

# CalPERS Trust Level Monthly Update - Performance & Risk



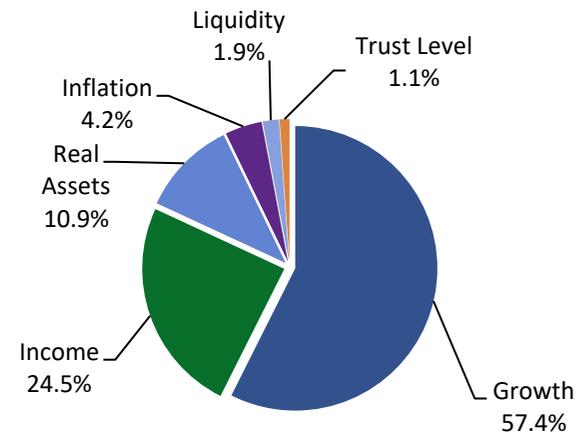
## Public Employees Retirement Fund (PERF)

As of September 30, 2018

### Asset Allocation

| Asset Allocation               | EMV (bil) | Current Allocation (%) | Interim Policy Weight (%) <sup>1</sup> | Variance (%) |
|--------------------------------|-----------|------------------------|--|--------------|
| <b>Growth</b>                  | \$ 206.8  | 57.4%                  | 57.2%                                  | 0.2%         |
| Public Equity                  | \$ 179.2  | 49.8%                  | 49.2%                                  | 0.6%         |
| Private Equity                 | \$ 27.6   | 7.7%                   | 8.0%                                   | (0.3%)       |
| <b>Income</b>                  | \$ 88.2   | 24.5%                  | 23.4%                                  | 1.1%         |
| <b>Real Assets</b>             | \$ 39.3   | 10.9%                  | 12.0%                                  | (1.1%)       |
| Real Estate                    | \$ 33.6   | 9.3%                   | 10.0%                                  | (0.7%)       |
| Infrastructure                 | \$ 4.4    | 1.2%                   | 1.0%                                   | 0.2%         |
| Forestland                     | \$ 1.3    | 0.4%                   | 1.0%                                   | (0.6%)       |
| <b>Inflation</b>               | \$ 15.2   | 4.2%                   | 5.2%                                   | (1.0%)       |
| <b>Liquidity</b>               | \$ 6.7    | 1.9%                   | 2.2%                                   | (0.3%)       |
| <b>Trust Level<sup>2</sup></b> | \$ 4.0    | 1.1%                   | -                                      | 1.1%         |
| <b>Total Fund</b>              | \$ 360.1  | 100.0%                 | 100.0%                                 | 0.0%         |

### Current Total Fund Allocation



|                  |          |
|------------------|----------|
| TAP <sup>3</sup> | \$ 0.1   |
| TF Plus TAP      | \$ 360.3 |

### Performance Summary

| Performance Summary            | FYTD       |           |            | 1-Yr       |           |            | 3-Yr       |           |            | 5-Yr       |           |            | 10-Yr      |           |            | 5-Yr Realized Information Ratio <sup>4</sup> |
|--------------------------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|--|
|                                | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps |  |
| <b>Growth</b>                  | 4.2%       | 3.8%      | 41         | 10.8%      | 11.3%     | (46)       | 13.6%      | 14.0%     | (37)       | 9.7%       | 10.2%     | (56)       | 8.9%       | 9.9%      | (103)      | -  |
| Public Equity                  | 4.2%       | 4.2%      | 3          | 10.2%      | 10.6%     | (38)       | 14.2%      | 14.2%     | 1          | 9.3%       | 9.3%      | 1          | 8.9%       | 9.1%      | (19)       | 0.0  |
| Private Equity                 | 4.1%       | 1.4%      | 276        | 14.8%      | 14.8%     | 5          | 10.8%      | 12.4%     | (157)      | 11.8%      | 14.1%     | (224)      | 9.7%       | 13.4%     | (366)      | -  |
| <b>Income</b>                  | (0.4%)     | (0.5%)    | 8          | (1.4%)     | (1.8%)    | 39         | 2.9%       | 2.2%      | 66         | 3.6%       | 2.9%      | 73         | 6.3%       | 5.0%      | 126        | 1.2  |
| <b>Real Assets</b>             | 0.8%       | 1.8%      | (105)      | 6.2%       | 7.2%      | (98)       | 7.0%       | 7.8%      | (84)       | 9.3%       | 9.3%      | (8)        | 0.9%       | 6.5%      | (555)      | -  |
| Real Estate                    | 1.4%       | 1.8%      | (46)       | 5.8%       | 7.5%      | (171)      | 7.2%       | 8.4%      | (118)      | 9.7%       | 10.0%     | (33)       | 0.6%       | 7.3%      | (669)      | -  |
| Infrastructure                 | 0.7%       | 1.8%      | (114)      | 16.8%      | 6.8%      | 996        | 12.5%      | 5.8%      | 671        | 14.6%      | 5.6%      | 900        | 14.9%      | 5.8%      | 907        | -  |
| Forestland                     | (11.7%)    | 1.8%      | (1,355)    | (10.1%)    | 4.9%      | (1,505)    | (6.4%)     | 3.9%      | (1,026)    | (3.3%)     | 6.3%      | (962)      | (2.3%)     | 4.1%      | (648)      | -  |
| <b>Inflation</b>               | (0.5%)     | (0.5%)    | (0)        | 5.3%       | 5.3%      | 5          | 2.9%       | 2.7%      | 22         | (1.0%)     | (1.5%)    | 55         | 0.1%       | 0.2%      | (4)        | 0.7  |
| <b>Liquidity</b>               | 0.6%       | 0.5%      | 13         | 1.9%       | 1.5%      | 42         | 1.1%       | 0.8%      | 30         | 1.0%       | 1.0%      | (7)        | 1.0%       | 1.1%      | (11)       | -  |
| <b>Trust Level<sup>2</sup></b> | -          | -         | -          | -          | -         | -          | -          | -         | -          | -          | -         | -          | -          | -         | -          | -  |
| <b>Total Fund</b>              | 2.4%       | 2.3%      | 10         | 7.0%       | 7.2%      | (24)       | 9.4%       | 9.5%      | (7)        | 7.4%       | 7.6%      | (16)       | 7.0%       | 7.9%      | (85)       | -  |

|                  |        |   |   |        |   |   |      |   |   |      |   |   |   |   |   |   |
|------------------|--------|---|---|--------|---|---|------|---|---|------|---|---|---|---|---|---|
| TAP <sup>3</sup> | (1.6%) | - | - | (0.2%) | - | - | 2.3% | - | - | 3.1% | - | - | - | - | - | - |
|------------------|--------|---|---|--------|---|---|------|---|---|------|---|---|---|---|---|---|

<sup>1</sup> Interim policy weight implemented as part of transition to strategic policy targets.

