MGO Certified Public Accountants

Independent Auditor's Report

To the Board of Administration
California Public Employees' Retirement System
Sacramento, California

Report on the Financial Statements

We have audited the accompanying financial statements of the fiduciary activities and the proprietary activities of the California Public Employees' Retirement System (the System), a component unit of the State of California, as of and for the fiscal year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the fiduciary activities and proprietary activities of the System as of June 30, 2017, and the respective changes in financial position and, where applicable, cash flows thereof for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 2 to the basic financial statements, the System implemented the provisions of Governmental Accounting Standards Board Statement No. 84, *Fiduciary Activities,* as of July 1, 2016.

As discussed in Note 8 to the basic financial statements, the total pension liabilities of the Public Employees' Retirement Fund (PERF) Schools Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (PERF B) and Public Agency Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (PERF C), based on the most recent actuarial valuations as of June 30, 2016 rolled forward to June 30, 2017, exceeded the plans' fiduciary net position by $23.9 billion and $9.9 billion, respectively. The actuarial valuations are very sensitive to the underlying actuarial assumptions, including a discount rate of 7.15 percent, which represents the long-term expected rate of return.

As discussed in Note 1 to the basic financial statements, actual contributions made by the State of California (State) to the closed Judges' Retirement Fund are made pursuant to State statute and were significantly less than the annual actuarially determined contributions. State contributions were used to fund benefit payments of the current period. As such, the Judges' Retirement Fund does not retain the accumulated contributions of active members. Without the State contributions, the Judges' Retirement Fund will not be able to pay accumulated benefit payments due in fiscal year 2018. Management and legal counsel believe the State is legally required to provide the required contributions to fund the benefits. As discussed in Note 8 to the basic financial statements, the total pension liability of the Judges' Retirement Fund, based on the most recent actuarial valuation as of June 30, 2016 rolled forward to June 30, 2017, exceeded the plan's fiduciary net position by $3.2 billion.

As discussed in Note 13 to the basic financial statements, the determination of the estimated liability for future policy benefits of the Public Employees' Long-Term Care Fund is very sensitive to the underlying actuarial assumptions, including a discount rate of 5.75 percent, morbidity, lapse rates, voluntary termination, mortality, and plan expenses.

Our opinions are not modified with respect to these matters.

Other Matters

Prior-Year Comparative Information

The financial statements include partial prior-year comparative information. Such information does not include all of the information required to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the System's financial statements for the fiscal year ended June 30, 2016, from which such partial information was derived.

We have previously audited the System's 2016 financial statements, and we expressed unmodified audit opinions on the respective financial statements of the fiduciary activities and the proprietary activities in our report dated November 18, 2016. In our opinion, the partial comparative information presented herein as of and for the fiscal year ended June 30, 2016, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the Schedules of Changes in Net Pension Liability/Asset and Related Ratios, Schedules of Plan Contributions, Schedule of Investment Returns, and Schedule of Claims Development Information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The other supplementary information and introductory, investment, actuarial, statistical, and compliance sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, statistical, and compliance sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards,* we have also issued our report dated ______, 2017 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Sacramento, California
____________, 2017

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Management's Discussion & Analysis (Unaudited)

INTRODUCTION

This section presents Management's Discussion and Analysis of the California Public Employees' Retirement System's (CalPERS or the System) financial performance during the fiscal year ended June 30, 2017. It is a narrative overview and analysis that we present in conjunction with the Chief Executive Officer's Letter of Transmittal included in the Introductory Section of this Comprehensive Annual Financial Report. It should also be read in conjunction with the Basic Financial Statements of CalPERS as presented in this report.

In addition to historical information, the Management's Discussion and Analysis includes certain forward-looking statements, which involve currently known facts and certain risks and uncertainties. CalPERS' actual results, performance, and achievements may differ from the results, performance, and achievements expressed or implied in such forward-looking statements due to a wide range of factors, including changes in interest rates, changes in the securities markets, general economic conditions, legislative changes, and other factors.

CalPERS is primarily responsible for administering retirement and health benefits. CalPERS also administers long-term care benefits, a post-employment benefit fund for retiree health, and supplemental retirement savings plans.

MANAGEMENT DISCUSSION

Strategic Planning

CalPERS prepared the 2017-22 Strategic Plan, which succeeded the 2012-17 Strategic Plan. This new plan is a blueprint that will guide the enterprise to meet the investment, retirement, and health benefit needs of our members and their families for the coming five years.

The 2017-22 CalPERS Strategic Plan was developed over the course of a year-long effort by CalPERS Board members, senior leaders, and team members, with contributions from multiple stakeholders including employer associations, labor groups, retiree associations, federal representatives, health and investment business partners, and state government officials.

This new strategic plan took effect on July 1, 2017, and has five overarching goals:

- Strengthen long-term sustainability of the pension fund
- Transform health care purchasing and delivery to achieve affordability
- Reduce complexity across the enterprise
- Cultivate a risk-intelligent organization
- Promote a high-performing and diverse workforce

Also commencing on July 1, 2017, was the 2017-18 Business Plan Initiatives, which will allow the organization to set priorities and assist in the allocation of resources as well as align to the 2017-18 budget cycle. Each business plan initiative provides the means and major inputs to accomplish the goals and objectives of the strategic plan. CalPERS identified 37 initiatives to begin the work needed to support the overall strategic direction of the organization.

Key Initiatives

CalPERS continued to enhance its operations to meet the goals of the 2012-17 Strategic Plan as follows:

- CalPERS continues the Asset Liability Management (ALM) process to expand its review of assets and liabilities to ensure financial risks to the System are better understood, communicated, and mitigated. To establish appropriate levels of risk, ALM is focused on investment and actuarial policies. These policies include key decision factors that drive optimum asset allocations, while stabilizing employer rates, and volatility of those rates year to year. Additionally, in order to better manage risks arising from terminating agencies, CalPERS has enhanced its oversight of contracting public agencies' financial health through its development of a standardized review criteria. These improvements include streamlining the collection and termination process to reduce the timeframe, accelerating notifications to the Board and members, and adopting a risk oversight process to improve early detection of financial hardship issues.

- CalPERS' new 5-year sustainable investment strategy on integrating environmental, social, and governance (ESG) factors takes an enterprise-wide view on improving the sustainability of long-term pension benefits and actively managing business risks. CalPERS has associated key performance indicators (KPIs) with this strategy, and includes a strategic focus on:
  - Data and Corporate Reporting Standards
  - Engage United Nations Principles for Responsible Investment (UN PRI) Montreal Pledge Companies
  - Diversity and Inclusion
  - Manager Expectations
  - Research
  - Private Equity Fee and Profit Sharing Transparency

  Core work areas within the ESG group remain focused on Federal and Legislative Guidelines, Proxy Voting, Corporate Engagement, Responsible Contractor Program, and Carbon Footprinting.

- In May 2016, the CalPERS Board approved Blue Shield's request to terminate its NetValue Health Maintenance Organization (HMO) health plan. Blue Shield's NetValue exit was effective January 1, 2017, but the Blue Shield Access+ HMO health plan continues to be available as an option to members.

- In May 2016, CalPERS selected OptumRx as the new Pharmacy Benefits Manager (PBM). The company is administering prescription drug benefits for the members and their dependents enrolled in CalPERS' health plans with the exception of the Kaiser and Blue Shield of California (HMO) plans. The five-year contract took effect January 1, 2017, and ends December 31, 2021. It will cover pharmacy benefits for members enrolled in CalPERS' self-funded PERS Select, PERS Choice, and PERSCare Preferred Provider Organization health plans, in addition to those members enrolled in the Anthem Blue Cross, HealthNet, Sharp, and UnitedHealthcare HMO plans.

- The CalPERS Information Security Office (ISOF) directs ongoing efforts that enhance CalPERS' information security capabilities to protect members' privacy and the safety of CalPERS' information assets. The ISOF conducts annual risk assessments and identifies, prioritizes, and selects initiatives that support CalPERS' business initiatives to effectively respond to the evolving threat landscape. In addition, CalPERS uses the federal Cybersecurity Framework (CSF) published by the National Institute of Standards and Technology to organize its cybersecurity capabilities. Using the CSF structure of "Identify, Protect, Detect, Respond, and Recover" helps ensure that our cybersecurity initiatives most effectively address current and future cybersecurity risks. CalPERS continues to demonstrate a strong commitment to identifying and implementing operating capabilities that protect our members, stakeholders, and business operations, resulting in nimble, proactive, and responsive information security processes and protocols that enable CalPERS to maintain and continually improve its security profile.

OVERVIEW OF THE FINANCIAL STATEMENTS AND ACCOMPANYING INFORMATION

Management's Discussion and Analysis provides an introduction to and overview of the financial position, which comprises the following components: Basic Financial Statements, Notes to the Basic Financial Statements, Required Supplementary Information, and Other Supplementary Information. Collectively, this information presents the combined net position restricted for pension benefits, other post-employment benefits (OPEB), deferred compensation, replacement benefits, and the unrestricted net position of the proprietary funds administered by CalPERS as of June 30, 2017. It also summarizes the combined changes in fiduciary net position restricted for pension, other post-employment, and replacement benefits, the changes in unrestricted net position, and the cash flows of the proprietary funds for the year then ended, along with disclosures about the net pension liabilities of the single-employer and cost-sharing multiple-employer defined benefit pension plans.

FINANCIAL HIGHLIGHTS

Major events and initiatives impacting the current fiscal year's financial statements include:

- Governmental Accounting Standards Board (GASB) Statement No. 84, *Fiduciary Activities* (GASB 84), is effective for financial statements for fiscal years beginning after December 15, 2018. CalPERS has elected to early implement this standard. As a result, the Replacement Benefit Fund (RBF), which was previously classified as an agency fund, has been reclassified to a custodial fund. The RBF reported activity in the Statement of Changes in Fiduciary Net Position for Fiscal Year 2016-17, and will report a net position balance going forward.

- The Public Employees' Retirement Fund (PERF) realized a money-weighted rate of return (MWRR) of 11.2 percent in Fiscal Year 2016-17 resulting from positive performance across most globally diversified asset classes. Drivers of the PERF's investment return include strong performances from public equity, private equity and real assets investments. Additionally, fixed income and liquidity asset classes outperformed their respective benchmarks.

- CalPERS continued to realize investment expense reductions during Fiscal Year 2016-17. Overall, CalPERS realized a total investment expense reduction of $169.9 million from Fiscal Year 2015-16. Contributing factors included focuses on reducing cost, complexity, risk, and fewer but more strategic partnerships with external investment managers. Reductions also came from continued discussions with general partners, limited partners, and other various agencies regarding opportunities for increased collaboration and disclosure to manage investment portfolios in a cost-effective, transparent, and risk-aware manner.

- In September 2016, CalPERS adopted an interim asset allocation strategy for the PERF through July 2018 to continue the focus on long-term returns and sustainability of the fund. The new interim strategy established target thresholds that shifted the allocation of some assets out of growth strategies and primarily into inflation, liquidity, and real assets strategies. Factors contributing to the Board's decision included: volatility of financial markets, challenging global economic conditions, current funding status of the PERF, and cash flow projections.

- In the December 2016 and April 2017 meetings, the Board voted to lower the funding discount rates used for the PERF, Legislators' Retirement Fund (LRF), Judges' Retirement Fund (JRF), and Judges' Retirement Fund II (JRF II). In making its decision, the Board reviewed recommendations from CalPERS team members, external pension and investment consultants, and input from employer and employee stakeholder groups. The lowered funding discount rate for the PERF will be phased in over a three-year period beginning July 1, 2017, for the State and July 1, 2018, for public agencies and school districts. The lowered funding discount rate for the LRF, JRF, and JRF II took effect in April 2017.

BASIC FINANCIAL STATEMENTS

The June 30, 2017, financial statements separate the funds administered by CalPERS into two categories: fiduciary funds and proprietary funds. While CalPERS' role as a trustee and its monitoring of financial position occur in both categories, a primary focus of fiduciary funds is CalPERS' duty with respect to the payment of benefits, whereas a core function for proprietary funds is the payment of services.

Fiduciary Funds – include the PERF A, PERF B, PERF C, LRF, JRF, JRF II, Public Employees' Deferred Compensation Fund (DCF), Supplemental Contributions Program Fund (SCPF), California Employers' Retiree Benefit Trust Fund (CERBTF), and RBF. Fiduciary funds are used to account for resources held for the benefit of CalPERS participants.

A Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position are presented for the fiduciary funds as of and for the fiscal year ended June 30, 2017, along with comparative total information as of and for fiscal year ended June 30, 2016. These financial statements reflect the resources available to pay benefits to retirees and other beneficiaries as of year-end, and the changes in those resources during the year.

Proprietary Funds – include the combined (for financial reporting purposes only) Health Care Fund (HCF) and Contingency Reserve Fund (CRF), and the Public Employees' Long-Term Care Fund (LTCF). A Statement of Net Position, a Statement of Revenues, Expenses, and Changes in Net Position, and a Statement of Cash Flows are presented for the proprietary funds as of and for fiscal year ended June 30, 2017, along with comparative total information as of and for fiscal year ended June 30, 2016. These financial statements reflect the net position, changes in net position, and cash flows resulting from CalPERS business-type activities.

NOTES TO THE BASIC FINANCIAL STATEMENTS

The Notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the information provided in the fund financial statements. Information available in the Notes to the Basic Financial Statements is described below:

Note 1 – provides general information on CalPERS, each of the funds administered, employer and member participation in the pension plans, and other post-employment benefit plans administered by CalPERS.

Note 2 – provides a summary of significant accounting policies, including the basis of accounting for each of the fund types, target asset allocation, management's use of estimates, and other significant accounting policies.

Note 3 – provides cash and cash equivalents information.

Note 4 – provides detail on the fair value of investments, and information on money-weighted rate of return.

Note 5 – provides information about investment risk categorizations.

Note 6 – provides information about securities lending.

Note 7 – provides information about derivatives.

Note 8 – provides information about the net pension liabilities/(asset) and actuarial assumptions for cost-sharing and single-employer plans.

Note 9 – provides information about the CERBTF, including plan members, participating employers, and contributions.

Note 10 – provides information about the RBF, as well as applicable internal revenue and government codes.

Note 11 – provides detailed information about the HCF and the estimated claims liability of the HCF.

Note 12 – provides additional information about participating agencies and insurance premiums paid by the CRF.

Note 13 – provides information about the LTCF actuarial valuation and the estimated liability for future policy benefits.

Note 14 – provides information on potential contingencies of CalPERS.

Note 15 – provides information about future accounting pronouncements.

REQUIRED SUPPLEMENTARY INFORMATION

The Required Supplementary Information schedules include information about the changes in the net pension liability, employer contributions, actuarial assumptions used to calculate the actuarially determined contributions, historical trends, and other required supplementary information related to the System's cost-sharing multiple-employer and single-employer defined benefit pension plans as required by GASB Statement No. 67, *Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25* (GASB 67).

The MWRR expresses investment performance, net of investment expense, and is disclosed per the requirements of GASB 67 and GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (GASB 74).

The Schedule of Claims Development Information for the HCF provides earned revenues and expenses over the past 10 years.

OTHER SUPPLEMENTARY INFORMATION

Other schedules include detailed information on administrative expenses incurred by CalPERS-administered funds, investment expenses, and other professional services expenses incurred.

FINANCIAL ANALYSIS

PUBLIC EMPLOYEES' RETIREMENT FUND (PERF)

The PERF is a trust fund established under section 20170 of the Public Employees' Retirement Law (PERL). The PERF provides retirement benefits to State of California, schools, and other California public agency employees. The PERF benefits are funded by member and employer contributions and by earnings on investments.

For financial reporting purposes only, the PERF is comprised of and reported as three separate entities. PERF A is comprised of agent multiple-employer plans, which includes the State of California and most public agency rate plans with more than 100 active members. PERF B is a cost-sharing multiple-employer plan of school employers consisting of non-teaching and non-certified employees. PERF C is a cost-sharing multiple-employer plan of public agencies with generally less than 100 active members.

