



# Trust Level Review

As of June 30, 2025

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## Section I. PERF Summary

As of June 30, 2025

## **Public Employees' Retirement Fund (PERF) Metrics**

\$556.3B

Assets Under Management

+7.1%

10-Yr Total Return +11.6%

1-Yr Total Return \$7.2B

5-Yr Cumulative Value Added

\$8.4B

1-Yr Cumulative Value Added 34.6%

Allocation to Private
Assets

1.3x

30-Day Tier 1 Stress Liquidity Coverage Ratio 64.7%

Allocation to Actively Managed Assets

## **Report Highlights**

#### **Capital Markets**

- Public Equity was the top performing asset class for the fiscal year with a +16.8% return
- Both Cap Weighted and Factor Weighted Equities had strong fiscal year performance with respective returns of +16.7% and +15.9%
- In relative terms, all segments except passive Treasury added value over their benchmarks over the fiscal year

#### **Private Markets**

- Strong excess returns from all private asset classes of Private Equity (+597 bps), Private Debt (+438 bps) and Real Assets (+153 bps)
- Strong absolute returns from Private Equity (+14.3%), Private Debt (+12.8%), and Infrastructure (+7.5%) with a positive return from Real Estate
- Net capital deployed into the Private Markets (i.e., contributions minus distributions) was +\$18.0 billion

#### **Total Fund**

- INVO, along with the Actuarial and Financial offices, initiated and continue to progress the 2025 Asset Liability Management planning cycle
- Portfolio positioning and risk remains within expected ranges

#### **Operational**

- Our team advanced strategic initiatives to transition to active management, enhance efficiency, and drive cultural change for longterm pension sustainability
- Private Debt Managing Investment Director has been named, and appointment will take effect in October 2025
- CalPERS made significant progress on the Investment Data and Technology Modernization initiative to establish a foundation for sustained long-term impact

**End Value** 

### As of June 30, 2025

#### **PERF Returns**

### Total PERF fiscal year performance reflects strong growth assets' returns

- PERF fiscal year performance was +11.6% vs. a benchmark return of +9.9%, for excess return of +171 basis points
- Public Equity was the top performing asset class for the fiscal year with a +16.8% return
- PERF fiscal year excess performance driven primarily by Private Equity outperforming its public market benchmark. Over shorter horizons, valuations between public and private assets can diverge significantly

	Liiu value							
	(B)	20-Yr	•	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
Total PERF	\$ 556.3	6.	7%	7.1%	8.0%	11.6%	11.6%	5.7%
Benchmark		7.:	1%	7.1%	7.7%	9.9%	9.9%	4.1%
Excess		(46) k	bps	9 bps	31 bps	171 bps	171 bps	158 bps
Cumulative Value A	Added (B)	\$ (12	2.7)	\$ 5.5	\$ 7.2	\$ 8.4	\$ 8.4	\$ 8.2
Public Equity	\$ 214.8	8.:	2%	9.8%	13.2%	16.8%	16.8%	10.2%
Benchmark		8.3	3%	9.7%	12.9%	16.4%	16.4%	10.1%
Excess		(11) k	bps	14 bps	25 bps	45 bps	45 bps	13 bps
Cumulative Value A	Added (B)	\$ (	0.6	\$ 2.6	\$ 2.4	\$ 0.8	\$ 0.8	\$ 0.3
Income	\$ 168.6	4.:	3%	2.5%	(1.2)%	6.5%	6.5%	1.6%
Benchmark		3.	7%	2.2%	(1.4)%	6.2%	6.2%	1.5%
Excess		55 k	bps	29 bps	18 bps	22 bps	22 bps	5 bps
Cumulative Value A	Added (B)	\$ 5	5.5	\$ 2.6	\$ 1.2	\$ 0.3	\$ 0.3	\$ 0.1
Private Equity	\$ 98.3	11.	7%	11.5%	16.6%	14.3%	14.3%	6.2%
Benchmark		13.	1%	11.3%	17.4%	8.3%	8.3%	(1.1)%
Excess		(140) k	bps	17 bps	(76) bps	597 bps	597 bps	731 bps
Cumulative Value A	Added (B)	\$ (11	1.8)	\$ (2.9)	\$ (3.0)	\$ 5.1	\$ 5.1	\$ 6.9
Real Assets	\$ 73.0	3.4	4%	4.6%	3.3%	2.8%	2.8%	0.9%
Benchmark			6%	4.5%	2.0%	1.2%	1.2%	0.9%
Excess		(316) k	bps	12 bps	132 bps	153 bps	153 bps	5 bps
Cumulative Value A	Added (B)	\$ (11	1.2)	\$ 1.2	\$ 3.0	\$ 1.0	\$ 1.0	\$ 0.0
Private Debt	\$ 21.3		-	-	-	12.8%	12.8%	4.6%
Benchmark			-	-	-	8.4%	8.4%	0.8%
Excess			-	-	-	438 bps	438 bps	383 bps
Cumulative Value A			-	-	-	\$ 0.7	\$ 0.7	\$ 0.7
Net Financing	\$ (33.9)		-	-	-	-	-	-
Other Trust Level	\$ 14.2		-	-	-	-	-	-

Exhibit 2.1

## As of June 30, 2025

### **PERF Capital Market Returns**

Fnd Value

### Capital market returns reflected the strong environment for risk assets

- Both Cap Weighted and Factor Weighted Equities had strong fiscal year performance with respective returns of +16.7% and +15.9%
- In total return terms, Cap Weighted Equities has been the highest performing capital market segment across time periods, capturing returns from broad global equity markets
- In relative terms, all segments except Treasury added value over their benchmarks over the fiscal year

	End Value						
	(B)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
Cap Weighted	\$ 175.6	8.5%	10.4%	14.3%	16.7%	16.7%	11.7%
Benchmark		8.6%	10.2%	14.0%	16.2%	16.2%	11.6%
Excess		(9) bps	17 bps	33 bps	54 bps	54 bps	10 bps
Cumulative Value	Added (B)	\$ 0.2	\$ 2.2	\$ 2.2	\$ 0.7	\$ 0.7	\$ 0.2
<b>Factor Weighted</b>	\$ 39.2	-	-	9.6%	15.9%	15.9%	5.1%
Benchmark		-	-	9.6%	15.7%	15.7%	4.8%
Excess		-	-	6 bps	21 bps	21 bps	24 bps
Cumulative Value	Added (B)	-	-	\$ 0.2	\$ 0.1	\$ 0.1	\$ 0.1
Treasury	\$ 43.9	-	0.3%	(6.4)%	3.0%	3.0%	(0.6)%
Benchmark		-	0.3%	(6.4)%	3.0%	3.0%	(0.6)%
Excess		-	(2) bps	3 bps	0 bps	0 bps	0 bps
Cumulative Value	Added (B)	-	\$ (0.2)	\$ 0.1	\$ 0.0	\$ 0.0	\$ 0.0
MBS	\$ 32.0	3.6%	1.7%	(0.3)%	6.9%	6.9%	1.2%
Benchmark		2.9%	1.4%	(0.5)%	6.6%	6.6%	1.2%
Excess		63 bps	36 bps	20 bps	28 bps	28 bps	5 bps
Cumulative Value	Added (B)	\$ 1.3	\$ 0.6	\$ 0.3	\$ 0.1	\$ 0.1	\$ 0.0
IG Corporates	\$ 34.0	5.1%	3.3%	(1.4)%	6.5%	6.5%	1.7%
Benchmark		4.5%	3.0%	(1.4)%	6.2%	6.2%	1.6%
Excess		55 bps	29 bps	(1) bps	31 bps	31 bps	4 bps
Cumulative Value	Added (B)	\$ 1.3	\$ 0.5	\$ 0.0	\$ 0.1	\$ 0.1	\$ 0.0
High Yield	\$ 29.3	-	-	5.6%	9.3%	9.3%	3.6%
Benchmark		-	-	5.5%	9.1%	9.1%	3.5%
Excess		-	-	11 bps	18 bps	18 bps	10 bps
Cumulative Value	Added (B)	-	-	\$ 0.1	\$ 0.0	\$ 0.0	\$ 0.0
EM Sovereign Bond	ls \$ 29.4	-	-	-	7.9%	7.9%	2.9%
Benchmark		-	-	-	7.6%	7.6%	2.8%
Excess		-	-	-	32 bps	32 bps	8 bps
Cumulative Value	Added (B)	-	-	-	\$ 0.1	\$ 0.1	\$ 0.0

Exhibit 2.2

## As of June 30, 2025

#### **PERF Private Market Returns**

**End Value** 

0.3

#### Private asset returns largely benefited from favorable conditions for risk assets

- Private Equity and Private Debt had the highest private market fiscal year returns at +14.3% and +12.8% respectively
- All private asset classes ended the fiscal year with positive total returns across all long-term periods

		(B)	2	20-Yr	1	l0-Yr	5-Yr		1-Yr	ı	FYTD	1-Qtr
Private Equity	\$	98.3		11.7%		11.5%	16.6%		14.3%		14.3%	6.2%
Benchmark				13.1%		11.3%	17.4%		8.3%		8.3%	(1.1)%
Excess			(1	40) bps		17 bps	(76) bps		597 bps	!	597 bps	731 bps
Cumulative Value A	Cumulative Value Added (B)		\$	(11.8)	\$	(2.9)	\$ (3.0)	\$	5.1	\$	5.1	\$ 6.9
<b>Private Debt</b>	\$	21.3		-		-	-		12.8%		12.8%	4.6%
Benchmark				-		-	-		8.4%		8.4%	0.8%
Excess				-		-	-		438 bps		438 bps	383 bps
Cumulative Value A	Cumulative Value Added (B)			-		-	-	\$	0.7	\$	0.7	\$ 0.7
Infrastructure	\$	21.1		-		9.0%	8.0%		7.5%		7.5%	0.6%
Benchmark				-		3.8%	2.0%		1.2%		1.2%	0.9%
Excess				-	į	518 bps	601 bps		627 bps	(	627 bps	(28) bps
Cumulative Value A	Added	(B)		-	\$	5.1	\$ 4.4	\$	1.1	\$	1.1	\$ (0.1)
Real Estate	\$	51.6		2.8%		4.0%	2.0%		1.1%		1.1%	1.1%
Benchmark				7.0%		4.7%	2.0%		1.2%		1.2%	0.9%
Excess			(4	17) bps	(	69) bps	(0) bps	(	(16) bps	(	(16) bps	19 bps
Cumulative Value	Added	(B)	\$	(16.0)	\$	(3.3)	\$ (1.3)	\$	(0.1)	\$	(0.1)	\$ 0.1

1.1%

3.1%

(0.7)

(199) bps

6.0%

2.0%

(0.0)

404 bps

10.7%

1.2%

0.0

942 bps

10.7%

1.2%

0.0

942 bps

Exhibit 2.3

**Forestland** 

Excess

Benchmark

Cumulative Value Added (B)

(0.9)%

0.9%

(0.0)

(180) bps

\$

## As of June 30, 2025

#### **Affiliate Investments Returns**

### Affiliate returns were in line with respective asset allocations

- Affiliate funds are largely passively managed strategies, 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 non-US equities vs their respective benchmarks

#### Defined Benefit, Health,

and OPEB Plans	End	Value (M)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
Judges' Retirement Fund	\$	65.7	1.9%	2.2%	3.0%	4.9%	4.9%	1.1%
Benchmark			1.7%	2.0%		4.7%	4.7%	
Excess			16 bps	18 bps	23 bps	25 bps	25 bps	7 bps
Judges' Retirement System Fund II	\$	2,968.3	6.5%	6.8%		11.7%	11.7%	
Benchmark			6.4%	6.5%		11.4%	11.4%	
Excess			5 bps	27 bps	26 bps	32 bps	32 bps	8 bps
Legislators' Retirement System Fund	\$	91.1	5.0%	4.1%	2.9%	7.2%	7.2%	2.0%
Benchmark			4.9%	4.0%		7.2%	7.2%	
Excess			12 bps	13 bps	4 bps	3 bps	3 bps	(2) bps
Health Care Fund	\$	77.1	3.3%	1.6%	(1.0)%	4.8%	4.8%	1.1%
Benchmark			3.1%	1.6%	(1.0)%	4.7%	4.7%	1.0%
Excess			13 bps	2 bps	0 bps	12 bps	12 bps	1 bps
Long-Term Care Fund	\$	4,659.8	4.7%	4.2%	3.8%	9.5%	9.5%	3.9%
Benchmark			4.6%	4.2%	3.8%	10.1%		
Excess			3 bps	(1) bps	(1) bps	(62) bps	(62) bps	(10) bps
CERBT Strategy 1 Fund	\$	22,009.4	-	6.9%	7.9%	12.3%	12.3%	7.0%
Benchmark			-	6.6%	7.7%	12.0%	12.0%	6.9%
Excess			-	29 bps	21 bps	34 bps	34 bps	12 bps
CERBT Strategy 2 Fund	\$	2,262.9	-	5.5%	5.3%	10.6%	10.6%	5.3%
Benchmark			-	5.3%	5.2%	10.3%	10.3%	5.3%
Excess			-	23 bps	14 bps	24 bps	24 bps	7 bps
CERBT Strategy 3 Fund	\$	917.1	-	4.5%	3.6%	9.3%	9.3%	4.1%
Benchmark			-	4.3%	3.5%	9.1%	9.1%	4.0%
Excess			-	18 bps	9 bps	18 bps	18 bps	6 bps
<b>CEPPT Strategy 1 Fund</b>	\$	235.4	-	-	5.5%	10.6%	10.6%	5.5%
Benchmark			-	-	5.4%	10.6%	10.6%	5.5%
Excess			-	-	10 bps	7 bps	7 bps	2 bps
CEPPT Strategy 2 Fund	\$	77.1	-	-	2.6%	8.8%	8.8%	3.6%
Benchmark			-	-	2.5%	8.7%	8.7%	3.6%
Excess			-	-	5 bps	11 bps	11 bps	2 bps