<sup>2</sup> Trust Level includes Multi Asset Class, Completion Overlay, Risk Mitigation, Absolute Return Strategies, Plan Level Transition and other Total Fund level portfolios

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

<sup>4</sup> Information Ratio is excess return divided by realized tracking error. This presents a perspective on risk adjusted performance. The metric is not meaningful for illiquid assets where realized volatility tends to be muted by valuation based pricing and benchmark issues.

## Public Employees Retirement Fund (PERF)

As of September 30, 2018

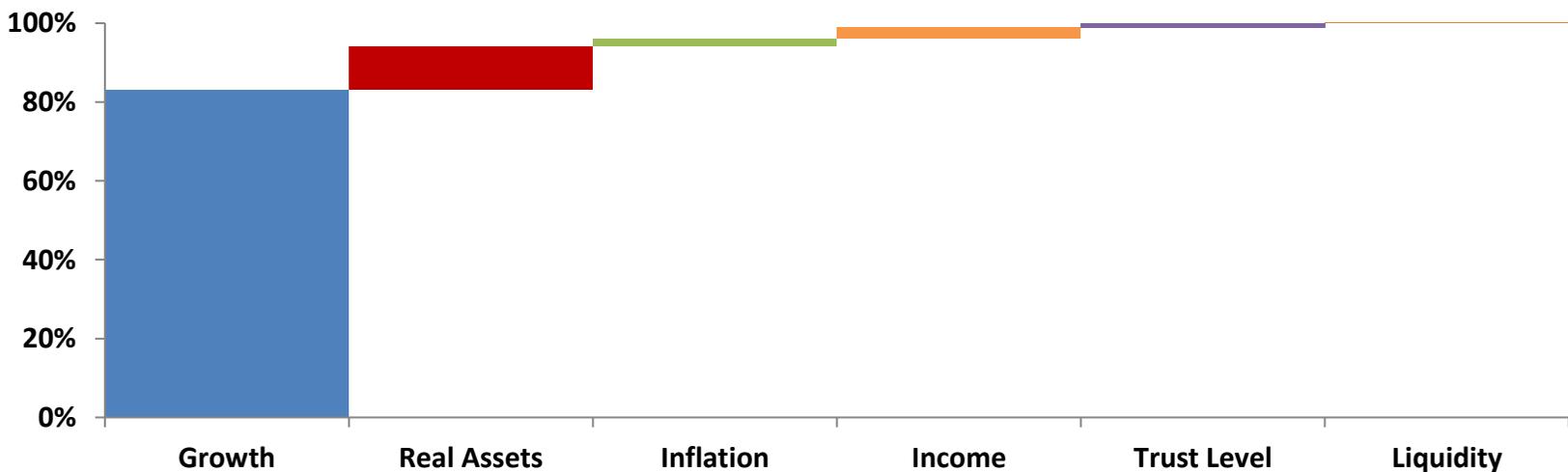
### Total Fund Risk

| Risk Measure                   | 9/30/2018 | 8/31/2018 | Explanation of Risk Measures:   |
|--------------------------------|-----------|-----------|---|
| <b>Forecast Volatility</b>     |           |           |   |
| Portfolio                      | 7.2%      | 7.3%      | The total (absolute) volatility is the annualized standard deviation of the PERF's total return distribution and is indicative of the plan's short-term return dispersion given the current environment. The metric is model-based and could underestimate potential drawdowns. |
| Benchmark                      | 6.9%      | 7.1%      |   |
| <b>Forecast Tracking Error</b> |           |           |   |
| Portfolio                      | 0.5%      | 0.5%      | Forecast tracking error is the annualized standard deviation of the differential return between the portfolio and an equal investment in the benchmark.   |

| September 30, 2018 | Portfolio Volatility                |   | Tracking Error                          |   |
|--------------------|-------------------------------------|---|---|---|
|                    | Projected                           | Realized                                    | Projected                               | Realized  |
| Asset Class        | Annualized Projected Volatility (%) | 5-Year Realized Volatility (%) <sup>1</sup> | Annualized Projected Tracking Error (%) | 5-Year Realized Tracking Error (%) <sup>1</sup> |
| <b>Growth</b>      | <b>10.7%</b>                        | <b>8.3%</b>                                 | <b>0.5%</b>                             | <b>1.7%</b>                                     |
| Public Equity      | 10.5%                               | 9.7%  | 0.2%                                    | 0.3%  |
| Private Equity     | 14.2%                               | 4.0%  | 3.3%                                    | 6.3%  |
| <b>Income</b>      | <b>4.9%</b>                         | <b>4.4%</b>                                 | <b>0.2%</b>                             | <b>0.6%</b>                                     |
| <b>Real Assets</b> | <b>10.1%</b>                        | <b>4.3%</b>                                 | <b>3.2%</b>                             | <b>4.3%</b>                                     |
| Real Estate        | 10.9%                               | 4.7%  | 3.7%                                    | 4.8%  |
| Infrastructure     | 7.0%                                | 5.7%  | 6.1%                                    | 5.5%  |
| Forestland         | 14.2%                               | 6.8%  | 13.1%                                   | 6.8%  |
| <b>Inflation</b>   | <b>6.5%</b>                         | <b>5.7%</b>                                 | <b>0.3%</b>                             | <b>0.8%</b>                                     |
| <b>Liquidity</b>   | <b>0.0%</b>                         | <b>0.8%</b>                                 | <b>0.0%</b>                             | <b>0.5%</b>                                     |
| <b>Trust Level</b> | <b>7.3%</b>                         | -   | <b>7.3%</b>                             | -   |
| <b>Total Fund</b>  | <b>7.2%</b>                         | <b>5.4%</b>                                 | <b>0.5%</b>                             | <b>1.2%</b>                                     |

<sup>1</sup>Realized Volatility and Tracking Error for private asset classes are computed from quarterly net returns

### Contribution to Total Fund Volatility



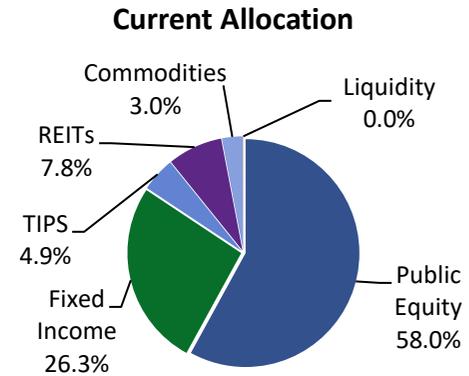
# Affiliate Investment Program

## CERBT Strategy 1 Fund (CERBT 1) & CERBT Strategy 2 Fund (CERBT 2)

As of September 30, 2018

### Asset Allocation, Performance & Realized Risk Summary - CERBT 1

| Asset Allocation     | EMV (mil)         | Current Allocation (%) | Policy Weight (%) <sup>1</sup> | Variance (%) | Policy Range |
|----------------------|-------------------|------------------------|--------------------------------|--------------|--------------|
| Public Equity        | \$ 4,158.7        | 58.0%                  | 57%                            | 1.0%         | ± 2%         |
| Fixed Income         | \$ 1,888.2        | 26.3%                  | 27%                            | (0.7%)       | ± 2%         |
| TIPS                 | \$ 348.3          | 4.9%                   | 5%                             | (0.1%)       | ± 2%         |
| REITs                | \$ 559.9          | 7.8%                   | 8%                             | (0.2%)       | ± 2%         |
| Commodities          | \$ 213.5          | 3.0%                   | 3%                             | (0.0%)       | ± 2%         |
| Liquidity            | \$ 2.5            | 0.0%                   | 0%                             | 0.0%         | ± 2%         |
| <b>Total CERBT 1</b> | <b>\$ 7,171.2</b> | <b>100.0%</b>          | <b>100.0%</b>                  | <b>0.0%</b>  |              |



