CalPERS Trust Level Review Affiliate Investment Program Summary: Judges Retirement Fund (JRF)

June 30, 2017

JRF Objective

The JRF provides retirement benefits to judges elected prior to November 9, 1994. The State currently funds the system on a pay-as-you-go basis. The JRF is closed to new membership and is currently 100% invested in STIF. **Current Allocation (\$millions)**

CalPERS



Strategic Asset Allocation

JRF	Current Allocation %	Target Allocation %	Variance %	AI	Current Allocation (Millions)		Target llocation Villions)	Dollar Variance (Millions)		
CASH	100.0%	100.0%	0.0%	\$	44.3	\$ 44.3		\$	(0.0)	
JRF	100.0%	100.0%	0.0%	\$ 44.3		\$	44.3	\$	(0.0)	

Performance Summary

			1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of	06/30/17	Net Returns	Benchmark Return	Excess Bps									
CASH		0.74	0.49	25	0.40	0.23	16	0.25	0.17	8	0.73	0.58	16
TOTAL	FUND	0.74	0.49	25	0.40	0.23	16	0.25	0.17	8	0.73	0.58	16

Risk Summary

Historical 3 Year Standard Deviation	0.1%
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CalPERS Trust Level Review Affiliate Investment Program Summary: Judges Retirement System II Fund (JRS II)



June 30, 2017

STRATEGIC ASSET ALLOCATION

JRS II Objective

The JRS II was established to provide retirement, death, health and disability benefits for State Supreme and Appellate Court justices, Superior Court judges, and Municipal Court judges appointed or elected on or after November 9, 1994. Funds are allocated across five asset classes, with global equities comprising the predominant share of invested assets.

The Fund is actively managed by CalPERS staff.

Actual Capital Allocation





Strategic AllocationTarget Ranges

Asset Class	Current Allocation (%)	Target Allocation (%)	Variance (%)	Current Allocation (millions)	Target Allocation (millions)	Dollar Variance (millions)
Global Equity	50.1%	50.0%	0.1%	\$ 672.0	\$ 670.6	\$ 1.4
U.S. Fixed Income	33.8%	34.0%	-0.2%	\$ 453.5	\$ 456.0	\$ (2.5)
TIPS	4.8%	5.0%	-0.2%	\$ 64.8	\$ 67.1	\$ (2.3)
REITs	7.9%	8.0%	-0.1%	\$ 106.4	\$ 107.3	\$ (0.9)
Commodities	3.2%	3.0%	0.2%	\$ 42.4	\$ 40.2	\$ 2.2
Cash	0.2%	0%	0.2%	\$ 2.1	\$ -	\$ 2.1
Total	100.0%	100.0%	0.0%	\$ 1,341.2	\$ 1,341.2	\$ 0.0

JRS II RISK AND RETURN

Asset Liability Management Expectations

Per the current CalPERS Judges' Retirement System II Fund Statement of Investment Policy.





■3-Year Standard Deviation ■ Expected Standard Deviation



JRS II PERFORMANCE SUMMARY

		1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of 06/30/2017	Net Returns	Benchmark Return	Excess Bps									
GLOBAL EQUITY	20.04	19.83	22	5.37	5.25	12	11.52	11.38	14	4.19	4.13	6
US FIXED INCOME	0.31	(0.87)	118	4.24	3.53	72	3.89	2.89	100	6.68	6.08	61
TIPS	(0.63)	(0.63)	(1)	0.55	0.63	(8)	0.21	0.27	(6)	-	-	-
REITs	1.22	1.14	8	4.56	4.56	(0)	8.38	8.36	2	2.38	2.08	30
COMMODITIES	(8.80)	(9.01)	21	(24.56)	(24.82)	26	(13.83)	(13.70)	(13)	-	-	-
TOTAL FUND	9.64	9.02	62	3.65	3.39	25	8.15	7.85	30	5.06	5.01	6





CalPERS Trust Level Review Affiliate Investment Program Summary: Legislators' Retirement System Fund (LRS)



June 30, 2017

STRATEGIC ASSET ALLOCATION

LRS Fund Objective

The Legislators' Retirement System Fund is a supplemental income plan that was available to members of the California Legislature serving prior to November 7, 1990; all elected constitutional officers; and legislative statutory officers. Funds are allocated across five asset classes under a fairly balanced investment strategy.