## As of June 30, 2025

#### **Affiliate Investments Returns**

### Target Date Fund returns were in line with respective asset allocations

• Longer dated funds outperformed, in line with more aggressive risk profiles (higher equity allocations)

**Supplemental Income Plans** 

(457/SCP Plan)	End	Value (M)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
Target Income Fund	\$	194.3	-	4.5%	4.5%	9.6%	9.6%	4.5%
Benchmark			-	4.3%	4.5%	9.5%	9.5%	4.6%
Excess			-	11 bps	5 bps	8 bps	8 bps	(4) bps
Target 2020 Fund	\$	174.7	-	5.1%	6.1%	10.1%	10.1%	5.1%
Benchmark			-	5.0%	6.0%	10.1%	10.1%	5.1%
Excess			-	13 bps	5 bps	8 bps	8 bps	(5) bps
Target 2025 Fund	\$	245.1	-	6.2%	7.8%	11.5%	11.5%	
Benchmark			-	6.1%	7.7%	11.5%	11.5%	
Excess			-	14 bps	6 bps	8 bps	8 bps	-
Target 2030 Fund	\$	306.6	-	7.0%	9.4%	12.8%	12.8%	
Benchmark			-	6.9%	9.4%	12.7%	12.7%	7.7%
Excess			-	11 bps	7 bps	9 bps	9 bps	
Target 2035 Fund	\$	231.4	-	7.9%	11.1%	14.0%	14.0%	
Benchmark			-	7.8%	11.1%	13.9%	13.9%	
Excess			-	12 bps	8 bps	10 bps	10 bps	-
Target 2040 Fund	\$	219.4	-	8.8%	12.7%	15.4%	15.4%	
Benchmark			-	8.7%	12.6%	15.3%	15.3%	
Excess			-	12 bps	9 bps	11 bps	11 bps	
Target 2045 Fund	\$	143.3	-	9.3%	13.1%	16.1%	16.1%	
Benchmark			-	9.2%	13.0%	16.0%	16.0%	
Excess			-	12 bps	10 bps	11 bps	11 bps	
Target 2050 Fund	\$	92.4	-	9.3%	13.1%	16.1%	16.1%	
Benchmark			-	9.2%	13.0%	16.0%	16.0%	
Excess			-	12 bps	10 bps	11 bps	11 bps	
Target 2055 Fund	\$	39.2	-	9.3%	13.1%	16.1%	16.1%	
Benchmark			-	9.2%	13.0%	16.0%	16.0%	
Excess			-	12 bps	10 bps	11 bps	11 bps	-
Target 2060 Fund	\$	16.1	-	-	13.1%	16.1%	16.1%	
Benchmark			-	-	13.0%	16.0%	16.0%	
Excess			-	-	9 bps	12 bps	12 bps	
Target 2065 Fund <sup>1</sup>	\$	6.7	-	-	-	16.1%	16.1%	
Benchmark			-	-	-	16.0%	16.0%	
Excess			-	-	-	11 bps	11 bps	(17) bps

Exhibit 2.5

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

<sup>&</sup>lt;sup>1</sup> FYTD performance is not shown for the Target 2065 Fund, because it incepted Nov 2022.

## As of June 30, 2025

#### **Affiliate Investments Returns**

#### Core Fund returns were in line with benchmarks

- · Core Funds closely track their respective benchmarks
- Positive excess returns in ex-US equities (Global All Cap) are driven by structural tax advantages vs its benchmark

#### **Supplemental Income Plans**

(457/SCP Plan) (cont.)	End	Value (M)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
SIP STIF Core  Benchmark  Excess	\$	120.7		<b>2.2%</b> 2.0% 21 bps	<b>3.0%</b> 2.8% 24 bps	<b>4.9%</b> 4.7% 25 bps	<b>4.9%</b> 4.7% 25 bps	<b>1.1%</b> 1.0% 8 bps
SIP US Short Term Bond Core  Benchmark  Excess	\$	41.8		<b>1.8%</b> 1.8% (6) bps	1.6% 1.6% (3) bps	<b>5.9%</b> 5.9% 1 bps	<b>5.9%</b> 5.9% 1 bps	1.3% 1.3% 2 bps
SIP US Bond Core  Benchmark  Excess	\$	54.4	- - -	<b>1.8%</b> 1.8% 2 bps	(0.7)% (0.7)% (1) bps	<b>6.1%</b> 6.1% 3 bps	<b>6.1%</b> 6.1% 3 bps	<b>1.2%</b> 1.2% 2 bps
SIP Real Asset Core  Benchmark  Excess	\$	19.6		<b>5.5%</b> 5.5% 1 bps	<b>10.7%</b> 10.7% (6) bps	<b>11.1%</b> 11.1% 2 bps	<b>11.1%</b> 11.1% 2 bps	2.8% 2.9% (8) bps
SIP Russell All Cap Core  Benchmark  Excess	\$	881.3	-	<b>13.0%</b> 13.0% 2 bps	<b>16.0%</b> 16.0% 5 bps	<b>15.3%</b> 15.3% (0) bps	<b>15.3%</b> 15.3% (0) bps	<b>11.0%</b> 11.0% 0 bps
SIP Global All Cap EX-US  Benchmark  Excess	\$	91.0	-	<b>6.4%</b> 6.2% 24 bps	<b>10.4%</b> 10.2% 18 bps	<b>18.1%</b> 17.8% 28 bps	<b>18.1%</b> 17.8% 28 bps	<b>12.2%</b> 12.7% (52) bps

Exhibit 2.6

## Section III. Markets and Economy

As of June 30, 2025

#### **Asset Returns and Economic Drivers**

### Historical performance and drivers

Asset markets posted strong returns over FY 2024-25 across all asset classes although the path was bumpy. Public equity markets rose around the US election announcement but retraced sharply after the President announced his Liberation Day tariff regime. Successive postponements, carve-outs, and, in some cases, reduction of bi-lateral tariffs facilitated an extension of positive returns into the fiscal year-end. Equity returns were also boosted by technology-related gains. Credit and private debt markets performed well due to stable interest rates with default rates, while rising, remained low historically. In real estate, the office sector looks to have bottomed, while infrastructure posted strong returns. Overall financial conditions were neutral to slightly easy, providing a tailwind to returns.

### Themes and current conditions (cyclical)

Tariff-related impacts are expected to impact the US economy in the second half of this year and into early 2026. To date, real economic activity continues to expand but the pace of growth is slowing. The contributions of real GDP growth are changing in response to the tariffs and the US' One Big Beautiful Bill Act (OBBBA). The Congressional Budget Office estimates the passing of the OBBBA will add \$3.4tn to the fiscal debt burden in the long run, but is widely expected to add a positive, but small, fiscal impulse (additional boost to economic activity) in the near term.

The Federal Reserve faces a trade-off between higher inflation and weaker growth and is anticipated to cut interest rates by 100 basis points over the coming year, supporting the economy and asset markets as growth slows.

The growth rate of the US economy over the first half of this year was 1.2%, well below potential growth of 1.8-2.0%. An economy running below trend is more susceptible to downside shocks (see below).

### Future / secular / risks

The global economy is in the midst of a significant realignment – both economically and politically. The list driving a new global order is long: tariffs change incentives for global trade and adjustments to historical trade routes; changes to tax systems adjusts capital flow and (with potential AI-integration in the workforce) adjusts labor demand; changes to immigration policies impact on the supply of labor; more frequent climate-related events adds uncertainty; and global rearmament and growing discontent with the political zeitgeist changes political and geopolitical incentives.

We expect the impact on future returns will equally be marked and the related global transition to be a driver of returns over the medium-term. Great uncertainty widens the range of future outcomes, and the path could well be more volatile. As the global economy adjusts towards its new equilibrium or steady state, the relationships between asset classes may well change.

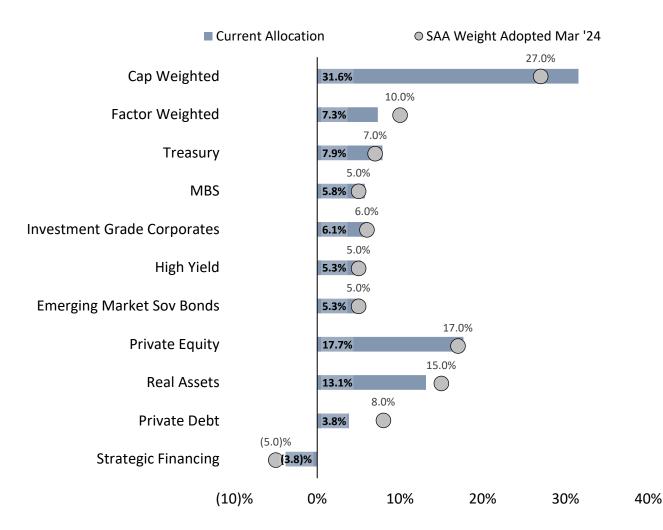
As of June 30, 2025

## **Strategic Asset Allocation**

### Current allocation reflects ongoing transition to more private assets

#### Portfolio vs. Long-Term Strategic Asset Allocation (SAA)

- Point in time allocation weights to private asset classes reflect a combination of ongoing net positive cashflows into these Programs and relative performance, with strong recent relative returns in Private Equity and Private Debt, and weak relative returns in Real Assets (specifically, Real Estate)
- Public asset class weights are managed to maintain a consistent overall PERF risk profile as the weight of private assets fluctuates



## **Strategic Asset Allocation**

### 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 roughly reflect expected pacing towards the long-term SAA
- The charts below show current positioning versus current interim targets
- Illiquid Private allocations cannot be precisely targeted and fluctuate significantly due to public vs.
  private valuation changes. The policy bands exist in part to allow for a reasonable level of variation
  over time

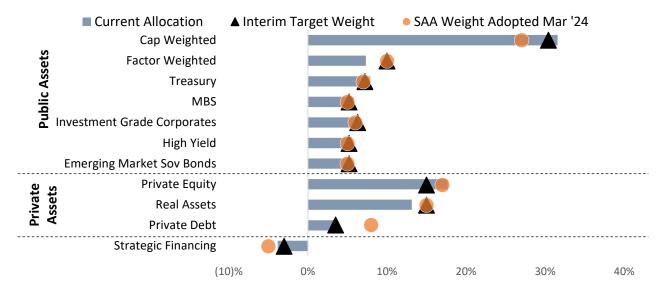
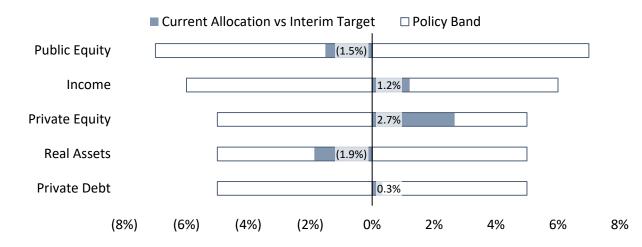


Exhibit 4.2

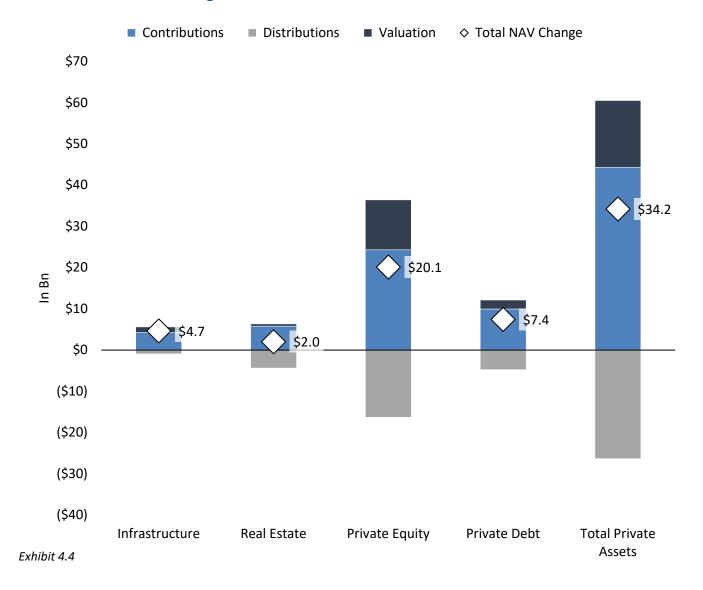


## **Private Assets Pacing**

### CalPERS net deployed \$18B into private market programs in FY 2024-25

- Net capital deployed (i.e., contributions minus distributions) was +\$18.0 billion
- The net total change in private program investments, also factoring in valuation changes, was +\$34.2
   billion