Movements of member account asset balances occur between PERF A, PERF B, and PERF C when employer rate plans have less than 100 members, or when there are other member accounting adjustments. These plan-to-plan resource movements are reported as a separate line item within the additions and deductions sections, respectively, of each plan's Statement of Changes in Fiduciary Net Position.

The PERF net position increased by $27.8 billion or 9.3 percent compared with the prior year primarily due to favorable market conditions. Receivables decreased $10.9 billion or 60.1 percent due to reduced outstanding investment trades as of year end. Investment balances increased by $24.4 billion from $302.0 billion as of June 30, 2016, to $326.4 billion as of June 30, 2017. Securities lending collateral decreased $8.0 billion or 62.5 percent and securities lending obligations decreased $7.9 billion or 62.4 percent as a result of an overall decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased $14.2 billion or 61.0 percent due to reduced outstanding investment trades as of year end.

Additions to the PERF net position include member contributions, employer contributions, and investment income. Member contributions increased $0.2 billion or 5.0 percent due to an increase in the number of active members who contribute, which increased from 873,026 at June 30, 2016, to 887,220 at June 30, 2017. Employer contribution rates increased between 0.6 percent and 3.3 percent for State, 2.0 percent for schools, and between 1.5 percent and 1.9 percent on average for public agency miscellaneous and safety plans. The increase in both employer contribution rates and active members who contribute resulted in an increase in employer contributions of $1.4 billion or 13.2 percent.

Net investment income is comprised of interest income, dividend income, and net appreciation or depreciation in fair value of investments, and is net of investment expenses.

Net investment income increased from $1.4 billion in Fiscal Year 2015-16 to $33.0 billion in Fiscal Year 2016-17, as returns were higher due to strengthened market conditions. The current year returns were helped by gains in CalPERS' public equity and private equity programs. Additionally, the PERF recognized a MWRR of 11.2 percent for Fiscal Year 2016-17 compared with 0.5 percent for Fiscal Year 2015-16.

Deductions from the PERF are comprised of benefit payments, refunds of contributions to members and beneficiaries, and costs of administering the PERF. Benefit payments are the primary expense of a retirement system. For Fiscal Year 2016-17, retirement, death, and survivor benefits increased $1.1 billion or 5.6 percent, primarily due to a rise in the number of retirees and beneficiaries from 648,645 as of June 30, 2016, to 668,059 as of June 30, 2017. Administrative expenses increased primarily due to the amortization of intangible assets that were capitalized in Fiscal Year 2016-17. Additionally, administrative expenses were lower in Fiscal Year 2015-16 due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.

Fiduciary Net Position – PERF (Dollars in Thousands)

	PERF A	PERF B	PERF C			
	Agent	Cost-Sharing Schools	Cost-Sharing Public Agencies	2017 PERF Total	2016 PERF Total	Increase/ (Decrease)
ASSETS						
Cash & Cash Equivalents	$961,730	$246,570	$110,753	$1,319,053	$1,110,492	$208,561
Receivables	5,376,819	1,319,575	531,172	7,227,566	18,109,500	(10,881,934)
Investments	238,105,245	60,996,323	27,304,544	326,406,112	301,982,051	24,424,061
Securities Lending Collateral	3,471,852	890,121	399,819	4,761,792	12,714,487	(7,952,695)
Capital Assets, Net & Other Assets	436,899	112,013	50,313	599,225	701,741	(102,516)
Total Assets	**$248,352,545**	**$63,564,602**	**$28,396,601**	**$340,313,748**	**$334,618,271**	**$5,695,477**
LIABILITIES						
Retirement Benefits, Investment Settlement & Other	$6,628,824	$1,677,285	$753,222	$9,059,331	$23,250,171	($14,190,840)
Securities Lending Obligations	3,467,205	888,930	399,284	4,755,419	12,664,098	(7,908,679)
Total Liabilities	**$10,096,029**	**$2,566,215**	**$1,152,506**	**$13,814,750**	**$35,914,269**	**($22,099,519)**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$238,256,516**	**$60,998,387**	**$27,244,095**	**$326,498,998**	**$298,704,002**	**$27,794,996**

Changes in Fiduciary Net Position – PERF (Dollars in Thousands)

	PERF A	PERF B	PERF C			
	Agent	Cost-Sharing Schools	Cost-Sharing Public Agencies	2017 PERF Total	2016 PERF Total	Increase/ (Decrease)
ADDITIONS						
Member Contributions	$3,000,116	$897,438	$317,024	$4,214,578	$4,015,754	$198,824
Employer Contributions	9,565,742	1,783,736	980,359	12,329,837	10,892,489	1,437,348
Net Investment Income	24,032,118	6,183,341	2,761,561	32,977,020	1,398,927	31,578,093
Securities Lending & Other Income	111,808	28,440	12,760	153,008	149,494	3,514
Plan to Plan Resource Movement	132	16	134,513	134,661	49,803	84,858
Total Additions	**$36,709,916**	**$8,892,971**	**$4,206,217**	**$49,809,104**	**$16,506,467**	**$33,302,637**
DEDUCTIONS						
Retirement, Death & Survivor Benefits	$15,952,745	$3,650,554	$1,612,590	$21,215,889	$20,093,933	$1,121,956
Refund of Contributions	129,907	74,356	18,012	222,275	238,821	(16,546)
Administrative Expenses	321,742	82,489	37,052	441,283	184,426	256,857
Plan to Plan Resource Movement	134,511	150	—	134,661	49,803	84,858
Total Deductions	**$16,538,905**	**$3,807,549**	**$1,667,654**	**$22,014,108**	**$20,566,983**	**$1,447,125**
INCREASE (DECREASE) IN NET POSITION	**$20,171,011**	**$5,085,422**	**$2,538,563**	**$27,794,996**	**($4,060,516)**	**$31,855,512**
NET POSITION						
Beginning of Year	**$218,085,505**	**$55,912,965**	**$24,705,532**	**$298,704,002**	**$302,764,518**	**($4,060,516)**
End of Year	**$238,256,516**	**$60,998,387**	**$27,244,095**	**$326,498,998**	**$298,704,002**	**$27,794,996**

OTHER DEFINED BENEFIT PLANS

LEGISLATORS' RETIREMENT FUND (LRF)

The LRF provides retirement benefits to California Legislators elected to office before November 7, 1990, and to constitutional, legislative, and statutory officers elected or appointed prior to January 1, 2013. The number of LRF members has been declining as eligible incumbent Legislators leave office and are replaced by those ineligible to participate in the LRF. Actuarially determined contributions will continue to be made by the State of California to supplement the existing assets until all benefit obligations have been fulfilled.

As the LRF is closed to new members and income is primarily limited to investment returns and contributions based on a declining number of active members, CalPERS expects the net position of the fund to steadily decrease over time.

Fiscal Year 2016-17 net position of the LRF decreased by $2.2 million or 1.8 percent compared with the prior year. Receivables decreased by $9.4 million or 73.8 percent due to reduced outstanding investment trades as of year end. Investments at fair value decreased $5.2 million or 4.2 percent. As the number of active members continues to decline, LRF investments are sold to assist in paying benefits. Securities lending cash collateral and securities lending obligations decreased as a result of decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased $12.2 million or 65.1 percent due to reduced outstanding investment trades as of year end.

Additions to the LRF's net position primarily came from net investment income of $5.0 million in Fiscal Year 2016-17. This was an increase of $0.5 million or 11.0 percent and was primarily due to gains from the sale of investment holdings. The LRF recognized a MWRR of 4.3 percent for Fiscal Year 2016-17 compared with 3.8 percent for Fiscal Year 2015-16. Partially offsetting this increase was a decrease in combined member and employer contributions due to fewer active participants contributing to the fund.

Deductions from the LRF are primarily comprised of benefit payments, refunds, and administrative expenses. Total deductions increased by $0.2 million or 2.8 percent due primarily to an increase of $0.4 million in administrative expenses, which were lower in Fiscal Year 2015-16 due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16. This increase was partially offset by combined decreases in benefit payments and refund of contributions of $0.2 million or 2.1 percent in Fiscal Year 2016-17.

JUDGES' RETIREMENT FUND (JRF)

The JRF provides retirement benefits to California Supreme and Appellate Court Justices and Superior Court Judges appointed or elected before November 9, 1994. The State of California does not pre-fund the benefits for this fund and the benefits are funded on a pay-as-you-go basis.

Fiscal Year 2016-17 net position increased $8.5 million or 21.3 percent due to increased contributions from the State General Fund. Liabilities decreased $0.3 million or 56.5 percent due primarily to reduced outstanding unclaimed benefits in the current year.

Additions to the JRF come from employer, member, and state “balancing contributions,” which increased $12.0 million or 6.1 percent as a whole primarily due to an increase in the State General Fund contributions. The fund held a surplus cash balance in prior fiscal years, which resulted in a reduction to General Fund contributions necessary to pay participant benefits. With that surplus now liquidated, General Fund contributions increased for Fiscal Year 2016-17 to pay benefits.

Deductions from the JRF include benefit payments, which increased $1.2 million or 0.6 percent due to an increase in the number of benefit recipients receiving distributions from the Extended Service Incentive Program. Administrative expenses of the fund increased $1.1 million primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.

JUDGES' RETIREMENT FUND II (JRF II)

The JRF II provides retirement benefits to California Supreme and Appellate Court Justices and Superior Court Judges first appointed or elected on or after November 9, 1994.

The net position of the JRF II increased by $183.1 million or 15.6 percent compared with the prior year. Receivables decreased by $75.3 million or 65.3 percent primarily due to reduced outstanding investment trades as of year end. JRF II investment balances increased by $165.5 million or 13.7 percent primarily due to favorable market conditions. Securities lending cash collateral and securities lending obligations decreased as a result of decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased $90.0 million or 58.1 percent primarily due to reduced outstanding investment trades as of year end.

Additions to the JRF II net position include member contributions, employer contributions, and investment income. Member and employer contributions in the JRF II increased primarily due to an increase in state judges' salaries and an increase in the number of active members from 1,491 as of June 30, 2016, to 1,508 as of June 30, 2017. Member contributions increased $0.5 million or 1.9 percent, while employer contributions increased $1.3 million or 1.9 percent. The fund had an increase in net investment income of $94.1 million from $20.2 million in Fiscal Year 2015-16, to $114.3 million in Fiscal Year 2016-17. This increase resulted from improved performance in the investment markets. Additionally, the JRF II recognized a MWRR of 9.6 percent for Fiscal Year 2016-17 compared with 1.9 percent for Fiscal Year 2015-16.

Deductions from the JRF II are comprised of benefit payments, refund of contributions to members and beneficiaries, and costs of administering the JRF II. Current year benefit payments increased $0.8 million or 3.6 percent due to an increase in benefit recipients from 134 in Fiscal Year 2015-16 to 170 in Fiscal Year 2016-17. Overall administrative expenses increased primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.

Fiduciary Net Position – Other Defined Benefit Plan Funds (Dollars in Thousands)

	LRF			JRF			JRF II		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
ASSETS									
Cash & Cash Equivalents	$350	$75	$275	$5	$0	$5	$4,122	$1,369	$2,753
Receivables	3,356	12,795	(9,439)	2,464	2,486	(22)	39,919	115,205	(75,286)
Investments	119,724	124,962	(5,238)	46,048	37,864	8,184	1,377,120	1,211,586	165,534
Securities Lending Collateral	766	3,514	(2,748)	—	—	—	17,979	53,795	(35,816)
Total Assets	**$124,196**	**$141,346**	**($17,150)**	**$48,517**	**$40,350**	**$8,167**	**$1,439,140**	**$1,381,955**	**$57,185**
LIABILITIES									
Retirement Benefits, Investment Settlement & Other	$6,547	$18,779	($12,232)	$242	$556	($314)	$65,086	$155,174	($90,088)
Securities Lending Obligations	765	3,517	(2,752)	—	—	—	17,955	53,828	(35,873)
Total Liabilities	**$7,312**	**$22,296**	**($14,984)**	**$242**	**$556**	**($314)**	**$83,041**	**$209,002**	**($125,961)**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$116,884**	**$119,050**	**($2,166)**	**$48,275**	**$39,794**	**$8,481**	**$1,356,099**	**$1,172,953**	**$183,146**

Changes in Fiduciary Net Position – Other Defined Benefit Plan Funds (Dollars in Thousands)

	LRF			JRF			JRF II		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
ADDITIONS									
Member Contributions	$94	$97	($3)	$3,398	$3,559	($161)	$25,076	$24,598	$478
Employer Contributions	516	549	(33)	204,475	192,287	12,188	67,102	65,839	1,263
Net Investment Income	5,006	4,511	495	424	194	230	114,331	20,213	94,118
Securities Lending & Other Income	42	34	8	2,395	2,568	(173)	726	597	129
Total Additions	**$5,658**	**$5,191**	**$467**	**$210,692**	**$198,608**	**$12,084**	**$207,235**	**$111,247**	**$95,988**
DEDUCTIONS									
Retirement, Death & Survivor Benefits	$6,960	$7,028	($68)	$200,440	$199,271	$1,169	$22,326	$21,549	$777
Refund of Contributions	289	379	(90)	—	78	(78)	80	155	(75)
Administrative Expenses	575	203	372	1,771	642	1,129	1,683	732	951
Total Deductions	**$7,824**	**$7,610**	**$214**	**$202,211**	**$199,991**	**$2,220**	**$24,089**	**$22,436**	**$1,653**
INCREASE (DECREASE) IN NET POSITION	**($2,166)**	**($2,419)**	**$253**	**$8,481**	**($1,383)**	**$9,864**	**$183,146**	**$88,811**	**$94,335**
NET POSITION									
Beginning of Year	**$119,050**	**$121,469**	**($2,419)**	**$39,794**	**$41,177**	**($1,383)**	**$1,172,953**	**$1,084,142**	**$88,811**
End of Year	**$116,884**	**$119,050**	**($2,166)**	**$48,275**	**$39,794**	**$8,481**	**$1,356,099**	**$1,172,953**	**$183,146**

ASSET LIABILITY MANAGEMENT – DEFINED BENEFIT PLANS

The Asset Liability Management (ALM) process is an integrated review of pension assets and liabilities to inform decisions designed to achieve a sound and sustainable fund. CalPERS continues to expand its review of assets and liabilities so that financial risks to the System can be better understood, communicated, and managed.

To establish appropriate levels of risk, ALM is focused on investment and actuarial policies and key decision factors that could drive an optimum asset allocation while stabilizing employer rates and the volatility of those rates from year to year. ALM is designed to improve the sustainability and soundness of the PERF, and the goal is to achieve 100 percent funding at an acceptable level of risk. Reducing the risk in the funding of the System will involve tradeoffs between short-term and long-term priorities.

The allocation of investment assets in order to maintain focus on long-term returns is an important factor in the sustainability of the fund. In September 2016, the CalPERS Board adopted an interim asset allocation for the PERF through July 2018 that lowers investment risk but largely keeps investment strategy unchanged. The new interim strategy established target thresholds that shifted the allocation of some assets out of growth strategies and primarily into inflation, liquidity, and real assets strategies.

In December 2016, the CalPERS Board voted to lower the funding discount rate for the PERF from 7.50 percent to 7.00 percent. Additionally, the Board approved separate timelines for implementing the new funding rates for state, school, and public agencies, which will be phased in over a three-year period. The new funding discount rate for the State will impact employer rates beginning in Fiscal Year 2017-18, while the new rate for schools and public agencies will impact employer rates beginning in Fiscal Year 2018-19, allowing schools and public agencies additional time to plan for rate increases.

In February 2017, the Board adopted modifications to the Funding Risk Mitigation Policy, which provides for an incremental reduction in the discount rate for the PERF in years when investment performance significantly outperforms the discount rate. The policy also triggers adjustments to expected investment return and strategic asset allocation targets. The Board voted to suspend the policy until Fiscal Year 2020-21.

In order to better manage risks arising from terminating agencies, CalPERS has enhanced its oversight of contracting public agencies' financial health through its development of a standardized review criteria. These improvements include streamlining the collection and termination process to reduce the timeframe, accelerating notifications to the Board and members, and adopting a risk oversight process to improve early detection of financial hardship issues. These process and monitoring improvements support Fund Sustainability and Risk Management Goals of the CalPERS 2017-22 Strategic Plan, which aims to strengthen the long-term sustainability of the pension fund.