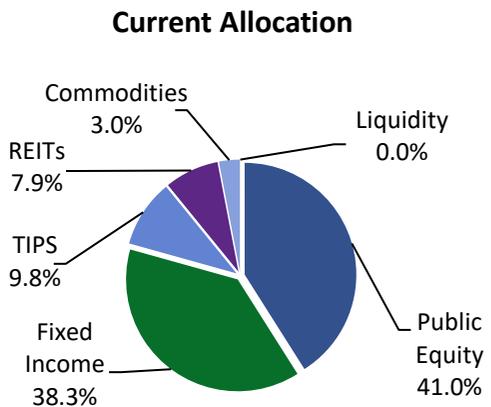
| Performance Summary <sup>2</sup> | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr       |             |            |
|----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|                                  | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps |
| Public Equity                    | 4.0%        | 3.9%        | 8          | 9.9%        | 9.6%        | 30         | 13.9%       | 13.5%       | 41         | 9.1%        | 8.7%        | 37         | 8.6%        | 8.4%        | 21         |
| Fixed Income                     | (0.4%)      | (0.4%)      | (0)        | (1.3%)      | (1.8%)      | 43         | 2.8%        | 2.1%        | 73         | 4.1%        | 3.3%        | 76         | 6.5%        | 5.4%        | 117        |
| TIPS                             | (0.8%)      | (0.8%)      | 2          | 0.5%        | 0.4%        | 8          | 2.1%        | 2.0%        | 2          | 1.3%        | 1.4%        | (5)        | -           | -           | -          |
| REITs                            | 0.0%        | (0.4%)      | 45         | 4.4%        | 3.5%        | 99         | 6.2%        | 5.3%        | 89         | 5.8%        | 5.0%        | 83         | 3.9%        | 3.2%        | 68         |
| Commodities                      | 1.4%        | 1.3%        | 3          | 23.1%       | 22.9%       | 23         | 3.1%        | 3.2%        | (5)        | (10.0%)     | (10.0%)     | 2          | -           | -           | -          |
| <b>Total CERBT 1</b>             | <b>2.1%</b> | <b>2.1%</b> | <b>7</b>   | <b>6.2%</b> | <b>6.0%</b> | <b>29</b>  | <b>9.4%</b> | <b>8.9%</b> | <b>46</b>  | <b>6.6%</b> | <b>6.2%</b> | <b>43</b>  | <b>7.3%</b> | <b>7.1%</b> | <b>20</b>  |

5-Yr Realized Volatility: **6.7%**

5-Yr Realized Tracking Error: **0.2%**

### Asset Allocation, Performance & Realized Risk Summary - CERBT 2

| Asset Allocation     | EMV (mil)         | Current Allocation (%) | Policy Weight (%) <sup>1</sup> | Variance (%) | Policy Range |
|----------------------|-------------------|------------------------|--------------------------------|--------------|--------------|
| Public Equity        | \$ 457.2          | 41.0%                  | 40%                            | 1.0%         | ± 2%         |
| Fixed Income         | \$ 427.2          | 38.3%                  | 39%                            | (0.7%)       | ± 2%         |
| TIPS                 | \$ 109.1          | 9.8%                   | 10%                            | (0.2%)       | ± 2%         |
| REITs                | \$ 87.7           | 7.9%                   | 8%                             | (0.1%)       | ± 2%         |
| Commodities          | \$ 33.4           | 3.0%                   | 3%                             | (0.0%)       | ± 2%         |
| Liquidity            | \$ 0.3            | 0.0%                   | 0%                             | 0.0%         | ± 2%         |
| <b>Total CERBT 2</b> | <b>\$ 1,115.0</b> | <b>100.0%</b>          | <b>100.0%</b>                  | <b>0.0%</b>  |              |



| Performance Summary <sup>2</sup> | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr      |           |            |
|----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|------------|-----------|------------|
|                                  | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return | BM Return | Excess Bps |
| Public Equity                    | 4.0%        | 3.9%        | 9          | 10.0%       | 9.6%        | 32         | 13.9%       | 13.5%       | 39         | 9.0%        | 8.7%        | 35         | -          | -         | -          |
| Fixed Income                     | (0.4%)      | (0.4%)      | (0)        | (1.4%)      | (1.8%)      | 41         | 2.8%        | 2.1%        | 73         | 4.0%        | 3.3%        | 75         | -          | -         | -          |
| TIPS                             | (0.8%)      | (0.8%)      | 2          | 0.5%        | 0.4%        | 7          | 2.1%        | 2.0%        | 2          | 1.3%        | 1.4%        | (8)        | -          | -         | -          |
| REITs                            | 0.0%        | (0.4%)      | 46         | 4.4%        | 3.5%        | 100        | 6.2%        | 5.3%        | 89         | 5.8%        | 5.0%        | 80         | -          | -         | -          |
| Commodities                      | 1.4%        | 1.3%        | 4          | 23.2%       | 22.9%       | 31         | 3.2%        | 3.2%        | (1)        | (9.9%)      | (10.0%)     | 6          | -          | -         | -          |
| <b>Total CERBT 2</b>             | <b>1.4%</b> | <b>1.3%</b> | <b>5</b>   | <b>4.5%</b> | <b>4.1%</b> | <b>34</b>  | <b>7.4%</b> | <b>7.0%</b> | <b>47</b>  | <b>5.5%</b> | <b>5.1%</b> | <b>39</b>  | <b>-</b>   | <b>-</b>  | <b>-</b>   |

5-Yr Realized Volatility: **5.4%**

5-Yr Realized Tracking Error: **0.2%**

<sup>1</sup> Allocations approved by the Board at the October 2014 IC Meeting

<sup>2</sup> Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance

# Affiliate Investment Program

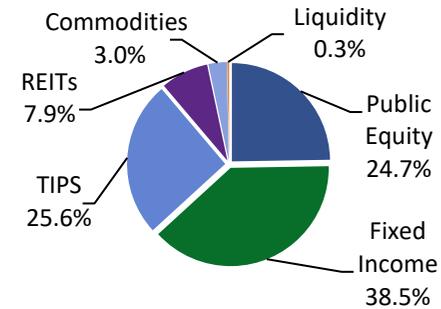
## CERBT Strategy 3 Fund (CERBT 3) & Legislators' Retirement System Fund (LRF)