#### Drivers of One Year Change in Net Asset Value



Sources: State Street, AREIS, PEARS

## **Private Assets Pacing**

### Contractual unfunded commitments at \$62.1B

- Total contractual unfunded commitments to private assets at fiscal year-end were \$62.1 billion, an increase of \$8.8 billion from the prior fiscal year-end value
- Unfunded commitments shown here are primarily due to obligations of PERF as a Limited Partner in
  externally managed funds. These commitments represent a potential future draw on PERF liquidity
  which CalPERS has little or no ability to influence
- Liquidity to fund these outstanding commitments is maintained by retaining sufficient capacity in certain public asset classes, which are systematically sold down as commitments are called
- Contractual unfunded commitments are a subset of potential future capital deployments. For some
  asset classes, e.g. Real Estate, CalPERS deploys capital through annual revocable allocations to
  separately managed accounts. In others, co-investment capital, where deployment is controlled by
  CalPERS, can represent a meaningful share of investments

Asset Class	Net Asset Value (\$M)	Contractual Unfunded Commitments (\$M)	Prior Year (6/28/24) Contractual Unfunded Commitments (\$M)
Private Equity	98,208	31,362	29,912
Real Estate	51,665	2,670	2,649
Infrastructure	21,103	4,836	5,082
Private Debt	21,285	23,268	15,717
Total Private Assets	192,260	62,136	53,359

Exhibit 4.5

Sources: Aladdin, AREIS, PEARS

## **Internal vs. External Management**

### PERF may add value by adjusting internal/external management mix over time

- Roughly 2/3 of PERF assets are internally managed, generally split along public/private lines
- In private assets, the preponderance of external management today may offer opportunities for cost reduction, because greater internal or co-invest share can be achieved
- In contrast, in public markets, there may be opportunity to make greater use of cost-efficient external partnerships to generate value add and complement internal skillsets

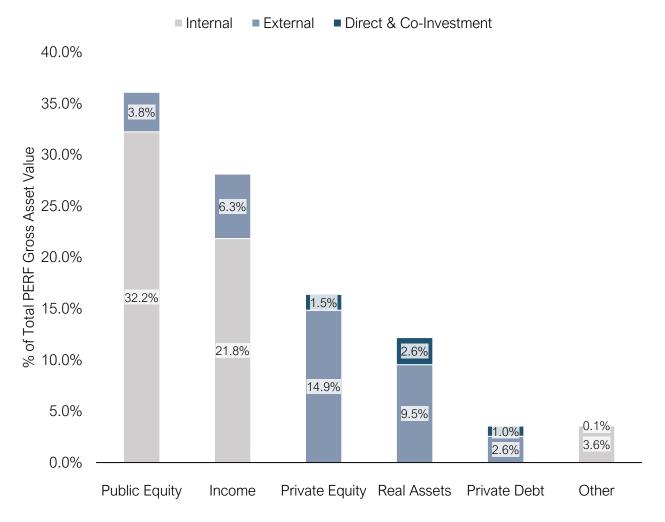


Exhibit 4.6

### **Active vs. Indexed Management**

### 65% of PERF is actively managed

- Active management means the asset class is managed with the intention to outperform its benchmark
- In contrast, indexing seeks to replicate the benchmark as cheaply and efficiently as possible
- · Indexed strategies do not imply "passive" investing
- The Factor Weighted segment is a deliberate departure from cap weighting that is managed in an indexed fashion
- · CalPERS corporate governance activities are enabled regardless of management style
- Within Income, the Treasury segment is considered indexed but is managed to facilitate PERF's liquidity and financing activities

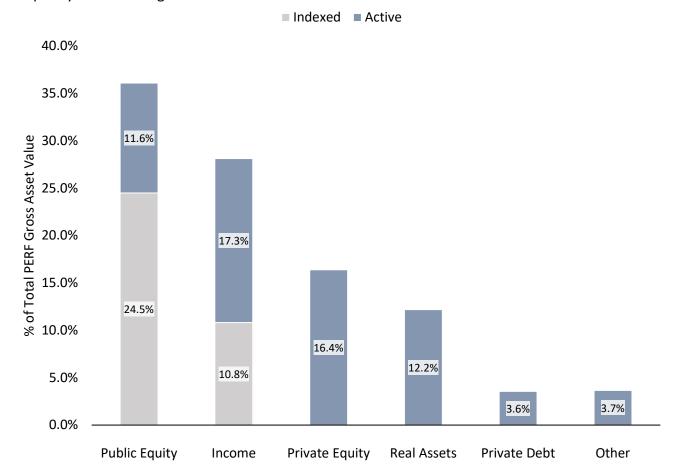


Exhibit 4.7

As of June 30, 2024

### **Realized Outcomes vs Expectations**

#### Despite volatility, returns are within long-term expectations

- The PERF Strategic Asset Allocation (SAA) has long term expected annualized return of +6.8%, with a volatility of roughly 12% (based on Capital market assumptions approved in 2021)
- An annualized volatility of around 12%, means 7 out of 10 years the PERF is expected to generate a
  return between (5.2)% and +18.8%. The other 3 years the PERF is expected to generate a return
  below (5.2)% or above +18.8%
- This range of outcomes accounts for uncertainty in markets over short time periods and assumes returns will average out over time
- This volatility is reflected in actual PERF returns. Over shorter 1-Yr periods, we see returns ranging from (31.1)% to +25.5% while long-term returns (10-Yr) remain relatively stable in the range of +4.3% to +9.7%
- Outcomes for the first 2-years of the current ALM cycle (July 2022 to June 2024) are within the range of expectations



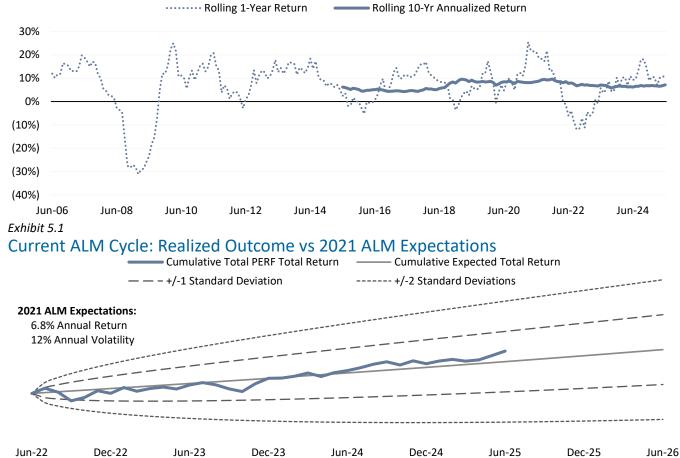


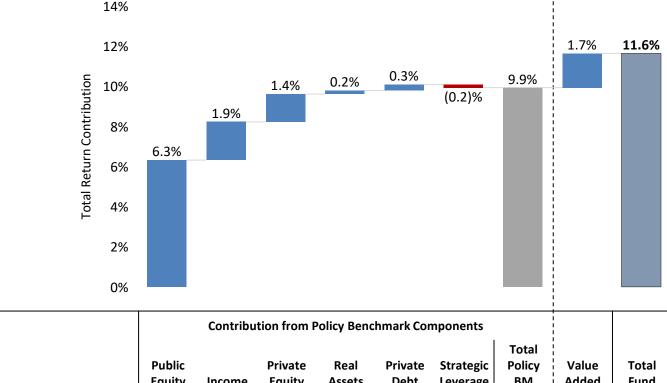
Exhibit 5.2

## **Sources of PERF NAV Change and Total Return**

### Public Equity drove FY 2024-25 return

- All asset classes had positive performance for the 1-Yr period and contributed to PERF's NAV increasing by more than \$50 billion during the fiscal year
- Public equities, which returned +16.4%, were the largest contributor to PERF's fiscal year return

#### 1-Yr Total Return Contribution



		Contribu	tion from F	olicy Bend	nmark Cor	nponents		i	
	Public Equity	Income	Private Equity	Real Assets	Private Debt	Strategic Leverage	Total Policy BM	Value Added	Total Fund
Average Weight	40.0%	29.5%	16.9%	13.1%	3.5%	(3.0)%	100%	-	-
Return	16.4%	6.2%	8.3%	1.2%	8.4%	-	9.9%	-	11.6%
Cumul Dollar Return (B)	\$31.8	\$9.5	\$7.0	\$0.9	\$1.5	\$(0.7)	\$50.0	¦ \$8.4	\$58.4

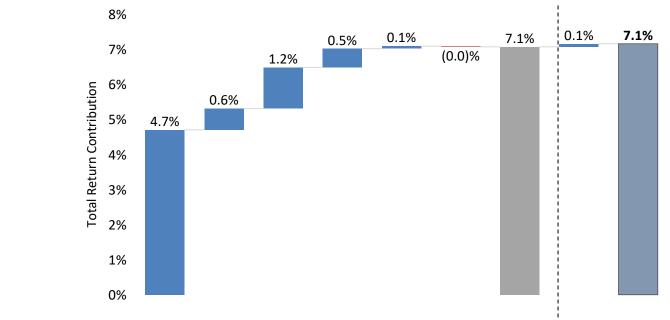
Exhibit 5.3

## **Sources of PERF NAV Change and Total Return**

#### Growth assets drove 10-Yr return

- Over the past 10 years, the PERF NAV has increased by over \$250 billion
- Over longer periods, all current programs generated positive returns
- PERF returns are typically driven by "growth" assets (e.g., public and private equity). Looking at 10-Yr performance, we see Public and Private Equity account for +5.9% (or >80%) of the PERF Total return of +7.1%

#### 10-Yr Total Return Contribution



		Contribu		 					
	Public Equity	Income	Private Equity	Real Assets	Private Debt <sup>1</sup>	Other <sup>2</sup>	Total Policy BM	Value Added	Total Fund
Average Weight	47.8%	25.4%	10.2%	12.7%	0.8%	3.1%	100%	! ! - !	-
Return	9.7%	2.2%	11.3%	4.5%	-	-	7.1%	! ! ! -	7.1%
Cumul Dollar Return (B)	\$187.7	\$20.1	\$49.5	\$18.1	\$3.5	\$(0.7)	\$278.2	¦ \$5.5	\$283.8

Exhibit 5.4

All performance reported net of investment expenses and annualized unless noted as cumulative

<sup>&</sup>lt;sup>1</sup> Private Debt was part of the Opportunistic Strategies Program prior to 7/1/2022

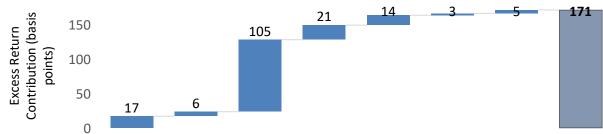
<sup>&</sup>lt;sup>2</sup> Other includes impact from benchmark leverage and historical Policy Benchmark allocations that are not part of the current Policy Benchmark

#### **Attribution of PERF Excess Return**

#### Private assets dominate PERF Excess Return

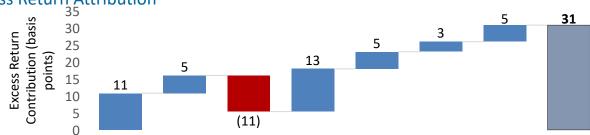
- Although Private Assets comprised about 35% of PERF NAV, those programs account for an outsized share of active returns over the 1-Yr period
- The largest driver of active returns for 1-Yr period is Private Equity, which contributed about 60% of the excess return, while Capital Markets accounted for about 50% of the 5-Yr excess return
- Private asset excess performance is best evaluated over longer periods, as in the short-term variations in valuation approach cause significant variation between private assets and their public benchmarks

#### 1-Yr Excess Return Attribution



	-							
	Public Equity	Income	Private Equity	Real Assets	Private Debt	LLER	Allocation & Other <sup>2</sup>	Total Fund
Average Weight	40.0%	29.5%	16.9%	13.1%	3.5%	2.2%	-	100%
Return	16.8%	6.5%	14.3%	2.8%	12.8%	6.5%	-	11.6%
Benchmark Return	16.4%	6.2%	8.3%	1.2%	8.4%	4.8%	-	9.9%
Excess Return (basis points)	45	22	597	153	438	172	-	171
Cumul Value Added (B)  Exhibit 5.5	\$0.8	\$0.3	\$5.1	\$1.0	\$0.7	\$0.2	\$0.3	\$8.4

## 5-Yr Excess Return Attribution



	Public		Private	Real	Private		Allocation	Total
	Equity	Income	Equity	Assets	Debt <sup>1</sup>	LLER	& Other <sup>2</sup>	Fund
Average Weight	46.4%	27.5%	12.1%	13.1%	1.6%	2.4%	-	100%
Return	13.2%	(1.2)%	16.6%	3.3%	-	4.9%	-	8.0%
Benchmark Return	12.9%	(1.4)%	17.4%	2.0%	-	3.0%	-	7.7%
Excess Return (basis points)	25	18	(76)	132	-	191	-	31
Cumul Value Added (B)	\$2.4	\$1.2	\$(3.0)	\$3.0	\$1.2	\$1.1	\$1.3	\$7.2

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

<sup>&</sup>lt;sup>1</sup> Private Debt was part of the Opportunistic Strategies Program prior to 7/1/2022

<sup>&</sup>lt;sup>2</sup> Other includes impact from strategic financing and investments in Non-SAA segments

