



# Global Investment Performance Standards Asset Owner Reports

Period Ending June 30, 2020



August 20, 2020

California Public Employees' Retirement System  
400 Q Street  
Sacramento, CA 95811

### **Independent Verifier's Verification Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards and the design and implementation of its policies and procedures. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification. We conducted this verification in accordance with the required verification procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification for you.

Sincerely,

*The Spaulding Group, Inc.*

The Spaulding Group, Inc.

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August 20, 2020

California Public Employees' Retirement System  
400 Q Street  
Sacramento, CA 95811

## **Independent Verifier's Verification and Performance Examination Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Public Employees' Retirement Fund Composite for the periods July 1, 2016 through June 30, 2020.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Public Employees' Retirement Fund Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Public Employees' Retirement Fund Composite and calculated the Public Employees' Retirement Fund Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Public Employees' Retirement Fund Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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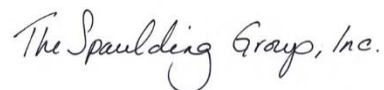
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We have not been engaged to examine, and did not examine, the Asset Owner's Public Employees' Retirement Fund Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Public Employees' Retirement Fund Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Public Employees' Retirement Fund Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc.".

The Spaulding Group, Inc.

## GIPS Asset Owner Report:

# Public Employees' Retirement Fund (PERF)

Creation Date: July 1, 2017 Inception Date: July 1, 2016



1-Year Period Ending	Net Return %	Custom Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Custom Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets <sup>2</sup> (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	4.70	4.33	7.89	7.80	\$389,037	\$396,683
30-Jun-19	6.68	7.10	5.64	5.49	\$370,287	\$377,529
30-Jun-18	8.58	8.64	N/A	N/A	\$351,807	\$358,575
30-Jun-17	11.19	11.34	N/A	N/A	\$323,541	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

<sup>2</sup> Sub-advisors managed assets during the reported periods, and these assets are included in Asset Owner assets.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The PERF has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal and external investment costs, and is also net of nonclaimable withholding taxes. Performance of external managers is reported to the Asset Owner net of advisory and management fees, as well as performance fees and carried interest, if applicable. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. Total internal management costs averaged 4 basis points annually for the entire period shown.

## Composite and Benchmark Description

The PERF is a single fund composite and includes all discretionary assets managed for the benefit of its members and beneficiaries. The investment objective is to earn an actuarial return target required to pay those benefits, which was 7.00% as of June 30, 2020. The return objective is pursued using both internal and external managers to invest in a broad range of asset classes and strategies. The asset allocation is updated on a 4-year asset liability management cycle with interim asset allocation changes occurring as required to realign levels of risk and liquidity.

The PERF utilizes derivatives for both investment and hedging purposes. The CalPERS Board authorizes investment staff to use derivatives across both internally and externally managed portfolios. Derivatives may include futures, options, swaps and other instruments or contracts intended to manage transaction or currency exchange risk in purchasing, selling, or holding investments. The PERF also has a securities lending program with guidelines available in the CalPERS Total Fund Investment Policy .

The PERF benchmark is based on policy weights and is rebalanced quarterly effective January 1, 2020. Prior to that date, the benchmark was rebalanced monthly. End-of-period actual allocation and benchmark weights are included in the following table. Historical information is available upon request.

Allocations  30 Jun 2020	Benchmark Weights
Public Equity: 53.0% Cap Weighted: 38.1% Factor Weighted: 14.9%	52.5% 37.5% FTSE Global All-Cap Custom* (Net) 15% MSCI ACWI Select Factor Weighted Index (Net)
Private Equity: 6.3%	6.3% FTSE Global All-Cap Custom* (Net), Quarter Lag + 8% 150bps hurdle
Income: 28.2% Spread: 16.5% Treasury: 8.9% High Yield: 2.9%	28.8% 15% Custom Bloomberg Barclays Long Spread 10.8% Custom Bloomberg Barclays Long Government 3% Custom Bloomberg Barclays High Yield
Real Assets: 11.3%	11.3% MSCI/PREA U.S. ACOE Quarterly Property Fund Index (Unfrozen)
Liquidity: 0.9%	1% 30-Day US Treasury Bill
Trust Level Portfolio Management: 0.2%	
Other PERF: 0.1%	

Total may not amount to 100% due to rounding.

