00)	6.43	6.43	3.71	8.85	(0.13)
Essex Woodlands Health Ventures	102	0.4	3.58	(6.39)	(6.39)	(4.38)	5.72	-
First Reserve	276	1.1	17.27	8.36	8.36	(28.62)	(18.78)	(5.57)
Foundation Radiology	15	0.1	0.00	0.00	0.00	-	-	-
Francisco Partners	139	0.5	25.85	26.06	26.06	12.28	14.88	12.19
GCM Grosvenor	613	2.4	(0.60)	2.86	2.86	8.85	10.50	5.06
GSO Capital Partners	109	0.4	(0.20)	244.98	244.98	-	-	-
Gael Partners, LLC	10	0.0	4.58	16.27	16.27	8.01	0.91	9.87
Generation Partners	0	0.0	(1.62)	(3.51)	(3.51)	(5.09)	(4.98)	(5.29)
Green Equity Investors	253	1.0	(0.11)	24.83	24.83	14.56	18.95	25.40
Hamilton Lane	187	0.7	5.83	15.43	15.43	10.78	15.74	8.00
HarbourVest Partners, LLC	23	0.1	(8.99)	(16.99)	(16.99)	(3.29)	1.36	(0.56)
Hellman and Friedman Capital Partners	585	2.3	13.72	30.18	30.18	24.14	29.65	21.41
Inner City Venture	7	0.0	9.31	18.19	18.19	42.67	31.41	20.93
Insight Capital	445	1.7	7.65	29.38	29.38	13.57	17.77	19.16
Jasper Ridge Partners	244	0.9	(0.00)	9.31	9.31	9.21	15.42	5.23

[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.

The notation "N/M" indicates that the return is not meaningful

PRIVATE EQUITY GENERAL PARTNERS [1]	June 30, 2017 Ending Market Value (MM)	June 30, 2017 % of Total Assets	3-Months Net Rate of Return	FYTD Net Rate of Return	1-Yr Net Rate of Return	3-Yr Net Rate of Return	5-Yr Net Rate of Return	10-Yr Net Rate of Return
KKR and Co.	929	3.6	3.09	13.36	13.36	10.54	11.80	6.65
KMCP	124	0.5	45.36	47.02	47.02	(0.26)	13.52	11.92
KPS	56	0.2	(3.74)	19.41	19.41	24.76	24.80	-
Khosla Ventures	97	0.4	(35.71)	(43.83)	(43.83)	(17.95)	(5.45)	-
Kline Hawkes California	21	0.1	0.81	5.18	5.18	0.13	(10.20)	(6.30)
Lime Rock	143	0.6	2.21	57.48	57.48	11.83	6.74	5.64
Lindsay Goldberg	44	0.2	3.25	15.83	15.83	-	-	-
Lion Capital	27	0.1	(4.95)	61.11	61.11	(2.84)	(4.59)	(3.50)
MHR	172	0.7	0.98	7.73	7.73	(4.50)	3.78	4.21
Madison Dearborn Partners	73	0.3	1.31	6.52	6.52	7.21	12.06	9.34
Magnum Capital	23	0.1	9.50	25.24	25.24	19.34	14.90	2.20
New Mountain Capital LLC	285	1.1	4.44	27.21	27.21	20.47	20.92	13.02
Nogales	0	0.0	(0.18)	(44.87)	(44.87)	(9.12)	3.00	(17.07)
Oak Hill Capital Partners	188	0.7	9.18	12.83	12.83	16.96	15.92	11.22
Oaktree Capital Management	125	0.5	5.95	6.84	6.84	(0.66)	4.02	-
Onex	319	1.2	1.42	4.92	4.92	-	-	-
PAG	133	0.5	6.54	20.14	20.14	18.83	20.14	-
Palladium	115	0.4	13.84	16.44	16.44	2.93	14.31	13.05
Patria Brazilian	14	0.1	41.61	18.19	18.19	-	-	-
Permira	469	1.8	1.88	8.03	8.03	5.05	8.01	5.70
Polish Enterprise	21	0.1	120.71	137.25	137.25	39.36	31.33	17.45
Providence Equity Partners	167	0.6	1.59	3.57	3.57	8.33	7.06	5.89
Riverstone Global Equity	206	0.8	(0.42)	-	-	-	-	-
Rhone Partners	14	0.1	2.01	3.47	3.47	24.68	21.64	13.87

[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.

PRIVATE EQUITY GENERAL PARTNERS [1]	June 30, 2017		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
Richardson Financial Group	9	0.0	3.25	1.63	1.63	(7.18)	4.32	(0.85)
Riverstone LLC	576	2.2	7.75	22.16	22.16	(5.28)	(0.92)	-
Riverwood Capital LLC	74	0.3	(4.18)	8.40	8.40	19.27	19.20	-
SAIF Partners	330	1.3	6.92	15.90	15.90	15.55	8.72	10.61
Sageview Capital LLC	95	0.4	16.42	16.42	16.42	7.75	5.28	-
Sankaty Advisors	370	1.4	1.08	8.43	8.43	-	-	
Silver Lake	611	2.4	10.70	18.21	18.21	21.83	15.42	11.09
Siris Capital	35	0.1	2.40	2.00	2.00	-	-	-
Stonepoint Capital	235	0.9	6.66	19.95	19.95	-	-	-
THL Equity Advisors	149	0.6	2.32	9.36	9.36	13.66	13.80	7.03
TPG Capital	1001	3.9	6.92	9.57	9.57	7.87	12.08	9.13
Tailwind	208	0.8	3.46	22.96	22.96	11.93	18.88	N/M
Technology Partners	0	0.0	-	-	-	-	-	-
The Jordon Company	109	0.4	4.13	(3.49)	(3.49)	6.41	10.75	-
TowerBrook Capital Partners	277	1.1	7.68	10.12	10.12	12.22	9.92	11.13
Triton Partners	40	0.2	(0.01)	(1.45)	(1.45)	(1.49)	-	-
VantagePoint Venture Partners	51	0.2	12.10	1.63	1.63	(12.09)	(15.56)	(6.11)
Vicente Capital Partners	33	0.1	(2.28)	(0.99)	(0.99)	3.11	10.79	-
W Capital Partners	11	0.0	(12.45)	(4.63)	(4.63)	(0.79)	(1.15)	3.64
WLR Recovery	86	0.3	(1.26)	(0.88)	(0.88)	(2.39)	2.19	2.38
Wellspring Capital Management	82	0.3	8.11	47.17	47.17	38.34	17.50	-
Welsh and Carson and Anderson and Stowe	232	0.9	4.78	23.32	23.32	15.91	15.90	10.06
Yucaipa	607	2.3	0.43	(2.28)	(2.28)	(7.73)	0.36	0.18
Other[2]	92	0.4	N/M	N/M	N/M	N/M	N/M	N/M
PRIVATE EQUITY PARTNERSHIP INVESTMENTS [2]	**25,892**	**100.0**	**3.92**	**13.92**	**13.92**	**8.06**	**11.46**	**9.33**

