

Trust Level Report

Interim Quarter

June 2023

Executive Summary

PERF Key Metrics (as of 3/31/23)

\$452.6 bn

Ending NAV

6.9%

10-Yr
Total Return

5.7%

5-Yr
Total Return

3.3%

Fiscal Year-to-Date
Total Return

13.3%

Forecasted
Volatility

15 bps

Forecasted
Actionable
Tracking Error

\$5.7 bn

10-Yr
Cumulative
Value Added

\$6.3 bn

5-Yr
Cumulative
Value Added

\$2.0 bn

Fiscal Year-to-Date
Cumulative
Value Added

8.0%

Total Fund
Leverage¹

1.1x

30-Day Stress
Liquidity
Coverage Ratio¹

Report Highlights

Capital Markets

During Q1 2023:

- All public markets segments generated positive returns as markets shifted to expecting interest rate cuts by the Federal Open Market Committee as the economy slows
- Public equity allocation returned 5.9%, slightly below benchmark return of 6.1%
- Global fixed income allocation returned 3.7%, which was equal to the benchmark return

Private Markets

- Private Markets continue to offer mixed results, with Private Debt returning 1.3%, Private Equity returning 1.2%, and Real Assets returning (4.0)% for the Quarter-end
- Economic uncertainty contributed to a steep decline in real estate transaction volumes. Infrastructure transactions are likely to slow as well
- Staff continue to monitor raising cap rates and increased interest rates, as they drive downward pressure on valuations

Total Fund Risk

- Total plan volatility has been relatively stable over the last 12 months and is in line with the transition to the new Strategic Asset Allocation (SAA)
- The actionable tracking error (allocation and public market strategies) remains small at 15 bps compared with the 100 bps limit
- The plan maintains adequate liquidity with 1.1x coverage in 30-day stress scenario
- PERF leverage was 8.0%, of which strategic leverage is being managed to 2% target

Investment Process

- Since the beginning of the fiscal year, PERF traded \$120 bn in public market gross notional exposure to implement SAA changes (as approved by the Investment Committee in November 2021)
- Several key senior positions were filled, including the DCIO, Private Markets and MID, Sustainable Investments
- The nine 2022-23 Strategic Initiatives remain on-track for completion. Of the 22 underlying workstreams, two were completed as of quarter-end.

All performance reported net of investment expenses and annualized for periods greater than 1-Yr.

¹ As of 3/29/23

Trust Level Report June 2023

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Section I. Performance Summary

PERF Returns by Asset Class (as of 3/31/2023)

PERF returned 3.3% fiscal year-to-date and (5.0)% for the trailing 1-Yr

- All asset classes posted negative returns for the trailing 1-Yr except Real Assets, which returned 3.9%
- All asset classes except Real Assets have generated positive excess performance for the trailing 5-Yr and 10-Yr periods

	End Value (bn)	20-Yr	10-Yr	5-Yr	3-Yr	1-Yr	FYTD	1-Qtr
Total PERF	\$ 452.6	7.5%	6.9%	5.7%	8.7%	(5.0)%	3.3%	3.2%
Benchmark		7.9%	6.8%	5.5%	8.1%	(5.9)%	2.7%	4.3%
Excess		(36) bps	10 bps	24 bps	61 bps	98 bps	57 bps	(106) bps
Cumulative Value Added (bn)	\$ (10.0)	\$ 5.7	\$ 6.3	\$ 7.2	\$ 4.3	\$ 2.0	\$ (4.6)	
Public Equity	\$ 206.0	8.8%	8.4%	6.6%	14.8%	(6.3)%	8.4%	5.9%
Benchmark		8.9%	8.3%	6.6%	14.6%	(6.4)%	8.4%	6.1%
Excess		(13) bps	10 bps	1 bps	20 bps	13 bps	(4) bps	(12) bps
Cumulative Value Added (bn)	\$ (0.5)	\$ 1.6	\$ 0.4	\$ 1.2	\$ 0.3	\$ (0.1)	\$ (0.2)	
Private Equity	\$ 55.1	12.0%	12.1%	11.8%	14.2%	(4.7)%	(4.9)%	1.2%
Benchmark		12.2%	11.6%	7.2%	5.9%	(16.9)%	(12.5)%	10.2%
Excess		(26) bps	47 bps	465 bps	827 bps	1,227 bps	760 bps	(907) bps
Cumulative Value Added (bn)	\$ (1.2)	\$ 3.4	\$ 8.9	\$ 9.3	\$ 6.8	\$ 3.9	\$ (3.7)	
Income	\$ 119.9	4.7%	2.0%	0.9%	(3.7)%	(8.4)%	0.1%	3.7%
Benchmark		4.0%	1.5%	0.7%	(3.9)%	(8.3)%	0.2%	3.7%
Excess		71 bps	49 bps	21 bps	25 bps	(10) bps	(7) bps	(0) bps
Cumulative Value Added (bn)	\$ 6.3	\$ 3.2	\$ 1.2	\$ 0.9	\$ (0.1)	\$ (0.1)	\$ 0.0	
Real Assets	\$ 71.2	5.9%	8.6%	6.7%	7.3%	3.9%	(1.3)%	(4.0)%
Benchmark		8.7%	8.7%	7.6%	8.9%	6.4%	(0.7)%	(5.1)%
Excess		(282) bps	(7) bps	(91) bps	(155) bps	(257) bps	(62) bps	119 bps
Cumulative Value Added (bn)	\$ (14.4)	\$ (2.0)	\$ (3.0)	\$ (3.1)	\$ (2.0)	\$ (0.7)	\$ 0.7	
Private Debt	\$ 9.3	-	-	-	-	-	3.1%	1.3%
Benchmark		-	-	-	-	-	0.5%	4.1%
Excess		-	-	-	-	-	263 bps	(281) bps
Cumulative Value Added (bn)	-	-	-	-	-	\$ 0.1	\$ (0.3)	
Total Fund Financing	\$ (25.6)							
Other Trust Level	\$ 16.6							

Exhibit 1.1

All performance reported net of investment expenses and annualized for periods greater than 1-Yr unless noted as cumulative.