FUNDING ANALYSIS – DEFINED BENEFIT PLANS

The CalPERS Board has made several important historical decisions which impact the current funding of pension benefits at CalPERS. In April 2013, the CalPERS Board approved new actuarial policies that included a rate-smoothing method with a 30-year fixed amortization period for gains and losses. In February 2014, the CalPERS Board voted to include future mortality improvements in the actuarial assumptions. In April 2014, the Board adopted an experience study completed by CalPERS which focused on patterns of termination, death, disability, retirement, and salary increases. The assumptions included in this study are still used in setting current contribution rates. Over time, these policies are designed to improve funding levels and help reduce overall funding level risk.

The JRF is funded on a “pay-as-you-go” basis, where short-term investments, contributions received during the year, and a State General Fund augmentation are used to provide funding for benefit payments. This funding method is generally more expensive in the long term, as the plan does not have investment returns generated by a funded plan. Without the State General Fund augmentation, the JRF will not be able to pay the accumulated benefit payments due in Fiscal Year 2017-18.

As of June 30, 2016, the funded status of the PERF was 68.3 percent. The funded status as of June 30, 2017, is estimated to be approximately 68.0 percent. Both of these PERF funded status values were calculated using a 7.0 percent discount rate. As of June 30, 2016, the funded status of the JRF II was 92.2 percent. The funded status as of June 30, 2017, is estimated to increase to approximately 95.1 percent, mostly as a result of investment returns in Fiscal Year 2016-17. Both JRF II funded status values were calculated using a 6.5 percent discount rate. As of June 30, 2016, the funded status of the LRF was 111.3 percent. The funded status as of June 30, 2017, is estimated to decrease to approximately 111.2 percent. Both LRF funded status values were calculated using a 5.0 percent discount rate. All these funded statuses were calculated based on the market value of assets used in actuarial valuations that set funding requirements for employers.

Over the course of the three-year phase-in, funding discount rates for PERF employers will decrease from 7.50 percent to

7.375 percent, from 7.375 percent to 7.25 percent, and finally from 7.25 percent to 7.00 percent.

Under GASB 67, there is a difference between the assumptions and components used to determine the net pension liabilities that must be reported in financial statements and the actuarial accrued liabilities and actuarial value of assets used to determine pension contributions established as part of funding valuations. The Actuarial Section included in this report provides actuarial information that was derived for purposes of establishing the funding requirements of employers for which CalPERS administers retirement benefits.

The GASB 67 financial reporting discount rate for the PERF decreased from 7.65 percent to 7.15 percent. Assets used for GASB 67 financial reporting purposes are slightly greater than assets used for funding requirements as they include amounts for deficiency reserves and fiduciary self-insurance, which creates differences in plan assets reported in the funding actuarial valuation report. CalPERS is required to report Plan Fiduciary Net Position as a percentage of Total Pension Liability for the cost-sharing multiple employer plans (PERF B and PERF C) and for the single-employer pension plans (LRF, JRF, and JRF II). The discount rates used for financial reporting for the PERF B, PERF C, LRF, and JRF II are adjusted for administrative expenses as compared with the rates used for funding, which are net of administrative expenses. The funding discount rate in the JRF differs from the financial reporting discount rate. The JRF uses yields on 20-year tax-exempt General Obligation Municipal Bonds.

In April 2017, the CalPERS Board voted to also lower the funding discount rates for the LRF, JRF, and JRF II, which will impact employer rates beginning in Fiscal Year 2017-18. These funding rates are used in the June 30, 2016, actuarial valuation reports for the LRF, JRF, and JRF II. The LRF funding discount rate was lowered from 5.75 percent to 5.00 percent, JRF was lowered from 4.25 percent to 3.25 percent, and JRF II was lowered from 7.00 percent to 6.50 percent. The financial reporting discount rate used in the JRF was not impacted as its benefit obligations are funded by the State using the pay-as-you-go method.

The following table displays the difference between discount rates for the LRF, JRF, and JRF II that were effective as of June 30, 2017:

Fund	Funding Discount Rate	Financial Reporting Discount Rate
LRF	5.00%	5.25%
JRF	3.25%	3.56%
JRF II	6.50%	6.65%

DEFINED CONTRIBUTION PLANS

PUBLIC EMPLOYEES' DEFERRED COMPENSATION FUND (DCF)

The DCF is available to public agencies and school districts within the State of California that have elected to contract for a deferred compensation plan.

The net position of the DCF increased by $154.2 million or 11.9 percent primarily due to increased investment income and decreased participant withdrawals. Net investment income increased by $124.8 million from $7.5 million in Fiscal Year 2015-16 to $132.3 million in Fiscal Year 2016-17 due to favorable market conditions. Member contributions in the fund increased $4.2 million or 3.9 percent compared with prior year.

Overall total deductions in the DCF decreased by $74.1 million or 43.9 percent. This was primarily due to a decrease in participant withdrawals from the plan of $74.0 million from $164.4 million in Fiscal Year 2015-16 to $90.3 million in Fiscal Year 2016-17.

SUPPLEMENTAL CONTRIBUTIONS PROGRAM FUND (SCPF)

The SCPF was established effective January 1, 2000, to provide supplemental retirement benefits to State of California employees who are members of CalPERS and is entirely member-funded.

The net position of the SCPF decreased $3.7 million or 2.9 percent. Despite an increase in net investment income for the year, the overall decrease to the net position of the SCPF was primarily due to participant withdrawals exceeding total additions to the fund. Net investment income increased by $6.5 million, from $0.4 million in Fiscal Year 2015-16 to $6.9 million in Fiscal Year 2016-17.

The primary deductions in the SCPF reflect withdrawals made by former State Peace Officers' and Firefighters' (SPOFF) participants subsequent to the termination date. Participant withdrawals decreased $5.1 million, from $16.1 million as of Fiscal Year 2015-16 to $11.0 million as of Fiscal Year 2016-17.

Fiduciary Net Position – Defined Contribution Plan Funds (Dollars in Thousands)

	DCF			SCPF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
ASSETS						
Cash & Cash Equivalents	$2	$0	$2	$1	$0	$1
Receivables	16,147	14,586	1,561	838	898	(60)
Investments	1,431,283	1,277,596	153,687	120,818	124,509	(3,691)
Total Assets	**$1,447,432**	**$1,292,182**	**$155,250**	**$121,657**	**$125,407**	**($3,750)**
LIABILITIES						
Retirement Benefits, Investment Settlement & Other	$2,826	$1,775	$1,051	$953	$1,053	($100)
Total Liabilities	**$2,826**	**$1,775**	**$1,051**	**$953**	**$1,053**	**($100)**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$1,444,606**	**$1,290,407**	**$154,199**	**$120,704**	**$124,354**	**($3,650)**

Changes in Fiduciary Net Position – Defined Contribution Plan Funds (Dollars in Thousands)

	DCF			SCPF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
ADDITIONS						
Member Contributions	$110,258	$106,072	$4,186	$246	$269	($23)
Employer Contributions	962	909	53	—	—	—
Net Investment Income	132,305	7,541	124,764	6,890	416	6,474
Other Income	5,583	5,354	229	628	668	(40)
Total Additions	**$249,108**	**$119,876**	**$129,232**	**$7,764**	**$1,353**	**$6,411**
DEDUCTIONS						
Administrative Expenses	$4,576	$4,677	($101)	$373	$330	$43
Participant Withdrawals	90,333	164,362	(74,029)	11,041	16,130	(5,089)
Total Deductions	**$94,909**	**$169,039**	**($74,130)**	**$11,414**	**$16,460**	**($5,046)**
Interfund Transfer In	$0	$0	$0	$0	$5,582	($5,582)
INCREASE (DECREASE) IN NET POSITION	**$154,199**	**($49,163)**	**$203,362**	**($3,650)**	**($9,525)**	**$5,875**
NET POSITION						
Beginning of Year	**$1,290,407**	**$1,339,570**	**($49,163)**	**$124,354**	**$133,879**	**($9,525)**
End of Year	**$1,444,606**	**$1,290,407**	**$154,199**	**$120,704**	**$124,354**	**($3,650)**

OTHER POST-EMPLOYMENT BENEFIT TRUST FUND

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST FUND (CERBTF)

The CERBTF is a trust for employers to pre-fund health, dental, and other non-pension post-employment benefits.

Net position restricted for OPEB benefits on June 30, 2017, increased $1.7 billion or 32.6 percent primarily due to significant increases in employer contributions in Fiscal Year 2016-17, combined with improved investment returns. Receivables decreased $247.0 million or 62.8 percent due to reduced outstanding investment trades as of year end. Investments at fair value increased $1.6 billion or 29.7 percent due to favorable market conditions and greater employer contributions. Securities lending cash collateral and securities lending obligations decreased as a result of decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, other post-employment benefits, investment settlement, and other liabilities decreased $312.2 million or 50.0 percent primarily due to reduced outstanding investment trades as of year end.

Additions to the CERBTF net position restricted for OPEB benefits are primarily made up of employer contributions and net investment income. Employer contributions increased $2.0 billion or 110.9 percent, primarily due to increased contributions among existing participating employers. During Fiscal Year 2016-17, the fund experienced net investment income of $560.0 million, an increase of $483.3 million from a net investment return of $76.6 million in Fiscal Year 2015-16. The increase resulted from improved performance in investment markets. Additionally, the CERBTF recognized a MWRR of 10.0 percent in Fiscal Year 2016-17, compared with 1.6 percent in Fiscal Year 2015-16.

Deductions from the CERBTF net position restricted for OPEB benefits were primarily made up of employer reimbursements, which increased $1.4 billion or 115.3 percent, due to increased volume of reimbursement requests among existing participating employers. The amounts reported for contributions and reimbursements made directly by employers to healthcare providers outside the trust amounted to $2.6 billion for Fiscal Year 2016-17 compared with $1.1 billion in Fiscal Year 2015-16. Administrative expenses increased primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16 and increases in internal costs to administer the fund in Fiscal Year 2016-17.

Fiduciary Net Position – Other Post-Employment Benefit Trust Fund (Dollars in Thousands)

	CERBTF		
	2017	2016	Increase/ (Decrease)
ASSETS			
Cash & Cash Equivalents	$12,590	$66	$12,524
Receivables	146,309	393,267	(246,958)
Investments	6,944,685	5,353,358	1,591,327
Securities Lending Collateral	1,069	47,810	(46,741)
Total Assets	**$7,104,653**	**$5,794,501**	**$1,310,152**
LIABILITIES			
Other Post-Employment Benefits, Investment Settlement & Other	$312,296	$624,474	($312,178)
Securities Lending Obligations	1,068	47,839	(46,771)
Total Liabilities	**$313,364**	**$672,313**	**($358,949)**
TOTAL NET POSITION RESTRICTED FOR OPEB	**$6,791,289**	**$5,122,188**	**$1,669,101**

Changes in Fiduciary Net Position – Other Post-Employment Benefit Trust Fund (Dollars in Thousands)

	CERBTF		
	2017	2016	Increase/ (Decrease)
ADDITIONS			
Employer Contributions	$3,754,709	$1,780,240	$1,974,469
Net Investment Income	559,967	76,638	483,329
Securities Lending & Other Income	5,599	4,048	1,551
Total Additions	**$4,320,275**	**$1,860,926**	**$2,459,349**
DEDUCTIONS			
Administrative Expenses	$3,014	$1,559	$1,455
Employer Withdrawals	680	—	680
OPEB Reimbursements	2,647,480	1,229,523	1,417,957
Total Deductions	**$2,651,174**	**$1,231,082**	**$1,420,092**
INCREASE IN NET POSITION	**$1,669,101**	**$629,844**	**$1,039,257**
NET POSITION			
Beginning of Year	**$5,122,188**	**$4,492,344**	**$629,844**
End of Year	**$6,791,289**	**$5,122,188**	**$1,669,101**

CUSTODIAL FUND

REPLACEMENT BENEFIT FUND (RBF)

The RBF is a qualified excess benefit arrangement pursuant to IRC section 415(m), and provides for the replacement of the portion of retirement allowance that exceeds Internal Revenue Code (IRC) section 415(b) dollar limits. Employers are invoiced by CalPERS for amounts payable to their former employees, and CalPERS subsequently pays the replacement benefit to retirees. Participants of the RBF cover the administrative costs to maintain the fund.

Prior to Fiscal Year 2016-17, the RBF was classified as an agency fund per GASB Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments* (GASB 34). CalPERS elected to early implement the requirements of GASB 84 in Fiscal Year 2016-17, which changed the classification of the RBF from an agency fund to a custodial fund. As a result, the RBF now reports a Statement of Changes in Fiduciary Net Position in addition to a Statement of Fiduciary Net Position effective in Fiscal Year 2016-17. Furthermore, the beginning of year net position for Fiscal Year 2016-17 was restated as a result of the implementation of GASB 84.

Fiduciary Net Position – Custodial Fund (Dollars in Thousands)

	RBF		
	2017	2016	Increase/ (Decrease)
ASSETS			
Cash & Cash Equivalents	$0	$1	($1)
Receivables	374	292	82
Investments	11,633	10,148	1,485
Total Assets	**$12,007**	**$10,441**	**$1,566**
LIABILITIES			
Unearned Replacement Benefits & Other	$11,839	$10,441	$1,398
Total Liabilities	**$11,839**	**$10,441**	**$1,398**
TOTAL NET POSITION RESTRICTED FOR REPLACEMENT BENEFITS	**$168**	**$0**	**$168**

Changes in Fiduciary Net Position – Custodial Fund (Dollars in Thousands)

	RBF
	2017
ADDITIONS	
Replacement Benefits	$20,573
Investment Income	168
Other Income	239
Total Additions	**$20,980**
DEDUCTIONS	
Replacement Benefit Payments	$20,573
Administrative Expenses	239
Total Deductions	**$20,812**
INCREASE IN NET POSITION	**$168**
NET POSITION	
Beginning of Year[1]	**$0**
End of Year	**$168**

(1) The Fiscal Year 2016-17 Beginning of Year Net Position balance was restated due to the implementation of GASB 84.

ENTERPRISE FUNDS

PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF) AND PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

Health premiums are collected from employers and members for medical and pharmaceutical services. The HCF covers payments related to fee-for-service self-funding, while the CRF generally covers costs associated with fully-insured services. Both funds incur expenses to administer the CalPERS health care programs. In addition, the CRF establishes a contingency reserve for unanticipated health program-related costs. For financial reporting purposes only, the HCF and CRF statements and schedules are combined to provide a more comprehensive overview of the health programs administered by CalPERS.

In May 2016, the CalPERS Board approved Blue Shield's request to terminate its NetValue HMO health plan effective January 1, 2017. Also, the Board approved the addition of Western Health Advantage to the Basic HMO choices for members in Placer, El Dorado, Sacramento, Yolo, Colusa, Solano, Napa, Sonoma, and Marin counties effective January 1, 2018. On January 1, 2017, OptumRx replaced CVS Caremark as CalPERS' new Pharmacy Benefit Manager. The company will administer prescription drug benefits for members and their dependents enrolled in all of CalPERS' health plans with the exception of Kaiser and Blue Shield of California Health Maintenance Organization (HMO) plans. The five-year contract took effect January 1, 2017, and ends December 31, 2021.

Although premium revenues slightly increased year over year, the net position of the HCF and CRF increased $174.9 million or 53.9 percent primarily due to an increase in premiums revenue combined with a decrease in both administrative expenses and estimated claims liabilities. Receivables decreased $82.0 million or 24.7 percent due to more timely payments made by Pharmacy Benefit Managers and health carriers. Total liabilities decreased $134.3 million or 11.6 percent due to fewer outstanding, unpaid claims as of June 30, 2017.