[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] Other includes Cash, Unclassified & Distributed Stock

The notation "N/M" indicates that the return is not meaningful

Section IV

Income

PERIOD ENDING JUNE 30, 2017

TOTAL GLOBAL FIXED INCOME SUMMARY	June 30, 2017		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 DOMESTIC FIXED INCOME	56,376	89.7	(0.04)	4	2.31	9	0.32	119	624	0.32	119	4.26	73	3.91	102	6.77	70
FI TOTAL INTERNATIONAL	6,482	10.3	0.42	13	4.42	31	0.11	118	71	0.11	118	(2.60)	76	(0.92)	65	3.83	103
TOTAL GLOBAL FIXED INCOME	**62,858**	**100.0**	**(0.01)**	4	**2.51**	10	**0.26**	115	672	**0.26**	115	**3.54**	70	**3.42**	96	**6.49**	71

[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.

DOMESTIC FIXED INCOME	June 30, 2017		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]	441	0.8	0.20	(1)	2.12	7	10.94	108	5	10.94	108	4.98	45	-	-	-	-
PASSIVE FALLEN ANGELS	81	0.1	(2.72)	(269)	(2.78)	(466)	12.64	15	0	12.64	15	7.23	326	-	-	-	-
DURATION MANAGEMENT[1]	16,068	28.5	(0.34)	(7)	1.85	(39)	(3.63)	118	163	(3.63)	118	4.29	71	2.12	28	5.98	(29)
EQUITABLE CCMF	1	0.0	0.69	108	2.08	119	8.03	809	0	8.03	809	8.26	607	8.84	679	8.14	387
GOVERNMENTS[1]	10,170	18.0	(0.23)	4	2.29	5	(4.49)	32	30	(4.49)	32	3.63	5	1.88	4	-	-
HIGH YIELD BOND MANAGERS ACCOUNTING[1]	914	1.6	(0.16)	(13)	1.24	(63)	11.75	(74)	(7)	11.75	(74)	4.89	91	7.97	152	7.82	58
HIGH YIELD MORTGAGE[1]	354	0.6	1.69	172	3.01	114	12.08	(41)	(1)	12.08	(41)	6.52	255	11.80	534	-	-
HIGH YIELD SOVEREIGN[1]	130	0.2	(0.58)	(77)	3.26	78	8.28	938	10	8.28	938	7.77	391	8.72	539	-	-
HIGH YIELD[1]	51	0.1	(7.80)	(777)	(9.04)	(1,092)	19.45	696	8	19.45	696	9.33	536	11.71	525	12.37	513
HIGHLAND CLN - LONGHORN A[1]	17	0.0	(0.68)	(61)	0.43	(32)	(2.67)	(1,016)	(12)	(2.67)	(1,016)	(0.64)	(413)	2.44	(239)	-	-
HIGHLAND CLN - LONGHORN B[1]	117	0.2	(0.22)	(19)	(1.17)	(305)	19.00	652	9	19.00	652	2.67	(130)	9.82	336	-	-
INTERNAL INV-GRADE CORP[1]	10,893	19.3	0.61	3	4.14	24	5.21	199	213	5.21	199	5.08	27	6.37	134	8.02	65
LONG DURATION CORPORATES[1]	3,042	5.4	1.07	115	4.17	194	(0.80)	8	2	(0.80)	8	2.45	(108)	5.88	299	8.74	251
LONG DURATION MTG[1]	2,652	4.7	(0.39)	(31)	1.56	(66)	0.84	171	60	0.84	171	4.03	50	3.26	37	6.67	31
MHLP-BRS[1]	51	0.1	1.56	195	2.60	171	7.85	791	5	7.85	791	7.11	492	9.66	761	7.15	288
NON-TRADITIONAL HIGH YIELD[1]	142	0.3	0.90	93	7.75	587	29.34	1,685	22	29.34	1,685	25.82	2,185	17.61	1,116	-	-
OPPORTUNISTIC[1]	218	0.4		-		-	0.00	-		0.00	-	0.00	-	(10.40)	-	(11.60)	-
AGENCY MORTGAGE[1]	5,981	10.6	(0.33)	7	1.00	13	0.10	16	10	0.10	16	2.46	29	2.24	25	-	-
INTERNAL MTG STRUCTURE[1]	3,546	6.3	(0.22)	17	1.11	22	1.47	153	55	1.47	153	5.62	344	5.25	320	6.16	189
PERS INTERNAL BONDS SOVEREIGN[1]	1,508	2.7	0.11	(9)	2.47	(1)	(0.49)	61	11	(0.49)	61	3.97	12	3.58	25	6.63	(28)
TACTICAL HIGH YIELD CORPORATES	2	0.0	(0.00)	3	0.36	(152)	9.91	(258)	(7)	9.91	(258)	-	-	-	-	-	-
DOMESTIC FI TRANSITION ACCOUNT	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL DOMESTIC FIXED INCOME	**56,376**	**100.0**	**(0.04)**	**4**	**2.31**	**9**	**0.32**	**119**	**624**	**0.32**	**119**	**4.26**	**73**	**3.91**	**102**	**6.77**	**70**

[1] Unitized portfolios owned by other retirement plans. Ending Market Value represents the PERF'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.