Actual Capital Allocation



50% 45% 40% 35% % Allocation 30% Range 25% Actual 20% 15% 10% 5% 0% TIPS **Global Equity** U.S. Fixed REITs Commodities Income Asset Class

Strategic AllocationTarget Ranges

Asset Class	Current Allocation (%)	Target Allocation (%)	Variance (%)	A	Current Allocation millions)	Target Allocation (millions)	Va	ollar riance Ilions)
Global Equity	24.1%	24.0%	0.1%	\$	28.1	\$ 28.0	\$	0.1
U.S. Fixed Income	38.8%	39.0%	-0.2%	\$	45.3	\$ 45.5	\$	(0.2)
TIPS	25.5%	26.0%	-0.5%	\$	29.8	\$ 30.3	\$	(0.5)
REITs	7.9%	8.0%	-0.1%	\$	9.3	\$ 9.3	\$	(0.1)
Commodities	3.2%	3.0%	0.2%	\$	3.7	\$ 3.5	\$	0.2
Cash	0.4%	0%	0.4%	\$	0.5	\$ -	\$	0.5
Total	100.0%	100.0%	0.0%	\$	116.6	\$ 116.6	\$	(0.0)

LRS RISK AND RETURN

Asset Liability Management Expectations

Per the current CalPERS Legislators' Retirement System Fund Statement of Investment Policy.







LRS PERFORMANCE SUMMARY

		1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of 06/30/2017	Net Returns	Benchmark Return	Excess Bps									
GLOBAL EQUITY	20.04	19.83	21	5.38	5.25	13	11.53	11.38	15	4.34	4.27	6
US FIXED INCOME	0.30	(0.87)	117	4.25	3.53	73	3.90	2.89	101	6.68	6.08	60
TIPS	(0.62)	(0.63)	0	0.56	0.63	(7)	0.21	0.27	(5)	4.33	4.27	6
REITs	1.24	1.14	10	4.57	4.56	0	8.39	8.36	3	-	-	-
COMMODITIES	(8.80)	(9.01)	21	(24.57)	(24.82)	25	(13.83)	(13.70)	(14)	-	-	-
TOTAL FUND	4.40	3.82	58	2.78	2.50	28	5.36	4.93	42	5.28	5.02	25





CalPERS Trust Level Review Affiliate Investment Program Summary: Health Care Fund (HCF)

June 30, 2017

HCF Objective

The HCF provides a vehicle for administering the CaIPERS self-insured health care programs. Investments of the HCF are a non-operational use of reserves until needed for claims. A portion of the reserves is held at the State Treasurer's Office and the remainder is 100% invested in a U.S. fixed income fund.

Current Allocation (\$millions)



Strategic Asset Allocation

HCF	Current Allocation %	Target Allocation %	Variance %	All	Current Allocation (Millions)		arget ocation /illions)	Var	ollar iance ions)
FIXED INCOME	100.0%	100.0%	0.0%	\$	444.7	\$	444.7	\$	-
HCF	100.0%	100.0%	0.0%	\$	444.7	\$	444.7	\$	-

Performance Summary

		1 - YEAR			3 - YEAR			5 - YEAR		10 - YEAR			
As of 06/30/17	Net Returns	Benchmark Return	Excess Bps										
FIXED INCOME	(0.28)	(0.31)	4	2.72	2.48	24	2.76	2.21	55	4.70	4.48	23	
TOTAL FUND	(0.28)	(0.31)	4	2.72	2.48	24	2.76	2.21	55	4.70	4.48	23	

Risk Summary

Historical 3 Year Standard Deviation	2.9%

CalPERS

CalPERS Trust Level Review Affiliate Investment Program Summary: Long-Term Care Fund (LTCF)

June 30, 2017

STRATEGIC ASSET ALLOCATION

LTCF Objective

CalPERS offers optional long-term care benefits to members, funded entirely by enrollee premiums. The Long-Term Care Program was established to administer and finance the program. Funds are allocated across five asset classes, predominantly in fixed income.