Revenues related to the HCF and CRF include premiums collected from members and employers, federal subsidies, investment income (non-operating revenues), and administrative fees collected from employers to administer the CalPERS health care program. Premiums collected increased $84.8 million or 2.3 percent primarily due to the health care contract termination and an increase in health care rates. Net investment income decreased $23.5 million or 82.4 percent due to a decreased rate of return compared with Fiscal Year 2015-16. Fees collected for administering the fund are determined as a percentage of total active and retired health premiums. These fees decreased by $0.2 million or 0.7 percent because an increase in total health premiums was offset by a decrease in the employer administrative fee in Fiscal Year 2016-17.

Expenses are comprised of claims, investment fees, and costs incurred to oversee the plans (which include third-party administrator fees). The expenses of medical and drug-related claims increased, but were offset by an increase in pharmacy rebates. Costs incurred to administer the plans decreased by $27.6 million or 7.5 percent due to a decrease in Affordable Care Act taxes and fees.

PUBLIC EMPLOYEES' LONG-TERM CARE FUND (LTCF)

The LTCF helps to provide financial protection to participants from the high cost of eligible covered services caused by chronic illness, injury, or old age. Long-term care products reimburse the cost for covered personal care services (activities of daily living) such as bathing, dressing, toileting, transferring, continence, and eating, which are not typically covered by traditional health insurance or Medicare.

Long-term care participation is voluntary, and benefits are funded by member premiums and the LTCF investment income. The LTCF is continuously appropriated under the exclusive control of the Board for the exclusive benefit of participants in the program.

The long-term care program launched an integrated marketing campaign to promote and grow application activity. The Long-Term Care Group (LTCG) Preferred Provider Network continued to gain additional contracted providers, which may provide discounts on services for participants.

Unrestricted net position of the LTCF decreased by $158.4 million or 63.9 percent, primarily due to lower investment returns and an increase in the estimated liability for future policy benefits resulting from rising costs of healthcare. Receivables decreased $23.8 million due to a decrease in the volume of the trades outstanding at year end. Cash and cash equivalents also decreased by $2.1 million or 22.2 percent due to a shift of investing more in fixed income versus short-term investments.

The LTCF revenues to administer the plan include premiums collected from participants and investment income. Participation in the plan decreased by 3.0 percent mainly due to participant deaths, coverage cancellations, non-payment of premiums, and exhaustion of benefits. This offset premium revenue, which increased by $23.9 million or 8.5 percent due to rate increases. Non-operating revenues are comprised of net appreciation or depreciation in fair value of investments and interest income. The investment income for Fiscal Year 2016-17 was $69.0 million, a decrease of $157.5 million or 69.6 percent from the prior year due to negative returns on fixed income investments.

Total expenses are comprised of claims, changes in estimated future claims liabilities, administrative costs to the program, and investment expenses. The overall decrease in total expenses is primarily attributable to a decrease in the Fiscal Year 2016-17 change in future estimated liabilities for future policy benefits compared with prior year. Refer to Note 13 for additional information regarding the calculation of the estimated liabilities for future policy benefits. Administrative expenses increased primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.

Net Position – Enterprise Funds (Dollars in Thousands)

	HCF/CRF			LTCF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
ASSETS						
Cash & Cash Equivalents	$823,342	$699,485	$123,857	$7,540	$9,686	($2,146)
Receivables	249,505	331,508	(82,003)	11,371	35,181	(23,810)
Investments	444,679	445,871	(1,192)	4,374,447	4,313,329	61,118
Total Assets	**$1,517,526**	**$1,476,864**	**$40,662**	**$4,393,358**	**$4,358,196**	**$35,162**
LIABILITIES						
Claims Payable, Unearned Premiums, Estimated Insurance Claims Due & Due to Carriers	$955,682	$999,330	($43,648)	$362,199	$341,891	$20,308
Due to Employers	18,432	23,734	(5,302)	—	—	—
Other Liabilities	44,187	129,501	(85,314)	15,285	36,925	(21,640)
Estimated Liability for Future Policy Benefits	—	—	—	3,926,231	3,731,387	194,844
Total Liabilities	**$1,018,301**	**$1,152,565**	**($134,264)**	**$4,303,715**	**$4,110,203**	**$193,512**
TOTAL UNRESTRICTED NET POSITION	**$499,225**	**$324,299**	**$174,926**	**$89,643**	**$247,993**	**($158,350)**

Changes in Net Position – Enterprise Funds (Dollars in Thousands)

	HCF/CRF			LTCF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
REVENUES						
Premiums	$3,826,107	$3,741,352	$84,755	$306,303	$282,426	$23,877
Federal Government Subsidies	29,534	32,539	(3,005)	—	—	—
Non-Operating Revenues	5,013	28,538	(23,525)	68,986	226,526	(157,540)
Administrative Fees & Other	27,487	27,668	(181)	—	—	—
Total Revenues	**$3,888,141**	**$3,830,097**	**$58,044**	**$375,289**	**$508,952**	**($133,663)**
EXPENSES						
Claims Expense	$3,387,753	$3,404,222	($16,469)	$293,693	$271,742	$21,951
Increase (Decrease) in Estimated Liabilities	(14,701)	13,258	(27,959)	213,048	376,284	(163,236)
Non-Operating Expenses	92	77	15	1,816	1,606	210
Administrative Expenses	340,071	367,685	(27,614)	25,082	24,999	83
Total Expenses	**$3,713,215**	**$3,785,242**	**($72,027)**	**$533,639**	**$674,631**	**($140,992)**
INCREASE (DECREASE) IN UNRESTRICTED NET POSITION	**$174,926**	**$44,855**	**$130,071**	**($158,350)**	**($165,679)**	**$7,329**
UNRESTRICTED NET POSITION						
Beginning of Year	**$324,299**	**$279,444**	**$44,855**	**$247,993**	**$413,672**	**($165,679)**
End of Year	**$499,225**	**$324,299**	**$174,926**	**$89,643**	**$247,993**	**($158,350)**

REQUESTS FOR INFORMATION

This Financial Report is designed to provide a general overview of CalPERS' finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the CalPERS Financial Office, P.O. Box 942703, Sacramento, CA, 94229-2703, or by calling 888 CalPERS (or 888-225-7377).

STATEMENT OF FIDUCIARY NET POSITION – FIDUCIARY FUNDS

As of June 30, 2017, with Comparative Totals as of June 30, 2016 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
ASSETS						
Cash & Cash Equivalents	**$961,730**	**$246,570**	**$110,753**	**$350**	**$5**	**$4,122**
Receivables						
Members	$593,918	$105,793	$52,214	$50	$1,179	$725
Employers	905,919	219,792	32,484	50	1,176	6,445
Investment Sales & Other	3,407,204	873,547	392,374	3,246	—	32,728
Interest & Dividends	201,286	51,606	23,180	1	77	18
Due from Other Funds	1,611	413	186	—	—	—
Note Receivable	212,872	54,577	24,514	—	—	—
Other Program	54,009	13,847	6,220	9	32	3
Total Receivables	**$5,376,819**	**$1,319,575**	**$531,172**	**$3,356**	**$2,464**	**$39,919**
Investments, at Fair Value						
Short-Term Investments	$20,411,159	$5,228,865	$2,340,777	$6,656	$46,048	$78,787
Global Equity Securities	105,869,673	27,120,640	12,139,604	37,063	—	768,395
Global Debt Securities	67,002,360	17,164,449	7,683,914	76,005	—	529,938
Real Assets	25,849,621	6,622,072	2,964,467	—	—	—
Private Equity	18,972,432	4,860,297	2,175,782	—	—	—
Total Investments	**$238,105,245**	**$60,996,323**	**$27,304,544**	**$119,724**	**$46,048**	**$1,377,120**
Securities Lending Collateral	$3,471,852	$890,121	$399,819	$766	$0	$17,979
Capital Assets, Net & Other Assets	436,899	112,013	50,313	—	—	—
TOTAL ASSETS	**$248,352,545**	**$63,564,602**	**$28,396,601**	**$124,196**	**$48,517**	**$1,439,140**
LIABILITIES						
Retirement & Other Benefits	$77,052	$17,646	$7,795	$46	$0	$0
Investment Purchases & Other	6,436,563	1,650,220	741,236	6,471	—	65,066
Due to Members & Employers	5,814	—	—	13	74	6
Securities Lending Obligations	3,467,205	888,930	399,284	765	—	17,955
Due to Other Funds	897	230	104	4	11	13
Management & Third-Party Administrator Fees	—	—	—	—	—	—
Unearned Replacement Benefits	—	—	—	—	—	—
Other Program	108,498	9,189	4,087	13	157	1
TOTAL LIABILITIES	**$10,096,029**	**$2,566,215**	**$1,152,506**	**$7,312**	**$242**	**$83,041**
NET POSITION – RESTRICTED FOR PENSION, OTHER POST-EMPLOYMENT, AND REPLACEMENT BENEFITS	**$238,256,516**	**$60,998,387**	**$27,244,095**	**$116,884**	**$48,275**	**$1,356,099**

The accompanying notes are an integral part of these financial statements.

Pension Trust Funds		Other Post-Employment Benefit Trust Fund	Custodial Fund	Totals	
DCF	SCPF	CERBTF	RBF	2017	2016
$2	**$1**	**$12,590**	**$0**	**$1,336,123**	**$1,112,003**
$3,549	$782	$0	$131	$758,341	$813,496
—	—	15,296	211	1,181,373	1,037,059
477	51	130,787	—	4,840,414	14,922,724
4	5	56	32	276,265	808,039
—	—	170	—	2,380	1,589
—	—	—	—	291,963	983,575
12,117	—	—	—	86,237	82,547
$16,147	**$838**	**$146,309**	**$374**	**$7,436,973**	**$18,649,029**
$232,886	$32,660	$434,764	$11,633	$28,824,235	$22,499,132
882,243	43,605	4,115,363	—	150,976,586	146,134,120
316,154	44,553	2,394,558	—	95,211,931	84,109,945
—	—	—	—	35,436,160	31,225,522
—	—	—	—	26,008,511	26,153,355
$1,431,283	**$120,818**	**$6,944,685**	**$11,633**	**$336,457,423**	**$310,122,074**
$0	$0	$1,069	$0	$4,781,606	$12,819,606
—	—	—	—	599,225	701,741
$1,447,432	**$121,657**	**$7,104,653**	**$12,007**	**$350,611,350**	**$343,404,453**
$0	$0	$36,991	$0	$139,530	$1,735,687
—	—	274,874	—	9,174,430	22,153,678
915	797	—	—	7,619	6,669
—	—	1,068	—	4,775,207	12,769,282
527	48	—	226	2,060	2,384
1,380	108	431	—	1,919	1,340
—	—	—	11,613	11,613	10,440
4	—	—	—	121,949	152,225
$2,826	**$953**	**$313,364**	**$11,839**	**$14,234,327**	**$36,831,705**
$1,444,606	**$120,704**	**$6,791,289**	**$168**	**$336,377,023**	**$306,572,748**

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – FIDUCIARY FUNDS

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for the Fiscal Year Ended June 30, 2016 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
ADDITIONS						
Retirement and OPEB Contributions						
Members	$3,000,116	$897,438	$317,024	$94	$3,398	$25,076
Employers	9,565,742	1,783,736	980,359	516	5,173	67,102
Replacement Benefits	—	—	—	—	—	—
State of California General Fund	—	—	—	—	199,302	—
Employer Contributions Direct – OPEB	—	—	—	—	—	—
Employer Contributions Outside of Trust – OPEB	—	—	—	—	—	—
Total Retirement and OPEB Contributions	**$12,565,858**	**$2,681,174**	**$1,297,383**	**$610**	**$207,873**	**$92,178**
Investment Income						
Net Appreciation in Fair Value of Investments	$22,851,723	$5,880,709	$2,625,626	$5,038	$0	$114,624
Interest & Amortization	749,387	192,129	86,300	3	425	64
Dividends	1,029,886	264,044	118,602	—	—	—
Other Investment Income	32,864	8,426	3,785	—	—	—
Less Investment Expenses:						
Management & Performance Fees	(434,237)	(111,330)	(50,007)	—	—	—
Other	(197,505)	(50,637)	(22,745)	(35)	(1)	(357)
Net Investment Income	**$24,032,118**	**$6,183,341**	**$2,761,561**	**$5,006**	**$424**	**$114,331**
Securities Lending Income	$166,169	$42,603	$19,136	$74	$0	$1,193
Securities Lending Expense	(63,953)	(16,396)	(7,365)	(32)	—	(467)
Net Securities Lending	**$102,216**	**$26,207**	**$11,771**	**$42**	**$0**	**$726**
Other Income	$9,592	$2,233	$989	$0	$2,395	$0
Plan to Plan Resource Movement	132	16	134,513	—	—	—
TOTAL ADDITIONS	**$36,709,916**	**$8,892,971**	**$4,206,217**	**$5,658**	**$210,692**	**$207,235**
DEDUCTIONS						
Retirement, Death & Survivor Benefits	$15,952,745	$3,650,554	$1,612,590	$6,960	$200,440	$22,326
Replacement Benefit Payments	—	—	—	—	—	—
Refund of Contributions	129,907	74,356	18,012	289	—	80
Administrative Expenses	321,742	82,489	37,052	575	1,771	1,683
Plan to Plan Resource Movement	134,511	150	—	—	—	—
Participant & Employer Withdrawals	—	—	—	—	—	—
OPEB Reimbursements Direct	—	—	—	—	—	—
OPEB Reimbursements – Outside Trust	—	—	—	—	—	—
TOTAL DEDUCTIONS	**$16,538,905**	**$3,807,549**	**$1,667,654**	**$7,824**	**$202,211**	**$24,089**
INCREASE (DECREASE) IN NET POSITION	**$20,171,011**	**$5,085,422**	**$2,538,563**	**($2,166)**	**$8,481**	**$183,146**
NET POSITION						
Beginning of Year[1]	**$218,085,505**	**$55,912,965**	**$24,705,532**	**$119,050**	**$39,794**	**$1,172,953**
End of Year	**$238,256,516**	**$60,998,387**	**$27,244,095**	**$116,884**	**$48,275**	**$1,356,099**

The accompanying notes are an integral part of these financial statements.

(1) The Fiscal Year 2016-17 beginning of year net position balance for the RBF was restated due to the implementation of Governmental Accounting Standards Board Statement No. 84, *Fiduciary Activities*. Refer to Note 2 in the Notes to the Basic Financial Statements for additional discussion of financial statement disclosures.