Asset allocation and corresponding benchmark changed during FY 17/18 with Board approval. During FY18/19, the benchmark was modified to reflect Board approved changes to the asset allocation. Changes included the introduction of a second segment within Public Equity reflected by the MSCI ACWI Select Factor Weighted Index. Fixed income was grouped into three distinct segments reflected by the Bloomberg Custom Capital Global Long Spread, 1-Month US Treasury Bill and BBG Barclays US High Yield BB/B Liquid indices. Additionally, the Private Equity benchmark changed to the FTSE Global All-Cap Custom (Net)+150 and the Real Assets benchmark changed to the MSCI/PREA U.S. ACOE Quarterly Property Fund Index (Unfrozen). The Inflation benchmark was removed as the program defunded. During FY19/20, rebalancing was changed from monthly to quarterly. Additionally, weights for the private asset classes are adjusted to reflect actual portfolio weights with offsetting adjustments applied systematically to a combination of public market asset segments having similar long-term expected returns. Refer to CalPERS Total Fund Investment Policy for additional details.

\* Note: The Public Equity and Private Equity benchmarks represent Board-directed restrictions as outlined in CalPERS Total Fund Investment Policy and is net of taxes at withholding rates applicable to CalPERS.

Public Equity investments are typically stocks or other securities representing ownership interests in public companies. Public Equity consists of domestic and international securities and includes active and passive cap weighted and factor weighted strategies.

Private Equity strategies include buyouts, growth expansion, credit-related, venture capital and opportunistic investments. Some investments may use non-recourse debt. Additionally, subscription financing is allowed provided that total recourse debt allocated shall not exceed 15% of the lower of the current net asset value or the target net asset value of the program.

Income consists of spread, treasury, and high yield strategies. Spread consists of U.S. dollar-denominated investment grade corporate bonds, high yield bonds, securitized bonds, agency debt, preferred stocks, sovereign bonds, bank loans, other floating rate notes, non-U.S. dollar-denominated investment grade corporate bonds, and international bonds. Treasury consists of U.S. Treasury bonds and U.S. Treasury Inflation-Protected Securities (TIPS). High Yield primarily consists of BB/B high yield bonds.

Real Assets consists of real estate, forestland and infrastructure. Real estate investments include residential, commercial, industrial and land investments. Forestland includes harvestable and renewable timberland. Infrastructure includes investments in public works such as communications, transportation, and energy.

Liquidity consists of cash, cash-equivalents and highly-liquid assets that can readily be converted to cash. Money market funds, Treasury Bills and mutual funds are considered liquid assets.

Trust Level includes absolute return strategies, multi-asset class portfolios and plan level transition portfolios. Leverage is managed and monitored at the Total Fund level. Aggregate leverage where staff exercise direct control of the exposure will not exceed 20% of the Total Fund.

## Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

Private assets valued quarterly and valuations are adjusted intra-quarter to reflect capital contributions and distributions as they occur. Controlling interests in real assets are valued quarterly by an independent third party. Prior to July 1, 2019, they were independently valued on an annual basis. Financial statements for directly-held private equity investments are audited annually. As of June 30, 2020 weights of private assets in PERF was 17.9%.

During fiscal year 2017-18, the following key personnel left the employ of CalPERS: Wylie Tollette (Chief Operating Investment Officer) and Curtis Ishii (Managing Investment Director, Fixed Income).

During fiscal year 2018-19, the following key personnel left the employ of CalPERS: Ted Eliopoulos (Chief Investment Officer) and Elisabeth Bourqui (Chief Operating Investment Officer).

During fiscal year 2018-19, Yu (Ben) Meng joined CalPERS as Chief Investment Officer.

During fiscal year 2019-20, CalPERS had several key personnel changes. Dan Bienvenue was appointed Deputy Chief Investment Officer. Arnie Phillips was appointed Managing Investment Director, Global Fixed Income. Beth Richtman was appointed Managing Investment Director, Sustainable Investments, but subsequently departed. Anne Simpson was appointed Interim Managing Investment Director, Board Governance & Sustainability. Paul Mouchakka left his position of Managing Investment Director, Real Assets. Sarah Corr was appointed Managing Investment Director, Real Assets. Jean Hsu was appointed Managing Investment Director, Opportunistic Strategies.