Section I. Performance Summary

PERF Returns by Segment (as of 3/31/2023)

Private Equity, Real Assets, and Treasury/MBS segments dragging FYTD; all segments positive over 10-Yr period

	End Value (bn)	20-Yr	10-Yr	5-Yr	3-Yr	1-Yr	FYTD	1-Qtr
Cap Weighted	\$ 151.4	8.9%	8.6%	7.2%	16.5%	(7.1)%	9.9%	7.0%
Benchmark		9.1%	8.5%	7.1%	16.3%	(7.3)%	9.9%	7.2%
Excess		(12) bps	11 bps	2 bps	27 bps	20 bps	(5) bps	(16) bps
Factor Weighted	\$ 54.7	-	-	-	10.2%	(5.3)%	4.6%	2.8%
Benchmark		-	-	-	10.2%	(5.2)%	4.7%	2.8%
Excess		-	-	-	2 bps	(7) bps	(3) bps	(0) bps
Private Equity	\$ 105.0	12.0%	12.1%	11.8%	14.2%	(4.7)%	(4.9)%	1.2%
Benchmark		12.2%	11.6%	7.2%	5.9%	(16.9)%	(12.5)%	10.2%
Excess		(26) bps	47 bps	465 bps	827 bps	1,227 bps	760 bps	(907) bps
Treasury	\$ 16.5	-	0.8%	(0.3)%	(9.4)%	(12.8)%	(3.5)%	5.3%
Benchmark		-	0.8%	(0.2)%	(9.4)%	(12.8)%	(3.5)%	5.3%
Excess		-	(1) bps	(9) bps	6 bps	0 bps	0 bps	(0) bps
MBS	\$ 22.8	3.6%	1.9%	0.5%	(3.0)%	(4.6)%	(0.7)%	2.6%
Benchmark		3.0%	1.0%	0.3%	(3.1)%	(4.7)%	(0.9)%	2.5%
Excess		65 bps	83 bps	18 bps	15 bps	17 bps	18 bps	14 bps
IG Corporates	\$ 30.1	5.8%	3.3%	1.7%	(1.5)%	(9.9)%	1.3%	4.6%
Benchmark		5.1%	2.7%	1.3%	(1.5)%	(9.5)%	1.8%	4.9%
Excess		65 bps	55 bps	35 bps	5 bps	(47) bps	(46) bps	(31) bps
High Yield	\$ 20.9	-	-	-	5.2%	(2.8)%	7.5%	3.6%
Benchmark		-	-	-	5.3%	(2.9)%	7.4%	3.5%
Excess		-	-	-	(7) bps	9 bps	8 bps	10 bps
EM Sovereign Bonds	\$ 23.1	-	-	-	-	-	-	1.9%
Benchmark		-	-	-	-	-	-	1.9%
Excess		-	-	-	-	-	-	0 bps
Private Debt	\$ 9.3	-	-	-	-	-	3.1%	1.3%
Benchmark		-	-	-	-	-	0.5%	4.1%
Excess		-	-	-	-	-	263 bps	(281) bps
Real Assets	\$ 71.2	5.9%	8.6%	6.7%	7.3%	3.9%	(1.3)%	(4.0)%
Benchmark		8.7%	8.7%	7.6%	8.9%	6.4%	(0.7)%	(5.1)%
Excess		(282) bps	(7) bps	(91) bps	(155) bps	(257) bps	(62) bps	119 bps

Exhibit 1.2

All performance reported net of investment expenses and annualized for periods greater than 1-Yr unless noted as cumulative.

Section I. Performance Summary

Affiliate Investment Program Returns (as of 3/31/2023)

Affiliate returns were in line with respective asset allocations

- Affiliate funds are passively managed strategies, except for Long-Term Care Fund, with realized returns and volatility in line with the assigned asset allocation and benchmarks
- Positive excess returns are largely due to structural tax advantages of public equity and real estate investment trusts (REITs) funds vs their respective benchmarks

Defined Benefit, Health, and OPEB Plans	End Value (mm)	20-Yr	10-Yr	5-Yr	3-Yr	1-Yr	FYTD	1-Qtr
Judges' Retirement Fund	\$ 45.6	1.4%	1.0%	1.5%	1.1%	3.0%	2.8%	1.2%
Benchmark		1.3%	0.9%	1.4%	0.9%	2.5%	2.4%	1.1%
Excess		13 bps	12 bps	13 bps	21 bps	47 bps	37 bps	11 bps
Judges' Retirement System Fund II	\$ 2,248.6	7.0%	5.8%	4.9%	8.3%	(8.8)%	4.2%	4.8%
Benchmark		6.9%	5.5%	4.6%	8.0%	(9.1)%	4.0%	4.6%
Excess		15 bps	26 bps	27 bps	29 bps	28 bps	23 bps	16 bps
Legislators' Retirement System Fund	\$ 97.5	5.8%	3.8%	3.3%	3.4%	(9.4)%	0.5%	4.0%
Benchmark		5.6%	3.5%	3.1%	3.2%	(9.4)%	0.5%	3.8%
Excess		19 bps	23 bps	13 bps	13 bps	7 bps	5 bps	18 bps
Health Care Fund	\$ 206.8	3.2%	1.5%	0.9%	(2.8)%	(4.8)%	(0.1)%	3.1%
Benchmark		3.1%	1.4%	0.9%	(2.8)%	(4.8)%	(0.1)%	3.0%
Excess		11 bps	14 bps	(1) bps	(3) bps	(5) bps	(3) bps	19 bps
Long-Term Care Fund	\$ 4,853.8	5.5%	2.9%	2.8%	3.0%	(10.0)%	(0.6)%	3.6%
Benchmark		5.3%	2.8%	2.7%	2.6%	(10.1)%	(0.6)%	3.5%
Excess		19 bps	13 bps	6 bps	43 bps	6 bps	2 bps	15 bps
CERBT Strategy 1 Fund	\$ 14,181.8	-	5.8%	4.9%	9.3%	(9.7)%	3.7%	4.7%
Benchmark		-	5.5%	4.7%	9.1%	(9.9)%	3.6%	4.6%
Excess		-	32 bps	21 bps	20 bps	18 bps	9 bps	14 bps
CERBT Strategy 2 Fund	\$ 1,810.0	-	4.7%	4.0%	5.9%	(9.7)%	2.1%	4.4%
Benchmark		-	4.4%	3.8%	5.7%	(9.8)%	2.0%	4.3%
Excess		-	28 bps	15 bps	16 bps	10 bps	7 bps	18 bps
CERBT Strategy 3 Fund	\$ 779.6	-	3.7%	3.3%	3.5%	(9.0)%	0.9%	4.2%
Benchmark		-	3.5%	3.2%	3.4%	(9.0)%	0.9%	4.0%
Excess		-	28 bps	10 bps	12 bps	6 bps	5 bps	17 bps
CEPPT Strategy 1 Fund	\$ 84.5	-	-	-	5.7%	(7.1)%	3.3%	4.3%
Benchmark		-	-	-	5.5%	(7.3)%	3.2%	4.2%
Excess		-	-	-	15 bps	24 bps	8 bps	15 bps
CEPPT Strategy 2 Fund	\$ 36.9	-	-	-	1.1%	(5.7)%	1.7%	3.8%
Benchmark		-	-	-	1.1%	(5.7)%	1.8%	3.6%
Excess		-	-	-	5 bps	(1) bps	(5) bps	13 bps