As of September 30, 2018

### Asset Allocation, Performance & Realized Risk Summary - CERBT 3

| Asset Allocation     | EMV (mil)       | Current Allocation (%) | Policy Weight (%) <sup>1</sup> | Variance (%) | Policy Range |
|----------------------|-----------------|------------------------|--------------------------------|--------------|--------------|
| Public Equity        | \$ 97.2         | 24.7%                  | 24%                            | 0.7%         | ± 2%         |
| Fixed Income         | \$ 151.2        | 38.5%                  | 39%                            | (0.5%)       | ± 2%         |
| TIPS                 | \$ 100.5        | 25.6%                  | 26%                            | (0.4%)       | ± 2%         |
| REITs                | \$ 31.0         | 7.9%                   | 8%                             | (0.1%)       | ± 2%         |
| Commodities          | \$ 11.8         | 3.0%                   | 3%                             | 0.0%         | ± 2%         |
| Liquidity            | \$ 1.3          | 0.3%                   | 0%                             | 0.3%         | +2%          |
| <b>Total CERBT 3</b> | <b>\$ 393.0</b> | <b>100.0%</b>          | <b>100.0%</b>                  | <b>0.0%</b>  |              |

Current Allocation



| Performance Summary <sup>2</sup> | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr      |           |            |
|----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|------------|-----------|------------|
|                                  | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return | BM Return | Excess Bps |
| Public Equity                    | 4.0%        | 3.9%        | 9          | 9.9%        | 9.6%        | 29         | 13.8%       | 13.5%       | 37         | 9.0%        | 8.7%        | 35         | -          | -         | -          |
| Fixed Income                     | (0.4%)      | (0.4%)      | (0)        | (1.3%)      | (1.8%)      | 43         | 2.8%        | 2.1%        | 70         | 4.0%        | 3.3%        | 71         | -          | -         | -          |
| TIPS                             | (0.8%)      | (0.8%)      | 1          | 0.5%        | 0.4%        | 8          | 2.1%        | 2.0%        | 2          | 1.3%        | 1.4%        | (3)        | -          | -         | -          |
| REITs                            | 0.0%        | (0.4%)      | 46         | 4.5%        | 3.5%        | 100        | 6.1%        | 5.3%        | 80         | 5.8%        | 5.0%        | 79         | -          | -         | -          |
| Commodities                      | 1.4%        | 1.3%        | 4          | 23.2%       | 22.9%       | 32         | 3.3%        | 3.2%        | 14         | (9.8%)      | (10.0%)     | 19         | -          | -         | -          |
| <b>Total CERBT 3</b>             | <b>0.6%</b> | <b>0.6%</b> | <b>4</b>   | <b>2.9%</b> | <b>2.6%</b> | <b>25</b>  | <b>5.5%</b> | <b>5.1%</b> | <b>39</b>  | <b>4.5%</b> | <b>4.1%</b> | <b>42</b>  | <b>-</b>   | <b>-</b>  | <b>-</b>   |

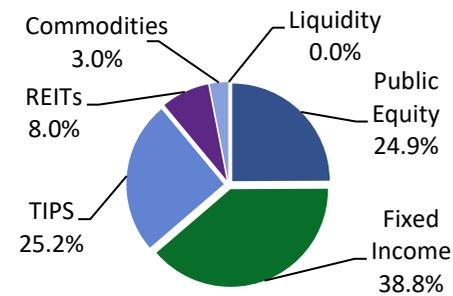
5-Yr Realized Volatility: **4.5%**

5-Yr Realized Tracking Error: **0.3%**

### Asset Allocation, Performance & Realized Risk Summary - LRF

| Asset Allocation | EMV (mil)       | Current Allocation (%) | Policy Weight (%) <sup>1</sup> | Variance (%) | Policy Range |
|------------------|-----------------|------------------------|--------------------------------|--------------|--------------|
| Public Equity    | \$ 28.2         | 24.9%                  | 24%                            | 0.9%         | ± 5%         |
| Fixed Income     | \$ 43.9         | 38.8%                  | 39%                            | (0.2%)       | ± 5%         |
| TIPS             | \$ 28.5         | 25.2%                  | 26%                            | (0.8%)       | ± 3%         |
| REITs            | \$ 9.0          | 8.0%                   | 8%                             | (0.0%)       | ± 5%         |
| Commodities      | \$ 3.4          | 3.0%                   | 3%                             | 0.0%         | ± 3%         |
| Liquidity        | \$ 0.0          | 0.0%                   | 0%                             | 0.0%         | +2%          |
| <b>Total LRF</b> | <b>\$ 113.0</b> | <b>100.0%</b>          | <b>100.0%</b>                  | <b>0.0%</b>  |              |

Current Allocation



| Performance Summary <sup>2</sup> | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr       |             |            |
|----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|                                  | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps |
| Public Equity                    | 4.0%        | 3.9%        | 10         | 10.3%       | 10.2%       | 11         | 14.2%       | 14.0%       | 16         | 9.3%        | 9.2%        | 12         | 8.6%        | 8.6%        | 8          |
| Fixed Income                     | (0.4%)      | (0.4%)      | 0          | (1.3%)      | (1.8%)      | 42         | 2.8%        | 2.1%        | 73         | 4.0%        | 3.3%        | 75         | 6.5%        | 5.4%        | 116        |
| TIPS                             | (0.8%)      | (0.8%)      | 1          | 0.5%        | 0.4%        | 7          | 2.1%        | 2.0%        | 2          | 1.3%        | 1.4%        | (5)        | 3.4%        | 3.3%        | 7          |
| REITs                            | (0.0%)      | (0.4%)      | 44         | 4.7%        | 4.3%        | 39         | 7.2%        | 7.0%        | 17         | 6.4%        | 6.3%        | 11         | -           | -           | -          |
| Commodities                      | 1.2%        | 1.3%        | (9)        | 23.0%       | 22.9%       | 13         | 3.6%        | 3.2%        | 41         | (9.8%)      | (10.0%)     | 20         | -           | -           | -          |
| <b>Total LRF</b>                 | <b>0.6%</b> | <b>0.6%</b> | <b>5</b>   | <b>3.0%</b> | <b>2.8%</b> | <b>18</b>  | <b>5.7%</b> | <b>5.4%</b> | <b>27</b>  | <b>4.6%</b> | <b>4.4%</b> | <b>29</b>  | <b>6.7%</b> | <b>6.2%</b> | <b>55</b>  |