Pension Trust Funds		Other Post-Employment Benefit Trust Fund	Custodial Fund	Totals	
DCF	SCPF	CERBTF	RBF	2017	2016
$110,258	$246	$0	$0	$4,353,650	$4,150,349
962	—	—	—	12,403,590	10,965,120
—	—	—	20,573	20,573	—
—	—	—	—	199,302	186,953
—	—	1,203,175	—	1,203,175	633,445
—	—	2,551,534	—	2,551,534	1,146,795
$111,220	**$246**	**$3,754,709**	**$20,573**	**$20,731,824**	**$17,082,662**
$131,486	$6,861	$561,746	$0	$32,177,813	$1,061,495
1,306	55	240	168	1,030,077	164,787
—	—	—	—	1,412,532	1,258,604
31	19	—	—	45,125	70,360
(439)	(36)	(1,123)	—	(597,172)	(828,816)
(79)	(9)	(896)	—	(272,264)	(217,990)
$132,305	**$6,890**	**$559,967**	**$168**	**$33,796,111**	**$1,508,440**
$0	$0	$1,351	$0	$230,526	$185,596
—	—	(747)	—	(88,960)	(48,437)
$0	**$0**	**$604**	**$0**	**$141,566**	**$137,159**
$5,583	$628	$4,995	$239	$26,654	$25,604
—	—	—	—	134,661	49,803
$249,108	**$7,764**	**$4,320,275**	**$20,980**	**$54,830,816**	**$18,803,668**
$0	$0	$0	$0	$21,445,615	$20,321,781
—	—	—	20,573	20,573	—
—	—	—	—	222,644	239,433
4,576	373	3,014	239	453,514	192,569
—	—	—	—	134,661	49,803
90,333	11,041	680	—	102,054	180,492
—	—	95,946	—	95,946	82,728
—	—	2,551,534	—	2,551,534	1,146,795
$94,909	**$11,414**	**$2,651,174**	**$20,812**	**$25,026,541**	**$22,213,601**
$154,199	**($3,650)**	**$1,669,101**	**$168**	**$29,804,275**	**($3,409,933)**
$1,290,407	**$124,354**	**$5,122,188**	**$0**	**$306,572,748**	**$309,982,681**
$1,444,606	**$120,704**	**$6,791,289**	**$168**	**$336,377,023**	**$306,572,748**

STATEMENT OF NET POSITION – PROPRIETARY FUNDS

As of June 30, 2017, with Comparative Totals as of June 30, 2016 (Dollars in Thousands)

	Proprietary Funds		Totals	
	HCF/CRF	LTCF	2017	2016
ASSETS				
Current Assets				
Cash & Cash Equivalents	$1	$7,444	$7,445	$4,706
Short-Term Investments	823,341	96	823,437	704,465
Receivables				
Members & Employers	$19,704	$425	$20,129	$21,014
Health Carriers & Pharmacy Benefit Managers	226,679	—	226,679	303,585
Interest & Dividends	2,051	—	2,051	1,895
Due from Other Funds	1,060	—	1,060	1,734
Investment Sales and Other	—	10,946	10,946	33,948
Short-Term Loan	—	—	—	4,500
Other Receivables	11	—	11	13
Total Receivables	**$249,505**	**$11,371**	**$260,876**	**$366,689**
Subtotal Current Assets	**$1,072,847**	**$18,911**	**$1,091,758**	**$1,075,860**
Noncurrent Assets				
Investments, at Fair Value				
Global Equity Securities	$0	$1,457,101	$1,457,101	$1,363,437
Global Debt Securities	444,679	2,917,346	3,362,025	3,395,763
Total Investments	**$444,679**	**$4,374,447**	**$4,819,126**	**$4,759,200**
Subtotal Noncurrent Assets	**$444,679**	**$4,374,447**	**$4,819,126**	**$4,759,200**
TOTAL ASSETS	**$1,517,526**	**$4,393,358**	**$5,910,884**	**$5,835,060**
LIABILITIES				
Current Liabilities				
Claims Payable	$227,274	$23,041	$250,315	$327,614
Unearned Premiums	99,152	12,430	111,582	106,724
Due to Employers	18,432	—	18,432	23,734
Estimated Insurance Claims Due	408,720	326,728	735,448	731,944
Due to Carriers	220,536	—	220,536	174,939
Due to Other Funds	—	1,380	1,380	940
Investment Purchases & Other	—	9,904	9,904	32,434
Management & Third-Party Administrator Fees	29,618	391	30,009	50,988
Other	14,569	3,610	18,179	82,064
Total Current Liabilities	**$1,018,301**	**$377,484**	**$1,395,785**	**$1,531,381**
Long-Term Liabilities				
Estimated Liability for Future Policy Benefits	$0	$3,926,231	$3,926,231	$3,731,387
Total Long-Term Liabilities	**$0**	**$3,926,231**	**$3,926,231**	**$3,731,387**
TOTAL LIABILITIES	**$1,018,301**	**$4,303,715**	**$5,322,016**	**$5,262,768**
TOTAL UNRESTRICTED NET POSITION	**$499,225**	**$89,643**	**$588,868**	**$572,292**

The accompanying notes are an integral part of these financial statements.

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION – PROPRIETARY FUNDS

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for the Fiscal Year Ended June 30, 2016 (Dollars in Thousands)

	Proprietary Funds		Totals	
	HCF/CRF	LTCF	2017	2016
Operating Revenues				
Premiums	$3,826,107	$306,303	$4,132,410	$4,023,778
Federal Government Subsidies	29,534	—	29,534	32,539
Administrative Fees Earned	27,448	—	27,448	27,598
Other	39	—	39	70
Total Operating Revenues	**$3,883,128**	**$306,303**	**$4,189,431**	**$4,083,985**
Operating Expenses				
Claims Expense	$3,387,753	$293,693	$3,681,446	$3,675,964
Increase/(Decrease) in Estimated Liabilities	(14,701)	213,048	198,347	389,542
Administrative Expenses	340,071	25,082	365,153	392,684
Total Operating Expenses	**$3,713,123**	**$531,823**	**$4,244,946**	**$4,458,190**
OPERATING INCOME (LOSS)	**$170,005**	**($225,520)**	**($55,515)**	**($374,205)**
Non-Operating Revenues				
Net Appreciation/(Depreciation) in Fair Value of Investments	($1,538)	$67,851	$66,313	$250,902
Interest, Dividends & Other Investment Income	6,551	1,135	7,686	4,162
Total Non-Operating Revenues	**$5,013**	**$68,986**	**$73,999**	**$255,064**
Non-Operating Expenses				
Management Fees	$63	$1,560	$1,623	$1,525
Other Investment Expenses	29	256	285	158
Total Non-Operating Expenses	**$92**	**$1,816**	**$1,908**	**$1,683**
NON-OPERATING INCOME	**$4,921**	**$67,170**	**$72,091**	**$253,381**
CHANGE IN UNRESTRICTED NET POSITION	**$174,926**	**($158,350)**	**$16,576**	**($120,824)**
TOTAL UNRESTRICTED NET POSITION				
Beginning of Year	**$324,299**	**$247,993**	**$572,292**	**$693,116**
End of Year	**$499,225**	**$89,643**	**$588,868**	**$572,292**

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS – PROPRIETARY FUNDS

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for the Fiscal Year Ended June 30, 2016 (Dollars in Thousands)

	Proprietary Funds		Totals	
	HCF/CRF	LTCF	2017	2016
Cash Flows From Operating Activities				
Premiums Collected	$3,908,025	$307,034	$4,215,059	$3,892,967
Federal Government Subsidies	29,534	—	29,534	32,539
Claims Paid	(3,466,375)	(292,370)	(3,758,745)	(3,647,162)
Other (Payments) Receipts, Net	(352,427)	(24,218)	(376,645)	(511,296)
Net Cash Provided by (Used for) Operating Activities	**$118,757**	**($9,554)**	**$109,203**	**($232,952)**
Cash Flows From Investing Activities				
Net Sales (Purchases) of Investments	($346)	$7,206	$6,860	$21,375
Net Change in Short-Term Investments	(123,892)	4,920	(118,972)	212,992
Interest, Amortization & Dividends	5,154	1,154	6,308	2,205
Other Investment (Payments) Receipts, Net	292	(952)	(660)	(1,357)
Net Cash Provided by (Used for) Investing Activities	**($118,792)**	**$12,328**	**($106,464)**	**$235,215**
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	**($35)**	**$2,774**	**$2,739**	**$2,263**
Cash & Cash Equivalents, Beginning of Year	**$36**	**$4,670**	**$4,706**	**$2,443**
Cash & Cash Equivalents, End of Year	**$1**	**$7,444**	**$7,445**	**$4,706**
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used for) Operating Activities				
Operating Income (Loss)	$170,005	($225,520)	($55,515)	($374,205)
Changes in Assets and Liabilities:				
Receivables:				
Members & Employers	934	(49)	885	4,731
Health Carriers & Pharmacy Benefit Managers	76,906	—	76,906	(142,470)
Due from Other Funds	674	—	674	(812)
Loans	4,500	—	4,500	4,500
Other	2	—	2	4,501
Claims Payable	(78,622)	1,323	(77,299)	28,802
Unearned Premiums	4,078	780	4,858	6,928
Due to Employers	(5,302)	—	(5,302)	(4,972)
Estimated Insurance Claims Due	(14,701)	18,204	3,503	51,031
Estimated Liability for Future Policy Benefits	—	194,844	194,844	338,511
Due to Carriers	45,597	—	45,597	(151,081)
Due to Other Funds	—	440	440	88
Management & Third-Party Administrator Fees Payable	(21,004)	—	(21,004)	1,983
Other	(64,310)	424	(63,886)	(487)
Net Cash Provided by (Used for) Operating Activities	**$118,757**	**($9,554)**	**$109,203**	**($232,952)**
Noncash Investing, Capital & Financing Activities				
Noncash Increase/(Decrease) in Fair Value of Investments	**($1,538)**	**$43,140**	**$41,602**	**$228,824**

The accompanying notes are an integral part of these financial statements.

1. DESCRIPTION OF CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

ORGANIZATION

The California Public Employees' Retirement System (CalPERS or the System) was established by legislation in 1931 for the purpose of providing a secure retirement to employees of the State of California (State). In 1939, new legislation allowed public agency and classified school employees to join CalPERS for retirement benefits. CalPERS began administering health benefits for state employees in 1962, and five years later, offered health benefits to public agencies on a contract basis.

CalPERS is governed by the Board of Administration (the Board), which consists of 13 members: two elected by CalPERS members, one elected by active state members, one elected by active CalPERS school members, one elected by active CalPERS public agency members, one elected by retired members of CalPERS, two appointed by the Governor, one public representative appointed jointly by the Speaker of the Assembly and Senate Rules Committee, and four ex officio members: State Treasurer, State Controller, Director of California Department of Human Resources, and Designee of the State Personnel Board. The Board is responsible for the management and control of CalPERS, including the exclusive control of the administration and investment of the System.

CalPERS acts as the common investment and administrative agency for the following plans:

Plan Name	Type of Plan
Defined Benefit Pension Plans:	
Public Employees' Retirement Fund A	Agent multiple-employer
Public Employees' Retirement Fund B	Cost-sharing multiple-employer
Public Employees' Retirement Fund C	Cost-sharing multiple-employer
Legislators' Retirement Fund	Single-employer
Judges' Retirement Fund	Single-employer
Judges' Retirement Fund II	Single-employer
Defined Contribution Plans:	
Public Employees' Deferred Compensation Fund	Multiple-employer (457 & 401K plans)
Supplemental Contributions Program Fund	Single-employer
Defined Benefit Other Post-Employment Benefit Plan:	
California Employers' Retiree Benefit Trust Fund	Agent multiple-employer

DEFINED BENEFIT PENSION PLANS

Below are summary descriptions of each defined benefit pension plan administered by CalPERS:

Public Employees' Retirement Fund (PERF) – The PERF was established in 1932 and provides retirement, death and disability benefits to its member employers, which include the State of California, non-teaching, non-certified employees in schools, and various other public agencies. The benefit provisions for the state and school employees are established by statute. The benefits options for the public agencies are established by statute and voluntarily selected by contract with the System in accordance with the provisions of the Public Employees' Retirement Law.

For financial reporting purposes only, the PERF is comprised of and reported as three separate entities. PERF A is comprised of agent multiple-employer plans, which includes the State of California and most public agencies' rate plans with more than 100 active members. PERF B is a cost-sharing multiple-employer plan of school employers consisting of non-teaching and non-certified employees. PERF C is a cost-sharing multiple-employer plan of public agencies with generally less than 100 active members.

As of June 30, 2017, the PERF had the following participating employers:

Affiliated Employers for PERF

PERF Participants	2017
PERF A	
State	1
Public Agencies[1]	311
Total	312
PERF B	
School Districts and Charter Schools	1,366
PERF C	
Public Agencies[1]	1,313
Total Employers	**2,991**

1) Each public agency employer may be counted in both PERF A and PERF C due to active contracts under both plans.

Legislators' Retirement Fund (LRF) – The LRF was established in 1947 and provides retirement, death, and disability benefits to members employed by the State of California. LRF members consist of State Legislators, Constitutional Officers, and Legislative Statutory Officers. The benefits for the LRF are established in accordance with the provisions of the Legislators' Retirement Law. In November 1990, Article IV, section 4.5 was added to the State Constitution, pursuant to the adoption of Proposition 140. This section effectively prohibited future legislators from earning state retirement benefits for service in the Legislature on or after November 7, 1990, though it recognized vested pension benefits that had accrued before that date. Due to the effects of Proposition 140, there is one legislator eligible to participate in the Legislators' Retirement Fund. The only active members in the fund are Constitutional Officers (including the Insurance Commissioner and members of the Board of Equalization) and Legislative Statutory Officers. The Public Employees' Pension Reform Act of 2013 (PEPRA) closed the Legislators' Retirement System to new participants effective January 1, 2013.

Judges' Retirement Fund (JRF) – The JRF was established in 1937 and provides retirement, death, and disability benefits to members employed by the State of California. JRF members consist of judges working in the California Supreme Court, the Courts of Appeal, and the Superior Courts who were appointed or elected before November 9, 1994. Benefits for the JRF are established in accordance with the provisions of the Judges' Retirement Law.

The JRF is funded on a "pay-as-you-go" basis, where short-term investments, contributions received during the year, and a State General Fund augmentation are used to provide funding for benefit payments. This funding method is generally more expensive in the long term, as the plan does not have investment returns generated by a funded plan. Without the State General Fund augmentation, the JRF will not be able to pay the accumulated benefit payments due in Fiscal Year 2017-18.

Judges' Retirement Fund II (JRF II) – The JRF II was established in 1994 and provides retirement, death, and disability benefits to members employed by the State of California. JRF II members consist of judges working in the California Supreme Court, the Courts of Appeal, and the Superior Courts who were appointed or elected on or after November 9, 1994. Benefits for the JRF II are established in accordance with the provisions of the Judges' Retirement System II Law.

Plan Membership

All employees in a covered class of employment who work on a half-time basis or more are eligible to participate in the retirement plans. The underlying data included in the following table reflects current categorizations of members and beneficiaries by rate plan.

As of June 30, 2017, membership in the defined benefit pension plans consisted of the following:

Benefit Recipients and Members in the PERF A, PERF B, PERF C, LRF, JRF, and JRF II

Plan	Retirees	Survivors & Beneficiaries	Members: Active	Members: Inactive or Deferred	Total
PERF A					
Agent	358,659	58,376	487,960	184,640	1,089,635
PERF B					
Schools Cost-Sharing	183,669	28,458	350,616	163,286	726,029
PERF C					
Public Agency Cost-Sharing	34,184	4,713	48,644	22,254	109,795
Total PERF	**576,512**	**91,547**	**887,220**	**370,180**	**1,925,459**
LRF	127	103	8	6	244
JRF	1,328	560	198	3	2,089
JRF II	147	23	1,508	—	1,678
Total	**578,114**	**92,233**	**888,934**	**370,189**	**1,929,470**

Plan Benefits

The benefits for the defined benefit plans are based on members' years of service, age, final compensation, and benefit formula. Benefits are provided for disability, death, and survivors of eligible members or beneficiaries. Members become vested in their retirement benefits earned to date, to the extent funded, after five years (10 years for state Second Tier members) of credited service. All non-state Second Tier members are eligible to receive cost-of-living adjustments (COLA) up to a maximum of 2 percent compounded annually (up to 5 percent maximum as a contract option for retired members of local agencies). State Second Tier members are eligible for a COLA of 3 percent fixed compounded annually.

Contributions

The benefits for the defined benefit pension plans are funded by contributions from members and employers, and earnings from investments. Member and employer contributions are a percentage of applicable member compensation. Member contribution rates are defined by law and depend on the respective employer's benefit formulas. In some circumstances, contributions are made by the employer to satisfy member contribution requirements. Employer-paid member contributions are reported as member contributions in the Statement of Changes in Fiduciary Net Position. Member and employer contribution rates are determined by periodic actuarial valuations or by state statute. Actuarial valuations are based on the benefit formulas and employee groups of each employer. The cost of administering CalPERS is financed through contributions and investment earnings.

The required contribution rates of most active plan members are based on a percentage of salary in excess of a base compensation amount ranging from zero dollars to $863 monthly.

PEPRA, which took effect in January 2013, changes the way CalPERS retirement benefits are applied, and places compensation limits on members with the most impact felt by new CalPERS members. Under PEPRA, new members include:

(1) Members first joining on or after January 1, 2013, with no prior membership in another California public retirement system.

(2) Members first joining before January 1, 2013, who are hired by a different CalPERS employer after January 1, 2013, and have a break in service greater than 6 months.

(3) Members first joining on or after January 1, 2013, who are ineligible for reciprocity with another California public retirement system.

All members that do not fall into the definitions above will generally be considered classic members.