Exhibit 1.3

All performance reported net of investment expenses and annualized for periods greater than 1-Yr.

Section I. Performance Summary

Affiliate Investment Program Returns (cont.) (as of 3/31/2023)

Target Date Fund returns were in line with respective asset allocations

- Target Date Funds closely tracked their respective benchmarks
- Positive excess returns are largely due to structural tax advantages of public equity and real asset investments vs their respective benchmarks

Supplemental Income Plans (457/SCP Plan)	End Value (mm)	20-Yr	10-Yr	5-Yr	3-Yr	1-Yr	FYTD	1-Qtr
Target Income Fund	\$ 183.0	-	3.3%	3.4%	4.1%	(4.9)%	3.2%	4.1%
Benchmark		-	3.2%	3.3%	3.9%	(5.1)%	3.1%	4.0%
Excess		-	15 bps	14 bps	12 bps	18 bps	7 bps	14 bps
Target 2020 Fund	\$ 158.7	-	4.2%	4.1%	6.8%	(5.5)%	4.1%	4.5%
Benchmark		-	4.0%	4.0%	6.6%	(5.7)%	4.0%	4.4%
Excess		-	16 bps	16 bps	16 bps	23 bps	7 bps	14 bps
Target 2025 Fund	\$ 213.1	-	5.0%	4.8%	8.9%	(5.8)%	5.4%	5.1%
Benchmark		-	4.9%	4.6%	8.8%	(6.0)%	5.3%	5.0%
Excess		-	18 bps	18 bps	19 bps	28 bps	9 bps	13 bps
Target 2030 Fund	\$ 212.3	-	5.7%	5.3%	11.2%	(6.2)%	6.5%	5.5%
Benchmark		-	5.6%	5.2%	10.9%	(6.5)%	6.4%	5.4%
Excess		-	15 bps	12 bps	22 bps	34 bps	10 bps	13 bps
Target 2035 Fund	\$ 141.8	-	6.4%	5.8%	13.4%	(6.5)%	7.8%	6.2%
Benchmark		-	6.2%	5.7%	13.1%	(6.9)%	7.7%	6.0%
Excess		-	17 bps	14 bps	26 bps	40 bps	10 bps	12 bps
Target 2040 Fund	\$ 130.8	-	7.0%	6.4%	15.1%	(6.9)%	9.0%	6.7%
Benchmark		-	6.9%	6.2%	14.8%	(7.4)%	8.9%	6.5%
Excess		-	18 bps	14 bps	29 bps	45 bps	11 bps	12 bps
Target 2045 Fund	\$ 78.2	-	7.4%	6.5%	15.2%	(6.7)%	9.3%	6.7%
Benchmark		-	7.2%	6.4%	14.9%	(7.1)%	9.2%	6.6%
Excess		-	19 bps	14 bps	29 bps	46 bps	12 bps	12 bps
Target 2050 Fund	\$ 48.4	-	7.3%	6.5%	15.2%	(6.7)%	9.3%	6.7%
Benchmark		-	7.2%	6.4%	14.9%	(7.1)%	9.2%	6.6%
Excess		-	18 bps	14 bps	29 bps	46 bps	12 bps	12 bps
Target 2055 Fund	\$ 18.1	-	-	6.5%	15.2%	(6.7)%	9.3%	6.7%
Benchmark		-	-	6.4%	14.9%	(7.1)%	9.2%	6.6%
Excess		-	-	13 bps	29 bps	46 bps	12 bps	12 bps
Target 2060 Fund	\$ 9.2	-	-	-	15.2%	(6.7)%	9.3%	6.7%
Benchmark		-	-	-	14.9%	(7.1)%	9.2%	6.6%
Excess		-	-	-	28 bps	46 bps	12 bps	12 bps
Target 2065 Fund	\$ 0.7	-	-	-	-	-	-	6.7%
Benchmark		-	-	-	-	-	-	6.6%
Excess		-	-	-	-	-	-	12 bps

Exhibit 1.3

All performance reported net of investment expenses and annualized for periods greater than 1-Yr.