5-Yr Realized Volatility: **4.5%**

5-Yr Realized Tracking Error: **0.3%**

<sup>1</sup> Allocations approved by the Board at the October 2014 IC Meeting

<sup>2</sup> Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance

# Affiliate Investment Program

## Judges' Retirement Fund (JRF) & Judges Retirement System Fund II (JRF II)

As of September 30, 2018

### Asset Allocation, Performance & Realized Risk Summary - JRF

| Asset Allocation | EMV (mil)      | Current Allocation (%) | Policy Weight (%) | Variance (%) | Policy Range |
|------------------|----------------|------------------------|-------------------|--------------|--------------|
| Cash             | \$ 38.1        | 100.0%                 | 100%              | 0.0%         | ± 0%         |
| <b>Total JRF</b> | <b>\$ 38.1</b> | <b>100.0%</b>          | <b>100%</b>       | <b>0.0%</b>  |              |

#### Current Allocation



| Performance Summary | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr       |             |            |
|---------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|                     | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps |
| Cash                | 0.5%        | 0.5%        | 5          | 1.7%        | 1.6%        | 14         | 1.0%        | 0.8%        | 18         | 0.6%        | 0.5%        | 13         | 0.5%        | 0.3%        | 12         |
| <b>Total JRF</b>    | <b>0.5%</b> | <b>0.5%</b> | <b>5</b>   | <b>1.7%</b> | <b>1.6%</b> | <b>15</b>  | <b>1.0%</b> | <b>0.8%</b> | <b>18</b>  | <b>0.6%</b> | <b>0.5%</b> | <b>13</b>  | <b>0.5%</b> | <b>0.3%</b> | <b>12</b>  |

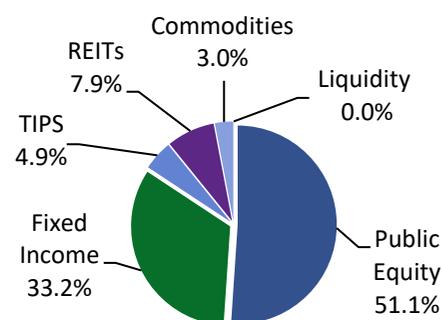
5-Yr Realized Volatility: **0.2%**

5-Yr Realized Tracking Error: **0.0%**

### Asset Allocation, Performance Realized Risk Summary - JRF II

| Asset Allocation    | EMV (mil)         | Current Allocation (%) | Policy Weight (%) <sup>1</sup> | Variance (%) | Policy Range |
|---------------------|-------------------|------------------------|--------------------------------|--------------|--------------|
| Public Equity       | \$ 796.9          | 51.1%                  | 50%                            | 1.1%         | ± 5%         |
| Fixed Income        | \$ 518.3          | 33.2%                  | 34%                            | (0.8%)       | ± 5%         |
| TIPS                | \$ 76.1           | 4.9%                   | 5%                             | (0.1%)       | ± 3%         |
| REITs               | \$ 122.6          | 7.9%                   | 8%                             | (0.1%)       | ± 5%         |
| Commodities         | \$ 46.6           | 3.0%                   | 3%                             | (0.0%)       | ± 3%         |
| Liquidity           | \$ 0.1            | 0.0%                   | 0%                             | 0.0%         | +2%          |
| <b>Total JRF II</b> | <b>\$ 1,560.5</b> | <b>100.0%</b>          | <b>100.0%</b>                  | <b>0.0%</b>  |              |

#### Current Allocation



| Performance Summary <sup>2</sup> | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr       |             |            |
|----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|                                  | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps |
| Public Equity                    | 4.0%        | 3.9%        | 9          | 10.3%       | 10.2%       | 10         | 14.2%       | 14.0%       | 13         | 9.3%        | 9.2%        | 11         | 8.6%        | 8.5%        | 7          |
| Fixed Income                     | (0.4%)      | (0.4%)      | 0          | (1.3%)      | (1.8%)      | 42         | 2.8%        | 2.1%        | 73         | 4.0%        | 3.3%        | 75         | 6.5%        | 5.4%        | 116        |
| TIPS                             | (0.8%)      | (0.8%)      | 1          | 0.5%        | 0.4%        | 6          | 2.1%        | 2.0%        | 2          | 1.3%        | 1.4%        | (6)        | -           | -           | -          |
| REITs                            | 0.0%        | (0.4%)      | 44         | 4.7%        | 4.3%        | 40         | 7.2%        | 7.0%        | 15         | 6.4%        | 6.3%        | 10         | 4.2%        | 4.0%        | 24         |
| Commodities                      | 1.4%        | 1.3%        | 2          | 23.2%       | 22.9%       | 26         | 3.6%        | 3.2%        | 44         | (9.8%)      | (10.0%)     | 23         | -           | -           | -          |
| <b>Total JRF II</b>              | <b>1.8%</b> | <b>1.8%</b> | <b>8</b>   | <b>5.7%</b> | <b>5.5%</b> | <b>19</b>  | <b>8.8%</b> | <b>8.5%</b> | <b>28</b>  | <b>6.4%</b> | <b>6.2%</b> | <b>24</b>  | <b>7.5%</b> | <b>7.3%</b> | <b>23</b>  |

5-Yr Realized Volatility: **6.2%**

5-Yr Realized Tracking Error: **0.2%**

<sup>1</sup> Allocations approved by the Board at the October 2014 IC Meeting

<sup>2</sup> Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance

# Affiliate Investment Program

## Health Care Fund (HCF) & Long-Term Care Fund (LTCF)

As of September 30, 2018

### Asset Allocation, Performance & Realized Risk Summary - HCF

| Asset Allocation | EMV (mil)       | Current Allocation (%) | Policy Weight (%) <sup>1</sup> | Variance (%) | Policy Range |
|------------------|-----------------|------------------------|--------------------------------|--------------|--------------|
| Fixed Income     | \$ 443.3        | 100.0%                 | 100%                           | 0.0%         | ± 0%         |
| <b>Total HCF</b> | <b>\$ 443.3</b> | <b>100.0%</b>          | <b>100%</b>                    | <b>0.0%</b>  |              |

#### Current Allocation



| Performance Summary | FYTD        |             |            | 1-Yr          |               |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr       |             |            |
|---------------------|-------------|-------------|------------|---------------|---------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|                     | Net Return  | BM Return   | Excess Bps | Net Return    | BM Return     | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps |
| Fixed Income        | 0.0%        | 0.0%        | (1)        | (1.1%)        | (1.2%)        | 7          | 1.3%        | 1.3%        | 3          | 2.4%        | 2.2%        | 23         | 4.3%        | 3.8%        | 48         |
| <b>Total HCF</b>    | <b>0.0%</b> | <b>0.0%</b> | <b>(1)</b> | <b>(1.1%)</b> | <b>(1.2%)</b> | <b>7</b>   | <b>1.3%</b> | <b>1.3%</b> | <b>3</b>   | <b>2.4%</b> | <b>2.2%</b> | <b>23</b>  | <b>4.3%</b> | <b>3.8%</b> | <b>48</b>  |