The Fund is passively managed by State Street Global Advisors.

Actual Capital Allocation



70% 60% 50% % Allocation Range 40% Actual 30% 20% 10% • • 0% **Global Equity** U.S. Fixed TIPS REITs Commodities Income

Strategic AllocationTarget Ranges

Asset Class	Current Allocation (%)	Target Allocation (%)	Variance (%)	Current Allocation (millions)	Target Allocation (millions)	Va	Oollar Iriance illions)
Global Equity	16.1%	15.0%	1.1%	\$ 706.1	\$ 656.3	\$	49.8
U.S. Fixed Income	60.8%	61.0%	-0.2%	\$ 2,661.2	\$ 2,669.1	\$	(7.9)
TIPS	5.9%	6.0%	-0.1%	\$ 257.1	\$ 262.5	\$	(5.4)
REITs	12.3%	12.0%	0.3%	\$ 540.3	\$ 525.1	\$	15.2
Commodities	4.8%	6.0%	-1.2%	\$ 210.9	\$ 262.5	\$	(51.7)
Cash	0.0%	0%	0.0%	\$ 0.0	\$ -	\$	0.0
Total	100.0%	100.0%	0.0%	\$ 4,375.6	\$ 4,375.6	\$	(0.0)

LTCF RISK AND RETURN

Asset Liability Management Expectations

Per the current CalPERS Long-Term Care Fund Statement of Investment Policy.







LTCF PERFORMANCE SUMMARY

		1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of 06/30/2017	Net Returns	Benchmark Return	Excess Bps									
GLOBAL EQUITY	19.36	19.01	35	5.18	4.87	31	11.00	10.78	22	4.22	4.11	12
US FIXED INCOME	(0.84)	(0.87)	3	3.53	3.53	1	3.08	2.89	19	6.27	6.08	20
TIPS	(0.63)	(0.63)	(0)	0.63	0.63	0	0.24	0.27	(3)	4.34	4.27	7
REITs	(0.12)	(0.85)	74	3.82	3.07	75	7.60	6.98	63	1.80	1.43	37
COMMODITIES	(9.22)	(9.01)	(22)	(24.77)	(24.82)	5	(13.59)	(13.70)	10	-	-	-
TOTAL FUND	1.56	1.51	4	2.00	1.81	19	3.94	3.67	27	3.64	3.51	13





CalPERS

CalPERS Trust Level Review Affiliate Investment Program Summary: CERBT Strategy 1

June 30, 2017

STRATEGIC ASSET ALLOCATION

CERBT Strategy 1 Objective

The California Employer Retirees' Benefit Trust (CERBT) was established in March 2007 for public employers to pre-fund their retiree health and other post-employment benefit obligations. Employers may choose among three different CERBT investment strategies. Compared with Strategies 2 and 3, this portfolio consists of a higher percentage of equities than bonds and other assets.

Fixed income, TIPS and commodities asset classes are managed by CalPERS staff. Global equity and REITs are managed by State Street Global Advisors.