FI TOTAL INTERNATIONAL	June 30, 2017		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
ALLIANCE BERNSTEIN INSTITUTIONAL INVESTM	629	9.7	0.41	12	4.15	4	0.07	115	7	0.07	115	(2.81)	55	(1.09)	48	3.24	44
BARING ASSET MANAGEMENT	514	7.9	0.66	48	4.46	33	(2.99)	18	1	(2.99)	18	(4.00)	25	(2.04)	7	2.97	46
INT INTL FIXED INCOME	1,797	27.7	0.25	(4)	4.56	45	(0.57)	51	9	(0.57)	51	(2.70)	66	(0.65)	92	-	-
PIMCO	1,081	16.7	0.54	25	4.57	47	0.74	182	19	0.74	182	(2.56)	80	(0.72)	84	4.56	177
INTL EMERGING MARKETS FIXED INCOME	243	3.7	0.81	10	3.84	(18)	8.62	132	3	8.62	132	(5.05)	51	-	-	-	-
INTL DEVELOPED MARKETS FIXED INCOME	1,638	25.3	0.24	6	4.47	34	(2.63)	54	7	(2.63)	54	(2.03)	40	-	-	-	-
INTL FIXED INCOME TRANSITION ACCOUNT	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BLUEBAY ASSET MANAGEMENT	219	3.4	0.67	(4)	4.06	4	6.38	(92)	(2)	6.38	(92)	-	-	-	-	-	-
INVESTEC ASSET MANAGEMENT EM	255	3.9	0.86	16	4.08	5	7.68	37	1	7.68	37	-	-	-	-	-	-
NEUBERGER BERMAN EM	106	1.6	0.87	17	4.13	10	-	-	-	-	-	-	-	-	-	-	-
FI TOTAL INTERNATIONAL	**6,482**	**100.0**	**0.42**	**13**	**4.42**	**31**	**0.11**	**118**	**71**	**0.11**	**118**	**(2.60)**	**76**	**(0.92)**	**65**	**3.83**	**103**

EXTERNAL HIGH YIELD FIXED INCOME	June 30, 2017	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
COLUMBIA HIGH YIELD[1]	183	0.14	45	2.27	59	13.48	(205)	(5)	13.48	(205)	5.24	183	7.69	101	-	-
HIGH YIELD NOMURA[1]	512	-0.35	(32)	1.29	(59)	13.10	61	4	13.10	61	5.05	108	8.68	223	8.91	167
VOYA HIGH YIELD[1]	259	0.00	6	0.36	(39)	5.95	(154)	(5)	5.95	(154)	3.60	11	-	-	-	-

[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.

Section V

Real Assets

PERIOD ENDING JUNE 30, 2017

REAL ASSETS[1]	June 30, 2017		1- Month		3-Months		FYTD			1-Yr		3-Yr		5-Yr		10-Yr	
	Ending Market Value (MM)	% of Total Assets	Net Rate of Return[3]	Excess Bps[3]	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	1,980	5.5	N/M	N/M	(0.20)	(97)	0.97	(268)	(53)	0.97	(268)	(3.08)	(875)	(0.12)	(726)	-	-
INFRASTRUCTURE	3,775	10.4	N/M	N/M	2.04	7	9.92	345	107	9.92	345	10.70	561	11.98	671	-	-
REAL ESTATE	30,536	84.1	N/M	N/M	1.78	24	7.60	24	67	7.60	24	9.36	(141)	10.77	(29)	(1.31)	(907)
TOTAL REAL ASSETS	**36,291**	**100.0**	N/M	N/M	**1.70**	18	**7.43**	43	144	**7.43**	43	**8.57**	(130)	**10.04**	(19)	**(0.91)**	(784)

[1] Partnership Market Values and Returns are based on the General Partners' March 31, 2017 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.

[3] The notation "N/M" indicates that the return is not meaningful as Private Asset performance is measured on a quarterly cycle.

TOP 20 REAL ESTATE PARTNERS EXPOSURE[1]	As of June 30, 2017	
	Ending Market Value (MM)	% of Total Private Real Estate
Miller Capital Advisory	6,292	20.6
GI Partners	5,227	17.1
CommonWealth Partners	4,492	14.7
GID Investment Advisors, LLC	4,150	13.6
First Washington	2,039	6.7
CIM	1,368	4.5
Hines	1,200	3.9
Institutional Housing Partners	923	3.0
ARA Management	919	3.0
Pacific Urban Residential	836	2.7
Bentall Kennedy	625	2.0
Invesco	619	2.0
Resmark Equity Partners	438	1.4
Klein Financial Corporation	291	1.0
Canyon Capital Realty Advisors	260	0.9
JP Morgan Asset Management	207	0.7
Stockbridge Capital	111	0.4
AGI Resmark Partners	91	0.3
Xander Group	32	0.1
Hearthstone Advisors	14	0.0
TOP 20 REAL ESTATE PARTNERS EXPOSURE	**30,133**	**98.7**
EXPOSURE FROM ALL OTHER PARTNERS	**403**	**1.3**
TOTAL REAL ESTATE PARTNERS EXPOSURE	**30,536**	**100.0**

[1]Partnership Market Values and Returns are based on the General Partners' March 31, 2017 financial statements.