Required contribution rates for active plan members and employers as a percentage of payroll for the fiscal year ended June 30, 2017, were as follows:

Required Contribution Rates

	Employee Contribution Rates		Employer - Required Contribution Rates
	Classic	PEPRA	
PERF A – Agent			
State:			
Miscellaneous – First Tier	5% to 11%	6% to 11%	26.65%
Miscellaneous – Second Tier	3.75%	3.75%	26.10%
Industrial – First Tier	5% to 11%	6% to 11%	18.37%
Industrial – Second Tier	3.75%	3.75%	18.37%
Safety	11%	11%	18.75%
Peace Officers and Firefighters	8% to 13%	11% to 13%	40.28%
California Highway Patrol	11.50%	11.50%	48.72%
Public Agency:			
Miscellaneous	5% to 8%	5.25% to 8.25%	7.33% to 46.88%
Safety	7% to 9%	8.25% to 13.75%	23.53% to 62.13%
PERF B – Schools Cost-Sharing			
Classified School	7%	6%	13.89%
PERF C – Public Agency Cost-Sharing			
Public Agency (Pooled):			
Miscellaneous	2% to 8%	4% to 7.25%	4.13% to 404.07%
Safety	7% to 10.10%	9.50% to 15.25%	8.87% to 1011.38%
LRF	4% or 8%	N/A	40.66%[1]
JRF	8%	N/A	8%[2]
JRF II	8%	15.25%	23.19%[1]

(1) This is the minimum PEPRA employer contribution rate, which is the greater of the actuarially determined employer contribution or the employer normal cost.

(2) The employee and employer contribution rates for the JRF are set by state statute and are equal to 8% of payroll. The JRF is currently funded using a pay-as-you-go approach as contributions made by both the State and members are not adequate to meet current benefit payouts.

DEFINED CONTRIBUTION PLANS

CalPERS currently administers a defined contribution plan and a deferred compensation plan to certain members. These funds are further described below:

Public Employees' Deferred Compensation Fund (DCF) – The DCF was established in 1990 by Government Code sections 21670 through 21685, granting the maximum tax-preferred retirement saving opportunities under Title 26 of the United States Code. The DCF is available to public agencies and school districts in the State of California on a voluntary basis. Participants may contribute up to the limit established under the Internal Revenue Code (IRC), and may access their funds upon retirement, separation from employment, or other distributable events as allowed under the IRC.

Supplemental Contributions Program Fund (SCPF) – The SCPF was established on January 1, 2000, by Chapter 307 of the 1999 Statutes. The SCPF is qualified under section 401(a) of Title 26 of the United States Code. The SCPF is currently available to State of California employees who are members of CalPERS, and participation is voluntary. Participant contributions are made on an after-tax basis and are made voluntarily in addition to defined benefit contributions. Participants may contribute to a deferred compensation plan in conjunction with the SCPF, subject to IRC section 415(c) limits. Distributions are allowed only at retirement or permanent separation from employment.

As of June 30, 2017, membership in the defined contribution plans consisted of the following:

Members in DCF and SCPF

Plan	Employers	Members
DCF	785	28,337
SCPF	1	7,641

OTHER ADMINISTRATIVE ACTIVITIES

CalPERS administers other activities as follows:

The California Employers' Retiree Benefit Trust Fund (CERBTF) – The CERBTF was established by Chapter 331 of the 1988 California Statutes, and employers elect to participate in the CERBTF to save funds to pay future retiree and survivors health care and other post-employment benefits. Currently, the CERBTF has 524 participating employers. The CERBTF is more fully described in Note 9 to the financial statements.

Old Age & Survivors' Insurance Revolving Fund (OASI) – The OASI was established to consolidate the collection and payment from California public agencies for employee and employer contributions under the provisions of the Federal Social Security regulations.

Federal legislation was enacted on October 21, 1986, which required direct remittance of Social Security contributions by individual public agencies to the Internal Revenue Service (IRS), and eliminated the intermediary collection and remittance of such contributions by individual public agencies to CalPERS. As such, effective January 1, 1987, the OASI stopped receiving contributions from public agencies. Since then, the OASI fund has been used to reimburse the PERF for OASI contract management and related services, as provided in Government Code section 22601. The residual balances are now being reported in the PERF A for accounting and financial reporting purposes.

Public Employees' Health Care Fund (HCF) – The HCF was established under the Public Employees' Medical and Hospital Care Act (PEMHCA) as of July 1, 1988, providing health insurance coverage to CalPERS members through a pooled risk plan. The HCF is more fully described in Note 11 to the financial statements.

Public Employees' Contingency Reserve Fund (CRF) – The CRF was established in 1962 with the passage of PEMHCA, and provides a contingency reserve for items such as future rates or future benefits. The CRF is more fully described in Note 12 to the financial statements.

Public Employees' Long-Term Care Fund (LTCF) – The LTCF was established in 1995 as part of the Public Employees Long-Term Care Act (Public Employees' Retirement Law, Chapter 15) to administer the self-funded long-term care insurance plans available to eligible participants. The LTCF is described in more depth in Note 13 to the financial statements.

Replacement Benefit Fund (RBF) – The RBF was established by Chapter 938 of the 1995 State of California Statutes, providing replacement benefits to members of the defined benefit pension plans. The RBF is more fully described in Note 10 to the financial statements.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

REPORTING ENTITY

The accompanying financial statements include all activities and funds administered by CalPERS. CalPERS is a component unit of the State of California for financial reporting purposes. CalPERS' financial statements are included in fiduciary and proprietary funds in the State of California Comprehensive Annual Financial Report.

MEASUREMENT FOCUS, BASIS OF ACCOUNTING & BASIS OF PRESENTATION

The accompanying financial statements were prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. In doing so, CalPERS adheres to the reporting requirements established by the Governmental Accounting Standards Board (GASB).

The accounts of CalPERS are organized and operated on the basis of funds. The Board has a fiduciary responsibility for the investments within both the fiduciary and proprietary funds. CalPERS has the following fund types as of June 30, 2017:

Fiduciary Funds – include pension trusts (PERF A, PERF B, PERF C, LRF, JRF, JRF II, DCF, SCPF), an other post-employment trust (CERBTF), and a custodial fund (RBF), which account for assets held by the government in a trustee capacity or as a custodian on behalf of others. The pension trust funds include defined benefit plans and defined contribution plans, which are accounted for on the flow of economic resources measurement focus and the accrual basis of accounting. Contributions to the defined benefit pension plans are recognized in the period in which the contributions are due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan. Contributions to the defined contribution plans and the other post-employment benefit plan are recognized as received. The RBF is a custodial fund and is fiduciary in nature, accounted for on the flow of economic resources measurement focus and the accrual basis of accounting.

Proprietary Funds – include the combined (for financial reporting purposes only) HCF and CRF and the LTCF. These funds are accounted for on the flow of economic resources measurement focus and use the accrual basis of accounting. Operating revenues and expenses are distinguished from non-operating items and generally result from providing services in connection with ongoing operations. The principal operating revenues of the HCF and CRF are derived from premiums, Federal Employer Group Waiver Plan (EGWP) subsidies, and administrative service fees. The principal operating revenue for the LTCF is premiums. Operating expenses include the cost of claims and related administrative expenses. All revenues and expenses not meeting these definitions are reported as non-operating.

TARGET ASSET ALLOCATION

State statutes and Board policies allow investments in government, domestic and international debt, domestic and international equities, mutual funds, private equity, real assets, and other investments. In September 2016, CalPERS adopted an interim asset allocation strategy to carry through July 2018.

The following table shows the Board-adopted target asset allocation policy for the defined benefit pension plans, which was in effect as of June 30, 2017:

Target Asset Allocation

Asset Class	PERF A	PERF B	PERF C	LRF	JRF	JRF II
Global Equity	46%	46%	46%	24%	—	50%
Private Equity	8%	8%	8%	—	—	—
Global Debt Securities	20%	20%	20%	39%	—	34%
Real Assets	13%	13%	13%	—	—	—
Liquidity	4%	4%	4%	—	100%	—
Inflation	9%	9%	9%	26%	—	5%
REITs	—	—	—	8%	—	8%
Commodities	—	—	—	3%	—	3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The CERBTF offers three diversified allocation strategies. By comparison, Strategy 1 has the highest long-term expected rate of return and return volatility, Strategy 2 has a moderate long-term expected rate of return and return volatility, and Strategy 3 has the lowest long-term expected rate of return and return volatility. The following table shows the Board-adopted target asset allocation policy for the three CERBTF strategies:

CERBTF Target Asset Allocation

Asset Class	CERBTF Strategy 1	CERBTF Strategy 2	CERBTF Strategy 3
Global Equity	57%	40%	24%
Global Debt Securities	27%	39%	39%
Inflation Assets	5%	10%	26%
REITs	8%	8%	8%
Commodities	3%	3%	3%
Total	**100%**	**100%**	**100%**

CAPITAL ASSETS

Capital assets are defined as assets with an initial individual cost of $5,000 or more, or $1 million or more for intangible assets, and an estimated useful life in excess of one year. Capital assets consist of buildings, furniture, equipment, and intangible assets recorded at cost or, if donated, at their acquisition value. Capital assets are depreciated over their estimated useful lives, ranging from three to five years for furniture and equipment, and 40 years for buildings, and determined on an asset-by-asset basis for intangible assets, using the straight-line method of depreciation.

NOTES RECEIVABLE

In October 2015, CalPERS sold holdings in privately held in real estate investments. Part of the sale included a note receivable, which had a balance reported in the PERF of $292.0 million as of June 30, 2017. The terms require quarterly payments from the borrower, with the balance to be paid off in Fiscal Year 2017-18.

INVESTMENT EXPENSES

Investment expenses presented within the accompanying financial statements consist of management and performance fees and other investment-related fees. Management and performance fees include all fees paid to external managers for public and private markets. Other investment-related fees include expenses for fund administration, internal investment staff salaries, dividend tax withholding, certain trading fees, consultants, data, analytics, certain other taxes, custody, appraisals, legal services, technology, trading and portfolio management systems, audits, and tax advisory services. These other investment-related fees are reported in the Other Investment Expenses within the Statement of Changes in Fiduciary Net Position and detailed in the Investment Expenses Schedule in the Other Supplementary Information section.

The investment expenses do not include the commissions and fees paid to transact public securities and private equity profit sharing realized by the PERF. These are reported in the Net Appreciation in Fair Value of Investments line in the Statement of Changes in Fiduciary Net Position. For additional detail, refer to the Schedule of Commissions & Fees table and the Private Equity Management Fees & Profit Sharing table within the Investment Section.

USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

RISKS AND UNCERTAINTIES

CalPERS invests in securities that are exposed to a variety of risks, including interest rate, market, credit risk, and foreign currency risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the value of investment securities will occur in the near term and such changes could materially affect the amounts reported in the accompanying financial statements.

The total pension liabilities and net pension liabilities disclosed in Note 8 to the Basic Financial Statements for the cost-sharing multiple-employer and single-employer defined benefit pension plans are measured based on certain assumptions, including the long-term rate of return on pension investments, inflation rates, and employee demographics, all of which are subject to change.

The estimated liability for future policy benefits in the Long-Term Care Fund is based on the present value of future benefits and expenses less the present value of future premiums. This liability is reported in the Statement of Net Position, and is measured based on certain assumptions including a discount rate of 5.75 percent, morbidity lapse rates, voluntary termination, mortality, and plan expenses.

Due to uncertainties inherent in the estimations and assumptions processes described in this section, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

RECLASSIFICATIONS

Certain reclassifications have been made to the comparative totals as of and for the fiscal year ended June 30, 2016, to conform to the presentation as of and for the fiscal year ended June 30, 2017.

COMPARATIVE TOOLS

The Basic Financial Statements include certain prior year summarized comparative information in total but not at the level of detail required for a presentation in conformity with accounting principles generally accepted in the U.S. Accordingly, such information should be read in conjunction with CalPERS' financial statements for the fiscal year ended June 30, 2016, from which the summarized information was derived.

TERMINATION OF PENSION PLANS

Public agency participation in the System may be terminated either due to a transfer of a public agency's plan to another qualified system as permitted by law, a public agency terminating its plan, or an involuntary termination by the Board. In the event that a public agency elects to transfer its plan, the assets of the plan and the related liability for benefits accrued are transferred to the other system. In the event that a public agency elects to terminate its plan or there is an involuntary termination of a plan by the Board, sufficient assets to cover the related liability for benefits accrued are retained by the PERF. Excess assets above those required, if any, are returned to the employer, while the employer is billed for any deficiency in required assets.

NEW ACCOUNTING PRONOUNCEMENT

CalPERS early-implemented the requirements of GASB Statement No. 84 (GASB 84), *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. The statement describes four fiduciary funds that should be reported, if applicable: 1) pension (and Other Post-Employment Benefit (OPEB)) trust funds, 2) investment trust funds, 3) private-purpose trust funds, and 4) custodial funds, which generally should report fiduciary activities that are not required to be reported in pension trust funds, investment trust funds, or private-purpose trust funds. Agency funds are now classified as custodial funds and require the presentation of a Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position. The RBF is impacted by the requirements of GASB 84. Although the beginning net position remained as zero, the requirements of GASB 84 impact the RBF and resulted in a restatement of beginning net position for Fiscal Year 2016-17. Refer to Note 10 in the Notes to the Basic Financial Statements for additional discussion on the impact of GASB 84 on the RBF.

3. CASH AND CASH EQUIVALENTS

Cash and cash equivalents of approximately $1.3 billion at June 30, 2017, represent amounts held in the CalPERS general operating accounts with the State Treasury. The underlying investments at the State Treasurer's Office are not individually identifiable by fund, as CalPERS monies are pooled with the monies of other state agencies and invested.

4. INVESTMENTS

SHORT-TERM INVESTMENTS

Short-term investments consist of U.S. Treasury and government-sponsored securities, money market funds, commercial paper, certificates of deposit, repurchase agreements, asset-backed securities, notes, and bonds issued by U.S. corporations, and other allowable instruments that meet short-term maturity or average life, diversification, and credit quality restrictions.

INVESTMENTS AT FAIR VALUE

GASB Statement No. 72, *Fair Value Measurement and Application* (GASB 72) requires investments measured at fair value to be categorized under a fair value hierarchy. CalPERS determines fair value of its investments based upon both observable and unobservable inputs. The System categorizes its fair value measurements within the fair value hierarchy as follows:

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.
- Level 2 – inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs.
- Level 3 – unobservable inputs for an asset or liability, which generally results in a government using the best information available and may include the government's own data.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (NAV). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

The following table presents a summary of CalPERS' investments by type as of June 30, 2017, at fair value:

CalPERS – Investments at Fair Value[1] (Dollars in Thousands)

	Fair Value June 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Global Equity				
Domestic Equity	$75,937,971	$75,937,971	$0	$0
International Equity	65,026,903	65,026,903	—	—
Total Global Equity	**$140,964,874**	**$140,964,874**	**$0**	**$0**
Global Debt				
Asset-Backed	$13,864,125	$0	$12,877,216	$986,909
Bank Loans	296,905	—	296,905	—
International Debt	2,150,706	—	2,150,706	—
Municipal/Public Bonds	10,014	—	10,014	—
Sovereign Debt	18,127,654	—	18,127,654	—
U.S. Corporate	11,735,444	—	11,735,444	—
U.S. Treasuries, STRIPS and TIPS	36,962,687	—	36,962,687	—
Total Global Debt	**$83,147,535**	**$0**	**$82,160,626**	**$986,909**
Derivatives				
Futures	($25,278)	($25,278)	$0	$0
Options	5,786	—	5,786	—
Rights & Warrants	5,876	—	5,876	—
Forward Contract Assets	125,156	—	125,156	—
Forward Contract (Liabilities)	(219,579)	—	(219,579)	—
Swap Assets	12,945,535	—	12,945,535	—
Swap (Liabilities)	(12,715,209)	—	(12,715,209)	—
Total Derivatives	**$122,287**	**($25,278)**	**$147,565**	**$0**
Other				
Rule 144(a) Securities	$11,471,935	$0	$0	$11,471,935
Securitized Assets	827,023	—	—	827,023
Real Assets[2]	1,108,691	—	—	1,108,691
Private Equity	273,314	—	—	273,314
Total Other	**$13,680,963**	**$0**	**$0**	**$13,680,963**
Total Investments by Fair Value Level	**$237,915,659**	**$140,939,596**	**$82,308,191**	**$14,667,872**
Investments Measured at NAV				
Commingled/Pooled Funds	$10,167,615			
Real Assets[2]	34,316,630			
Private Equity	24,968,841			
Other Investments	5,465,597			
Total Investments Measured at NAV	**$74,918,683**			
Total Investments Measured at Fair Value	**$312,834,342**			

(1) Certain securities and derivatives disclosed in this table may be classified as short-term investments, global equity or debt securities, investment sales and other receivables, and investment purchases and other payables on the combined Statement of Fiduciary Net Position – Fiduciary Funds and the Statement of Net Position – Proprietary Funds. Accordingly, the totals presented in this table will not agree to the combined totals of investments presented in those statements.
(2) Real assets are shown at NAV on the Statement of Fiduciary Net Position – Fiduciary Funds, while the direct holdings categorized in level 3 represent the fair value of the assets for each real asset investment for GASB 72 purposes. Remaining real assets are valued at NAV.