### As of June 30, 2025

## **Volatility**

### Total portfolio volatility has been in line with expectations

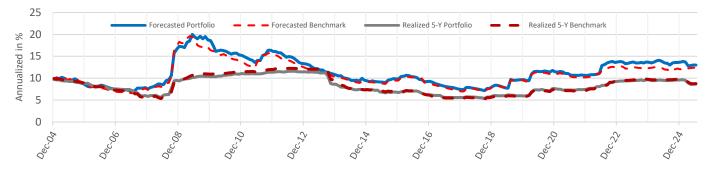
#### **Current Levels**

- Total Fund Volatility and Total Fund Tracking Error have been stable from the last quarter and decreased from the previous year. The year-on-year change primarily reflects updates to the risk model and not significant exposure changes
- Actionable Tracking Error has been stable for the past year. This metric captures deviations from benchmarks for all public market programs, out-of-benchmark opportunistic investments, and asset allocation. The current level of 17 basis points relative to the Policy Limit of 100 basis points

		Policy Limit	Current 6/30/2025	Last Qtr 3/31/2025	Last Year 6/30/2024
Total Fund	Volatility (%)	-	13.0	12.8	13.5
Policy Benc Tracking Err	hmark Volatility (%) or (%)	-	12.4	12.3	12.0
	Actionable	< 1.00	0.17	0.12	0.15
	<b>Total Fund</b>	-	1.31	1.28	2.02
hibit 6.1	Allocation	_	0.05	0.00	0.03

#### **Trends**

- Forecasted and realized volatility metrics indicate that active strategies in the portfolio have generally not materially increased overall volatility relative to the benchmark
- Fluctuations in forecasted volatility are only partly driven by changes in the portfolio. Most of the variation visible below is the result of changing market conditions and changes in risk measurement methodology
- Similarly, comparison of forecasted vs. realized volatility is also challenging, as realized volatility is lagged and biased downwards due to smoothed valuations in private assets

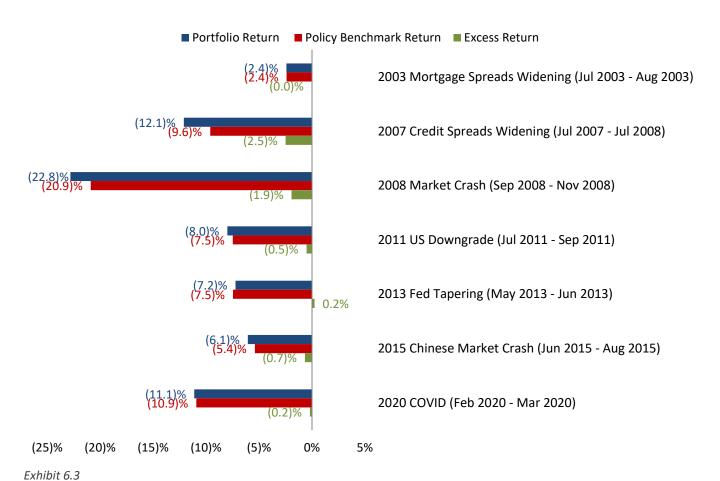


### **Historical Simulation**

### Significant PERF drawdowns should be expected in stress scenarios

#### **Historical Stress Scenarios**

- Historical stress testing is a complementary way to model the level of risk in a portfolio. It can
  provide a more intuitive understanding than the statistical metric of standard deviation (volatility),
  while also exploring tail events
- The current PERF portfolio would have incurred significant drawdowns in recent market stress events, most notably the Global Financial Crisis of 2008. This result is in line with expectations given the portfolio's equity-heavy and growth-sensitive composition
- Note these estimates are based on the risk model's factor representation of the portfolio and do not consider lagged valuation effects in private markets, which could somewhat mute the reported return impact in a rapid market drawdown

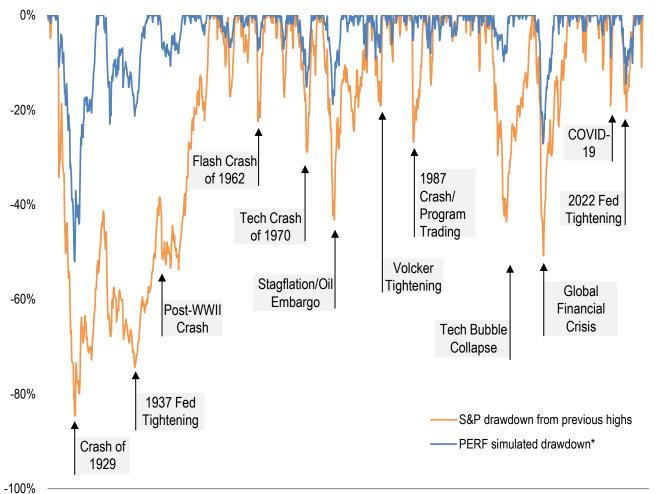


## **Historical Simulation (cont.)**

PERF risk profile closely tracks the equity market, though with lower overall risk

#### Simulated Drawdowns of PERF Strategic Allocation vs. S&P 500

- Longer-term historical simulation underscores a strong relationship between PERF's allocation and the stock market. That said, the level of drawdowns is generally lower than equity markets, reflecting the impact of diversification and a lower absolute risk level
- The analytical technique employed here provides a broader historical perspective than the stress tests shown on the prior page. However, it employs a less robust proxy-based methodology and only simulates the policy allocation, not active positions



1928 1932 1936 1941 1945 1950 1954 1958 1963 1967 1972 1976 1981 1985 1989 1994 1998 2003 2007 2011 2016 2020 2025

#### Exhibit 6.4

<sup>\*</sup> Simulated performance of PERF asset allocation rebalanced quarterly to the current policy targets assuming historical returns for current benchmarks. For historical periods when performance data is not available for some asset classes, risk-comparable proxies are used.

### As of June 30, 2025

## **Risk Decomposition**

#### Growth oriented asset classes dominate overall risk

### **Contribution to Total Portfolio Volatility**

• Growth-oriented assets dominate Total Fund Volatility: public and private equities contribute approximately 82%. For Income, diversification benefits offset much of the inherent volatility



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Asset Class	Market Value <sup>1</sup> (\$ Millions)	Total Forecasted Volatility <sup>2</sup> (%)	% Contribution to Total Volatility	5-Year Realized Volatility (%)
Public Asset Classes				
Public Equity	215,972	18.2	53.5	14.0
Cap Weighted	175,263	18.8	44.8	15.3
Factor Weighted	40,708	15.7	8.7	11.4
Income	168,348	6.3	5.4	8.9
Treasury	43,872	10.3	-0.1	11.7
IG Corp	33,943	9.4	1.5	11.9
MBS	32,019	5.4	0.4	6.6
EM Sov Debt	29,373	7.3	1.9	-
High Yield³	29,142	4.9	1.7	7.4
Other Trust Level	12,562	2.7	0.2	-
LLER	11,863	2.7	0.2	1.5
Opportunistic	520	0.0	0.0	-
Other	178	13.6	0.0	-
Financing & Liquidity	(34,232)	0.1	0.0	-
Liquidity	8,999	0.1	0.0	0.7
Trust Level Financing	(43,231)	0.1	0.0	-
Private Asset Classes				
Private Equity	98,208	21.2	28.0	8.3
Real Assets	73,039	12.3	11.1	6.0
Private Debt	21,285	7.0	1.7	-
TOTAL PERF	555,181	13.0	100.0	8.7

Exhibit 6.6

<sup>&</sup>lt;sup>1</sup> Data source: Aladdin risk system; some differences with custodial data primarily due to timing of recording some cash flows

<sup>&</sup>lt;sup>2</sup> Some strategies are proxied

Trust Level Report September 2025

### As of June 30, 2025

## **Risk Decomposition (cont.)**

### Active strategies in public equities is the largest contributor to Actionable TE

#### % Contribution to Actionable Tracking Error

- Total Fund Actionable Tracking Error (TE) is at 17 basis points vs. a policy limit of 100 basis points
- The primary contributors are external public equity managers and allocation management

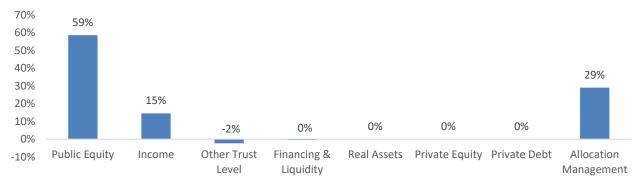


Exhibit 6.7

Asset Class	Forecasted Tracking Error (basis points)	% Contribution to Actionable TE	5-Year Realized TE (basis points)
Public Equity	35	59	20
Cap Weighted	43	55	27
Factor Weighted	29	4	13
Income	31	15	13
Treasury	6	0	4
IG Corp	37	2	26
MBS	75	4	28
EM Sov Debt	39	2	-
High Yield <sup>1</sup>	44	5	19
Other Trust Level	265	-2	-
LLER	277	-2	132
Opportunistic	17	0	-
Other	1,364	0	-
Financing & Liquidity	-	0	-
Liquidity	18	0	8
Trust Level Financing	17	0	-
Allocation Management	5	29	-
TOTAL PERF Actionable	17	100	17
Private Equity	624		1,267
Real Assets	369		266
Private Debt	472		-
TOTAL PERF	131		166

### **Diversification Characteristics**

### PERF is mainly invested in the United States

#### **Regional Exposures**

- Non-US portfolio holdings are approximately 30% and widely diversified across regions and countries
- Lower portfolio weight in US relative to Policy Benchmark is primarily due to international investments in Real Estate and Infrastructure

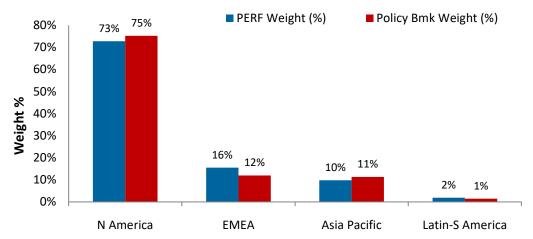


Exhibit 6.9

Top 10 Countries	PERF Weight (%)	Policy Benchmark Weight (%)	Active Weight (%)
United States	69.7	72.3	-2.6
United Kingdom	3.6	2.0	1.6
Japan	2.5	3.4	-0.9
China <sup>1</sup>	2.0	2.0	0.0
Canada	2.0	2.1	-0.1
Germany	1.7	1.2	0.5
France	1.3	1.2	0.1
India	1.1	1.2	-0.1
Switzerland	1.1	1.4	-0.3
Australia	1.1	1.0	0.1

Exhibit 6.10

<sup>&</sup>lt;sup>1</sup> Includes Hong Kong

## **Diversification Characteristics (cont.)**

### 21% foreign currency exposure

#### **Foreign Currency Exposures**

- PERF non-USD exposure is 20.8% versus 21.7% in the Policy Benchmark. Foreign currency exposure
  in the Policy Benchmark comes entirely from the public and private equity segments, which are
  global capitalization weighted
- PERF non-USD active exposure is small and primarily reflects foreign unhedged holdings in Real Assets and differences between portfolio and benchmark country allocations in Private Equity

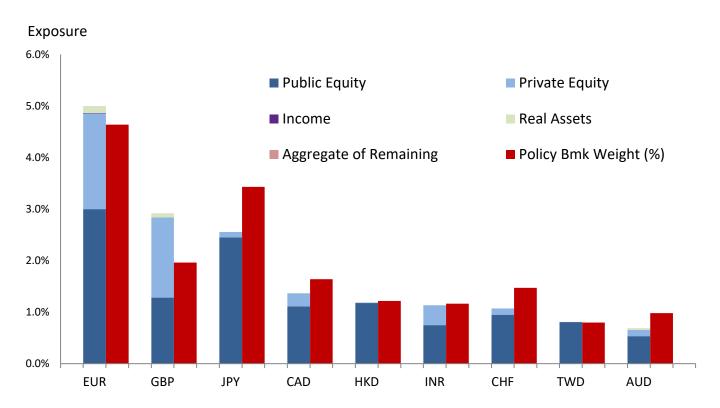


Exhibit 6.11

## **Diversification Characteristics (cont.)**

#### PERF is diversified to individual issuers and industries

#### **Issuer Concentration**

- PERF is diversified across individual issuers
- The largest issuers are the United States Government (US Treasuries) and its housing finance arms (Government Sponsored Enterprises)

#### Top 20 Issuers

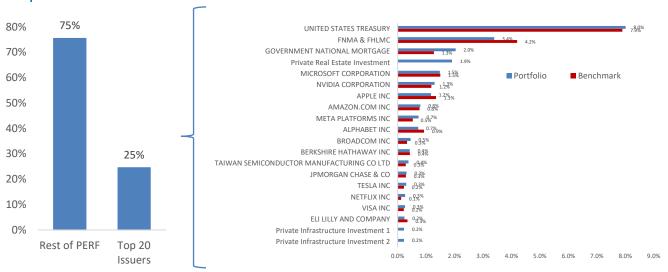


Exhibit 6.12

#### **Industry Concentration\* - Top 10**

PERF is diversified across industries with the largest deviations from benchmark in private equity

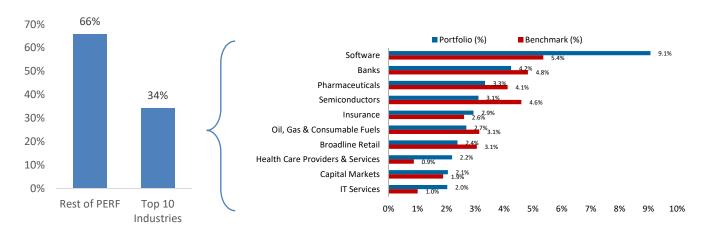


Exhibit 6.13

<sup>\*</sup> Industry Concentration report covers Public Equity, IG Corp, High Yield and Private Equity segments