REAL ESTATE PARTNERSHIPS[1]	As of June 30, 2017		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
301 Capitol Mall, LP	17	0.1%	(0.74)	(2.53)	(2.53)	(2.30)	(3.20)
AGI Resmark Housing Fund, LLC	91	0.3%	(1.26)	32.39	32.39	-	-
ARA Asia Dragon Fund	2	0.0%	N/M	N/M	N/M	N/M	N/M
ARA Asia Dragon Fund II	49	0.2%	1.67	25.15	25.15	13.70	-
ARA China Long Term Hold	869	2.8%	12.36	8.10	8.10	8.90	-
Asia Pacific Property Fund SCSP	207	0.7%	3.48	-	-	-	-
BlackRock Europe Parallel Property Fund II L.P.	2	0.0%	N/M	N/M	N/M	N/M	N/M
CalEast Canada Limited Partnership	4	0.0%	0.65	24.78	24.78	(3.00)	(0.00)
CalEast Industrial Investors, LLC	142	0.5%	(2.44)	0.44	0.44	5.00	3.00
CalEast Solstice - Base	2,559	8.4%	3.08	11.62	11.62	-	-
CalEast Solstice - DT Land	403	1.3%	(1.84)	(15.82)	(15.82)	-	-
CalEast Solstice - DT Other	943	3.1%	4.80	3.62	3.62	-	-
CalEast Solstice, LLC	(3)	0.0%	N/M	N/M	N/M	N/M	N/M
CalSmart LLC (Canyon)	0	0.0%	N/M	N/M	N/M	N/M	N/M
CalWest - CalPERS	10	0.0%	(13.72)	(25.29)	(25.29)	(6.80)	-
Canyon Catalyst Fund, LLC	257	0.8%	5.07	19.44	19.44	25.30	-
Canyon Johnson Urban Fund, III	2	0.0%	(43.71)	(68.52)	(68.52)	(24.20)	(9.90)
CBRE Strategic Partners UK Fund II	(21)	-0.1%	N/M	N/M	N/M	N/M	N/M
CIM Fund III, LP	574	1.9%	(0.00)	3.22	3.22	6.50	9.90
CIM Urban Real Estate Fund, LP	302	1.0%	(0.18)	(7.69)	(7.69)	(4.50)	(1.80)
CIM Urban REIT LLC	476	1.6%	1.24	4.21	4.21	3.90	6.10
FSP - Base	3,796	12.4%	1.92	14.22	14.22	15.00	-
FSP - DT 2011	(60)	-0.2%	N/M	N/M	N/M	N/M	N/M
FSP - DT 2012 and Beyond	753	2.5%	5.28	3.51	3.51	14.90	-
Global Innovation Partners, LLC	8	0.0%	N/M	N/M	N/M	N/M	N/M
GRI - Base	2,039	6.7%	1.60	11.51	11.51	11.70	-
HC Green Development Fund LP	210	0.7%	(0.38)	(0.62)	(0.62)	(1.20)	14.80
HC NOP Holdings L.P.	1	0.0%	N/M	N/M	N/M	N/M	N/M
HCB Interests II LP	120	0.4%	0.44	0.48	0.48	2.30	15.30
HCB LTH	491	1.6%	0.56	9.95	9.95	(11.00)	-
HCC Interests LP	11	0.0%	(12.90)	(18.97)	(18.97)	(27.30)	(17.00)
HCM Holdings II LP	1	0.0%	36.85	(104.29)	(104.29)	(121.10)	(139.50)
HCR LTH LLC	362	1.2%	0.61	2.89	2.89	(8.00)	-
Hearthstone Housing Partners II, LLC	(1)	0.0%	N/M	N/M	N/M	N/M	N/M
Hearthstone Housing Partners, L.P.	(3)	0.0%	N/M	N/M	N/M	N/M	N/M
Hearthstone Path-of-Growth Fund, LLC	18	0.1%	(13.45)	(6.07)	(6.07)	(22.10)	(13.90)
Hearthstone-MSII Homebuilding Investors, LLC	(0)	0.0%	N/M	N/M	N/M	N/M	N/M
Hines European Development Fund LP	7	0.0%	(0.33)	(7.39)	(7.39)	N/M	N/M
IHP Investment Fund I, L.P.	49	0.2%	(11.34)	(5.38)	(5.38)	(4.40)	6.40
IHP Investment Fund II, L.P.	9	0.0%	11.08	26.93	26.93	14.90	24.10
IHP Investment Fund III, L.P.	358	1.2%	(3.59)	(1.24)	(1.24)	3.20	3.30
IMI - Base	6,292	20.6%	0.71	9.66	9.66	16.90	-
IMP - Base	3,704	12.1%	2.26	10.75	10.75	11.10	-

[1]Partnership Market Values and Returns are based on the General Partners' March 31, 2017 financial statements.

REAL ESTATE PARTNERSHIPS[1]	As of June 30, 2017		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
IMP - DT 2011	0	0.0%	N/M	N/M	N/M	N/M	N/M
IMP - DT 2012 and Beyond	446	1.5%	4.99	16.94	16.94	18.40	-
Institutional Core Multifamily Investors	619	2.0%	(1.25)	6.29	6.29	8.90	-
Institutional Logistics Partners, LLC	625	2.0%	2.34	10.44	10.44	14.70	-
KAREC California Development Program, LLC	0	0.0%	N/M	N/M	N/M	N/M	N/M
KC 2011, LLC	201	0.7%	1.47	3.21	3.21	12.90	8.50
KSC Affordable Housing Investment Fund, LLC	90	0.3%	1.79	(0.74)	(0.74)	5.10	3.90
Land Management Company, LLC	466	1.5%	(3.39)	(4.40)	(4.40)	-	-
LaSalle Japan Logistics Fund II LP	1	0.0%	N/M	N/M	N/M	N/M	N/M
Meriwether Farms LLC	0	0.0%	N/M	N/M	N/M	N/M	N/M
National Office Partners, LLC (CWP)	3	0.0%	(3.44)	(10.84)	(10.84)	8.30	16.50
Newland National Partners IV, LLC	0	0.0%	N/M	N/M	N/M	N/M	N/M
ORA Multifamily Investments I, LLC	223	0.7%	0.83	18.44	18.44	18.10	17.60
ORA Residential Investments I, L.P.	215	0.7%	0.90	12.25	12.25	17.50	25.70
Pacific Multifamily Investors, LLC	836	2.7%	1.70	10.46	10.46	10.00	-
Pacific Vineyard Partners LLC	0	0.0%	N/M	N/M	N/M	N/M	N/M
PERS-400 R STREET	19	0.1%	3.92	9.75	9.75	12.80	15.30
PLA Residential Fund I, LLC	0	0.0%	N/M	N/M	N/M	N/M	N/M
PLA Retail Fund I, LP	2	0.0%	N/M	N/M	N/M	N/M	N/M
Project Knight - SP Secondary Sale	390	1.3%	0.00	0.00	0.00	-	-
Stockbridge Hollywood Park Co-Investors, LP	87	0.3%	11.84	16.82	16.82	21.30	17.50
Stockbridge Real Estate Fund II -B, LP	24	0.1%	9.80	13.67	13.67	8.20	13.50
TechCore, LLC	1,171	3.8%	2.85	14.45	14.45	14.00	-
TPG Hospitality Investments IV, LLC	-1	0.0%	N/M	N/M	N/M	N/M	N/M
Whitney Ranch Venture, LLC	41	0.1%	(7.64)	8.72	8.72	(25.20)	-
Xander Co-Investment	32	0.1%	2.10	(5.43)	(5.43)	(10.30)	(24.00)
TOTAL REAL ESTATE	**30,536**	**100.0%**	**1.78**	**7.60**	**7.60**	**9.36**	**10.77**

[1]Partnership Market Values and Returns are based on the General Partners' March 31, 2017 financial statements.