Global equity securities include both domestic and international securities, and are classified in Level 1 as fair value is obtained using a quoted price from active markets. The security price is generated by market transactions involving identical or similar assets, which is the market approach to measuring fair value. Inputs are observable in exchange markets, dealer markets, brokered markets, and principal-to-principal markets, for which prices are based on trades of identical securities.

Global debt securities consist primarily of asset-backed securities (securitized offerings backed by residential and commercial mortgages, credit cards, auto and student loans), bank loans, international debt securities, municipal/public bonds, sovereign debt, U.S. treasuries, and U.S. corporate securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing. This method uses quoted prices for securities with the same maturities and ratings rather than a fixed price for a designated security. Many debt securities are traded on a dealer market and much less frequently, which is consistent with a Level 2 classification as these investments are valued using observable inputs. Asset-backed securities not classified as Level 2 include collateralized mortgage obligations (CMO), which are mortgage-backed securities that contain a pool of mortgages bundled together and sold as an investment. These are classified in Level 3 of the fair value hierarchy, as assumptions are made by CalPERS to determine prepayment rates, probability of defaults, and loss severity, all of which are unobservable inputs.

Futures are actively traded on major exchanges with quoted prices, and are classified in Level 1 of the fair value hierarchy. Many index, commodity, and fixed income futures are publicly traded on active markets, which is the market approach to valuing securities. Futures trading on active markets are typically priced using the matrix pricing technique which relies on the securities relationship to other benchmark quoted prices. These inputs are observable as they are derived from quoted prices for identical or similar securities which might be exchanged in multiple active markets. All other derivatives are classified in Level 2 of the fair value hierarchy, as these securities are priced using the cost approach on a dealer market traded on lower frequencies. When these securities are valued they may not have similar or observable pricing inputs as securities that are valued using the market approach. Refer to Note 7 in the Notes to the Basic Financial Statements for further detail regarding other derivatives.

Other investments at fair value include securities subject to Rule 144(a) of the Securities and Exchange Commission, which modifies a two-year holding period requirement on privately placed securities to permit qualified institutional buyers to trade these positions among themselves. These securities are typically acquired through unregistered, private sales or constitute a control stake in an issuing company. Due to the acquisition method and primarily unobservable pricing inputs, these securities are classified as Level 3. Additionally, other investments include securitized investments, which contain pooled debt instruments, limited partnership investments, and various other investment structures. Many securitized assets are created by combining similar financial assets into a security, and are marketed to investors as a single investment. Typically, these assumptions are internally generated and cannot be observed in an active market. Due to the fact that these assumptions are unobservable for holdings categorized as other investments, these are also classified as Level 3. Lastly, private equity and real assets direct holdings are investments in which CalPERS owns 100 percent of the assets. Private equity and real estate direct holdings are valued at the income, cost, or market approach depending on the type of holdings. All direct holdings are valued using unobservable inputs and are classified in Level 3 of the fair value hierarchy.

Investments Measured at NAV (Dollars in Thousands)

Asset Class	Fair Value	Unfunded Commitments
Commingled/Pooled Funds	$10,167,615	$0
Real Assets	34,316,630	3,825,103
Private Equities	24,968,841	14,330,497
Other Investments	5,465,597	15,038
Total	**$74,918,683**	**$18,170,638**

Private equity holdings include direct and co-investments with existing CalPERS general partners, direct secondary investments, and fund of funds. By their very nature, these investments are illiquid and typically not resold or redeemed. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over an average of 10 years.

Real asset investments (real estate, infrastructure, and forestland) are held either in separate accounts, as a limited partner, or in a joint venture or commingled fund. These investments are illiquid and resold at varying rates, with distributions received over the life of the investments. They are typically not redeemed, nor do they have set redemption schedules.

Other investments include funds that hold securities for varying investment strategies which include:

- Emerging Managers Program – objectives include:
  - Generating appropriate risk-adjusted returns by identifying early stage funds and managers with strong potential for success
  - Accessing unique investment opportunities that may be otherwise overlooked
  - Cultivating the next generation of external investment manager talent
- Absolute Return Strategies – investments that focus on management of total risk, and on generation of returns independent of broad market movements.
- Multi-Asset Class Program – management of portfolios which attempt to outperform the CalPERS assumed rate of return with less risk than the PERF.
- Activist Funds – investments in public companies with the goal of influencing management to increase overall shareholder value.
- Venture Capital Funds – investments made to finance small, early-stage, emerging firms that are believed to have long-term growth potential.

These investments are reported at NAV as they are externally managed fund-structure investments in nongovernmental entities that do not have readily determinable fair values. CalPERS does not look through to capture the value of individual securities, but reports CalPERS' ownership interest in the investments.

Upon initial investment with a general partner, CalPERS commits to a certain funding level for the duration of the contract. At will, partners may request that CalPERS fund a portion of this amount. Certain unfunded commitments for real assets are subjected to annual renewal and are excluded in the unfunded commitment disclosure.

Certain real asset investments are leveraged in that partnerships have been established to purchase properties through a combination of contributions from CalPERS and other investors and through the acquisition of debt. Real asset investments of approximately $34.3 billion are reported at NAV. CalPERS no longer holds recourse debt in real asset investment partnerships.

RATE OF RETURN

The money-weighted rate of return (MWRR) expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. Following is the annual MWRR, net of investment expense, for the fiscal year ended June 30, 2017:

Money-Weighted Rate of Return

Plan	Rate of Return
PERF A	
Agent	11.2%
PERF B	
Schools Cost-Sharing	11.2%
PERF C	
Public Agency Cost-Sharing	11.2%
LRF	4.3%
JRF	1.0%
JRF II	9.6%
CERBTF	10.0%

5. INVESTMENT RISK DISCLOSURES

DEPOSIT AND INVESTMENT RISK DISCLOSURES

In accordance with GASB Statement No. 40, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3* (GASB 40), CalPERS discloses investments of all CalPERS-managed funds that are subject to certain risks: custodial credit risk, concentration of credit risk, interest rate risk, credit risk, and foreign currency risk.

Custodial Credit Risk

Custodial credit risk is the risk that, in the event a depository institution or counterparty fails, the System would not be able to recover the value of its deposits, investments, or collateral securities. As of June 30, 2017, a portion of the System's investments, other than posted collateral for futures and over-the-counter instruments, is held in the System's name and is not exposed to custodial credit risk. Where CalPERS trusts invest in commingled funds, the assets within the fund are held in the name of the trustee of the fund and not in CalPERS' name. There are no general policies relating to custodial credit risk.

Concentration of Risk

Other than U.S. Government Securities, which are not subject to the GASB 40 disclosure requirements, CalPERS does not have investments in any single issuer that represent 5 percent or more of fiduciary net position or total investments.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed within the portfolios using the effective duration or option-adjusted methodology. Generally, CalPERS investment policies require the option-adjusted duration of the total fixed income portfolio to stay within negative 50 percent to 10 percent of the relevant benchmark. All individual portfolios are required to maintain a specified level of risk relative to their benchmark.

CalPERS invests in securities with contractual cash flows, such as asset-backed securities, collateralized mortgage obligations, and commercial mortgage-backed securities, including securities backed by residential and commercial mortgage loans. The value, liquidity, and related income of these securities are sensitive to changes in economic conditions, including real estate value, delinquencies or defaults, or both, and may be adversely affected by shifts in the market's perception of the issuers and changes in interest rates.

The following table presents the weighted average effective duration for CalPERS investments subject to interest rate risk as of June 30, 2017:

CalPERS – Debt Securities Subject to Interest Rate Risk
(Dollars in Thousands)

Debt Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2017	Percent of Debt Securities
U.S. Treasuries and Agencies:			
US Treasury Notes	5.55	$22,776,440	21.18%
US Treasury Bonds	16.58	13,681,532	12.72%
US Agencies	12.57	1,079,308	1.00%
US Treasury Strips	11.78	49,160	0.05%
Foreign Government	8.62	19,263,486	17.92%
Corporate	11.16	14,869,868	13.83%
Mortgages	4.08	12,423,202	11.55%
Asset-Backed	3.21	1,141,696	1.06%
Municipals	10.94	10,014	0.01%
No Effective Duration:			
Commercial Paper	N/A	$12,316,946	11.46%
Asset-Backed	N/A	8,304,526	7.72%
Foreign Government	N/A	715,322	0.67%
Commingled Fund	N/A	635,598	0.59%
Swaps	N/A	230,341	0.21%
Corporate	N/A	19,690	0.02%
Mortgages	N/A	13,903	0.01%
Total[1]		**$107,531,032**	**100.00%**

(1) Certain securities disclosed in this table are classified as short-term investments in the financial statements. As such the total presented in this table will not agree to the total global debt securities on the financial statements.

CalPERS invests in the State Treasury pool and State Street Bank Global Advisors' (SSGA) short-term investment fund (STIF). These investments are included as part of the short-term investments in the financial statements. As of June 30, 2017, the pooled money investment account with the State Treasury totaled approximately $1.0 billion, and the SSGA STIF totaled approximately $16.3 billion. This value represents SSGA STIF investments in all portfolios. The short-term securities reported in the Statement of Fiduciary Net Position and the Statement of Proprietary Net Position are reported at fair value. As of June 30, 2017, the weighted average maturity was 194 days for the State Treasury pool and 24 days for the SSGA short-term investment fund. The SSGA short-term investment fund is rated as P1. The State Treasury pool is not rated.

The LTCF, HCF, SCPF, and DCF invest in various SSGA funds, with weighted average maturities and credit ratings as of June 30, 2017:

CalPERS – SSGA Fund Weighted Average Maturity and Credit Risk (Dollars in Thousands)

SSGA Fund	Fair Value June 30, 2017	Credit Rating[1]	Weighted Average Maturity[2]
U.S. Aggregate Bond Index	$444,679	AA2	8.26
3-10 Year U.S. Agency Index	4,883	AA1	5.08
3-10 Year U.S. Credit Index	213,654	A3	6.08
3-10 Year U.S. Treasury Index	256,788	AAA	5.58
Long U.S. Agency Index	23,233	AA1	17.73
Long U.S. Credit Corporate Index	435,190	BAA1	23.84
Long U.S. Credit Non-Corporate Index	70,526	A3	24.39
Long U.S. Treasury Index	549,356	AAA	25.11
U.S. Asset-Backed/Comm Mort Backed Index	59,305	AA1	5.29
U.S. High Yield Bond Index	93,581	B1	6.62
U.S. Inflation Protected Bond Index	6,733	AAA	8.48
U.S. Mortgage Backed Index	741,279	AAA	6.99
U.S. Short-Term Govt/Credit Bond Index	38,249	AA2	1.99
U.S. Bond Index	322,443	AA2	8.19
U.S. Tips Index	257,096	AAA	8.48
Total	**$3,516,995**		

(1) Credit rating reflects market value weight of all the rated securities held by the portfolio (excludes unrated securities) using the middle rating provided by either S&P, Moody's, and Fitch or lower if only two agency ratings are available.
(2) The weighted average maturity disclosed in this table is in days.

The following table presents the weighted average duration for securities lending collateral subject to interest rate risk as of June 30, 2017:

CalPERS – Securities Lending Collateral Subject to Interest Rate Risk (Dollars in Thousands)

Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2017	Percent of Securities Lending Collateral
Asset-Backed Securities	0.05%	$337,466	12.1%
Commercial Paper	0.01%	220,534	8.0%
No Effective Duration:			
Money Market Fund[1]	N/A	$120,103	4.3%
Short-Term Investment Fund[2]	N/A	2,103,503	75.6%
Total[3]		**$2,781,606**	**100.0%**

(1) Money Market Fund is invested in U.S. Treasury securities with a weighted average maturity (to final maturity) of less than 1 day.
(2) Short-Term Investment Fund has a weighted average maturity (to final maturity) of 1 day.
(3) This figure does not include $2,000,000 in repurchase agreements since those investments are not subject to GASB 40 disclosure. The fair value of the investments in the securities lending collateral portfolio is $4,781,606 for fiduciary funds.

As of June 30, 2017, CalPERS investments included securities highly sensitive to interest rate fluctuations in that they are subject to early payment in a period of declining interest rates (i.e., collateralized and mortgage pass-through, etc.). The resulting reduction in expected total cash flows affects the fair value of these securities.

For the fiscal year ended June 30, 2017, the collateral invested in CalPERS Internal Securities Lending had an aggregate weighted average maturity (to final maturity) of 228.48 days and duration of 3.6 days. eSecLending has a weighted average maturity (to final maturity) of 31.13 days.

Credit Risk

Credit risk is defined as the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The System's investment policies establish both general and specific risk measures for the fixed income portfolio. From the most general perspective, 91 percent of the total fixed income portfolio must be invested in investment-grade securities.

Investment-grade securities have low default probabilities and are rated at a minimum of BBB- by independent agencies (Moody's, Standard & Poor's, or Fitch). Each portfolio is required to maintain a specified risk level.

The following table is a summary of the ratings of CalPERS fixed income securities as of June 30, 2017:

CalPERS – Debt Security Investments Subject to Credit Risk
(Dollars in Thousands)

Moody's Quality Rating	Fair Value June 30, 2017	Fair Value as a Percent of Debt Security Investments
Aaa	$11,260,681	10.47%
Aa1	3,990,451	3.71%
Aa2	2,448,101	2.28%
Aa3	788,803	0.74%
A1	1,631,520	1.52%
A2	1,422,969	1.32%
A3	3,357,015	3.12%
Baa1	2,546,447	2.37%
Baa2	4,040,391	3.76%
Baa3	2,248,943	2.09%
Ba1	1,321,491	1.23%
Ba2	776,335	0.72%
Ba3	249,860	0.23%
B1	379,629	0.35%
B2	185,195	0.17%
B3	177,224	0.17%
Caa1	140,039	0.13%
Caa2	353	—%
Caa3	28,841	0.03%
Caa	72,294	0.07%
Ca	26,767	0.02%
C	35,022	0.03%
NA[1]	36,969,657	34.38%
NR[2]	33,433,004	31.09%
Total[3]	**$107,531,032**	**100.00%**

(1) NA represents U.S. government securities that are not applicable to the GASB 40 disclosure requirements.
(2) NR represents those securities that are not rated.
(3) Certain securities disclosed in this table are classified as short-term investments in the financial statements. As such the total presented in this table will not agree to the total global debt securities on the financial statements.

The following table is a summary of the ratings of the securities lending collateral subject to credit risk:

CalPERS – Securities Lending Collateral Subject to Credit Risk (Dollars in Thousands)

Moody's Quality Rating	Fair Value	Fair Value as a Percent of Securities Lending Collateral
Aaa	$985,270	35.4%
P-2	220,534	7.9%
NR[1,2]	1,575,802	56.7%
Total[3]	**$2,781,606**	**100.0%**

(1) NR represents those securities that are not rated.
(2) This figure includes $120,103 invested in a money market fund and $1,000,000 invested in short-term investments.
(3) This figure does not include $2,000,000 in repurchase agreements since they are not subject to GASB 40 disclosure. The fair value of the investments in the securities lending collateral portfolio is $4,781,606 for fiduciary funds.