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August 20, 2020

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The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Judges' Retirement Fund Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Judges' Retirement Fund Composite and calculated the Judges' Retirement Fund Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Judges' Retirement Fund Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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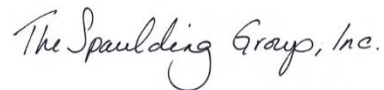


We have not been engaged to examine, and did not examine, the Asset Owner's Judges' Retirement Fund Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Judges' Retirement Fund Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Judges' Retirement Fund Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc.".

The Spaulding Group, Inc.

## GIPS Asset Owner Report:

# Judges' Retirement Fund (JRF)

Creation Date: July 1, 2017 Inception Date: July 1, 2016



1-Year Period Ending	Net Return %	Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets <sup>2</sup> (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	1.62	1.63	0.18	0.22	\$46	\$396,683
30-Jun-19	2.42	2.31	0.21	0.23	\$16	\$377,529
30-Jun-18	1.49	1.36	N/A	N/A	\$40	\$358,575
30-Jun-17	0.74	0.49	N/A	N/A	\$44	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

<sup>2</sup> Sub-advisors managed assets during the reported periods, and these assets are included in Asset Owner assets.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The JRF has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal and external investment costs, and is also net of nonclaimable withholding taxes. Performance of external managers is reported to the Asset Owner net of advisory and management fees. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. Total internal management costs averaged 1.5 basis points annually for the entire period shown.

### Composite and Benchmark Description

The JRF is a single fund composite and includes all discretionary assets managed to maintain a liquid reserve to meet operational expenses and provide retirement benefits to judges elected prior to November 9, 1994. The State currently funds the system on a pay-as-you-go basis, and the fund is closed to new membership. The fund is managed using internal investment management capabilities and employs passive strategies. The investment objective is to earn an actuarial return target to pay those benefits, which was 3.00% as of June 30, 2020. The asset allocation is updated on a 4-year asset liability management cycle with interim asset allocation changes occurring as required to realign levels of risk and liquidity.

End-of-period actual allocation and benchmark weights for JRF are included in the following table. Historical information is available upon request.

Allocations  30-Jun-2020	Benchmark Weights
Liquidity: 100%	100% 91-Day U.S. Treasury Bill

Liquidity consists of cash, cash-equivalents and highly-liquid assets that can readily be converted to cash. Money market funds, Treasury Bills, certificates of deposits, commercial paper, and time deposits are considered liquid assets.

#### Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

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August 20, 2020

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400 Q Street  
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### **Independent Verifier's Verification and Performance Examination Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Judges' Retirement Fund II Composite for the periods July 1, 2016 through June 30, 2020.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Judges' Retirement Fund II Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Judges' Retirement Fund II Composite and calculated the Judges' Retirement Fund II Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Judges' Retirement Fund II Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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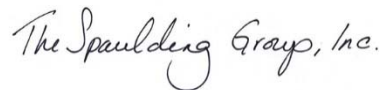
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We have not been engaged to examine, and did not examine, the Asset Owner's Judges' Retirement Fund II Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Judges' Retirement Fund II Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Judges' Retirement Fund II Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc.".

The Spaulding Group, Inc.

## GIPS Asset Owner Report:

# Judges' Retirement Fund II (JRF II)



Creation Date: July 1, 2017 Inception Date: July 1, 2016

1-Year Period Ending	Net Return %	Custom Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Custom Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets <sup>2</sup> (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	4.51	4.13	10.37	10.38	\$1,867	\$396,683
30-Jun-19	6.75	6.42	7.13	7.15	\$1,696	\$377,529
30-Jun-18	7.49	7.34	N/A	N/A	\$1,522	\$358,575
30-Jun-17	9.64	9.02	N/A	N/A	\$1,341	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

<sup>2</sup> Since June 2018, sub-advisors managed assets during the reported periods, and these assets are included in Asset Owner assets.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The JRF II has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal and external investment costs, and is also net of nonclaimable withholding taxes. Performance of external managers is reported to the Asset Owner net of advisory and management fees, as well as performance fees, if applicable. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. Total internal management costs averaged 2.2 basis points annually for the entire period shown.