Section I. Performance Summary

Affiliate Investment Program Returns (cont.) (as of 3/31/2023)

Core Fund returns were in line with benchmarks

- Core Funds closely track their respective benchmarks
- Positive excess returns are largely due to structural tax advantages of the Global All Cap ex-US public equity and Real Assets funds vs their respective benchmarks

Supplemental Income Plans (457/SCP Plan) (cont.)	End Value (mm)	20-Yr	10-Yr	5-Yr	3-Yr	1-Yr	FYTD	1-Qtr
SSgA STIF	\$ 122.8	-	1.0%	1.6%	1.1%	3.0%	2.8%	1.2%
Benchmark		-	0.9%	1.4%	0.9%	2.5%	2.4%	1.1%
Excess		-	14 bps	19 bps	21 bps	48 bps	38 bps	11 bps
SIP US Short Term Bond Core	\$ 37.9	-	-	1.2%	(0.4)%	0.3%	0.9%	1.6%
Benchmark		-	-	1.3%	(0.4)%	0.3%	0.9%	1.5%
Excess		-	-	(4) bps	(5) bps	4 bps	5 bps	8 bps
SIP US Bond Core	\$ 53.3	-	-	0.9%	(2.8)%	(4.8)%	(0.1)%	3.1%
Benchmark		-	-	0.9%	(2.8)%	(4.8)%	(0.1)%	3.0%
Excess		-	-	2 bps	1 bps	(2) bps	(1) bps	17 bps
SIP Real Asset Core	\$ 21.3	-	-	6.9%	16.9%	(7.8)%	1.3%	0.1%
Benchmark		-	-	6.8%	16.9%	(8.0)%	1.3%	(0.0)%
Excess		-	-	5 bps	0 bps	14 bps	1 bps	7 bps
SIP Russell All Cap Core	\$ 625.0	-	-	10.5%	18.5%	(8.5)%	9.7%	7.1%
Benchmark		-	-	10.5%	18.5%	(8.6)%	9.7%	7.2%
Excess		-	-	2 bps	6 bps	4 bps	(2) bps	(3) bps
SIP Global All Cap EX-US	\$ 69.6	-	-	2.6%	12.8%	(4.7)%	10.2%	6.9%
Benchmark		-	-	2.4%	12.2%	(5.8)%	9.9%	6.6%
Excess		-	-	25 bps	63 bps	111 bps	33 bps	34 bps

Exhibit 1.4

All performance reported net of investment expenses and annualized for periods greater than 1-Yr.

Section II. Economy and Markets

Macroeconomic Drivers and Outlook

Global growth is expected to slow over 2023; near-term risks

Outlook

- The global economy is projected to slow to 2.9% over 2023 (down 0.2ppts from January) as the European and US economies weaken and China’s economy recovers modestly. The IMF project the global economy will grow slower than its historical average over 2023 and 2024.
- EM economies’ prospects have stabilized following the deterioration in 2022, supported by a softening US dollar.
- US economic data continue to show signs of strength, although the pace of this is softening. Hard (actual) data point to an easing economy from a solid starting point but forward-looking indicators are deteriorating.
- Analysts anticipate the US economy will suffer a mild recession nearer the end of this year. Data released over Q1 and softening in headline inflation will act as tailwinds to boost growth, while the pass-through of policy tightening (both here and abroad) is still to be fully felt.
- Monetary policy tightening, by design, highlights fissures in the weakest parts of the economy, which are starting to show. The balance of risks remain to the downside for economic activity, as the troubles in the regional banking sector continues and concerns are growing around the lack of political agreement on the US debt limit. The FDIC/Fed/Treasury liquidity actions have materially reduced the probability that additional banking failures will morph into wider market contagion.
- Headline inflation is on a downward trend globally, but core (underlying) inflation pressures remain sticky. Central banks globally have expressed their commitment to hold policy tight to contain inflation pressure and pull inflation back towards its target of 2%.
- At the start of 2023, investor expectations anticipated a recession in the US by the end of this year (as indicated by market pricing of the yield curve). Market pricing anticipates the Federal Open Market Committee will reduce interest rates later this year as the economy slows. This future expectation supported equity returns during Q1 2023.

Selected US interest rates and expectations, December 2022 to December 2023

Investors expect the Fed Funds rate to move lower over the remainder of this year

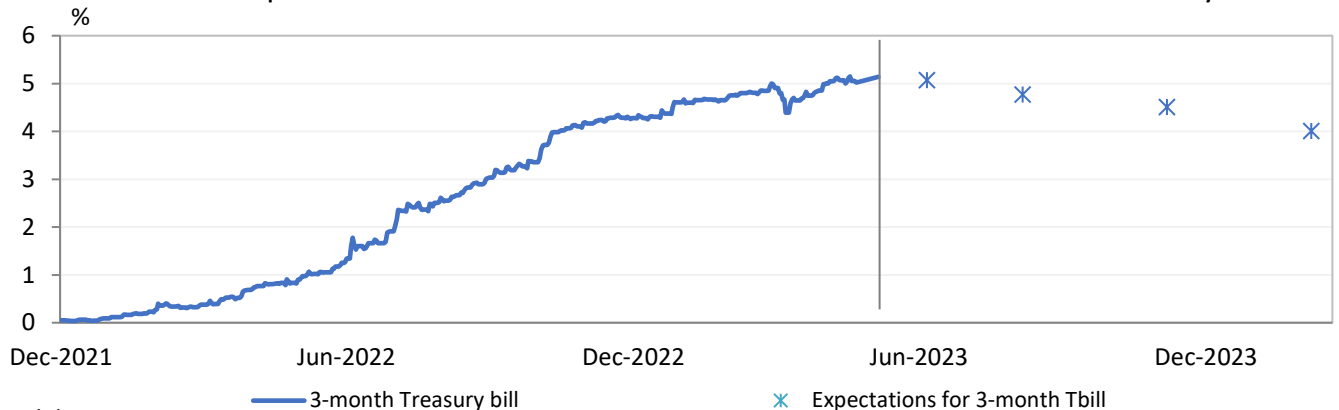


Exhibit 2.1

Source: Bloomberg Financial L.P. CalPERS calculations of forward rates

Section III. PERF Portfolio

Strategic Asset Allocation (as of 3/31/2023)