Actual Capital Allocation





Strategic AllocationTarget Ranges

Asset Class	Current Allocation (%)	Target Allocation (%)	Variance (%)	Current Allocation (millions)	ation Alloc ions) (mill		V	Dollar Variance (millions)	
Global Equity	55.8%	57.0%	-1.2%	\$ 3,158.4	\$	3,223.5	\$	(65.1)	
U.S. Fixed Income	26.3%	27.0%	-0.7%	\$ 1,487.6	\$	1,526.9	\$	(39.4)	
TIPS	4.6%	5.0%	-0.4%	\$ 262.8	\$	282.8	\$	(20.0)	
REITs	7.8%	8.0%	-0.2%	\$ 439.9	\$	452.4	\$	(12.5)	
Commodities	3.0%	3.0%	0.0%	\$ 169.9	\$	169.7	\$	0.3	
Cash	2.4%	0.0%	2.4%	\$ 136.7	\$	-	\$	136.7	
Total	100.0%	100.0%	0.0%	\$ 5,655.3	\$	5,655.3	\$	0.0	

CERBT STRATEGY 1 RISK AND RETURN

Asset Liability Management Expectations

Per the current CERBT Fund Statement of Investment Policy.







■ 3-Year Standard Deviation ■ Expected Standard Deviation



CERBT STRATEGY 1 PERFORMANCE SUMMARY

		1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	1
As of 06/30/2017	Net Returns	Benchmark Return	Excess Bps									
GLOBAL EQUITY	19.45	19.01	44	5.25	4.87	38	11.09	10.79	30	4.13	3.98	15
US FIXED INCOME	0.30	(0.87)	117	4.26	3.53	74	3.90	2.89	101	6.68	6.08	60
TIPS	(0.63)	(0.63)	(1)	0.56	0.63	(8)	0.21	0.27	(6)	-	-	-
REITs	(0.08)	(0.85)	77	3.88	3.07	80	7.63	6.98	65	2.19	1.43	77
COMMODITIES	(8.85)	(9.01)	16	(24.85)	(24.82)	(3)	(14.02)	(13.70)	(32)	-	-	-
TOTAL FUND	10.58	9.87	71	3.71	3.23	48	8.13	7.72	41	4.62	4.24	38





CalPERS

CalPERS Trust Level Review Affiliate Investment Program Summary: CERBT Strategy 2

June 30, 2017

STRATEGIC ASSET ALLOCATION

CERBT Strategy 2 Objective

The California Employer Retirees' Benefit Trust (CERBT) was established in March 2007 for public employers to prefund their retiree health and other post-employment benefit obligations. Employers may choose among three different CERBT investment strategies. Compared with Strategies 1 and 3, this portfolio consists of a more moderate allocation of equities, bonds, and other assets.

Fixed income, TIPS and commodities asset classes are managed by CalPERS staff. Global equity and REITs are managed by State Street Global Advisors.

Actual Capital Allocation





Strategic AllocationTarget Ranges

Asset Class	Current Allocation (%)	Target Allocation (%)	Variance (%)	A	Current Allocation (millions)	Target Allocation (millions)	Va	ollar riance illions)
Global Equity	40.0%	40.0%	0.0%	\$	352.1	\$ 352.1	\$	(0.1)
U.S. Fixed Income	38.7%	39.0%	-0.3%	\$	341.0	\$ 343.3	\$	(2.3)
TIPS	9.4%	10.0%	-0.6%	\$	82.6	\$ 88.0	\$	(5.4)
REITs	7.9%	8.0%	-0.1%	\$	69.8	\$ 70.4	\$	(0.6)
Commodities	3.1%	3.0%	0.1%	\$	27.6	\$ 26.4	\$	1.2
Cash	0.8%	0%	0.8%	\$	7.2	\$ -	\$	7.2
Total	100.0%	100.0%	0.0%	\$	880.3	\$ 880.3	\$	(0.0)

CERBT STRATEGY 2 RISK AND RETURN

Asset Liability Management Expectations

Per the current CERBT Fund Statement of Investment Policy.