### Leverage

### PERF maintains modest leverage

### **Policy Leverage**

- As of June 30, 2025, PERF total leverage was 9.0%, of which 5.0% was active leverage incremental to the benchmark
- Active leverage remains within the 15% policy limit and supports the ability to flexibly manage cashflows as well as shorter term opportunities to deploy excess available liquidity

PERF Leverage Breakdown <sup>1,2</sup>	Value (\$M)	Share of PERF NAV (%)
Fund Level		
LLER	11,863	2.1%
Opportunistic Strategies	520	0.1%
Active Funding Strategies	9,572	1.7%
Other Trust Level	178	0.0%
Tactical Fixed Income	0	0.0%
Strategic Leverage - Portfolio	21,670	3.9%
Internal Private Markets Funding	1,463	0.3%
Total - Fund Level	45,267	8.2%
Program Level vs Benchmark		
Public Equity	18	0.0%
Private Equity <sup>3</sup>	N/A	N/A
Income	(2,062)	(0.4%)
Real Assets (Incremental to Benchmark)	6,549	1.2%
Private Debt <sup>3</sup>	N/A	N/A
Other Trust Level (Forward Settlements)	295	0.1%
Total - Program Level	4,800	0.9%
Total - PERF	50,067	9.0%
Strategic Leverage – Benchmark	22,210	4.0%
Active Leverage	27,858	5.0%

Exhibit 6.14

<sup>&</sup>lt;sup>1</sup> FX Forwards used for hedging are not counted as leverage. Options are included based on delta adjusted notional value

<sup>&</sup>lt;sup>2</sup> All leverage in this exhibit is recourse to CalPERS, except for Real Assets

<sup>&</sup>lt;sup>3</sup> Leverage in Private Equity and Private Debt is implemented at the individual fund- or portfolio company-level and is non-recourse

## Leverage (cont.)

#### **Implicit Leverage**

- The prior page describes leverage managed and measured explicitly as part of implementation of the PERF portfolio, in line with the Total Fund Leverage Policy. In general, this leverage reflects deliberate investment choices made by CalPERS staff or its agents
- There is additional leverage in the portfolio that is an implicit characteristic of many of the assets we hold. For example, most private and public companies in the portfolio use leverage on their balance sheets
- This type of leverage is not a direct lever of day-to-day portfolio management. Rather, it informs our understanding of the risk profile of these asset classes, which in turn influences portfolio construction decisions. For example, the leverage embedded in equities is one of the drivers of their relatively higher return and risk expectations, and Private Debt managers typically embed leverage at the fund level. These forms of leverage, and their resulting risks, are embedded in the Capital Market Assumptions which form the basis of our asset allocation decisions

Asset Class	Embedded Leverage <sup>1,2</sup>
Public Equity	~ 1.5 x
Private Equity	1.4 – 1.8 x
Private Debt	1.8 - 2.8 x
Real Estate (Benchmark)	~ 1.4 x

Exhibit 6.15

Subscription financing, which allows managers to deploy capital in funds without immediately calling capital, is monitored separately and shown below

Asset Class	Subscription Financing (\$mm) <sup>3</sup>
Private Equity	4,870
Private Debt	4,812

Exhibit 6.16

<sup>&</sup>lt;sup>1</sup> Embedded leverage shown represents Enterprise Value to Equity Ratio. Embedded leverage for Public Equity, Private Equity, Private Debt is estimated based on industry research

<sup>&</sup>lt;sup>2</sup> Public Equity, Private Equity, and Real Estate (Benchmark) are estimates at the company/property level and Private Debt is an estimate at the fund level

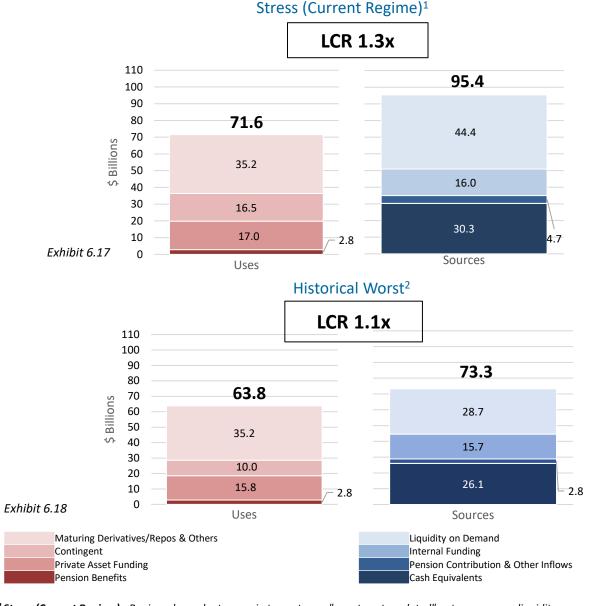
<sup>3</sup> As of March 31, 2025. Subscription financing is a loan to a fund, where the banks base credit on the committed capital to be contributed from the limited partners

## Liquidity

#### PERF maintains sufficient liquidity to buffer against unforeseen events

#### **30-Day Operating Liquidity Coverage**

Liquidity ratios shown below are designed to measure PERF's ability to maintain operation of all
current and planned investment strategies under extreme stress scenarios without forced selling of
assets. This is a higher bar than ratios typically employed in the financial sector to measure solvency



<sup>&</sup>lt;sup>1</sup> Stress (Current Regime) - Regime-dependent scenario to capture a "worst contemplated" outcome across liquidity uses and sources given current market conditions

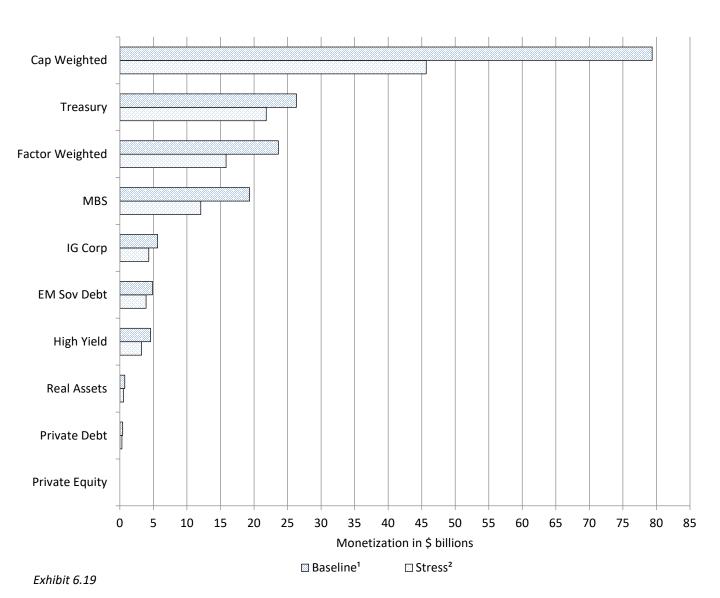
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<sup>&</sup>lt;sup>2</sup> Historical Worst - Historical experience for the 30-day period: 9/27/08-10/27/08 (the worst 30-day equity drawdown in the past 20 years) applied to current portfolio

## Liquidity (cont.)

#### **30-Day Liquidity by Asset Class**

- The estimates below indicate the monetization capacity per asset class within a 30-day period under current markets and stress scenarios
- The chart illustrates both the relatively large amount of liquidity at CalPERS' disposal as well as the relative liquidity of the various asset segments



<sup>&</sup>lt;sup>1</sup> Baseline - Aladdin Liquidity Model with share of average daily volume set at 2.5%

<sup>&</sup>lt;sup>2</sup> Stress - Baseline settings with COVID-19 stress scenario applied

### **Counterparty Risk**

### Counterparty risk is managed via monitoring and collateralization

- Counterparty risk is the risk that, in the event a counterparty fails, CalPERS does not receive the value owed to us by the counterparty, for example, outstanding P&L on a derivatives contract
- CalPERS holds positions in swaps, options, futures, rights and warrants, forward foreign currency
  exchange, repurchase and reverse repurchase, and forward purchase and securities lending
  contracts -- all of which may create counterparty exposure
- CalPERS seeks to control this risk through two primary channels: active collateralization of exposures (typically daily) and a comprehensive regime of monitoring and review. The latter includes counterparty credit evaluations and approvals, counterparty credit limits, monitoring procedures, and use of market accepted standard agreements
- This report describes exposures directly contracted by CalPERS, and not by the external investment managers. External investment managers are required to have strict guidelines to manage and control counterparty risk

### Current aggregate financial conditions are moderate

 Most counterparty risk management takes place at the individual counterparty level. However, aggregate market risks are also monitored, with additional oversight measures implemented during crisis periods



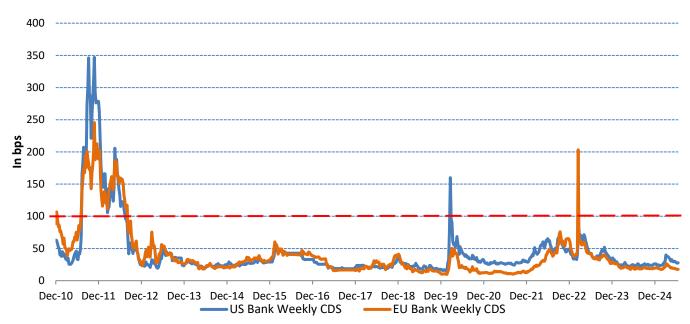


Exhibit 6.20

Source: Bloomberg

## **Counterparty Risk (cont.)**

## Majority of counterparty exposure is collateralized

- The tables that follow show a snapshot of counterparty exposures across the various types of contracts CalPERS uses that can create counterparty exposure
- In general, money owed to or by CalPERS is collateralized daily, resulting in little net exposure

International Swaps and Derivatives Association (ISDA) Master Agreement Includes FX forwards, equity swaps, interest rate swaps, cross-currency swaps, total return swaps, and options

Counterparty	Net MTM Total (\$M) (+) = CalPERS is due money (-) = CalPERS owes money	Collateral Posted (\$M) (+) = CalPERS has posted (-) = Counterparty has posted	Net Exposure (\$M) (+) = CalPERS exposed to Counterparty
The Australia and New Zealand Banking Group	(0.1)	0.1	(0.0)
Bank of Montreal	(2.0)	1.8	(0.2)
Bank of America N.A.	(9.2)	9.2	0.0
BNP Paribas	(66.0)	66.1	0.0
Barclays Bank PLC	(244.9)	243.0	(1.9)
Commonwealth Bank of Australia	(0.0)	0.1	0.0
Citigroup N.A.	(11.4)	10.8	(0.6)
Canadian Imperial Bank of Commerce	(1.4)	1.4	0.0
Deustche Bank AG	(0.6)	0.4	(0.1)
Goldman Sachs Bank	(312.0)	308.3	(3.7)
Goldman Sachs Intl	89.5	(89.5)	(0.0)
HSBC Bank USA	(0.5)	0.4	(0.1)
JP Morgan Chase	(26.1)	26.1	(0.0)
Morgan Stanley Capital Services Inc.	(11.5)	11.5	0.0
Royal Bank of Canada	(127.2)	124.0	(3.2)
Standard Chartered Bank	(1.8)	1.8	0.0
Societe Generale	0.1	0.2	0.3
State Street Bank & Trust	(2.5)	2.5	0.0
Toronto Dominion Bank	(23.4)	23.4	0.0
UBS AG	(520.8)	520.8	0.0
Wells Fargo Bank	(96.8)	96.8	0.0
Total	(1,368.5)	1,359.0	(9.5)

Exhibit 6.21

Source: Aladdin

## **Counterparty Risk (cont.)**

## Master Repurchase Agreement (MRA) Includes repurchase and reverse purchase agreements

Counterparty	Net MTM Total (\$M) (+) = CalPERS is due money (-) = CalPERS owes money	Collateral Posted (\$M) (+) = CalPERS has posted (-) = Counterparty has posted	Net Exposure (\$M) (+) = CalPERS exposed to Counterparty
Bank of America Securities Inc.	(4,089.6)	4,062.9	(26.7)
Bank of Montreal Capital Markets	(349.2)	349.2	0.0
Bank of Nova Scotia	(2,660.4)	2,672.5	12.1
Bank of Nova Scotia - Toronto	(2,958.0)	2,973.5	15.4
BNP Paribas SA	(3,170.7)	3,170.7	(0.0)
Barclays Capital Inc.	50.0	(51.0)	(1.0)
Credit Agricole	(3,142.0)	3,142.0	0.0
Citigroup Global Markets Inc.	(1,071.5)	1,072.3	0.8
Canadian Imperial Bank of Commerce	(1,736.9)	1,737.2	0.4
Deustche Bank Securities Inc.	202.5	(207.3)	(4.9)
Daiwa Capital Markets	(2,040.6)	2,041.8	1.2
Goldman Sachs Bank	0.0	0.0	0.0
Goldman Sachs & Co.	(1,875.9)	1,857.4	(18.5)
HSBC Bank	(377.5)	377.5	(0.0)
ING FINANCIAL MARKETS	(103.0)	103.0	0.0
JP Morgan Securities LLC	(5,370.7)	5,370.7	0.0
MUFG Securities	(3,052.7)	3,052.7	0.0
NATIXIS	(2,078.6)	2,078.6	0.0
Nomura	(325.0)	325.0	(0.0)
Royal Bank of Canada	(3,384.3)	3,389.0	4.7
Royal Bank of Canada Capital Markets	(1,153.5)	1,153.5	(0.0)
Santander US Capital Markets	(74.1)	74.1	(0.0)
Societe Generale	(298.7)	294.3	(4.4)
Standard Chartered	(239.9)	224.8	(15.1)
State Street Bank	214.6	(221.9)	(7.3)
SMBC	(2,229.8)	2,223.8	(6.0)
SUMFG	1,500.0	(1,530.0)	(30.0)
Toronto Dominion	(2,701.7)	2,704.8	3.1
Wells Fargo Bank	(744.3)	745.9	1.6
Total	(43,261.5)	43,187.0	(74.5)