Allocation remains within policy bands

Interim Targets and Policy Bands

- The Board’s General Pension Consultant, in consultation with the Investment Committee and staff, establishes Interim Allocation Targets to reflect reasonable expected pacing to implement the long-term SAA
- Allocation remains in line with policy bands and on pace to longer-term allocation targets

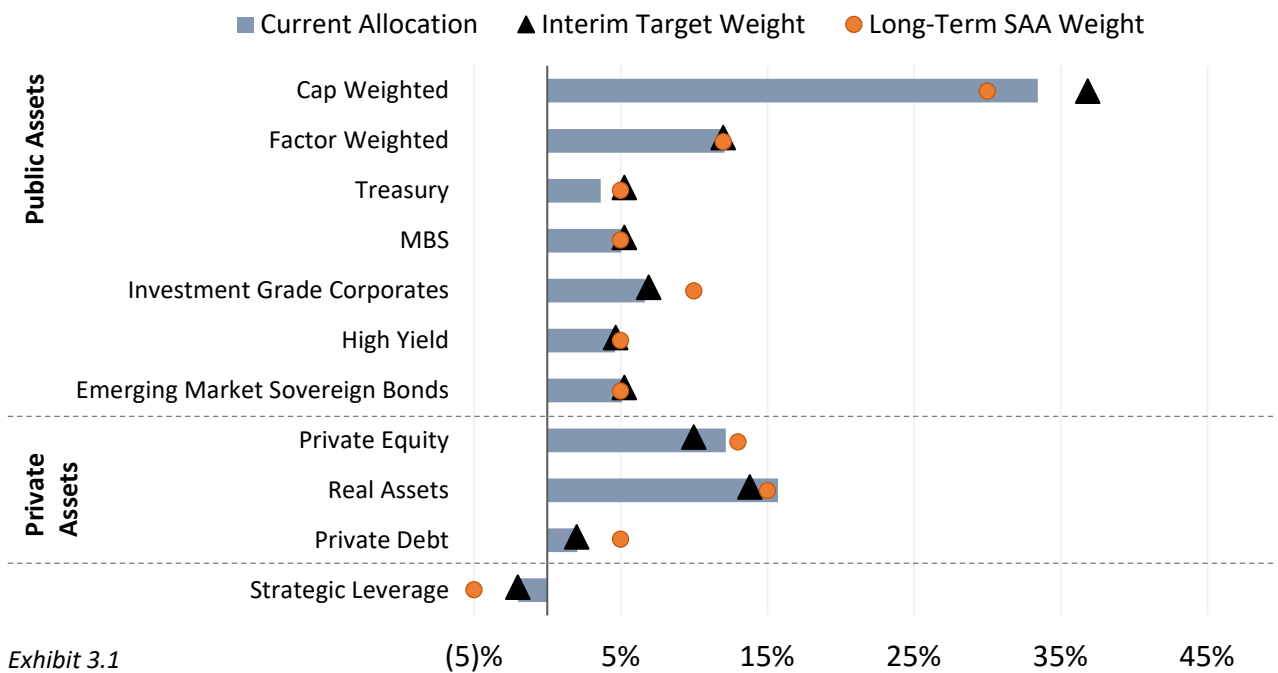


Exhibit 3.1

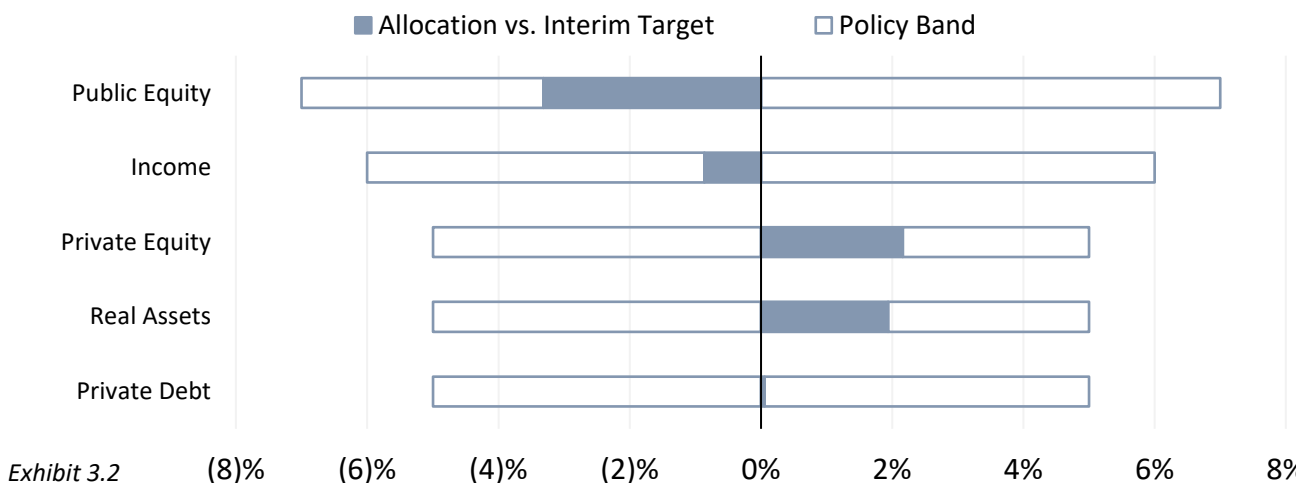


Exhibit 3.2

Section III. PERF Portfolio

Volatility

Total portfolio volatility is close to benchmark

Current Levels

- Total Forecasted Volatility for PERF has been relatively stable for the last 12 months and in line with expectations. Its fluctuations were driven by trading to implement the new Strategic Asset Allocation adopted in November 2021
- Actionable Tracking Error is well below the Policy Limit of 100 bps and indicative of opportunities to increase active management. This metric captures deviations from benchmarks for all public market programs, out of benchmark opportunistic investments, and asset allocation. There is no equivalent quantitative metric for private programs due to inherent limitations in modeling, measurement, and benchmarking

	Policy Limit	Current 3/31/2023	Last Qtr 12/30/2022	Last Year 4/4/2022 ¹
Total Fund Volatility (%)	-	13.3	13.7	13.1
Policy Benchmark Volatility (%)	-	12.2	12.6	11.4
Tracking Error %				
Actionable	< 1.00	0.15	0.10	0.13
Total Fund	-	1.68	1.59	2.08
Allocation	-	0.04	0.00	0.04

Exhibit 3.3

¹ Risk estimates are from Aladdin risk model. Reported numbers in prior year report were from Barra risk model, showing Total Fund volatility of 10.8%. The lower value from Barra represents different modeling approaches between the vendors' models.