## Composite and Benchmark Description

The JRF II is a single fund composite and includes all discretionary assets managed to provide retirement benefits to the judges elected on or after November 9, 1994. The investment objective is to earn an actuarial return target required to pay those benefits, which was 6.5% as of June 30, 2020. The return objective is pursued by investing in a broad range of asset classes and strategies leveraging internal and external investment management capabilities. The asset allocation is updated on a 4-year asset liability management cycle with interim asset allocation changes occurring as required to realign levels of risk and liquidity.

The JRF II benchmark is based on policy weights and is rebalanced quarterly effective July 1, 2019. Prior to that date, the benchmark was rebalanced monthly. End-of-period actual allocation and benchmark weights are included in the following table. Historical information is available upon request.

Allocations 30-Jun-2020	Benchmark Weights
Global Equity: 55.23%	52% MSCI ACWI IMI (Net)
Domestic Fixed Income: 29.41%	32% Bloomberg Barclays Long Liability
U.S. Treasury Inflation-Protected Securities (TIPS): 4.62%	5% Bloomberg Barclays U.S. TIPS, Series L
Commodities: 2.94%	3% S&P GSCI Total Return Daily
Real Estate Investment Trusts (REITs): 7.81%	8% FTSE EPRA/NAREIT Developed Liquid (Net)

Total may not amount to 100% due to rounding.

Global Equity investments are typically stocks or other securities representing ownership interests in public companies. Global Equity consists of domestic and international securities and uses passive strategies.

Domestic Fixed Income generally consists of investment grade US dollar-denominated Treasury bonds, corporate bonds, securitized bonds, agency bonds and sovereign bonds.

TIPS are Treasury securities that adjust their principal values in line with the rate of inflation.

Commodities offer exposure to energy and metals as well as agricultural and livestock products. This exposure is usually obtained through futures contracts or swaps.

REITs own or finance income-producing real estate, which are intended to provide regular income streams, diversification and long-term capital appreciation. REIT sectors generally include office, industrial, retail, lodging, residential, health care, and self-storage.

## Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

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Sacramento, CA 95811

## **Independent Verifier's Verification and Performance Examination Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Legislators' Retirement Fund Composite for the periods July 1, 2016 through June 30, 2020.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Legislators' Retirement Fund Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Legislators' Retirement Fund Composite and calculated the Legislators' Retirement Fund Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Legislators' Retirement Fund Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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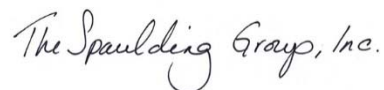


We have not been engaged to examine, and did not examine, the Asset Owner's Legislators' Retirement Fund Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Legislators' Retirement Fund Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Legislators' Retirement Fund Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc.".

The Spaulding Group, Inc.

## Legislators' Retirement Fund (LRF)



Creation Date: July 1, 2017 Inception Date: July 1, 2016

1-Year Period Ending	Net Return %	Custom Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Custom Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets <sup>2</sup> (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	6.37	6.11	6.56	6.54	\$114	\$396,683
30-Jun-19	7.32	7.10	4.81	4.83	\$114	\$377,529
30-Jun-18	4.82	4.67	N/A	N/A	\$114	\$358,575
30-Jun-17	4.40	3.82	N/A	N/A	\$117	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

<sup>2</sup> Since June 2018, sub-advisors managed assets during the reported periods, and these assets are included in Asset Owner assets.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The LRF has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal and external investment costs, and is also net of nonclaimable withholding taxes. Performance of external managers is reported to the Asset Owner net of advisory and management fees, as well as performance fees, if applicable. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. Total internal management costs averaged 2.4 basis points annually for the entire period shown.

## Composite and Benchmark Description

The LRF is a single fund composite and includes all discretionary assets managed to provide retirement benefits for Senators and Members of the Assembly (first elected prior to November 7, 1990), Constitutional Officers (first elected prior to December 31, 2012) and Legislative Statutory Officers (first appointed prior to December 31, 2012). This fund is closed to new membership.

The investment objective is to earn an actuarial return target required to pay those benefits, which was 5.0% as of June 30, 2020. The return objective is pursued by investing in a broad range of asset classes and strategies leveraging internal and external investment management capabilities. The asset allocation is updated on a 4-year asset liability management cycle with interim asset allocation changes occurring as required to realign levels of risk and liquidity.