Exhibit 6.22

Source: Aladdin

## **Counterparty Risk (cont.)**

## Securities Lending Agreement (SLA) Includes collateralized loan of securities

Counterparty	Market Value of Securities Out on Loan (\$M) (+) = CalPERS lent securities	Collateral Posted (\$M) (Cash or Securities) (+) = CalPERS has posted (-) = Counterparty has posted	Net Exposure (\$M) (+) = CalPERS exposed to Counterparty
ABN AMRO Group N.V.	48.6	(52.9)	(4.4)
Banco Santander SA	3.8	(3.9)	(0.1)
Bank of Montreal	109.8	(113.4)	(3.6)
Bank of New York Mellon	289.6	(295.6)	(5.9)
Bank of Nova Scotia	3,907.8	(4,131.4)	(223.6)
BankAmerica	2,133.2	(2,179.3)	(46.1)
Barclays Group	16,305.1	(17,162.2)	(857.1)
BNP Paribas Group	1,741.2	(1,870.8)	(129.6)
Caisse de depot et placement du Quebec	501.6	(551.8)	(50.2)
Canadian Imperial Bank of Commerce	719.5	(765.1)	(45.5)
Citigroup	35.0	(39.7)	(4.7)
Credit Agricole	575.2	(589.1)	(13.9)
Goldman Sachs Group	10,072.8	(10,300.0)	(227.1)
Healthcare of Ontario Pension Plan	1,476.5	(1,573.5)	(97.0)
HSBC Group	4.0	(4.3)	(0.4)
ING Group	882.5	(909.0)	(26.5)
J.P. Morgan Group	6,383.7	(6,579.2)	(195.4)
Jefferies & Co Inc.	345.8	(353.2)	(7.4)
Macquarie Bank Group	0.7	(0.9)	(0.1)
Mitsubishi UFJ Financial Group	439.8	(462.6)	(22.8)
Mizuho Financial Group Inc.	0.1	(0.1)	(0.0)
Morgan Stanley Group	4,379.9	(4,483.3)	(103.5)
National Bank of Canada	2,825.8	(3,017.2)	(191.4)
NATIXIS group	2,511.2	(2,781.1)	(269.9)
Nomura Holdings, Inc.	87.9	(89.7)	(1.8)
Royal Bank of Canada	308.6	(325.5)	(16.9)
Societe Generale Group	163.3	(167.2)	(3.9)
State Street	479.0	(490.5)	(11.4)
TD Securities	940.4	(966.3)	(25.8)
UBS Group	2,151.4	(2,341.9)	(190.4)
Wells Fargo & Co.	0.8	(0.8)	(0.0)
Total	59,824.7	(62,601.3)	(2,776.6)

Exhibit .23

Source: Sec Lending

### Section VI. PERF Risk Detail

### **Counterparty Risk (cont.)**

Master Securities Forward Transaction Agreement (MSFTA) Includes forward purchase/sale of mortgage bonds and TBAs

Counterparty	Net MTM Total (\$M) (+) = CalPERS is due money (-) = CalPERS owes money	Collateral Posted (\$M) (+) = CalPERS has posted (-) = Counterparty has posted	Net Exposure (\$M) (+) = CalPERS exposed to Counterparty
Bank of Montreal Capital Markets	6.2	(6.2)	(0.0)
BNP Paribas Securities Corp	3.3	(3.3)	(0.0)
Barclays Capital Inc.	(16.4)	15.5	(0.9)
Citigroup Global Markets, Inc.	9.0	(9.0)	(0.0)
Daiwa Capital Markets America Inc.	(0.2)	0.2	(0.0)
Goldman Sachs & Co.	(11.6)	11.2	(0.4)
Jeffries	0.1	0.0	0.1
JP Morgan Securities Inc.	(40.7)	40.7	0.0
Merrill Lynch, Pierce, Fenner, Smith Incorporated	6.1	0.2	6.3
Mizuho Securities	(20.2)	20.2	0.0
Morgan Stanley & Co	(22.4)	21.3	(1.1)
Nomura Securities Intrntl. Inc.	9.3	(9.1)	0.2
StoneX	6.9	(7.1)	(0.2)
Toronto Dominion Securties	1.0	(1.0)	(0.0)
Wells Fargo Securities, LLC	55.2	(55.2)	(0.0)
Total	(14.3)	18.2	3.9

Exhibit 6.24

# Futures Commission Merchant (FCM) Exposure Includes exchange traded futures

Counterparty	Collateral Posted (\$M)
Citigroup Global Markets Inc.	234.3
BOFA Securities Inc.	744.0
Goldman Sachs	105.5
Total	1,083.8

Exhibit 6.25

### Section VI. PERF Risk Detail

### Counterparty Risk (cont.)

- Custodial risk is the risk that, in the event a depository institution or counterparty fails, CalPERS
  would not be able to recover the value of its deposits, investments, or collateral securities. This risk
  arises in exchange traded derivatives, where CalPERS posts margin to engage in exchange traded
  derivatives via a Futures Commission Merchant (FCM)
- FCMs are highly regulated financial entities that accept orders for exchange traded contracts in Central Clearing Counterparties (CCPs). Collateral posted at the FCM is mostly used to meet the margin requirements at the CCPs
- The collateral in the FCM exhibit 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
- CalPERS has pledged \$2.9 billion in Regulatory Initial Margin (UMR IM), and each counterparty (for non-cleared SWAPS) has pledged to CalPERS the same. Eligible collateral (IM) is pledged to a segregated third-party custodian. Each secured party has security interest, lien, and right of set-off against the non-secured party in the event of default and liquidation

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### As of June 30, 2025

### **Global Public Equity Markets Investment Highlights**

Thoughtfully delivers multiple equity betas and risk-managed systematic and opportunistic alpha in a risk and cost aware manner

- Both segments delivered strong absolute and excess return. Factor-weighted segment posted a 5-Yr return of +9.6%, which was in line with its benchmark, while Cap-weighted segment 5-Yr return of +14.3% was +33 basis points above its benchmark
- The Cap-Weighted Traditional Active strategy was the best performing for the 5-Yr period, at +16.3% absolute return and +276 basis points of relative return
- 89% of the total GPE portfolio is invested in cost-efficient, internally managed strategies
- Allocated \$6.5 billion to active strategies in a risk-aware manner

#### **Key Performance and Risk Metrics**

\$214.8B **Ending Asset Value** 

9.8% 10-Yr Annualized **Total Return** 

\$2.4B 5-Yr Cumulative Value Added

**18.2%** Forecasted Volatility

**35** bps **Forecasted Tracking Error** 

#### Strategy Allocation (\$B)

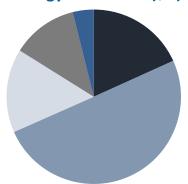


Exhibit 7.1

■ Factor Weighted | \$39.2B

■ Cap Wtd - Index Oriented | \$107.7B

Cap Wtd - Enhanced Index | \$33.3B

■ Cap Wtd - Traditional Active | \$26.2B

■ Cap Wtd - Multi Factor | \$8.4B

#### Strategy 5-Year Performance

Strategy 3-real remorniance	Excess				
	Total	Benchmark	Return (basis	Value Added	
	Return	Return	points)	(\$M)	
Factor Weighted	9.6%	9.6%	6	152.4	
Cap Weighted	14.3%	14.0%	33	2,225.0	
Index Oriented	13.9%	13.8%	10	611.1	
Enhanced Index	16.8%	16.2%	58	258.1	
Traditional Active	16.3%	13.5%	276	1,480.8	
Multi Factor	14.8%	14.0%	86	28.0	

# Section VII. Program Overviews Global Public Equity Markets Operational Highlights

Enhanced governance, manager assessments, proxy voting and shareholder advocacy for accountability

- Advanced automation and development of manager skill assessments
- Voted all public company proxies (9,887 meetings and 93,506 ballots) in a manner consistent with CalPERS' Governance & Sustainability Principles and CalPERS Investment Beliefs
- Advocated for shareholder rights and promoted board accountability, including voting to oppose 400
   Directors for Climate Oversight Concerns and to oppose 41% of Say-on-Pay Proposals in the U.S.

#### **Key Operational Metrics**

28	89%	93,506	402	4 bps
# of Team	Internally-	Proxy Voting/	Companies	FY Total Program
Members	Managed	Ballot Items	Engaged	Fees Paid <sup>3</sup>

	FY 2024-25			FY 2023-24		
Expense Type	Avg AUM (\$M)	Fees Paid (\$M)	Fees Paid <sup>3</sup> (BPS)	Avg AUM (\$M)	Fees Paid (\$M)	Fees Paid <sup>3</sup> (BPS)
Internal Management <sup>1</sup>	\$ 192,292	\$ 12.8	0.7	\$ 195,259	\$ 10.6	0.5
External Management <sup>2</sup>	\$ 18,481	\$ 50.4	27	\$ 14,448	\$ 47.1	33
Consultants Expense	N/A	\$ 1.4	0.1	N/A	\$ 1.3	0.1
Technology & Operating Expense	N/A	\$ 16.2	8.0	N/A	\$ 13.6	0.6
Total Program	\$ 210,774	\$ 80.9	4	\$ 209,706	\$ 72.6	3

<sup>&</sup>lt;sup>1</sup> Internal Management Fees includes internal model provider fees

Exhibit 7.3

#### **Executing Our Strategic Initiatives**

Building on FY 2024-25 success, key focus areas for the coming year include:

- Enhancing the Active Risk framework and Portfolio Construction to further diversify sources of alpha potential and efficiently capture equity risk premia
- Support the Data and Technology Modernization Initiative through engagement in the design and implementation of Total Fund and Capital Markets Platform Project
- Progressing the Sustainable Investments 2030 Strategy through development of a framework for identifying and selecting active climate transition strategies

<sup>&</sup>lt;sup>2</sup> Includes base and performance fees

<sup>3</sup> Management Fee basis points calculated on Int/Ext Avg AUM. Consultants and Technology & Operating Expense basis points calculated on Total Program Avg AUM

### **Global Fixed Income Investment Highlights**

#### **Understanding Our Returns: Key Drivers**

Serve as a long-term economic diversifier to equity risk and be a reliable source of income and liquidity

- All spread segments had positive dollar value added over the fiscal year, maintaining alpha generation through a turbulent 2<sup>nd</sup> quarter
- Treasury, Mortgage-backed Securities, and High-Yield outperformed their respective benchmarks over the last five years, while the Emerging Market Sovereign Segment was the best performing segment in the past year relative to its benchmark. (+7.9% absolute return, +32 bps of relative return)

#### **Key Performance and Risk Metrics**

\$168.6B Ending

Asset Value

2.5% 10-Yr Annualized Total Return \$1.2B 5-Yr Cumulative Value Added **6.3%**Forecasted Volatility

**31 bps**Forecasted
Tracking Error

#### **Strategy Allocation (\$B)**



Exhibit 7.4

#### **Strategy 5-Year Performance**

	Excess				
	Total Return	Benchmark Return	Return (basis points)	Value Added (\$M)	
			1	· · · · · ·	
Treasury	(6.4)%	(6.4)%	3	56.1	
MBS	(0.3)%	(0.5)%	20	267.4	
IG Corporates	(1.4)%	(1.4)%	(1)	1.8	
High Yield	5.6%	5.5%	11	100.6	
Emerging Mkt Sov Bonds <sup>1</sup>	-	-	-	-	

### **Global Fixed Income Operational Highlights**

Advancing cross-asset collaboration, Treasury strategies, and innovative investment solutions

- Collaborated on cross asset class initiatives such as Insurance Linked Securities, evaluation of IG
   Private Debt, and secondment of a key team member
- Enhanced partnership with Investment Treasury Group with respect to US Treasury portfolio implementation, total fund liquidity and leverage, and improved performance attribution
- Provided seed capital to a new High Yield ETF managed by JP Morgan

#### **Key Operational Metrics**

28 77% 5 \$62.4M 6 bps
# of Team
Members Managed Segments Segments Mgt Fees¹ Fees Paid ²

	FY 2024-25			FY 2023-24		
Expense Type	Avg AUM (\$M)	Fees Paid (\$M)	Fees Paid <sup>2</sup> (BPS)	Avg AUM (\$M)	Fees Paid (\$M)	Fees Paid <sup>2</sup> (BPS)
Internal Management	\$ 120,522	\$ 13.4	1	\$ 100,575	\$ 11.8	1
External Management <sup>1</sup>	\$ 34,755	\$ 62.4	18	\$ 28,133	\$ 48.6	17
Consultants Expense	N/A	\$.0	0	N/A	\$.0	0
Technology & Operating Expense	N/A	\$ 11.9	1	N/A	\$ 9.0	1
Total Program	\$ 155,277	\$ 87.7	6	\$ 128,708	\$ 69.4	5

<sup>&</sup>lt;sup>1</sup> Includes base and performance fees

Exhibit 7.6

#### **Executing Our Strategic Initiatives**

Global Fixed Income will continue to research additional value-add strategies on existing mandates and new opportunities with a focus on both internally managed and externally managed implementation. Collaboration will continue with the Sustainable Investments team on sustainable investment opportunities and ESG integration. Finally, the team will have a large role in INVO's Data & Technology Modernization Initiative.