Section III. PERF Portfolio

Risk Decomposition (as of 3/31/2023)

Growth oriented asset classes dominate overall risk

% Contribution to Total Portfolio Volatility

- Public and Private Equities contribute approximately 80% of Total Fund Volatility. The remaining asset classes are also either growth-oriented (e.g., Real Assets) or contain growth-oriented components (e.g., High Yield in fixed income)

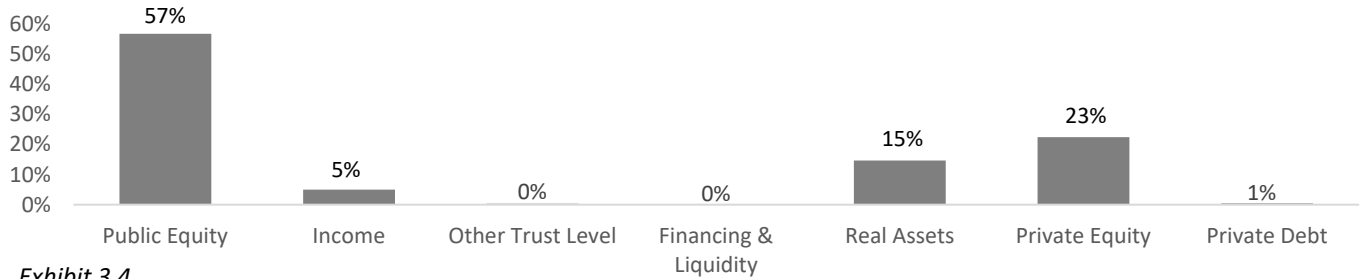


Exhibit 3.4

Asset Class	Market Value ¹ (\$ Millions)	Total Forecasted Volatility (%)	% Contribution to Total Volatility	5-Year Realized Volatility (%)
Public Asset Classes				
Public Equity	\$ 205,896	17.0	56.9	16.9
Cap Weighted	\$ 151,245	18.5	45.2	18.1
Factor Weighted	\$ 54,651	13.4	11.7	-
Income	\$ 119,897	6.7	5.1	9.2
IG Corp	\$ 30,095	9.9	1.5	11.5
EM Sov Debt	\$ 23,071	8.2	2.1	5.1
MBS	\$ 22,827	5.9	0.3	11.7
High Yield	\$ 20,919	6.5	1.6	-
Treasury	\$ 16,453	11.2	-0.2	-
Total Fund Income	\$ 6,530	11.3	-0.1	-
Other Trust Level	\$ 16,644	2.7	0.3	-
LLER	\$ 14,217	2.8	0.3	3.0
Opportunistic	\$ 206	4.3	0.0	-
Other	\$ 2,222	2.4	0.0	-
Financing & Liquidity	\$ (26,677)	-	0.0	0.0
Liquidity	\$ 11,637	0.0	0.0	-
Trust Level Financing	\$ (38,314)	-	0.0	0.0
Private Asset Classes				
Real Assets	\$ 71,321	14.0	14.7	5.2
Private Equity	\$ 55,061	25.7	22.5	10.7
Private Debt	\$ 9,311	6.3	0.5	-
TOTAL PERF	\$ 451,453	13.3	100.0	9.4

Exhibit 3.5

¹ Data source: Blackrock's Aladdin; some differences with State Street primarily due to timing of recording some cash flows

Section III. PERF Portfolio

Risk Decomposition (cont.) (as of 3/31/2023)

LLER is the largest contributor to actionable tracking error

% Contribution to Actionable Tracking Error

- Total Fund Actionable Tracking Error (TE) is modest at 15 bps vs. a policy limit of 100 bps
- The primary contributor to Actionable TE is the Low Liquidity Enhanced Return (LLER) program. This is an active strategy which makes use of leverage to earn incremental return on excess PERF liquidity

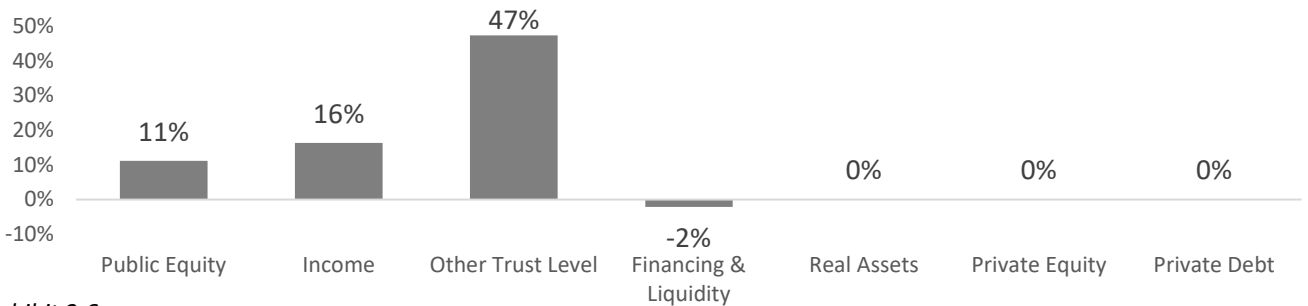


Exhibit 3.6

Asset Class	Tracking Error (bps)	% Contribution to Actionable TE	5-Year Realized TE (bps)
Public Equity	21	11	50
Cap Weighted	24	12	28
Factor Weighted	6	-1	-
Income	43	16	140
IG Corp	48	-1	57
EM Sov Debt	59	11	31
MBS	34	6	44
High Yield	24	-1	-
Treasury	33	1	-
Total Fund Income	49	1	-
Other Trust Level	266	47	-
LLER	279	46	297
Opportunistic	429	1	-
Other	243	1	-
Financing & Liquidity	-	-2	-
Liquidity	18	1	-
Trust Level Financing	-	-3	-
Allocation Management	-	27	-
TOTAL PERF Actionable	15	100	24
Real Assets	451		260
Private Equity	998		1,374
Private Debt	211		-
TOTAL PERF	168		164