FORESTLAND PARTNERSHIPS[1]	As of June 30, 2017		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
Lincoln Timber L.P.	1,520	76.8%	(0.58)	(1.20)	(1.19)	(4.30)	(1.00)
Southern Diversified	2	0.1%	0.00	-	-	-	-
Sylvanus LLC	458	23.1%	1.06	8.80	8.76	1.30	3.30
TOTAL FORESTLAND	**1,980**	**100%**	**(0.20)**	**0.97**	**0.97**	**(3.08)**	**(0.12)**

INFRASTRUCTURE PARTNERSHIPS[1]	As of June 30, 2017		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
Alinda Infrastructure Fund I, L.P.	97	2.6%	11.04	12.55	12.55	12.00	11.50
Alinda Infrastructure Fund II, L.P.	317	8.4%	0.97	(1.35)	(1.35)	7.80	6.50
Bear Republic Infrastructure, LLC	0	0.0%	N/M	-	-	-	-
CIM Infrastructure Fund, L.P.	449	11.9%	0.65	3.95	3.95	7.60	10.00
Carlyle Infrastructure Partners, L.P.	30	0.8%	(0.22)	2.12	2.12	2.40	2.10
Concession Investment Holdings, LLC	408	10.8%	(0.25)	2.31	2.31	-	-
Global Infrastructure Partners II, L.P. (GIP II)	243	6.4%	3.87	15.88	15.88	20.10	-
Golden Reef Infrastructure Trust	423	11.2%	(0.34)	N/M	N/M	-	-
Golden State Matterhorn, LLC	0	0.0%	N/M	N/M	N/M	-	-
Harbert Gulf Pacific Power, LLC (HGPP)	808	21.4%	2.26	18.29	18.29	5.90	-
Harbert Power Fund V, L.P. (HPF V)	80	2.1%	1.52	13.42	13.42	10.50	-
Ivy Investment Vehicle LDC (SWPM)	553	14.7%	4.20	23.16	23.16	31.54	33.36
Neptune Regional Transmission System, LLC	213	5.6%	4.80	8.83	8.83	3.00	7.10
North Haven Infrastructure Partners II LP	75	2.0%	2.75	3.05	3.05	-	-
UBS International Infrastructure Fund II (B), L.P.	25	0.7%	2.24	(6.33)	(6.33)	-	-
UBS International Infrastructure Fund II (C), L.P.	54	1.4%	2.25	(6.31)	(6.31)	-	-
TOTAL INFRASTRUCTURE	**3,775**	**100%**	**2.04**	**9.92**	**9.92**	**10.70**	**11.98**

[1]Partnership Market Values and Returns are based on the General Partners' March 31, 2017 financial statements.

Section VI

Inflation

PERIOD ENDING JUNE 30, 2017

INFLATION	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-Yr Net Rate of Return	10-Yr Excess Bps
CORE INFLATION LINKED BONDS	16,954	67.1	(0.79)	(4)	1.30	8	0.52	(2)	(3)	0.52	(2)	(0.22)	27	1.10	30	-	-
INTERNAL COMMODITIES PERF ACCTG	4,523	17.9	(1.92)	(0)	(5.44)	2	(9.18)	(17)	(7)	(9.18)	(17)	(24.71)	10	(13.93)	(23)	-	-
TACTICAL INFLATION ASSETS	3,803	15.0	(1.72)	(29)	(3.51)	(56)	(9.58)	(492)	(186)	(9.58)	(492)	(11.84)	62	-	-	-	-
TOTAL INFLATION	**25,280**	**100.0**	**(1.14)**	**(8)**	**(0.68)**	**(6)**	**(2.67)**	**(83)**	**(208)**	**(2.67)**	**(83)**	**(6.02)**	**70**	**(2.07)**	**68**	-	-

[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.

TACTICAL INFLATION ASSETS	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	FYTD $ Value Added (MM) [1]	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-Yr Net Rate of Return	10-Yr Excess Bps
TACTICAL COMMODITIES	1,892	49.8	(2.49)	(56)	(6.44)	(98)	(18.60)	(959)	(157)	(18.60)	(959)	(25.62)	(80)	-	-	-	-
TACTICAL TIPS	1,911	50.2	(0.96)	(1)	(0.40)	1	(0.78)	(16)	(3)	(0.78)	(16)	0.49	(14)	-	-	-	-
TACTICAL INFLATION	**3,803**	**100.0**	**(1.72)**	**(29)**	**(3.51)**	**(56)**	**(9.58)**	**(492)**	**(186)**	**(9.58)**	**(492)**	(11.84)	**62**	-	-	-	-

[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, 2017

LIQUIDITY	June 30, 2017		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	15,491	100.0	0.10	2	0.28	6	0.78	12	17	0.78	12	0.47	11	0.32	10	0.78	7
TOTAL LIQUIDITY	**15,491**	**100.0**	**0.09**	**1**	**0.28**	**8**	**0.77**	**29**	**40**	**0.77**	**29**	**0.68**	**(10)**	**0.37**	**(22)**	**1.27**	**(15)**

[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

Total Fund Portfolios

PERIOD ENDING JUNE 30, 2017

TRUST LEVEL SUMMARY	June 30, 2017		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
MULTI-ASSET CLASS[2]	1,266	81.1	(0.93)	(154)	0.20	(162)	6.94	(56)	(7)	6.94	(56)	3.86	(364)	-	-	-	-
ABSOLUTE RETURN STRATEGIES[1]	286	18.3	0.16	(28)	3.86	249	(2.34)	(776)	(24)	(2.34)	(776)	0.99	(444)	3.43	(196)	1.54	(473)
PLAN LEVEL PORTFOLIOS	10	0.6	-	-	-	-	-	-		-	-	-	-	-	-	-	-
TRUST LEVEL	**1,562**	**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.