Expected Standard Deviation





CERBT STRATEGY 2 PERFORMANCE SUMMARY

		1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of 06/30/2017	Net Returns	Benchmark Return	Excess Bps									
GLOBAL EQUITY	19.46	19.01	45	5.21	4.87	34	11.24	10.96	28	-	-	-
US FIXED INCOME	0.32	(0.87)	119	4.26	3.53	73	3.90	2.89	101	-	-	-
TIPS	(0.63)	(0.63)	(1)	0.52	0.63	(12)	0.19	0.27	(8)	-	-	-
REITs	(0.04)	(0.85)	81	3.84	3.07	77	7.61	6.98	63	-	-	-
COMMODITIES	(8.92)	(9.01)	9	(24.80)	(24.82)	2	(13.99)	(13.70)	(29)	-	-	-
TOTAL FUND	7.24	6.52	71	3.22	2.80	42	6.72	6.31	40	-	-	-





CalPERS Trust Level Review Affiliate Investment Program Summary: CERBT Strategy 3

June 30, 2017

STRATEGIC ASSET ALLOCATION

CERBT Strategy 3 Objective

The California Employer Retirees' Benefit Trust (CERBT) was established in March 2007 for public employers to pre-fund their retiree health and other post-employment benefit obligations. Employers may choose among three different CERBT investment strategies. Compared with Strategies 1 and 2, this portfolio consists of a higher percentage of bonds and other assets and a lesser percentage of equities.

Fixed income, TIPS and commodities asset classes are managed by CalPERS staff. Global equity and REITs are managed by State Street Global Advisors.

Actual Capital Allocation

CalPERS





Strategic AllocationTarget Ranges

Asset Class	Current Allocation (%)	Target Allocation (%)	Variance (%)	A	Current Allocation (millions)		Target Allocation (millions)	Dollar Varianc (millions	
Global Equity	24.0%	24.0%	0.0%	\$	62.5	\$	62.5	\$	0.0
U.S. Fixed Income	38.6%	39.0%	-0.4%	\$	100.5	\$	101.6	\$	(1.1)
TIPS	24.8%	26.0%	-1.2%	\$	64.7	\$	67.7	\$	(3.0)
REITs	7.9%	8.0%	-0.1%	\$	20.5	\$	20.8	\$	(0.3)
Commodities	3.0%	3.0%	0.0%	\$	7.9	\$	7.8	\$	0.1
Cash	1.7%	0%	1.7%	\$	4.4	\$	-	\$	4.4
Total	100.0%	100.0%	0.0%	\$	260.6	\$	260.6	\$	(0.0)

CERBT STRATEGY 3 RISK AND RETURN

Asset Liability Management Expectations

Per the current CERBT Fund Statement of Investment Policy.





■ 3-Year Standard Deviation Standard Deviation



CERBT STRATEGY 3 PERFORMANCE SUMMARY

		1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of 06/30/2017	Net Returns	Benchmark Return	Excess Bps									
GLOBAL EQUITY	19.39	19.01	38	5.22	4.87	35	11.21	10.96	25	-	-	-
US FIXED INCOME	0.21	(0.87)	109	4.17	3.53	65	3.85	2.89	96	-	-	-
TIPS	(0.65)	(0.63)	(2)	0.58	0.63	(5)	0.23	0.27	(4)	-	-	-
REITs	(0.30)	(0.85)	55	3.80	3.07	72	7.56	6.98	58	-	-	-
COMMODITIES	(8.57)	(9.01)	44	(24.62)	(24.82)	20	(13.87)	(13.70)	(17)	-	-	-
TOTAL FUND	4.12	3.48	64	2.73	2.31	42	5.18	4.72	46	-	-	-





CalPERS Trust Level Review Affiliate Investment Program Summary: Supplemental Income Plans (SIP)