The LRF benchmark is based on policy weights and is rebalanced quarterly effective July 1, 2019. Prior to that date, the benchmark was rebalanced monthly. End-of-period actual allocation and benchmark weights are included in the following table. Historical information is available upon request.

Allocations 30-Jun-2020	Benchmark Weights
Global Equity: 24.37%	22% MSCI ACWI IMI (Net)
Domestic Fixed Income: 46.97%	49% Bloomberg Barclays Long Liability
U.S. Treasury Inflation-Protected Securities (TIPS): 15.42%	16% Bloomberg Barclays U.S. TIPS, Series L
Commodities: 5.11%	5% S&P GSCI Total Return Daily
Real Estate Investment Trusts (REITs): 8.14%	8% FTSE EPRA/NAREIT Developed Liquid (Net)

Total may not amount to 100% due to rounding.

Global Equity investments are typically stocks or other securities representing ownership interests in public companies. Global Equity consists of domestic and international securities and uses passive strategies.

Domestic Fixed Income generally consists of investment grade US dollar-denominated Treasury bonds, corporate bonds, securitized bonds, agency bonds and sovereign bonds.

TIPS are Treasury securities that adjust their principal values in line with the rate of inflation.

Commodities offer exposure to energy and metals as well as agricultural and livestock products. This exposure is usually obtained through futures contracts or swaps.

REITs own or finance income-producing real estate, which are intended to provide regular income streams, diversification and long-term capital appreciation. REIT sectors generally include office, industrial, retail, lodging, residential, health care, and self-storage.

## Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.



August 20, 2020

California Public Employees' Retirement System  
400 Q Street  
Sacramento, CA 95811

### **Independent Verifier's Verification and Performance Examination Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Health Care Fund Composite for the periods July 1, 2016 through June 30, 2020.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Health Care Fund Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Health Care Fund Composite and calculated the Health Care Fund Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Health Care Fund Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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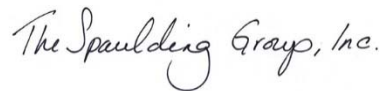
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We have not been engaged to examine, and did not examine, the Asset Owner's Health Care Fund Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Health Care Fund Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Health Care Fund Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc." The signature is written in black ink and is positioned below the word "Sincerely,".

The Spaulding Group, Inc.

## GIPS Asset Owner Report:

# Health Care Fund (HCF)



Creation Date: July 1, 2017 Inception Date: July 1, 2016

1-Year Period Ending	Net Return %	Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets <sup>2</sup> (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	8.82	8.74	3.26	3.27	\$520	\$396,683
30-Jun-19	7.87	7.87	3.02	3.03	\$478	\$377,529
30-Jun-18	(0.33)	(0.40)	N/A	N/A	\$443	\$358,575
30-Jun-17	(0.28)	(0.31)	N/A	N/A	\$445	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

<sup>2</sup> Sub-advisors managed assets during the reported periods, and these assets are included in Asset Owner assets.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The HCF has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal and external investment costs, and is also net of nonclaimable withholding taxes. Performance of external managers is reported to the Asset Owner net of advisory and management fees. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. Total internal management costs averaged 1.5 basis points annually for the entire period shown.

### Composite and Benchmark Description

The HCF is a single fund composite and includes all discretionary assets managed to provide a reserve for the self-funded benefit plans administered by CalPERS. The Fund seeks to provide stability of principal, while avoiding large losses, enhance returns within prudent levels of risk, and maintain liquidity to meet cash needs. Investments take advantage of both internal and external investment management capabilities and employ passive strategies. The asset allocation is updated on a 4-year asset liability management cycle with interim asset allocation changes occurring as required to realign levels of risk and liquidity.

End-of-period actual allocation and benchmark weights for HCF are included in the following table. Historical information is available upon request.

<b>Allocations 30-Jun-2020</b>	<b>Benchmark Weights</b>
Domestic Fixed Income: 100.0%	100% Bloomberg Barclays U.S. Aggregate Bond Index

Domestic Fixed Income generally consists of investment grade US dollar-denominated Treasury bonds, corporate bonds, securitized bonds, agency bonds and sovereign bonds.

#### Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.