MULTI-ASSET CLASS	June 30, 2017 Ending Market Value (MM)	June 30, 2017 % of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-Yr Net Rate of Return	10-Yr Excess Bps
STANDARD LIFE INVESTMENTS MAC LP	590	46.6	(0.34)	(94)	0.82	(100)	5.53	(197)	5.53	(197)	2.21	(529)	-	-	-	-
AQR MULTI-ASSET CLASS FUND LP	676	53.4	(1.45)	(205)	(0.34)	(216)	8.19	69	8.19	69	5.40	(210)	-	-	-	-
TOTAL MULTI-ASSET CLASS	**1,266**	**100.0**	**(0.93)**	**(154)**	**0.20**	**(162)**	**6.94**	**(56)**	**6.94**	**(56)**	**3.86**	**(364)**				

ABSOLUTE RETURN STRATEGIES SUMMARY	June 30, 2017 Ending Market Value (MM)	June 30, 2017 % of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-Yr Net Rate of Return	10-Yr Excess Bps
DIRECT INVESTMENTS	283	98.9	(0.01)	(45)	3.69	232	(2.57)	(799)	(2.57)	(799)	0.99	(444)	3.31	(208)	1.81	(446)
FUND OF HEDGE FUNDS	1	0.5	30.79	3,035	31.11	2,974	21.29	1,586	21.29	1,586	8.44	301	8.42	303	3.35	(292)
ARS TRANSITION	2	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL ABSOLUTE RETURN STRATEGIES	**286**	**100.0**	**0.16**	**(28)**	**3.86**	**249**	**(2.34)**	**(776)**	**(2.34)**	**(776)**	**0.99**	**(444)**	**3.43**	**(196)**	**1.54**	**(473)**

PLAN LEVEL PORTFOLIOS	June 30, 2017 Ending Market Value (MM)	June 30, 2017 % of Total Assets	1-Month Net Rate of Return	1-Month Excess Bps	3-Months Net Rate of Return	3-Months Excess Bps	FYTD Net Rate of Return	FYTD Excess Bps	1-Yr Net Rate of Return	1-Yr Excess Bps	3-Yr Net Rate of Return	3-Yr Excess Bps	5-Yr Net Rate of Return	5-Yr Excess Bps	10-Yr Net Rate of Return	10-Yr Excess Bps
FIXED INCOME PLAN LEVEL TRANSITION	0	3.5	-	-	-	-	-	-		-	-	-	-	-	-	-
GLOBAL EQUITY PLAN LEVEL TRANSITION	0	1.6	-	-	-	-	-	-		-	-	-	-	-	-	-
INFLATION PLAN LEVEL TRANSITION	1	5.3	-	-	-	-	-	-		-	-	-	-	-	-	-
MHLP PERSONAL LOANS	8	78.7	0.44	83	1.90	100	4.36	442	4.36	442	4.81	263	-	-	-	-
PERS INTERNAL HOLDING FI FUND	1	10.9	-	-	-	-	-	-		-	-	-	-	-	-	-
TOTAL PLAN LEVEL PORTFOLIOS	**10**	**100.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Section IX

Affiliate Investment Programs

PERIOD ENDING JUNE 30, 2017

JUDGES' RETIREMENT SYSTEM II FUND	June 30, 2017		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
JRS II CASH	2	0.2	0.31	23	0.47	27	0.98	50	0	0.98	50	0.88	64	0.54	36	0.88	30
JRS II COMMODITIES	42	3.2	(1.92)	(0)	(5.45)	2	(8.80)	21	0	(8.80)	21	(24.56)	26	(13.83)	(13)	-	-
JRS II DOMESTIC FIXED INCOME	453	33.8	(0.04)	4	2.31	8	0.31	118	5	0.31	118	4.24	72	3.89	100	6.68	61
JRS II GLOBAL EQUITY	672	50.1	0.72	2	4.40	4	20.04	22	1	20.04	22	5.37	12	11.52	14	4.19	6
JRS II REITs	106	7.9	0.88	(1)	3.00	(0)	1.22	8	0	1.22	8	4.56	(0)	8.38	2	2.38	30
JRS II TIPS	65	4.8	(0.95)	(0)	(0.37)	3	(0.63)	(1)	(0)	(0.63)	(1)	0.55	(8)	0.21	(6)	-	-
TOTAL JUDGES' RETIREMENT SYSTEM II FUND	**1,341**	**100.0**	**0.33**	**4**	**3.05**	**7**	**9.64**	**62**	**8**	**9.64**	**62**	**3.65**	**25**	**8.15**	**30**	**5.06**	**6**

LEGISLATORS' RETIREMENT SYSTEM FUND	June 30, 2017		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
LRS CASH	1	0.4	0.31	23	0.47	27	1.15	67	0	1.15	67	0.55	31	0.34	17	0.78	20
LRS COMMODITIES	4	3.2	(1.92)	(0)	(5.45)	2	(8.80)	21	0	(8.80)	21	(24.57)	25	(13.83)	(14)	-	-
LRS DOMESTIC FIXED INCOME	45	38.8	(0.04)	4	2.31	8	0.30	117	1	0.30	117	4.25	73	3.90	101	6.68	60
LRS GLOBAL EQUITY	28	24.1	0.72	2	4.39	4	20.04	21	0	20.04	21	5.38	13	11.53	15	4.34	6
LRS REITs	9	7.9	0.88	(1)	3.00	(1)	1.24	10	0	1.24	10	4.57	0	8.39	3	-	-
LRS TIPS	30	25.5	(0.95)	(0)	(0.38)	3	(0.62)	0	0	(0.62)	0	0.56	(7)	0.21	(5)	4.33	6
TOTAL LEGISLATORS' RETIREMENT SYSTEM FUND	**117**	**100.0**	**(0.06)**	**4**	**1.94**	**7**	**4.40**	**58**	**1**	**4.40**	**58**	**2.78**	**28**	**5.36**	**42**	**5.28**	**25**

LONG-TERM CARE FUND	June 30, 2017		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
LTC CASH	0	0.0	0.09	0	0.24	4	6.61	613	0	6.61	613	2.17	194	1.31	113	1.26	69
LTC COMMODITIES	211	4.8	(1.95)	(3)	(5.56)	(10)	(9.22)	(22)	(0)	(9.22)	(22)	(24.77)	5	(13.59)	10	-	-
LTC DOMESTIC FIXED INCOME	2,661	60.8	(0.05)	3	2.25	2	(0.84)	3	1	(0.84)	3	3.53	1	3.08	19	6.27	20
LTC GLOBAL EQUITY	706	16.1	0.61	2	4.32	8	19.36	35	2	19.36	35	5.18	31	11.00	22	4.22	12
LTC REITs	540	12.3	0.80	7	2.81	17	(0.12)	74	4	(0.12)	74	3.82	75	7.60	63	1.80	37
LTC TIPS	257	5.9	(0.95)	(1)	(0.38)	2	(0.63)	(0)	(0)	(0.63)	(0)	0.63	0	0.24	(3)	4.34	7
TOTAL LONG-TERM CARE FUND	**4,376**	**100.0**	**0.00**	**5**	**2.07**	**12**	**1.56**	**4**	**2**	**1.56**	**4**	**2.00**	**19**	**3.94**	**27**	**3.64**	**13**