Exhibit 3.7

Appendix 1

PERF Benchmarks

<u>Asset Class</u>	<u>Policy Benchmark</u>
Public Equity – Cap Weighted	CalPERS Custom FTSE All World, All Cap Equity Benchmark
Public Equity – Factor Weighted	CalPERS Custom FTSE Factor Weighted Index
Private Equity	CalPERS Custom FTSE Global Benchmark + 150 bps, Quarter Lag
Income – Treasury	Custom Bloomberg Government
Income – MBS	Custom Bloomberg Mortgage
Income – IG Corporates	Custom Bloomberg Corporate ex Sov
Income – High Yield	Custom Bloomberg High Yield
Income – EM Sovereign Bonds	Custom JP Morgan EMBIG Diversified
Real Assets	MSCI/PREA U.S. ACOE Quartelry Property Fund Index (Unfrozen), Quarter Lag
Private Debt	S&P/LSTA U.S. Leveraged Loan 100 Index + 125 bps, Quarter Lag
Strategic Leverage	ICE BofA US 3-Month Treasury Bill Index + 50 bps

Appendix 2

Definitions

<u>Term</u>	<u>Definition</u>
10 Year U.S. Treasury	The 10-Yr Treasury note (bond) is a debt obligation issued by the United States government with a maturity of 10 years upon initial issuance. A 10-Yr Treasury note pays interest at a fixed rate once every six months and pays the face value to the holder at maturity. The “10-Yr” is viewed as a sign of investor sentiment about the economy. A rising yield for the 10-Yr indicates falling demand for Treasury bonds, which means investors prefer higher-risk, higher-reward investments. A falling yield suggests the opposite.
Annual average percent change (aapc)	The change in a variable between one entire year and the prior entire year. This differs to an annual percent change, which looks at one point in time compared with the same point in time a year earlier.
Actionable Tracking Error	Investment Policy definition of the Total Fund tracking error that excludes the effect of active exposure from private asset classes arising from the modeling challenges and the non-investible nature of their benchmarks.
Active Leverage	The portion of Total Fund leverage that is controlled by staff and used to fund exposures incremental to the Strategic Asset Allocation.
Alpha	The measure of the return of an investment relative to an appropriate benchmark.
Basis Point (BP)	1 basis point is 1/100 of a percent or 0.01%.
Beta	A statistical measure of investment or portfolio return sensitivity to the market where the market is typically defined by a market index. A beta of 1.0 means the investment moves in synch with the market. A beta of 0.5 means the investment moves 50% as much as the market. A beta of 1.5 means the investment moves 150% as much as the market. For example, a portfolio with a beta of 0.8 is expected to have an 8% return when the market returns 10%.
Benchmark	A collection of assets to compare against the portfolio’s assets. These are typically market indices (e.g., SP500 or Bloomberg Barclays Global Aggregate). Benchmarks can be a useful tool to evaluate performance and risk.
Central Banks	The principal monetary authority of a nation, a central bank performs several key functions, including issuing currency and regulating the supply of credit in the economy. The Federal Reserve is the central bank of the United States.

Definitions

<u>Term</u>	<u>Definition</u>
Consensus Economics	Consensus Economics is a global macroeconomic survey firm that polls more than 700 economists monthly for their forecasts for over 2,000 macroeconomic indicators in 115 countries. The company is headquartered in London, United Kingdom.
Consumer Prices Index (CPI)	An index which measures changes in the prices of a (weighted average) basket of goods and services. This basket is representative of aggregate U.S. consumer spending and is a common reference point for inflation.
Counterparty	The legal entity that holds the other side of a contract or financial transaction.
Economic Activity	Any action that involves producing, distributing, or consuming products or services is an economic activity. Used synonymously with real GDP growth.
Event Risk	Refers to any future potential occurrence that can cause losses for investors or other stakeholders in a company or investment.
Excess Return	The portfolio return minus the portfolio benchmark return. Time-weighted excess return is not affected by the amount of capital invested.
Federal Reserve Open Market Committee (FOMC)	A twelve-member committee made up of the seven members of the Board of Governors; the president of the Federal Reserve Bank of New York; and, on a rotating basis, the presidents of four other Reserve Banks. The FOMC meets eight times a year to set Federal Reserve guidelines regarding the purchase and sale of government securities in the open market and the policy (overnight) interest rate as a means of influencing the volume of bank credit and money in the economy.
Financial Market Pricing	Current price at which an asset or service can be bought or sold. The market price of an asset or service is determined by the forces of supply and demand and, when traded in real time on global financial markets, can be influenced by (unrealized) expectations around the future.
Future Commission Merchant (FCM)	Highly regulated entities that accept orders for exchange traded contracts in Central Counterparty Clearing House (CCPs). Collateral posted at the FCM is mostly used to meet the margin requirements at the CCPs. The collateral in the counterparty section has been provided to the FCM to post at the CCPs on behalf of CalPERS and bridging operational timing and processing gaps in collateral transfer.
High Yield (HY)	Compared to Investment Grade, these bonds have a lower credit rating meaning they have a relatively higher risk of default. Due to their higher probability of default, they pay a higher yield to compensate investors for the additional risk.