August 20, 2020

California Public Employees' Retirement System  
400 Q Street  
Sacramento, CA 95811

### **Independent Verifier's Verification and Performance Examination Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Long Term Care Fund Composite for the periods July 1, 2016 through June 30, 2020.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Long Term Care Fund Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Long Term Care Fund Composite and calculated the Long Term Care Fund Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Long Term Care Fund Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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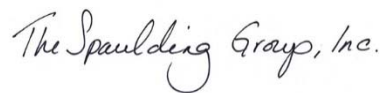


We have not been engaged to examine, and did not examine, the Asset Owner's Long Term Care Fund Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Long Term Care Fund Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Long Term Care Fund Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc.".

The Spaulding Group, Inc.

## GIPS Asset Owner Report:

# Long Term Care Fund (LTCF)

Creation Date: July 1, 2017 Inception Date: July 1, 2016



1-Year Period Ending	Net Return %	Custom Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Custom Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets <sup>2</sup> (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	4.68	5.06	6.88	6.53	\$4,910	\$396,683
30-Jun-19	7.15	7.23	5.05	5.00	\$4,770	\$377,529
30-Jun-18	4.03	3.96	N/A	N/A	\$4,515	\$358,575
30-Jun-17	1.56	1.51	N/A	N/A	\$4,376	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

<sup>2</sup> Sub-advisors managed assets during the reported periods, and these assets are included in Asset Owner assets.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The LTCF has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal and external investment costs, and is also net of nonclaimable withholding taxes. Performance of external managers is reported to the Asset Owner net of advisory and management fees. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. Total internal management costs averaged 1.5 basis points annually for the entire period shown.

## Composite and Benchmark Description

The LTCF is a single fund composite and includes all discretionary assets managed to provide voluntary long-term care coverage to participating members. The investment objective is to earn an actuarial rate of return target to pay those benefits, which was 5.25% as of June 30, 2020. The fund is invested in a conservative asset allocation strategy which intends to provide stability of principal while avoiding large losses. Investments take advantage of internal and external investment management capabilities and employ passive strategies. The Fund invests in a broad range of asset classes. The asset allocation is updated on a 4-year asset liability management cycle with interim asset allocation changes occurring as required to realign levels of risk and liquidity.

The LTCF benchmark is based on policy weights and is rebalanced quarterly effective July 1, 2019. Prior to that date, the benchmark was rebalanced monthly. End-of-period actual allocation and benchmark weights are included in the following table. Historical information is available upon request.

Allocations  30-Jun-2020	Benchmark Weights
Global Equity: 15.66%	15% MSCI ACWI IMI (Net)
Domestic Fixed Income: 60.18%	60% Bloomberg Barclays Long Liability
U.S. Treasury Inflation-Protected Securities (TIPS): 5.79%	6% Bloomberg Barclays US TIPS, Series L
Commodities: 8.20%	8% S&P GSCI Total Return Daily
Real Estate Investment Trusts (REITs): 10.17%	11% FTSE EPRA/NAREIT Developed Liquid (Net)

Total may not amount to 100% due to rounding.

Global Equity investments are typically stocks or other securities representing ownership interests in public companies. Global Equity consists of domestic and international securities and uses passive strategies.

Domestic Fixed Income generally consists of investment grade US dollar-denominated Treasury bonds, corporate bonds, securitized bonds, agency bonds and sovereign bonds.

TIPS are Treasury securities that adjust their principal values in line with the rate of inflation.

Commodities offer exposure to energy and metals as well as agricultural and livestock products. This exposure is usually obtained through futures contracts or swaps.

REITs own or finance income-producing real estate, which are intended to provide regular income streams, diversification and long-term capital appreciation. REIT sectors generally include office, industrial, retail, lodging, residential, health care, and self-storage.

## Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

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August 20, 2020

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Sacramento, CA 95811

### **Independent Verifier's Verification and Performance Examination Report**

We are pleased to report that we have verified whether California Public Employees' Retirement System (the Asset Owner) has, for the periods July 1, 2016 through June 30, 2020, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and total fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an asset owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Terminated Agency Pool Composite for the periods July 1, 2016 through June 30, 2020.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Terminated Agency Pool Composite's GIPS asset owner report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2016 through June 30, 2020, the Asset Owner's policies and procedures for complying with the GIPS standards related to composite and total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Terminated Agency Pool Composite and calculated the Terminated Agency Pool Composite's performance for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards, and
- Prepared and presented the accompanying Terminated Agency Pool Composite's GIPS asset owner report for the periods from July 1, 2016 through June 30, 2020 in compliance with the GIPS standards.