CERBT STRATEGY 1	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	Excess Bps	3-Months Net Rate of Return	Excess Bps	FYTD Net Rate of Return	Excess Bps	$ Value Added (MM) [1]	1-Yr Net Rate of Return	Excess Bps	3-Yr Net Rate of Return	Excess Bps	5-Yr Net Rate of Return	Excess Bps	10-Yr Net Rate of Return	Excess Bps
CERBT S1 CASH	137	2.4	0.11	2	0.42	22	1.09	61	1	1.09	61	0.47	24	0.30	12	0.75	17
CERBT S1 COMMODITIES	170	3.0	(1.92)	(0)	(5.47)	(1)	(8.85)	16	0	(8.85)	16	(24.85)	(3)	(14.02)	(32)	-	-
CERBT S1 DOMESTIC FIXED INCOME	1,488	26.3	(0.04)	4	2.32	10	0.30	117	17	0.30	117	4.26	74	3.90	101	6.68	60
CERBT S1 GLOBAL EQUITY	3,158	55.8	0.62	3	4.35	10	19.45	44	14	19.45	44	5.25	38	11.09	30	4.13	15
CERBT S1 REITs	440	7.8	0.80	7	2.85	21	(0.08)	77	3	(0.08)	77	3.88	80	7.63	65	2.19	77
CERBT S1 TIPS	263	4.6	(0.95)	(0)	(0.37)	3	(0.63)	(1)	(0)	(0.63)	(1)	0.56	(8)	0.21	(6)	-	-
CERBT STRATEGY 1	**5,655**	**100.0**	**0.32**	5	**3.15**	11	**10.58**	71	40	**10.58**	71	**3.71**	48	**8.13**	41	4.62	38

CERBT STRATEGY 2	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	Excess Bps	3-Months Net Rate of Return	Excess Bps	FYTD Net Rate of Return	Excess Bps	$ Value Added (MM) [1]	1-Yr Net Rate of Return	Excess Bps	3-Yr Net Rate of Return	Excess Bps	5-Yr Net Rate of Return	Excess Bps	10-Yr Net Rate of Return	Excess Bps
CERBT S2 CASH	7	0.8	0.17	9	0.57	37	1.80	131	0	1.80	131	0.76	53	0.48	30	-	-
CERBT S2 COMMODITIES	28	3.1	(1.92)	(0)	(5.50)	(4)	(8.92)	9	0	(8.92)	9	(24.80)	2	(13.99)	(29)	-	-
CERBT S2 DOMESTIC FIXED INCOME	341	38.7	(0.04)	4	2.32	9	0.32	119	4	0.32	119	4.26	73	3.90	101	-	-
CERBT S2 GLOBAL EQUITY	352	40.0	0.62	3	4.35	10	19.46	45	2	19.46	45	5.21	34	11.24	28	-	-
CERBT S2 REITs	70	7.9	0.80	7	2.85	21	(0.04)	81	1	(0.04)	81	3.84	77	7.61	63	-	-
CERBT S2 TIPS	83	9.4	(0.95)	(0)	(0.37)	3	(0.63)	(1)	(0)	(0.63)	(1)	0.52	(12)	0.19	(8)	-	-
CERBT STRATEGY 2	**880**	**100.0**	**0.16**	5	**2.67**	11	**7.24**	71	6	**7.24**	71	**3.22**	42	**6.72**	40	-	-

CERBT STRATEGY 3	June 30, 2017 Ending Market Value (MM)	% of Total Assets	1-Month Net Rate of Return	Excess Bps	3-Months Net Rate of Return	Excess Bps	FYTD Net Rate of Return	Excess Bps	$ Value Added (MM) [1]	1-Yr Net Rate of Return	Excess Bps	3-Yr Net Rate of Return	Excess Bps	5-Yr Net Rate of Return	Excess Bps	10-Yr Net Rate of Return	Excess Bps
CERBT S3 CASH	4	1.7	0.12	3	0.46	25	1.17	68	0	1.17	68	0.55	32	0.43	26	-	-
CERBT S3 COMMODITIES	8	3.0	(1.92)	(0)	(5.54)	(8)	(8.57)	44	0	(8.57)	44	(24.62)	20	(13.87)	(17)	-	-
CERBT S3 DOMESTIC FIXED INCOME	100	38.6	(0.04)	4	2.34	12	0.21	109	1	0.21	109	4.17	65	3.85	96	-	-
CERBT S3 GLOBAL EQUITY	63	24.0	0.62	3	4.34	9	19.39	38	0	19.39	38	5.22	35	11.21	25	-	-
CERBT S3 REITSs	21	7.9	0.80	7	2.84	21	(0.30)	55	0	(0.30)	55	3.80	72	7.56	58	-	-
CERBT S3 TIPS	65	24.8	(0.95)	(0)	(0.36)	4	(0.65)	(2)	(0)	(0.65)	(2)	0.58	(5)	0.23	(4)	-	-
TOTAL CERBT STRATEGY 3	**261**	**100.0**	**(0.09)**	5	**1.91**	9	**4.12**	64	2	**4.12**	64	**2.73**	42	**5.18**	46	-	-

[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

Other Programs

PERIOD ENDING JUNE 30, 2017

SECURITIES LENDING PROGRAM	June 30, 2017		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
CALPERS ESEC CASH COLLATERAL	2,620	59.8	0.07	(2)	0.21	(2)	0.58	(4)	(3)	0.58	(4)	0.49	16	0.35	11	-	-
EXTERNAL COLLATERAL PORTFOLIO[2]	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
INTERNAL SEC LEND PORTFOLIO	1,763	40.2	0.09	1	0.26	4	0.85	19	8	0.85	19	0.52	18	0.39	20	-	-
SEC LENDING INT & EXT REINVEST	**4,383**	**100.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SHORT TERM LIQUIDITY	June 30, 2017	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	Excess Bps
SHORT TERM LIQUIDITY	9,029	0.09	2	0.27	5	0.82	16	12	0.82	16	0.47	11	0.32	9	-	-