Strategic Asset Allocation

	U.S	5. Equiti	es	Int'l Equities			US Fi	xed Inco	ome	Rea	al Asset	s	Cash an	d Cash I	Equivalents
	Actual	Target	Range	Actual	Target	Range	Actual	Target	Range	Actual	Target	Range	Actual	Target	Range
Income Fund	9.0%	9.0%	+/- 2	11.0%	11.0%	+/- 2	49.9%	50.0%	+/- 4	0.0%	0.0%		30.1%	30.0%	+/- 4
2015 Fund	9.0%	9.0%	+/- 2	11.0%	11.0%	+/- 2	49.9%	50.0%	+/- 4	0.0%	0.0%		30.1%	30.0%	+/- 4
2020 Fund	12.1%	12.0%	+/- 2	14.0%	14.0%	+/- 2	45.9%	46.0%	+/- 4	1.0%	1.0%	+/- 1	27.1%	27.0%	+/- 4
2025 Fund	18.1%	18.0%	+/- 2	22.0%	22.0%	+/- 4	36.9%	37.0%	+/- 4	2.0%	2.0%	+/- 1	21.0%	21.0%	+/- 4
2030 Fund	23.1%	23.0%	+/- 4	26.9%	27.0%	+/- 4	29.9%	30.0%	+/- 4	5.0%	5.0%	+/- 1	15.0%	15.0%	+/- 2
2035 Fund	28.1%	28.0%	+/- 4	32.9%	33.0%	+/- 4	22.9%	23.0%	+/- 4	6.0%	6.0%	+/- 1	10.0%	10.0%	+/- 1
2040 Fund	33.1%	33.0%	+/- 4	38.9%	39.0%	+/- 4	16.0%	16.0%	+/- 2	8.0%	8.0%	+/- 1	4.0%	4.0%	+/- 1
2045 Fund	37.1%	37.0%	+/- 4	42.9%	43.0%	+/- 4	10.0%	10.0%	+/- 2	10.1%	10.0%	+/- 1	0.0%	0.0%	
2050 Fund	37.1%	37.0%	+/- 4	42.9%	43.0%	+/- 4	10.0%	10.0%	+/- 2	10.1%	10.0%	+/- 1	0.0%	0.0%	
2055 Fund	37.1%	37.0%	+/- 4	42.9%	43.0%	+/- 4	10.0%	10.0%	+/- 2	10.1%	10.0%	+/- 1	0.0%	0.0%	

Performance Summary

			1 - YEAR			3 - YEAR			5 - YEAR			10 - YEAR	
As of	06/30/17	Net Returns	Benchmark Return	Excess Bps									
CALPERS	TARGET INCOME FUND	3.79	3.69	10	2.50	2.35	15	4.11	3.88	23	-	-	-
CALPERS	TARGET 2015 FUND	3.79	3.69	10	2.47	2.33	14	5.18	5.04	14	-	-	-
CALPERS	TARGET 2020 FUND	5.02	4.95	8	2.45	2.32	14	5.93	5.79	14	-	-	-
CALPERS ⁻	TARGET 2025 FUND	7.69	7.66	3	2.88	2.73	15	6.98	6.85	14	-	-	-
CALPERS ⁻	TARGET 2030 FUND	9.63	9.65	(2)	3.09	2.94	15	7.87	7.76	11	-	-	-
CALPERS ⁻	TARGET 2035 FUND	11.78	11.85	(8)	3.38	3.22	16	8.69	8.60	9	-	-	-
CALPERS ⁻	TARGET 2040 FUND	13.96	14.11	(14)	3.62	3.45	17	9.32	9.21	11	-	-	-
CALPERS ⁻	TARGET 2045 FUND	15.51	15.65	(14)	3.98	3.80	18	9.60	9.48	12	-	-	-
CALPERS ⁻	TARGET 2050 FUND	15.47	15.65	(19)	3.96	3.80	16	9.58	9.48	10	-	-	-
CALPERS ⁻	TARGET 2055 FUND	15.57	15.65	(9)	4.01	3.80	22	-	-	-	-	-	-

Risk Summary

	Historical 3 Year Standard
	Deviation
Income Fund	2.6%
2015 Fund	2.6%
2020 Fund	3.5%
2025 Fund	4.9%
2030 Fund	6.1%
2035 Fund	7.4%
2040 Fund	8.7%
2045 Fund	9.3%
2050 Fund	9.3%
2055 Fund	9.3%