<sup>&</sup>lt;sup>2</sup> Management Fee basis points calculated on Int/Ext Avg AUM. Consultants and Technology & Operating Expense basis points calculated on Total Program Avg AUM

### **Private Equity Investment Highlights**

#### **Understanding Our Returns: Key Drivers**

Prioritizing manager selection and scaling co-investments to enhance net returns and reduce costs

- Shifting focus to smaller funds in Buyout, expanding Growth, and adding Venture to increase and diversify the opportunity set
- CalPERS PE strategy has outperformed its peer set on a short-term basis, and almost entirely eliminated the performance gap on a longer term (5 yr+) basis
- The strategy overhaul has been successful in delivering on its co-investment goals while meaningfully
  growing its Growth and Venture exposure, with more VC NAV build to come

#### **Key Performance and Risk Metrics**

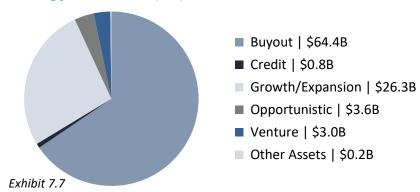
\$98.3B Ending Asset Value 11.5% 10-Yr Annualized Total Return

\$(3.0)B
5-Yr
Cumulative
Value Added

\$31.4B
Contractual
Unfunded
Commitments

**21.2%** Forecasted Volatility

#### Strategy Allocation (\$B)



#### **Strategy 5-Year Performance**

		<b>Private Equity</b>	Excess	
	Total	Benchmark	Return (basis	Value Added
	Return	Return	points)	(\$M) <sup>1</sup>
Buyout	17.5%	17.4%	11	(1,623.7)
Credit	10.0%	17.4%	(739)	(451.6)
Growth/Expansion	15.8%	17.4%	(161)	(222.7)
Opportunistic	13.7%	17.4%	(368)	(443.1)
Venture	9.7%	17.4%	(769)	(160.9)

Exhibit 7.8

### **Private Equity Operational Highlights**

#### Enhancing returns by building a more sustainable portfolio

- Funded ~\$1.4 billion of PE co-investments supporting Climate solutions and made \$10.4 billion in commitments to diverse managers
- Coordinated with Sustainable Investments to adopt the Labor Principles and a stakeholder engagement process
- Continued expanded industry participation in the ESG Data Convergence Initiative, which CalPERS Co-founded. Proportion of NAV with participating GPs increased from 50% to 75%

#### **Key Operational Metrics**

35 # of Team Members

133 # of Managers 465 <sup>1</sup> # of Funds

2,687<sup>2</sup> # of Portfolio Companies

**131** bps **FY Total Program** Fees Paid 4

	FY 2024-25			FY 2023-24		
Expense Type	Avg AUM (\$M)	Sharing Paid	Fees & Profit Sharing Paid <sup>4</sup> (BPS)	Avg AUM (\$M)	Fees & Profit Sharing Paid (\$M)	Fees & Profit Sharing Paid <sup>4</sup> (BPS)
Internal Management	\$ 0	\$ 10.1	1	\$ 0	\$ 11.6	2
External Management <sup>3</sup>	\$ 88,669	\$ 1143.0	129	\$ 67,742	\$ 885.1	131
Consultants Expense	N/A	\$ 1.0	0	N/A	\$ 2.0	0
Technology & Operating Expense	N/A	\$ 10.2	1	N/A	\$ 11.0	2
Total Program	\$ 88,669	\$ 1164.3	131	\$ 67,742	\$ 909.8	134

<sup>&</sup>lt;sup>1</sup> Including Funds, Fund-of-Funds, and Customized Investment Accounts as of March 31, 2025, due to quarter-lag reporting

<sup>4</sup> All basis points fees paid figures are calculated on Total Program AUM

Exhibit 7.9

#### **Executing Our Strategic Initiatives**

During the fiscal year, the Private Equity team prioritized:

- Committing capital consistently by vintage year
- Investing in diverse and emerging managers to improve returns
- Engaging with investment partners to prioritize sustainable investment frameworks, such as Climate and Labor Principles
- Diversifying the PE Program by increasing Venture/ Growth and adding more Middle Market Buyout

<sup>&</sup>lt;sup>2</sup> Accounting for 95% of total company value as of March 31, 2025, due to quarter-lag reporting

<sup>&</sup>lt;sup>3</sup> Includes management base fees inclusive of offsets and waivers and profit sharing paid

### **Real Assets Investment Highlights**

#### **Understanding Our Returns: Key Drivers**

#### Driven to focus on core assets that offer resiliency through cycles

- Both Infrastructure and Forestland delivered strong absolute and excess returns over the 1 and 5-Yr periods
- Infrastructure posted a 5-Yr return of +8.0%, which was +601 basis points above its benchmark, while Forestland 5-Yr return of +6.0% was +404 basis points above its benchmark
- Real Estate recent performance challenged by higher interest rates and corresponding capital market adjustments. However, current outlook is favorable with property fundamentals in equilibrium and valuations rebounding

#### **Key Performance and Risk Metrics**

\$73.0B Ending Asset Value 4.6% 10-Yr Annualized Total Return

\$3.0B
5-Yr
Cumulative
Value Added

\$7.5B
Contractual
Unfunded
Commitments

12.3% Forecasted Volatility

#### Strategy Allocation (\$B)

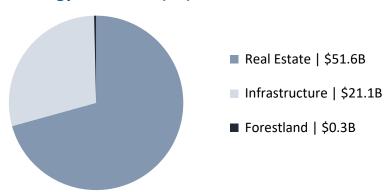


Exhibit 7.10

#### **Strategy 5-Year Performance**

		Excess				
	Total Return	Benchmark Return	Return (basis points)	Value Added (\$M)		
Real Estate	2.0%	2.0%	0	(1,349.8)		
Infrastructure	8.0%	2.0%	601	4,373.3		
Forestland	6.0%	2.0%	404	(10.1)		

### **Real Assets Operational Highlights**

#### Driving value through strategic allocations and high-quality partnerships

- Increased allocations to cost efficient co-investment strategies within Infrastructure and Non-Core strategies within Real Estate
- Continued focus on strong partnerships with high quality managers

#### **Key Operational Metrics**

**39** # of Team Members

**83** <sup>1</sup> # of Partnerships **85%** <sup>2</sup>
Into GRESB Assessment

**66 bps**FY Total Program
Fees Paid <sup>4</sup>

	FY 2024-25			FY 2023-24		
Expense Type	Avg AUM (\$M)	Fees Paid (\$M)	Fees Paid <sup>4</sup> (BPS)	Avg AUM (\$M)	Fees Paid (\$M)	Fees Paid <sup>4</sup> (BPS)
Internal Management	\$ 0	\$ 12.9	2	\$ 0	\$ 13.1	2
External Management <sup>3</sup>	\$ 68,860	\$ 426.2	62	\$ 68,364	\$ 394.2	58
Consultants Expense	N/A	\$ 2.5	0	N/A	\$ 2.2	0
Technology & Operating Expense	N/A	\$ 14.5	2	N/A	\$ 14.2	2
Total Program	\$ 68,860	\$ 456.2	66	\$ 68,364	\$ 423.7	62

<sup>&</sup>lt;sup>1</sup> As of March 31, 2025, due to Quarter-lag reporting

Exhibit 7.12

#### **Executing Our Strategic Initiatives**

The Real Assets team continues to make progress on its strategic initiatives, including:

- Continued focus on best-in-class managers leveraging CalPERS' competitive advantages
- Continued liquidation of Non-Strategic assets
- Accelerated deployment in co-investment vehicles
- Sustainable investment exposure consistent with Sustainable Investments 2030 Plan
- Implementation of the Investments Data & Technology Modernization initiative

 $<sup>^2\,\%</sup>$  of the portfolio submitted into GRESB Assessment in 2024

<sup>&</sup>lt;sup>3</sup> Includes base and performance fees

 $<sup>^{\</sup>rm 4}$  All basis points fees paid figures are calculated on Total Program AUM

### **Private Debt Investment Highlights**

#### **Understanding Our Returns: Key Drivers**

#### Continued program growth and diversification

- Private Debt continues to be on pace in growing the program. Portfolio construction approach
  continues to focus on strong partnerships with high quality managers while ensuring diversification
  across vintage, manager and strategy
- Inception to date, the Private Debt program has outperformed the benchmark by +290 basis points while the 3-Yr and 1-Yr performance has exceeded the benchmark by +353 and +438 basis points respectively
- Private Debt continues to be focused on the deployment in attractive risk-adjusted opportunities and through co-investments that will continue to help drive performance for the program

#### **Key Performance and Risk Metrics**

\$21.3B Ending Asset Value **10.8%**5-Yr
Total Return<sup>1</sup>

\$1.3B
5-Yr
Cumulative
Value Added¹

\$23.3B
Contractual
Unfunded
Commitments

**7.0%**Forecasted Volatility

#### **Strategy Allocation (\$B)**



Exhibit 7.13

#### **Strategy 3-Year Performance**

		Private Debt	Excess	
	Total	Benchmark	Return (basis	Value Added
	Return	Return	points)	(\$M)
Direct Lending	12.7%	8.5%	420	1,183.3
Specialty Lending	9.4%	8.5%	93	3.4
Real Estate Financing	9.8%	8.5%	139	28.1

Exhibit 7.14

<sup>&</sup>lt;sup>1</sup> Includes periods prior to 7/1/2022 when Private Debt was part of Opportunistic Strategies

<sup>&</sup>lt;sup>2</sup> Other includes accounting payables and receivables and cash

### **Private Debt Operational Highlights**

#### Strengthened leadership, team, and portfolio monitoring capabilities

- Private Debt Managing Investment Director has been named, and appointment will take effect in October 2025
- Private Debt continues to grow and recruit investment staff, with the portfolio monitoring capabilities being built up

#### **Key Operational Metrics**

**10** # of Team Members

**3.8%**Current
Allocation

**12** <sup>1</sup>
# of
External Managers

**70** # of Funds

**57 bps**FY Total Program
Fees Paid <sup>3</sup>

	FY 2024-25			FY 2023-24		
Expense Type	Avg AUM (\$M)	Fees & Profit Sharing Paid (\$M)	Fees & Profit Sharing Paid <sup>3</sup> (BPS)	Avg AUM (\$M)	Fees & Profit Sharing Paid (\$M)	Fees & Profit Sharing Paid <sup>3</sup> (BPS)
Internal Management	\$ 11,413	\$ 4.4	4	\$ 11,848	\$ 4.6	4
External Management <sup>1,2</sup>	\$ 18,231	\$ 163.8	90	\$ 11,793	\$ 115.8	98
Consultants Expense	N/A	\$ .1	0	N/A	\$.1	0
Technology & Operating Expense	N/A	\$ 2.1	1	N/A	\$ 1.6	1
Total Program	\$ 29,644	\$ 170.3	57	\$ 23,642	\$ 122.1	52

<sup>&</sup>lt;sup>1</sup> As of March 31, 2025, due to Quarter-lag reporting

#### Exhibit 7.15

#### **Executing Our Strategic Initiatives**

As the Private Debt team continues to expand its capabilities, strategic focus includes:

- Climate Market mapping and understanding the various climate-themed fund offerings in Private Debt
- External manager Sustainability engagement, including understanding manager-specific views on asset materiality
- Identification of relevant Sustainability metrics/ KPI
- Diversify strategy to decrease direct lending and increase other strategies

<sup>&</sup>lt;sup>2</sup> Includes base and performance fees

<sup>3</sup> Management Fee basis points calculated on Int/Ext Avg AUM. Consultants and Technology & Operating Expense basis points calculated on Total Program Avg AUM

### **Low Liquidity Enhanced Returns Highlights**

#### **Understanding Our Returns: Key Drivers**

Utilizing excess liquidity to generate strong absolute and excess returns

- The Low Liquidity Enhanced Return (LLER) Portfolio utilizes excess liquidity to generate excess returns
- LLER had strong absolute and excess return. It posted a 5-Yr return of +4.9%, which was +191 basis points above its benchmark
- CLO AAA coupons, 5.5% currently, remain attractive due to the higher SOFR base rate

#### **Key Performance and Risk Metrics**

\$11.9B Ending Asset Value **3.7%** 10-Yr Total Return \$1.1B 5-Yr Cumulative Value Added **2.3%**Forecasted Volatility

**2.7%**Forecasted
Tracking Error

#### **Strategy 5-Year Performance**

			Excess	
	Total Return	Benchmark Return	Return (basis points)	Value Added (\$M)
Low Liquidity Enhanced Returns	4.9%	3.0%	191	1,139.5

Exhibit 7.16

#### **Sustainable Investments**

#### Leading the charge in sustainable investing

#### **Building out the Sustainable Investments Team**

CalPERS Sustainable Investments team has grown from 11 staff members to 18 over the course of FY 2024-25. Staff have been hired across each of the Sustainable Investments functional areas including SI Private Markets, SI Public Markets, and SI Policy and Partnerships. This nearly completes the build out of the team that is focused on the five Sustainable Investments objectives: Generate Outperformance, Increase Portfolio Resilience, Pathway to Net Zero by 2050, Promote Diversity, Equity & Inclusion, and Improve Financial Markets Efficiency. The Sustainable Investments team provides its annual program review with the progress on its objectives each November.