TERMINATED AGENGY POOL	June 30, 2017	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
TERMINATED AGENCY POOL[3]	119	(0.69)	-	0.95	-	(2.01)	-	(2.01)	-	3.16	-	-	-	-	-

[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

March 31, 2017		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	**3,081**	**1.13**	**24**	**6.29**	**13**	**14.92**	**(91)**	**17.83**	**26**	**N/A**		**N/A**		**N/A**	
International	*1,798*	*2.18*	*129*	*8.84*	*268*	*12.86*	*(297)*	*15.85*	*(172)*	*N/A*		*N/A*		*N/A*	
Domestic	*1,083*	*(0.28)*	*(117)*	*3.18*	*(298)*	*18.52*	*269*	*21.33*	*376*	*N/A*		*N/A*		*N/A*	
PRIVATE EQUITY [3]															
Non Fund of Fund Investments	**4,097**	**0.61**	**(175)**	**1.45**	**(162)**	**2.27**	**(984)**	**1.69**	**(1,162)**	**4.65**	**(348)**	**7.75**	**(715)**	**6.51**	**(623)**
International	*1,640*	*1.06*	*(130)*	*1.99*	*(108)*	*4.47*	*(764)*	*6.15*	*(716)*	*13.88*	*575*	*11.59*	*(331)*	*9.41*	*(333)*
Domestic	*2,457*	*0.32*	*(204)*	*1.09*	*(198)*	*0.91*	*(1,120)*	*(0.93)*	*(1,424)*	*0.63*	*(750)*	*5.67*	*(923)*	*5.41*	*(733)*
REAL ESTATE															
Non Fund of Fund Investments	**381**	**N/A**		**1.44**	**(10)**	**(6.43)**	**(1,379)**	**(5.59)**	**(1,295)**	**3.08**	**(769)**	**5.12**	**(594)**	**N/M**	
International	*N/A*	*N/A*		*N/A*		*N/A*		*N/A*		*N/A*		*N/A*		*N/A*	
Domestic	*381*	*N/A*		*1.44*	*(10)*	*(6.43)*	*(1,379)*	*(5.59)*	*(1,295)*	*3.08*	*(769)*	*5.12*	*(594)*	*N/M*	
Funds Held in Fund of Fund Structure [4]	**257**	**N/A**		**5.07**	**353**	**9.88**	**252**	**19.44**	**1,208**	**25.28**	**1,451**	**N/A**		**N/A**	
International	*N/A*	*N/A*		*N/A*		*N/A*		*N/A*		*N/A*		*N/A*		*N/A*	
Domestic	*257*	*N/A*		*5.07*	*353*	*9.88*	*252*	*19.44*	*1,208*	*25.28*	*1,451*	*N/A*		*N/A*	

March 31, 2017		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	**1,735**	**2.21**	**(8)**	**5.69**	**(75)**	**9.47**	**(705)**	**9.53**	**(784)**	**N/A**		**N/A**		**N/A**	
International	*1,735*	*2.23*	*(6)*	*6.35*	*(9)*	*5.55*	*(1,097)*	*5.41*	*(1,196)*	*N/A*		*N/A*		*N/A*	
Domestic		*N/A*		*N/A*		*N/A*		*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 03/31/17. 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 Returns.

[2] Public Equity performance is performance of the Global Equity - Emerging Manager composite. 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). International Transition returns do not equal total Transition returns as the Domestic fund was closed in February of 2017 and those 2 months of returns are included in the total.

[3] Private Equity performance is the performance of the Private Equity - Emerging Manager composite/hierarchy.

[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 XI

Asset Class Benchmarks & Definitions

PERIOD ENDING JUNE 30, 2017

BENCHMARK	BENCHMARK COMPONENTS As of October 1, 2016	BENCHMARK COMPONENTS July 1, 2015 - September 30, 2016	BENCHMARK COMPONENTS July 1, 2014 - June 30, 2015
Total Fund*	**Growth 54%** **Income 20%** **Real Assets 13%** **Inflation 9%** **Liquidity 4%**	**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 85.2%** FSTE CalPERS Global (All-World, All Capitalization) customized to exclude Board directed divestments **Private Equity 14.8%** (67% FTSE U.S. TMI + 33% FTSE AW ex US TMI) + 3% 1 Qtr Lag	**Public Equity 83.6%** FSTE CalPERS Global (All-World, All Capitalization) customized to exclude Board directed divestments **Private Equity 16.4%** (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	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 100%** 91-Day Treasury Bills	**Liquidity Portfolio 75%** Barclays Treasury 2 - 10-Yr **Cash 25%** 1-Month T-Bill
Real Assets Benchmark	**Real Estate 84.6%** NCREIF ODCE (Net) **Infrastructure 7.7%** CPI + 4% 1 Qtr Lag **Forestland 7.7%** NCREIF Timberland (Gross) 1 Qtr lag	**Real Estate 83.4%** NCREIF ODCE (Net) **Infrastructure 8.3%** CPI + 4% 1 Qtr Lag **Forestland 8.3%** 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	**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

ASSET CLASS	Interim Targets[1]	POLICY TARGETS
Global Equity	46%	47%
Private Equity	8%	12%
GROWTH	**54%**	**59%**
INCOME	**20%**	**19%**
Infrastructure/Forestland	2%	3%
Real Estate	11%	11%
REAL ASSETS	**13%**	**14%**
INFLATION	**9%**	**6%**
LIQUIDITY	**4%**	**2%**
TOTAL FUND POLICY	**100%**	**100%**

[1] Interim Strategic Targets were adopted by the Board and effective October 1, 2016.

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

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:

Present Value (inflows) = Present Value (investment costs)

IRR Calculation

IRR = CF0 + CF1 / (1+IRR) + CF2 / (1+IRR)2 + CF3 / (1+IRR)3 … CFn / (1+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

(Distributions + Market Value) / 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 $\text{Return}_{\text{Daily}}$ = 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:

$$R_{Monthy} = \left(\left(1+R_1\right)\times\left(1+R_2\right)\times\ldots\left(1+R_n\right)\right)-1$$

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

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