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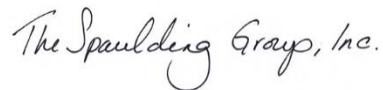
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We have not been engaged to examine, and did not examine, the Asset Owner's Terminated Agency Pool Composite for any periods prior to July 1, 2016 and, accordingly, we express no opinion on the GIPS asset owner report of the Asset Owner's Terminated Agency Pool Composite for any periods prior to July 1, 2016.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Terminated Agency Pool Composite's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

We greatly appreciate the opportunity to conduct this verification and performance examination for you.

Sincerely,

A handwritten signature in cursive script that reads "The Spaulding Group, Inc.".

The Spaulding Group, Inc.

## GIPS Asset Owner Report:

# Terminated Agency Pool (TAP)

Creation Date: July 1, 2017 Inception Date: July 1, 2016



1-Year Period Ending	Net Return %	Benchmark Return %	3-Year Std Dev <sup>1</sup> %	Benchmark 3-Yr Std Dev <sup>1</sup> %	Composite Assets (\$MM)	Asset Owner Assets (\$MM)
30-Jun-20	16.13	N/A	6.41	N/A	\$188	\$396,683
30-Jun-19	7.01	N/A	4.88	N/A	\$168	\$377,529
30-Jun-18	2.25	N/A	N/A	N/A	\$134	\$358,575
30-Jun-17	(2.01)	N/A	N/A	N/A	\$119	\$329,982

<sup>1</sup> The 3-year standard deviation presented is the annualized standard deviation of monthly returns. The composite standard deviation is calculated using net returns.

Note 1: Valuations are computed and performance is reported in USD.

Note 2: This composite contains a single fund; therefore, it does not have internal dispersion and the information is not presented.

California Public Employees' Retirement System ("CalPERS") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. CalPERS has been independently verified for the periods July 1, 2016 through June 30, 2020. An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The TAP has had a performance examination for the periods July 1, 2016 through June 30, 2020. The verification and performance examination reports are available upon request.

### Asset Owner Definition

The "Asset Owner" is defined as the California Public Employees' Retirement System ("CalPERS") which manages assets as directed by the CalPERS Board of Administration for the purpose of funding retirement benefit, long term care and health care payments for members and beneficiaries.

### Performance Calculations

Performance is calculated monthly using time-weighted rates of return. Performance presented is net of actual internal investment costs, and is also net of nonclaimable withholding taxes. Internal investment management related expenses include personnel, investment research services, trading, custodian services, portfolio accounting services, performance measurement services, and technology services. There were no internal management costs allocated to TAP during the most recent fiscal year.

### Composite and Benchmark Description

The TAP is a single fund composite and includes all discretionary assets managed for the benefit of members of agencies which are no longer contracted with CalPERS. The investment objective is to manage investments in a manner which closely matches the projected future benefit payments, while minimizing the likelihood of the program becoming underfunded. The return objective is pursued by investing in U.S Treasury STRIPS, U.S. Treasury TIPS, and cash/cash equivalents.

The TAP is designed to match income and principle payments from U.S. Government Securities with the specific timing of benefit cash flows. No benchmark is presented as we believe a benchmark does not exist that reflects this strategy.

Allocations	30-Jun-2020	Benchmark Weights
U.S. Treasury Inflation-Protected Securities (TIPS):	59.32%	N/A
Separate Trading of Registered Interest and Principal of Securities (STRIPS):	29.83%	
Liquidity:	10.85%	

TIPS are Treasury securities that adjust their principal values in line with the rate of inflation.

STRIPS are securities that are created through the process of bifurcating a Treasury bond's principal and interest.

Liquidity consists of cash, cash-equivalents and highly-liquid assets that can readily be converted to cash. Money market funds, Treasury Bills, certificates of deposits, commercial paper, and time deposits are considered liquid assets.

#### Other Disclosures

Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

A complete list of composite descriptions, including terminated composites, is available upon request.

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