#### **Launching ESG Integration**

Two hires have been brought on board to embed ESG integration across both private and public markets. In private markets, the initiative has been advanced by crafting a detailed ESG integration roadmap and executing a targeted retroactive review of existing managers' ESG programs. This lays the groundwork for sustainable due diligence and long-term alignment. In public markets, a Labor Principles Framework for Fixed Income has been designed not only to flag controversial portfolio holdings, but also to serve as a strategic foundation and a scalable model that will be extrapolated

#### **Expanding Climate Investments with the Asset Classes**

CalPERS is targeting to invest \$100 billion in climate solutions by 2030, capitalizing on opportunities created by the transition to a low carbon-economy and funding investments in the areas of mitigation, adaptation and transition. The Sustainable Investments team has been working alongside each Asset Class to identify attractive investment opportunities. CalPERS had identified \$47 billion in existing climate-focused investments when the plan was launched in November 2023. Through appreciation of existing investments and new commitments, CalPERS climate solutions investments have continued to increase beyond the \$50 billion that was last reported to the CalPERS Board of Administration in November 2024. An updated number will be reported in November 2025.

#### **CalPERS' Emerging and Diverse Manager Program**

Our approach to investing with emerging managers is grounded in research and data. Studies—including CalPERS' own analysis—demonstrate that emerging managers can generate outperformance, particularly in less efficient market segments. We believe emerging managers should be integrated into each asset class as part of the normal course of business.

#### **Sustainable Investments**

#### **Advancing Sustainable Investment Practices**

#### **Partnership Insights Survey**

CalPERS partners with Lenox Park Solutions to annually administer the Partnership Insights Survey to all our external managers. This voluntary annual survey provides CalPERS a better understanding of our partners, and their business practices as it relates to human capital management, while generating a Lenox Park Impact (LPI) score for analysis and benchmarking ourselves to peers and the industry broadly. Additionally, survey responses provide us with greater insight into our portfolio leading to a better partnership and provide CalPERS' asset classes with additional data that serves as a potential risk mitigant. We will track and report on the characteristics of our portfolio as it relates to DEI as a measure of progress over time. The 2024 Partnership Insights survey results was presented during the Sustainable Investments annual program review in November 2024. 91% of the 194 public and private asset class managers responded to the survey. Of the respondents, 133 were privately held and 33% of those managers met CalPERS' definitions for diverse owned.

#### **Labor Principles**

The CalPERS Labor Principles reflect our belief that effectively managed human capital drives value creation for investors. They speak common truths about the ethical treatment of labor and the importance of safe and healthy workplaces. They are aligned and consistent with employment laws and regulations and were adopted by the CalPERS Board of Administration in 2023. As part of our continued implementation of CalPERS Labor Principles, we conduct a rigorous selection process for managers and investments and want our business partners to uphold the CalPERS Labor Principles. Our goal is to reduce the risk of labor-related issues in our portfolio companies. When an issue is identified, CalPERS follows our engagement process and engages with stakeholders, investment managers, and corporate leaders to address short- and long-term labor risks and opportunities in our portfolio companies. All new allocations to CalPERS external managers continue to have external managers attest to their broad alignment with CalPERS' Labor Principles. In November 2024, as part of Sustainable Investments' annual program review, an update was provided on how CalPERS' Labor Principles are integrated into each asset class.

#### **Responsible Contractor Policy**

In FY 2024-25, CalPERS completed an extensive review and refresh of the RCP Policy. Staff are building a new website that will streamline communication for bidding opportunities, promote broad outreach and fair competition, and enhance competitive bidding and selection for RCP Policy bidding opportunities. We expect the CalPERS Responsible Contractor Bidding Opportunities site to be launched in Fall 2025.

### **Total Fund Portfolio Management**

Research, Allocation, and Liquidity for Strategic Returns

#### **Key Accomplishments Fiscal Year 2024-25**

- Led INVO's participation in 2025 Asset Liability Management cycle
- Established the Investment Treasury function, improving governance, frameworks, and financing/reinvestment channels
- Enhanced liquidity management and balance sheet monetization, boosting P/L and cost savings from enhanced cash reinvestment
- Applied the Total Portfolio Approach to support Board decision making and evolution of CalPERS' investment model

#### **Areas of Responsibility**

Function	Description
Total Portfolio Construction	Support the Asset Liability Management process and conduct research, portfolio modeling, and portfolio option generation to support portfolio allocation decisions
Strategy Development & Research	Research and propose new cross-asset strategies to enhance the portfolio's active risk characteristics, improving both return potential and overall risk profile
Economics	Provide macro-economic analytics and commentary to support Investment Committee, CIO, and Programs
Liquidity and Financing	Manage PERF liquidity posture through the integration of holistic cash and financing functions
Active Risk Budgeting	Support CIO and Deputy CIOs in integrated management of value add (benchmark-relative) investment activities
Allocation Implementation	Manage daily exposure of PERF allocation toward strategic and tactical targets including cashflows and completion activities
Portfolio Analytics	Provide integrated perspectives on portfolio positioning and risk to internal and external stakeholders

# Section VIII. Operational Highlights

As of June 30, 2025

### **Public Employees' Retirement Fund (PERF) Metrics**

**10**# of Trusts
Managed

**318**# of Team
Members

27.5 bps
FY Total
PERF Costs

**11 bps**5-Yr CEM
Cost Savings

4 FY 2024-25 Strategic Initiatives

#### **Investment Controls & Operational Risk**

- Adopted three technologies to streamline operations, enhance due diligence, and reduce risk
- Established a New Investment Activity process to ensure operational readiness for new deals and funds
- Developed an enhanced governance framework and a streamlined investment review process for use within a Total Portfolio Approach

#### **Investment Operations**

- Efficiently and effectively processed a net total of ~250,000 public market trade flows and private asset capital movements
- Supported contracting for the Investment Data & Technology Modernization initiative
- Implemented professional development and career progression toolkit for Investment Operations, in collaboration with Human Resources and Investment Talent & Culture

#### **Investment Relations**

- Led external INVO communications, events, and strategic initiatives, including high-profile visits, conferences, and webinars
- Streamlined Investment Committee workflows, enhanced messaging, and advanced culture through internal communications, events, and web content

#### **Investment Talent & Culture**

- Reduced INVO's vacancy rate from 16% to 14% in FY 2024-25 by facilitating recruitment and hiring efforts, building on progress from a peak vacancy rate of 22% in 2023
- Led talent and engagement initiatives that resulted in a 63% improvement in INVO's 2-Year Employee Net Promoter Score and a 45% improvement in the 1-Year score, as measured by the Employee Engagement Survey for FY 2024-25

#### **Investment Technology & Performance**

- Advanced key initiatives which reduced manual processes, improved system stability, and enabled scalable analytics
- Ensured uninterrupted availability of critical applications and data during trading hours, enhancing data reliability and operational efficiency in Capital Markets and Private Markets
- Achieved significant progress on the Data and Technology Modernization initiative to establish a foundation for sustained long-term impact

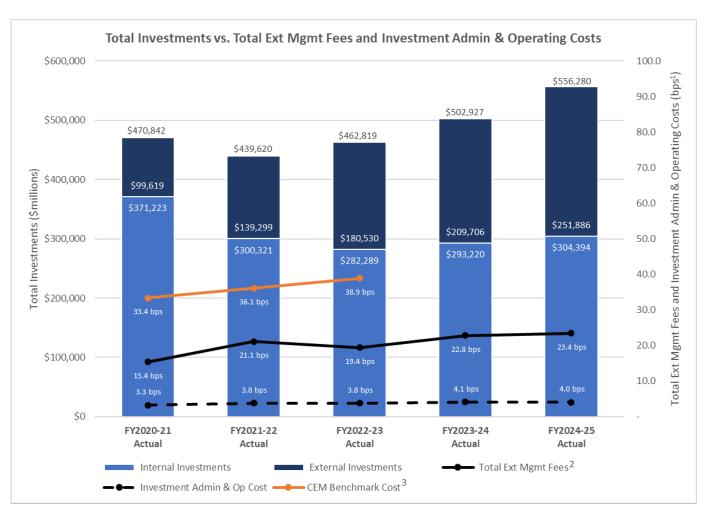
# Section VIII. Operational Highlights

### **PERF Investment Expenses**

#### Fiscal Years 2020-21 thru 2024-25

#### Managing costs to promote long-term sustainability

- From fiscal years 2021-22 to 2024-25, the increase in private assets and the use of external active management, resulted in a corresponding rise in external management fee basis points.
- Controllable Investment Admin & Operating Cost basis points have remained relatively flat over the five-year period
- As responsible stewards of the fund, we have continued to focus on being deliberate and cost
  effective when incurring expenses, which has allowed us to consistently remain low cost compared
  to our peers



<sup>&</sup>lt;sup>1</sup> Basis points calc based on total AUM and expense type

<sup>&</sup>lt;sup>2</sup> PE profit sharing paid included in unrealized gain/loss general ledger. Dollars paid included in Investment Section of Annual Consolidated Financial Report

<sup>&</sup>lt;sup>3</sup> CEM Benchmark Costs are through the current CEM report. Incomplete data due to lag in CEM reporting.

# Section VIII. Operational Highlights

### **Fiscal Year 2024-25 Strategic Initiatives**

#### Driving operational excellence and long-term value creation

Strategic initiatives were designed to transition to a more actively managed portfolio, improve operational efficiencies, and drive cultural change, with the goal of long-term pension sustainability. These initiatives align with INVO's four core pillars:

- **People:** Fostering a diverse, risk-intelligent INVO culture by enhancing talent recruitment, retention, and development to drive collaboration and innovation
- Process: Modernizing investment data and technology, to enable better portfolio outcomes and operational effectiveness
- **Portfolio:** Strengthening risk management, fostering innovation, integrating sustainable investing into our decision-making framework, and improving portfolio resiliency
- Performance: Driving both absolute and relative investment returns

Foundational to these initiatives is the setting, understanding, and implementation of the Board's risk, which we are working through in our current Asset Liability Management process. We are doing so in partnership with the Actuarial and Financial offices.

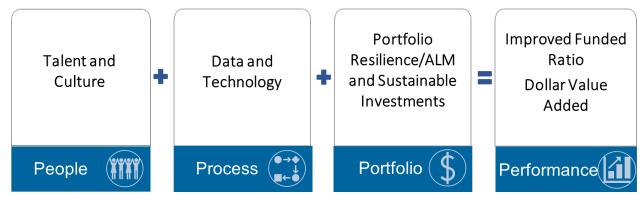


Exhibit 8.5

Below are just a few highlights of the many accomplishments from our team, in collaboration with our enterprise partners:

- INVO Culture Initiatives: Launched five "Culture Club 1.0" experiments—Welcome Mat, Know Your INVO, Recognition, Learning & Development, and Ideas@Work—to build a diverse, collaborative, and risk-intelligent culture
- Investment Data and Technology Modernization: Secured funding approval, developed resourcing plans, and engaged implementation partners, positioning us for long-term success
- Sustainable Investments (SI) 2030: Integrated sustainability considerations into the decisionmaking framework and collaborated with asset classes on climate investments

# **Appendix 1: PERF Benchmarks**

Asset Class	Policy Benchmark
Public Equity – Cap Weighted	Custom FTSE All World, All Cap Equity
Public Equity – Factor Weighted	Custom FTSE Factor Weighted Index
Private Equity	Custom FTSE All World, All Cap Equity + 150 basis points, 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 Quarterly Property Fund index (Unfrozen) Quarter Lag
Private Debt	Morningstar LSTA U.S. Leveraged Loan 100 Index +125 basis points, Quarter Lag
Strategic Leverage	ICE BofA US 3-Month Treasury Bill Index +50 basis points

# **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 (bps)	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.

<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.

<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 contacts.  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 (LCR)	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).

<u>Term</u>	<u>Definition</u>
Master Securities Forward Transaction Agreement (MSFTA)	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.
	<ul> <li>Daily Rate of Return Formula</li> <li>6/30/2016 &amp; Prior: Dollar Value Added / (Beginning Market Value + Net Cash Flows)</li> <li>7/1/2016 to Present: Dollar Value Added / Beginning Market Value</li> <li>Dollar Value Added = Gains/losses due to price appreciation and income</li> </ul>
	Daily returns are geometrically linked to produce longer period returns.
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.

<u>Term</u>	<u>Definition</u>
Portfolio Market Value	<ul> <li>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.</li> <li>Public Asset Market Values are calculated as units held x price per unit + accrued income.</li> <li>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.</li> </ul>
Real Gross Domestic Product (GDP)	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.
SLA/Sec Lending	Refers to the Securities Lending Agreement ("SLA") under which CalPERS lends securities and receives either cash or other securities as collateral.
Supply-Chain	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.
Supplemental Income Plans (SIP)	Refers to the combined program for the Public Employees' Deferred Compensation Fund and the Supplemental Contributions Program.
Tracking Error	Standard deviation of the differential return between the portfolio and an equal investment in the benchmark.
Uncertainty	The range of possible values or paths. These are unknown.
Value Added	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".
Volatility	A measure of the distribution of portfolio returns (or a given security). It is

typically defined as the statistical standard deviation of returns, annualized.

<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.