Definitions

<u>Term</u>	<u>Definition</u>
Inflation	A rate of increase in the general price level of goods and services. The general term 'inflation' usually refers to the change in the CPI index over one year.
International Monetary Fund (IMF)	An international organization with 146 members, including the United States. The main functions of the IMF are to lend funds to member nations to finance temporary balance of payments problems, to facilitate the expansion and balanced growth of international trade, and to promote international monetary cooperation among nations. The IMF also creates special drawing rights (SDR's), which provide member nations with a source of additional reserves. Member nations are required to subscribe to a Fund quota, paid mainly in their own currency. The IMF grew out of the Bretton Woods Conference of 1944.
International Swaps and Derivatives Association (ISDA)	A trade organization of market participants that facilitates standardization of contractual agreements to trade over-the-counter derivative contracts. CalPERS enters into ISDA agreements to trade derivatives; for example, FX forwards, total return and interest rate swaps.
Investment Grade (IG)	Bonds with a higher credit rating meaning they have a relatively low risk of default.
Liquidity Coverage Ratio	Metric refers to the proportion of liquid assets to meet short term obligations under a stress scenario (within 30 days). The ratio divides Sources of Liquidity by Uses of Liquidity.
Liquidity (sources of)	Includes: Cash Equivalents, Pension Contributions & Other Inflows, Internal Funding and Liquidity on Demand.
Liquidity (uses of)	Includes: Pension Benefits, Private Asset Funding, Contingent uses and Maturing Derivatives/Repos & Others.
Macroeconomics	A branch of economics that studies how an overall economy (markets, businesses, consumers, and governments) behave. Macroeconomics examines economy-wide phenomena such as inflation, price levels, rate of economic growth, national income, gross domestic product (GDP), and changes in unemployment.
Master Repurchase Agreement (MRA)	The bilateral agreement that governs the collateralized loans of securities. CalPERS uses this contract to enter into forward purchase/repurchase of US Treasuries and Mortgage securities and to post/receive collateral in return (also known as Repo and Reverse Repo).

Definitions

<u>Term</u>	<u>Definition</u>
Master Securities Forward Transaction Agreement (MFSTA)	The bilateral agreement that CalPERS uses to enter into forward purchase or sale of mortgage bonds and "TBA" instruments.
Net Asset Value (NAV)	The value of an investment fund's assets less its liabilities.
Net Return	Performance net of internal and external investment office management expenses. CalPERS' performance uses a daily Modified-Dietz methodology which is geometrically linked to produce time-weighted returns for longer periods.
	<p>Daily Rate of Return Formula</p> <ul style="list-style-type: none"> • 6/30/2016 & Prior: Dollar Value Added / (Beginning Market Value + Net Cash Flows) • 7/1/2016 to Present: Dollar Value Added / Beginning Market Value • Dollar Value Added = Gains/losses due to price appreciation and income <p>Daily returns are geometrically linked to produce longer period returns.</p>
Unfunded Commitments	A legally binding commitment to a private asset investment fund/vehicle for which the capital has not yet been drawn.
Oil (Brent)	A crude oil blend commonly referred to as Brent Blend, London Brent, or Brent petroleum. It is the main global benchmark for oil prices.
Oil (WTI)	West Texas Intermediate is also crude oil blend. It serves as the main US benchmark for oil prices.
Over the Counter (OTC)	A decentralized market where participants trade stocks, bonds, currencies, or derivatives without a centralized exchange or broker.
Public Employee's Retirement Fund (PERF)	An investment fund created under California state statute and exclusively controlled by the CalPERS Board. The fund is managed with the expressed purpose of paying retirement benefits to participating members.
Policy Rate	The policy interest rate is that at which the central bank will pay or charge commercial banks for their deposits or loans. This rate affects the interest rate that commercial banks apply with their customers, both borrowers and depositors, and more generally, impacts on the general price (rate) of credit in the economy.

Definitions

<u>Term</u>	<u>Definition</u>
Portfolio Market Value	<p>The sum of the underlying investment values +/- any open receivables or payables (uninvested assets), consistent with the Net Asset Value or Total Net Assets reported in accounting.</p> <ul style="list-style-type: none"> Public Asset Market Values are calculated as units held x price per unit + accrued income. Private Asset Market Values represent 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.
Real Gross Domestic Product (GDP)	<p>Measures the total economic output of a country over a specified period (often a year) adjusted for changes in price. The total economic output refers to the volume of all goods and services produced by an economy. It is often referred to as constant-price GDP or constant dollar GDP.</p>
SLA/Sec Lending	<p>Refers to the Securities Lending Agreement ("SLA") under which CalPERS lends securities and receives either cash or other securities as collateral.</p>
Supply-Chain	<p>A network of individuals and companies who are involved in creating a product and delivering it to the consumer. Links on the chain begin with the producers of the raw materials and end when the finished product is delivered to the end user.</p>
Supplemental Income Plans (SIP)	<p>Refers to the combined program for the Public Employees' Deferred Compensation Fund and the Supplemental Contributions Program.</p>
Tracking Error	<p>Standard deviation of the differential return between the portfolio and an equal investment in the benchmark.</p>
Uncertainty	<p>The range of possible values or paths. These are unknown.</p>
Value Added	<p>The incremental gain or loss in dollars resulting from portfolio implementation, active management, and imperfectly investible benchmarks. Over shorter time horizons, the benchmark component can create significant variability in outcomes. Unlike a time-weighted excess return which does not account for the size of the investment, value added will vary with the amount of capital invested. Also referred to as "Dollar Value Added".</p>
Volatility	<p>A measure of the distribution of portfolio returns (or a given security). It is typically defined as the statistical standard deviation of returns, annualized.</p>

Definitions

<u>Term</u>	<u>Definition</u>
Wage Growth	Wages are the compensation paid to employees for the work or services they perform over a specified period. In the US it is often described as average hourly earnings. Wage growth typically refers to the annual change in wages.
Yield Curve	A yield curve is a line that plots yields (interest rates) of bonds having equal credit quality but differing maturity dates. The slope of the yield curve gives an idea of future interest rate changes and economic activity. There are three main yield curve shapes: normal (upward sloping curve), inverted (downward sloping curve), and flat.