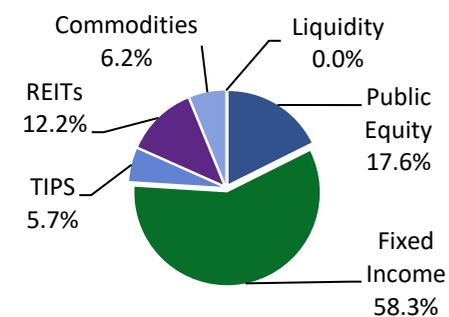
5-Yr Realized Volatility: **2.7%**

5-Yr Realized Tracking Error: **0.3%**

### Asset Allocation, Performance & Realized Risk Summary - LTCF

| Asset Allocation  | EMV (mil)         | Current Allocation (%) | Policy Weight (%) <sup>2</sup> | Variance (%) | Policy Range |
|-------------------|-------------------|------------------------|--------------------------------|--------------|--------------|
| Public Equity     | \$ 798.2          | 17.6%                  | 15%                            | 2.6%         | ± 4%         |
| Fixed Income      | \$ 2,638.9        | 58.3%                  | 61%                            | (2.7%)       | ± 5%         |
| TIPS              | \$ 257.3          | 5.7%                   | 6%                             | (0.3%)       | ± 2%         |
| REITs             | \$ 550.0          | 12.2%                  | 12%                            | 0.2%         | ± 4%         |
| Commodities       | \$ 279.3          | 6.2%                   | 6%                             | 0.2%         | ± 2%         |
| Liquidity         | \$ 0.0            | 0.0%                   | 0%                             | 0.0%         | +2%          |
| <b>Total LTCF</b> | <b>\$ 4,523.8</b> | <b>100.0%</b>          | <b>100.0%</b>                  | <b>0.0%</b>  |              |

#### Current Allocation



| Performance Summary <sup>3</sup> | FYTD        |             |            | 1-Yr        |             |            | 3-Yr        |             |            | 5-Yr        |             |            | 10-Yr       |             |            |
|----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|                                  | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps | Net Return  | BM Return   | Excess Bps |
| Public Equity                    | 4.0%        | 3.9%        | 8          | 9.9%        | 9.6%        | 29         | 13.8%       | 13.5%       | 34         | 9.0%        | 8.7%        | 31         | 8.6%        | 8.5%        | 16         |
| Fixed Income                     | (0.4%)      | (0.4%)      | (2)        | (1.8%)      | (1.8%)      | (0)        | 2.0%        | 2.1%        | (4)        | 3.3%        | 3.3%        | 0          | 6.1%        | 5.4%        | 70         |
| TIPS                             | (0.8%)      | (0.8%)      | 1          | 0.4%        | 0.4%        | (0)        | 2.0%        | 2.0%        | (1)        | 1.4%        | 1.4%        | (0)        | 3.4%        | 3.3%        | 8          |
| REITs                            | (0.0%)      | (0.4%)      | 43         | 4.4%        | 3.5%        | 98         | 6.2%        | 5.3%        | 85         | 5.8%        | 5.0%        | 79         | 3.8%        | 3.2%        | 58         |
| Commodities                      | 1.3%        | 1.3%        | (2)        | 22.6%       | 22.9%       | (29)       | 3.1%        | 3.2%        | (6)        | (10.0%)     | (10.0%)     | (3)        | -           | -           | -          |
| <b>Total LTCF</b>                | <b>0.4%</b> | <b>0.3%</b> | <b>13</b>  | <b>2.3%</b> | <b>2.1%</b> | <b>19</b>  | <b>4.5%</b> | <b>4.3%</b> | <b>12</b>  | <b>3.7%</b> | <b>3.5%</b> | <b>20</b>  | <b>5.4%</b> | <b>5.1%</b> | <b>32</b>  |

5-Yr Realized Volatility: **4.5%**

5-Yr Realized Tracking Error: **0.2%**

<sup>1</sup> Allocations approved by the Board at the April 2016 IC Meeting

<sup>2</sup> Allocations approved by the Board at the June 2015 IC Meeting

<sup>3</sup> Liquidity is for operational purposes rather than a strategic allocation target and is not included in the performance summary table due to negligible impact on performance

# Affiliate Investment Program

## Supplemental Income Plan (SIP)

As of September 30, 2018

### Asset Allocation - SIP

| Asset Allocation         | EMV (mil) | U.S. Equities |        |              | Int'l Equities |        |              | US Fixed Income |        |              | Real Assets |        |              | Cash and Cash Equivalents |        |              |
|--------------------------|-----------|---------------|--------|--------------|----------------|--------|--------------|-----------------|--------|--------------|-------------|--------|--------------|---------------------------|--------|--------------|
|                          |           | Actual        | Policy | Policy Range | Actual         | Policy | Policy Range | Actual          | Policy | Policy Range | Actual      | Policy | Policy Range | Actual                    | Policy | Policy Range |
| Target Income Fund       | \$ 101.3  | 9.5%          | 9.0%   | +/-2%        | 11.0%          | 11.0%  | +/-2%        | 49.6%           | 50.0%  | +/-4%        | 0.0%        | 0.0%   | -            | 29.9%                     | 30.0%  | +/-4%        |
| Target 2015 Fund         | \$ 91.7   | 9.5%          | 9.0%   | +/-2%        | 11.0%          | 11.0%  | +/-2%        | 49.7%           | 50.0%  | +/-4%        | 0.0%        | 0.0%   | -            | 29.9%                     | 30.0%  | +/-4%        |
| Target 2020 Fund         | \$ 164.0  | 11.6%         | 11.0%  | +/-2%        | 12.9%          | 13.0%  | +/-2%        | 47.6%           | 48.0%  | +/-4%        | 0.0%        | 0.0%   | -            | 27.9%                     | 28.0%  | +/-4%        |
| Target 2025 Fund         | \$ 161.7  | 18.8%         | 18.0%  | +/-2%        | 19.8%          | 20.0%  | +/-4%        | 37.6%           | 38.0%  | +/-4%        | 2.0%        | 2.0%   | +/-1%        | 21.8%                     | 22.0%  | +/-4%        |
| Target 2030 Fund         | \$ 138.2  | 23.0%         | 22.0%  | +/-4%        | 25.7%          | 26.0%  | +/-4%        | 30.6%           | 31.0%  | +/-4%        | 3.9%        | 4.0%   | +/-1%        | 16.8%                     | 17.0%  | +/-2%        |
| Target 2035 Fund         | \$ 79.1   | 28.1%         | 27.0%  | +/-4%        | 31.5%          | 32.0%  | +/-4%        | 23.6%           | 24.0%  | +/-4%        | 5.9%        | 6.0%   | +/-1%        | 10.8%                     | 11.0%  | +/-1%        |
| Target 2040 Fund         | \$ 71.1   | 33.3%         | 32.0%  | +/-4%        | 36.3%          | 37.0%  | +/-4%        | 16.7%           | 17.0%  | +/-2%        | 7.8%        | 8.0%   | +/-1%        | 5.9%                      | 6.0%   | +/-1%        |
| Target 2045 Fund         | \$ 35.3   | 38.3%         | 37.0%  | +/-4%        | 42.2%          | 43.0%  | +/-4%        | 9.8%            | 10.0%  | +/-2%        | 9.8%        | 10.0%  | +/-1%        | 0.0%                      | 0.0%   | -            |
| Target 2050 Fund         | \$ 16.4   | 38.3%         | 37.0%  | +/-4%        | 42.2%          | 43.0%  | +/-4%        | 9.8%            | 10.0%  | +/-2%        | 9.8%        | 10.0%  | +/-1%        | 0.0%                      | 0.0%   | -            |
| Target 2055 Fund         | \$ 7.5    | 38.4%         | 37.0%  | +/-4%        | 42.1%          | 43.0%  | +/-4%        | 9.7%            | 10.0%  | +/-2%        | 9.7%        | 10.0%  | +/-1%        | 0.0%                      | 0.0%   | -            |
| Target 2060 Fund         | \$ -      | -             | -      | -            | -              | -      | -            | -               | -      | -            | -           | -      | -            | -                         | -      | -            |
| SSgA STIF                | \$ 101.6  | 0.0%          | 0.0%   | -            | 0.0%           | 0.0%   | -            | 0.0%            | 0.0%   | -            | 0.0%        | 0.0%   | -            | 100.0%                    | 100.0% | -            |
| SIP US ST Bond Core      | \$ 33.5   | 0.0%          | 0.0%   | -            | 0.0%           | 0.0%   | -            | 100.0%          | 100.0% | -            | 0.0%        | 0.0%   | -            | 0.0%                      | 0.0%   | -            |
| SIP US Bond Core         | \$ 54.0   | 0.0%          | 0.0%   | -            | 0.0%           | 0.0%   | -            | 100.0%          | 100.0% | -            | 0.0%        | 0.0%   | -            | 0.0%                      | 0.0%   | -            |
| SIP Real Asset Core      | \$ 6.9    | 0.0%          | 0.0%   | -            | 0.0%           | 0.0%   | -            | 0.0%            | 0.0%   | -            | 100.0%      | 100.0% | -            | 0.0%                      | 0.0%   | -            |
| SIP Russell All Cap Core | \$ 571.7  | 100.0%        | 100.0% | -            | 0.0%           | 0.0%   | -            | 0.0%            | 0.0%   | -            | 0.0%        | 0.0%   | -            | 0.0%                      | 0.0%   | -            |
| SIP Gbl All Cap EX-US    | \$ 69.4   | 0.0%          | 0.0%   | -            | 100.0%         | 100.0% | -            | 0.0%            | 0.0%   | -            | 0.0%        | 0.0%   | -            | 0.0%                      | 0.0%   | -            |

### Performance Summary - SIP

| Performance Summary      | FYTD       |           |            | 1-Yr       |           |            | 3-Yr       |           |            | 5-Yr       |           |            | 10-Yr      |           |            |
|--------------------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|
|                          | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps | Net Return | BM Return | Excess Bps |
| Target Income Fund       | 0.9%       | 0.8%      | 2          | 1.6%       | 1.6%      | 4          | 3.6%       | 3.5%      | 7          | 3.1%       | 3.0%      | 11         | -          | -         | -          |
| Target 2015 Fund         | 0.9%       | 0.8%      | 2          | 1.6%       | 1.6%      | 4          | 3.6%       | 3.5%      | 7          | 3.1%       | 3.0%      | 10         | -          | -         | -          |
| Target 2020 Fund         | 1.0%       | 1.0%      | 2          | 2.0%       | 2.0%      | 2          | 4.4%       | 4.3%      | 5          | 3.6%       | 3.5%      | 10         | -          | -         | -          |
| Target 2025 Fund         | 1.4%       | 1.5%      | (0)        | 3.4%       | 3.4%      | 0          | 6.2%       | 6.2%      | 4          | 4.6%       | 4.5%      | 11         | -          | -         | -          |
| Target 2030 Fund         | 1.7%       | 1.7%      | 1          | 4.3%       | 4.3%      | 1          | 7.5%       | 7.5%      | 4          | 5.3%       | 5.2%      | 10         | -          | -         | -          |
| Target 2035 Fund         | 2.1%       | 2.1%      | 1          | 5.4%       | 5.3%      | 2          | 9.0%       | 8.9%      | 5          | 6.0%       | 6.0%      | 10         | -          | -         | -          |
| Target 2040 Fund         | 2.4%       | 2.4%      | 1          | 6.4%       | 6.4%      | 5          | 10.5%      | 10.4%     | 6          | 6.8%       | 6.7%      | 12         | -          | -         | -          |
| Target 2045 Fund         | 2.8%       | 2.7%      | 3          | 7.5%       | 7.4%      | 9          | 11.6%      | 11.5%     | 9          | 7.4%       | 7.3%      | 13         | -          | -         | -          |
| Target 2050 Fund         | 2.7%       | 2.7%      | (1)        | 7.5%       | 7.4%      | 5          | 11.6%      | 11.5%     | 8          | 7.4%       | 7.3%      | 12         | -          | -         | -          |
| Target 2055 Fund         | 2.7%       | 2.7%      | (2)        | 7.5%       | 7.4%      | 8          | 11.6%      | 11.5%     | 11         | -          | -         | -          | -          | -         | -          |
| Target 2060 Fund         | -          | -         | -          | -          | -         | -          | -          | -         | -          | -          | -         | -          | -          | -         | -          |
| SSgA STIF                | 0.8%       | 0.5%      | 29         | 2.0%       | 1.6%      | 38         | 1.1%       | 0.8%      | 26         | 0.7%       | 0.5%      | 17         | -          | -         | -          |
| SIP US ST Bond Core      | 0.3%       | 0.3%      | (1)        | 0.1%       | 0.2%      | (10)       | 0.6%       | 0.7%      | (12)       | -          | -         | -          | -          | -         | -          |
| SIP US Bond Core         | 0.0%       | 0.0%      | 1          | -1.2%      | -1.2%     | 1          | 1.3%       | 1.3%      | 1          | -          | -         | -          | -          | -         | -          |
| SIP Real Asset Core      | -0.6%      | -0.6%     | (2)        | 3.8%       | 3.9%      | (17)       | 6.7%       | 7.0%      | (25)       | -          | -         | -          | -          | -         | -          |
| SIP Russell All Cap Core | 7.1%       | 7.1%      | (5)        | 17.6%      | 17.6%     | (1)        | 17.1%      | 17.1%     | 0          | -          | -         | -          | -          | -         | -          |
| SIP Gbl All Cap EX-US    | 0.5%       | 0.4%      | 7          | 2.0%       | 1.8%      | 25         | 10.4%      | 10.1%     | 25         | -          | -         | -          | -          | -         | -          |

# Affiliate Investment Program

## Supplemental Income Plan (SIP)

As of September 30, 2018

### Realized Risk - SIP

| Realized Risk            | Annualized<br>5-Yr<br>Realized<br>Volatility | Annualized<br>5-Yr<br>Realized<br>Tracking Error |
|--------------------------|--|--|
| Target Income Fund       | 2.3%   | 0.2%   |
| Target 2015 Fund         | 2.4%   | 0.2%   |
| Target 2020 Fund         | 3.2%   | 0.2%   |
| Target 2025 Fund         | 4.4%   | 0.3%   |
| Target 2030 Fund         | 5.5%   | 0.3%   |
| Target 2035 Fund         | 6.6%   | 0.4%   |
| Target 2040 Fund         | 7.8%   | 0.5%   |
| Target 2045 Fund         | 8.4%   | 0.5%   |
| Target 2050 Fund         | 8.4%   | 0.5%   |
| Target 2055 Fund         | -  | -  |
| Target 2060 Fund         | -  | -  |
| SSgA STIF                | 0.2%   | 0.1%   |
| SIP US ST Bond Core      | -  | -  |
| SIP US Bond Core         | -  | -  |
| SIP Real Asset Core      | -  | -  |
| SIP Russell All Cap Core | -  | -  |
| SIP Glbl All Cap EX-US   | -  | -  |

# CalPERS Trust Level

## Trust Level Benchmarks

As of September 30, 2018

### Public Employee's Retirement Fund and Affiliate Investment Program Policy Benchmarks

| Trust  | Asset Class Benchmark | Policy Benchmark   |
|--|-----------------------|--|
| Public Employees Retirement Fund                                   | Public Equity         | CalPERS Custom Global Equity Benchmark                                       |
|  | Private Equity        | CalPERS Custom FTSE All World, All Cap Equity, +150 bps, 1 Qtr Lag           |
|  | Income                | CalPERS Custom Global Fixed Income Benchmark                                 |
|  | Real Assets           | MSCI Investment Property Databank US Core - Fund Level                       |
|  | Inflation             | Custom Inflation Assets Benchmark  |
|  | Liquidity             | 30-Day Treasury Bill   |
| Judge's Retirement System Fund                                     | Cash                  | 91-day Treasury Bill   |
| Judge's Retirement System II Fund                                  | Global Equity         | MSCI ACWI IMI (Net)  |
|  | U.S. Fixed Income     | Bloomberg Barclays Long Liability Index                                      |
|  | TIPS                  | Bloomberg Barclays U.S. TIPS Index, Series L                                 |
|  | Commodities           | S&P GSCI Total Return Daily  |
|  | REITs                 | FTSE EPRA/NAREIT Developed Liquid (Net)                                      |
| Legislators' Retirement System Fund                                | Global Equity         | MSCI ACWI IMI (Net)  |
|  | U.S. Fixed Income     | Bloomberg Barclays Long Liability Index                                      |
|  | TIPS                  | Bloomberg Barclays U.S. TIPS Index, Series L                                 |
|  | Commodities           | S&P GSCI Total Return Daily  |
|  | REITs                 | FTSE EPRA/NAREIT Developed Liquid (Net)                                      |
| Public Employees' Health Care Fund                                 | U.S. Fixed Income     | Bloomberg Barclays U.S. Aggregate Bond Index                                 |
| Long-Term Care Fund  | Global Equity         | MSCI ACWI IMI (Net)  |
|  | U.S. Fixed Income     | Bloomberg Barclays Long Liability Index                                      |
|  | TIPS                  | Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index |
|  | Commodities           | S&P GSCI Total Return Daily  |
|  | REITs                 | FTSE EPRA/NAREIT Developed Liquid (Net)                                      |
| California Employers' Retiree Benefit Trust (CERBT) Funds 1, 2 & 3 | Global Equity         | MSCI ACWI IMI (Net)  |
|  | U.S. Fixed Income     | Bloomberg Barclays Long Liability Index                                      |
|  | TIPS                  | Bloomberg Barclays U.S. TIPS Index, Series L                                 |
|  | Commodities           | S&P GSCI Total Return Daily  |
|  | REITs                 | FTSE EPRA/NAREIT Developed Liquid (Net)                                      |

# CalPERS Trust Level

## Trust Level Benchmarks

As of September 30, 2018

### Supplemental Income Plan Policy Benchmarks

| Policy Weights           |                             |                                  |   |                                |   |
|--------------------------|-----------------------------|----------------------------------|---|--------------------------------|---|
| Supplemental Income Plan | US Equities<br>Russell 3000 | In'l Equities<br>MSCI ACWI ex US | US Income<br>Bloomberg Barclays US<br>Ag Bond | Real Assets<br>SSGA Real Asset | Cash & Cash<br>Equivalents<br>BofA ML 3 mo T-bill |
| Target Income Fund       | 9.0%                        | 11.0%                            | 50.0%   | 0.0%                           | 30.0%   |
| Target 2015 Fund         | 9.0%                        | 11.0%                            | 50.0%   | 0.0%                           | 30.0%   |
| Target 2020 Fund         | 11.0%                       | 13.0%                            | 48.0%   | 0.0%                           | 28.0%   |
| Target 2025 Fund         | 18.0%                       | 20.0%                            | 38.0%   | 2.0%                           | 22.0%   |
| Target 2030 Fund         | 22.0%                       | 26.0%                            | 31.0%   | 4.0%                           | 17.0%   |
| Target 2035 Fund         | 27.0%                       | 32.0%                            | 24.0%   | 6.0%                           | 11.0%   |
| Target 2040 Fund         | 32.0%                       | 37.0%                            | 17.0%   | 8.0%                           | 6.0%  |
| Target 2045 Fund         | 37.0%                       | 43.0%                            | 10.0%   | 10.0%                          | 0.0%  |
| Target 2050 Fund         | 37.0%                       | 43.0%                            | 10.0%   | 10.0%                          | 0.0%  |
| Target 2055 Fund         | 37.0%                       | 43.0%                            | 10.0%   | 10.0%                          | 0.0%  |
| SSgA STIF                | 0.0%                        | 0.0%                             | 0.0%  | 0.0%                           | 100.0%  |
| SIP US ST Bond Core      | 0.0%                        | 0.0%                             | 100.0%  | 0.0%                           | 0.0%  |
| SIP US Bond Core         | 0.0%                        | 0.0%                             | 100.0%  | 0.0%                           | 0.0%  |
| SIP Real Asset Core      | 0.0%                        | 0.0%                             | 0.0%  | 100.0%                         | 0.0%  |
| SIP Russell All Cap Core | 100.0%                      | 0.0%                             | 0.0%  | 0.0%                           | 0.0%  |
| SIP Global All Cap ex US | 0.0%                        | 100.0%                           | 0.0%  | 0.0%                           | 0.0%  |