Foreign Currency Risk

Foreign currency risk is defined as any deposits or investments that are denominated in foreign currencies, which bear a potential risk of loss arising from changes in currency exchange rates. The System's asset allocation and investment policies allow for active and passive investments in international securities. The proportion of international stocks within the global equity portfolio is, at this time, roughly equal to their market capitalization weight in the global equity benchmark. For the global debt securities, 20 percent is targeted for investment in international securities. Real assets and private equity do not have a target allocation for international investments. Refer to the CalPERS International Investment Securities table for foreign currency risk disclosures.

6. SECURITIES LENDING

The State Constitution and the Board policies permit CalPERS to enter into securities lending transactions, which are collateralized loans of securities to broker-dealers and other entities with a simultaneous agreement to return collateral for the same securities in the future.

CalPERS has contracted with eSecLending, LLC (eSec) and State Street Bank & Trust (SSB) as third-party securities lending agents to loan domestic and international equity and debt securities. CalPERS receives both cash and noncash (i.e., securities) collateral. Domestic and international securities are collateralized at 102 percent and 105 percent, respectively, of the loaned securities' market value. CalPERS cannot seize the collateral security without borrower default; as such, the collateral security or noncash collateral is not reported in CalPERS' financial statements in accordance with GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions* (GASB 28). Management believes CalPERS has minimized credit risk exposure to borrowers by requiring the borrower to provide collateralization greater than 100 percent of the market value of the securities loaned. The securities loaned are priced daily by third-party sources, and margins are paid and received daily to maintain over-collateralized levels. Securities on loan can be recalled or returned by CalPERS or the borrower at any time. Since loans are terminable at will, loan durations do not generally match the duration of the investments made with the cash collateral. CalPERS may enter into term loan agreements, which are evaluated on an individual basis. On June 30, 2017, the fair value of the securities on loan was approximately $11.6 billion. The securities on loan remain on CalPERS' Statement of Fiduciary Net Position in their respective investment categories. At June 30, 2017, cash collateral received totaling $4.8 billion is reported as securities lending obligation, and the fair value of reinvested cash collateral totaling $4.8 billion is reported as securities lending collateral on the Statement of Fiduciary Net Position. The changes in fair value of the reinvested cash collateral are reported as net appreciation/ depreciation in fair value of investments on the Statement of Changes in Fiduciary Net Position.

Because the domestic and international debt and equity securities in the internally managed investment pools are also used in the securities lending program, in accordance with GASB 28, the securities lending collateral, obligation, and the related income and costs are allocated to the pool owners (respective reporting funds) based on the funds' pro rata share of the pools' investments.

CalPERS' securities lending reinvestment collateral guidelines prescribe that cash collateral received needs to be invested in short-term, high-credit-quality securities. Currently, SSB, eSecLending, and CalPERS manage the collateral.

CalPERS signed an agreement in May 2017 with Options Clearing Corporation (OCC) for CalPERS to provide OCC with on-demand liquidity by giving access to a line of credit in a segregated account over a one-year term. This account is controlled by CalPERS and invested in short-term securities when it is not in use. CalPERS earns commitment fee revenue and short-term interest yield from this agreement. Upon a draw on the line of credit, OCC will provide U.S. Treasury securities as collateral (for a maximum duration of 30 days) that will be bilateral, marked to market daily, and administered by eSecLending. No amounts were drawn nor outstanding at June 30, 2017.

7. DERIVATIVES

CalPERS holds investments in swaps, options, futures, rights, and warrants and enters into forward foreign currency exchange contracts. The fair value of futures is determined using the market approach based upon quoted market prices. The fair value of options, rights, warrants, and swaps is determined using the cost approach, as these are traded with lower frequencies. The fair value of derivative investments that are exchange-traded, such as options, rights, and warrants are priced using the exchange they are traded on. Non exchange-traded investments, such as swaps, are determined by an external pricing service using various proprietary methods. The fair value of international currency forwards represents the unrealized gain or loss on the related contracts, which is calculated as the difference between the contract exchange rate and the exchange rate at the end of the reporting period.

Futures contracts are marked to market at the end of each trading day, and the settlement of gains or losses occurs on the following business day through the movement of variation margins. Over-the-counter derivatives, such as swaps, generally reset monthly and the settlement of gains or losses occurs the following business day. Currency forward contracts roll quarterly, updating the contract exchange rate.

With all over-the-counter derivatives, such as swaps and currency forwards, CalPERS is exposed to counterparty risk. CalPERS investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, posting collateral exposure, and monitoring procedures, in addition to adherence to industry standard International Swaps and Derivatives Association and Credit Support Annex agreements with all counterparties.

At June 30, 2017, the aggregate fair value of investment derivatives in an asset position subject to counterparty credit risk was approximately $425.5 million. The aggregate amount of cash collateral held by CalPERS on behalf of over-the-counter derivatives was approximately $27.0 million.

CalPERS – Derivative Instruments Summary (Dollars in Thousands)

Investment	Net Appreciation/ (Depreciation) in Fair Value for the Fiscal Year Ended June 30, 2017	Fair value at June 30, 2017		
Derivatives (by Type)	Amount	Classification	Amount	Notional (Dollars)
Commodity Futures Long	$32,563	Equity Securities	$0	$0
Commodity Futures Short	(583)	Equity Securities	—	—
Credit Default Swaps Bought	(616)	Debt Securities	(1,089)	48,118
Credit Default Swaps Written	1,044	Debt Securities	(701)	21,104
Currency Swaps	2,469	Debt Securities	6,861	237,163
Equity Options Bought	(86,432)	Equity Securities	70,410	2,500,000
Equity Options Written	24,305	Equity Securities	(64,617)	(2,500,052)
Fixed Income Futures Long	61,142	Equity Securities	(5,083)	185,390,740
Fixed Income Futures Short	29,421	Equity Securities	621	(23,762,393)
Fixed Income Options Bought	161	Equity Securities	99	547,945
Fixed Income Options Written	(595)	Equity Securities	(11)	(27,900)
Foreign Currency Options Bought	(20,105)	Equity Securities	1,000	365,612
Foreign Currency Options Written	18,694	Equity Securities	(1,083)	(371,823)
Futures Options Bought	(7,226)	Equity Securities	48	1,495
Futures Options Written	11,981	Equity Securities	(60)	(1,635)
FX Forwards	(333,589)	Investment Sales/Purchases	(94,424)	14,602,020
Index Futures Long	1,441,406	Equity Securities	(19,317)	7,912,763
Index Futures Short	(58,679)	Equity Securities	(1,499)	(425,398)
Pay Fixed Interest Rate Swaps	9,392	Debt Securities	(76)	282,814
Receive Fixed Interest Rate Swaps	(6,597)	Debt Securities	769	332,670
Rights[1]	(1,345)	Equity Securities	3,069	6,938
Total Return Swaps Bond	204,005	Debt Securities	224,587	8,552,844
Total Return Swaps Equity	143	Debt Securities	(25)	28
Warrants[1]	1,129	Equity Securities	2,789	2,945
Total	**$1,322,088**		**$122,268**	

(1) The notional amount of rights and warrants are expressed in units rather than dollars.

CalPERS – Derivative Instruments Subject to Interest Rate Risk (Dollars in Thousands)

		Investment Maturities (in years)			
Investment Type	Fair Value June 30, 2017	Under–1	1–5	6–10	10+
Credit Default Swaps Bought	($1,089)	$0	($1,089)	$0	$0
Credit Default Swaps Written	(701)	—	(679)	(22)	—
Currency Swaps	6,861	—	6,532	329	—
Fixed Income Options Bought	99	99	—	—	—
Fixed Income Options Written	(11)	(11)	—	—	—
Pay Fixed Interest Rate Swaps	(76)	(9)	(77)	183	(173)
Receive Fixed Interest Rate Swaps	769	52	1,000	59	(342)
Total Return Swaps Bond	224,587	224,587	—	—	—
Total Return Swaps Equity	(25)	—	(25)	—	—
Total	**$230,414**	**$224,718**	**$5,662**	**$549**	**($515)**

CalPERS – Derivative Instruments Highly Sensitive to Interest Rate Changes (Dollars in Thousands)

Investment type	Reference rate	Fair Value at June 30, 2017	Notional
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.694%	$237	$16,940
Interest Rate Swaps	Receive Variable 6-month BBSW, Pay Fixed 3.5%	(198)	3,682
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 8.52%	(91)	2,469
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.02%	90	649
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.25%	114	16,400
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.50%	126	1,800
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed .88%	(75)	22,017
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.16%	14	5,230
Interest Rate Swaps	Receive Variable 3-month JIBOR, Pay Fixed 7.40%	(9)	62,701
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.75%	(30)	974
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.50%	(512)	41,242
Interest Rate Swaps	Receive Variable 6-month EURIB, Pay Fixed 1.50%	327	14,086
Interest Rate Swaps	Receive Variable 6-month EURIB, Pay Fixed .25%	106	26,575
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed .75%	(7)	55,595
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.75%	(49)	1,400
Interest Rate Swaps	Receive Variable 6-month BUBOR, Pay Fixed 1.28%	(30)	2,907
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.25%	(11)	1,200
Interest Rate Swaps	Receive Variable 1-month TIIE, Pay Fixed 7.03%	(42)	3,455
Interest Rate Swaps	Receive Variable 1-month TIIE, Pay Fixed 6.99%	(36)	3,488
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.12%	—	5
Interest Rate Swaps	Receive Fixed 3.795%, Pay Variable 3-month BKBM	103	2,343
Interest Rate Swaps	Receive Fixed 1.02%, Pay Variable 3-month STIBOR	9	948
Interest Rate Swaps	Receive Fixed 1.04%, Pay Variable 3-month STIBOR	12	1,114
Interest Rate Swaps	Receive Fixed 1.03%, Pay Variable 3-month STIBOR	44	4,245
Interest Rate Swaps	Receive Fixed 1.01%, Pay Variable 3-month STIBOR	10	1,150
Interest Rate Swaps	Receive Fixed 1.09%, Pay Variable 3-month STIBOR	7	486
Interest Rate Swaps	Receive Fixed 1.08%, Pay Variable 3-month STIBOR	24	1,790
Interest Rate Swaps	Receive Fixed 6.00%, Pay Variable 1-month TIIE	(775)	22,100
Interest Rate Swaps	Receive Fixed 1.50%, Pay Variable 3-month LIBOR	263	1,424
Interest Rate Swaps	Receive Fixed 8.75%, Pay Variable 3-month JIBAR	747	16,027
Interest Rate Swaps	Receive Fixed 5.57%, Pay Variable 1-month TIIE	(474)	7,790
Interest Rate Swaps	Receive Fixed .03%, Pay Variable 6-month LIBOR	(68)	3,026
Interest Rate Swaps	Receive Fixed 8.50% Pay Variable 3-month JIBAR	86	2,603
Interest Rate Swaps	Receive Fixed 1.75%, Pay Variable 3-month CDOR	(1,137)	7,546
Interest Rate Swaps	Receive Fixed 7.75%, Pay Variable 3-month JIBAR	24	1,946
Interest Rate Swaps	Receive Fixed 8.25%, Pay Variable 3-month JIBAR	23	725
Interest Rate Swaps	Receive Fixed .78%, Pay Variable 6-month LIBOR	43	22,018
Interest Rate Swaps	Receive Fixed 2.55%, Pay Variable 6-month THBSR	135	9,432
Interest Rate Swaps	Receive Fixed 7.40%, Pay Variable 3-month JIBAR	9	62,701
Interest Rate Swaps	Receive Fixed 1.00%, Pay Variable 6-month EURIB	403	82,918
Interest Rate Swaps	Receive Fixed 1.50%, Pay Variable 6-month EURIB	(75)	3,308
Interest Rate Swaps	Receive Fixed 1.00%, Pay Variable 6-month LIBOR	(4)	2,598
Interest Rate Swaps	Receive Fixed 6.68%, Pay Variable 6-month MIBOR	33	1,918
Interest Rate Swaps	Receive Fixed 6.70%, Pay Variable 6-month MIFOR	15	835
Interest Rate Swaps	Receive Fixed 7.74%, Pay Variable 1-month TIIE	783	18,664
Interest Rate Swaps	Receive Fixed 1.75%, Pay Variable 6-month LIBOR	13	390
Interest Rate Swaps	Receive Fixed .30%, Pay Variable 6-month LIBOR	5	4,183
Interest Rate Swaps	Receive Fixed 6.65%, Pay Variable 6-month MIBOR	57	2,384
Interest Rate Swaps	Receive Fixed 2.48%, Pay Variable 6-month THBSR	20	3,023
Interest Rate Swaps	Receive Fixed 2.81%, Pay Variable 6-month THBSR	5	918
Interest Rate Swaps	Receive Fixed 7.46%, Pay Variable 1-month TIIE	56	2,280
Interest Rate Swaps	Receive Fixed 7.61%, Pay Variable 1-month TIIE	76	2,145
Interest Rate Swaps	Receive Fixed 6.25%, Pay Variable 6-month MIFOR	16	4,951

CalPERS – Derivative Instruments Highly Sensitive to Interest Rate Changes (CONTINUED) (Dollars in Thousands)

Investment type	Reference rate	Fair Value at June 30, 2017	Notional
Interest Rate Swaps	Receive Fixed 7.24%, Pay Variable 1-month TIIE	$15	$1,977
Interest Rate Swaps	Receive Fixed 2.50%, Pay Variable 3-month LIBOR	181	14,900
Interest Rate Swaps	Receive Fixed 7.14%, Pay Variable 1-month TIIE	40	7,962
Interest Rate Swaps	Receive Fixed 7.18%, Pay Variable 1-month TIIE	45	7,896
Interest Rate Swaps	Receive Fixed 1.78%, Pay Variable 3-month LIBOR	—	5
Subtotal – Interest Rate Swaps		**$693**	**$615,484**
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0%	$35,452	$24,204
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0.07%	30,766	1,042,153
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0.08%	91,178	3,088,510
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0.09%	33,650	1,139,848
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 1.27%	—	10
Total Return Bond Swaps	Receive Fixed 0.07%, Pay Fixed 0%	(12,324)	417,487
Total Return Bond Swaps	Receive Fixed 0.07%, Pay Fixed 0.07%	37,524	1,271,052
Total Return Bond Swaps	Receive Fixed 0.08%, Pay Fixed 0%	(18,998)	643,525
Total Return Bond Swaps	Receive Fixed 0.08%, Pay Fixed 0.08%	19,680	666,611
Total Return Bond Swaps	Receive Fixed 0.09%, Pay Fixed 0.09%	7,659	259,444
Subtotal – Total Return Bond Swaps		**$224,587**	**$8,552,844**
TOTAL		**$225,280**	**$9,168,328**

CalPERS – Derivative Instruments Subject to Counterparty Credit Risk

Counterparty	Percentage of Net Exposure	Moody's Ratings
Goldman Sachs Intl. London	20.82%	A3
JP Morgan	12.28%	A3
BNP Paribas, S.A.	9.54%	A1
Wells Fargo Bank, N.A.	8.05%	Aa2
Morgan Stanley Capital Services, Inc.	7.65%	A3
Goldman Sachs International	7.08%	A1
Goldman Sachs & Co	4.69%	A3
HSBC Bank USA	4.65%	Aa3
Societe Generale	4.49%	A2
Bank of America	3.14%	Baa1
JP Morgan Chase Bank	2.30%	Aa3
Citibank N.A.	2.08%	A1
HSBC	1.92%	A1
Morgan Stanley	1.58%	A3
UBS AG	1.55%	A1
CIBC World Mkts, Inc.	1.50%	A1
Bank of America, N.A.	1.37%	A1
State Street Bank and Trust Company	0.95%	Aa3
Goldman Sachs CME	0.65%	A3
Deutsche Bank Ag	0.61%	Baa2
Goldman Sachs Bank USA	0.60%	A3
Barclays Bank Plc Wholesale	0.52%	A1
Credit Suisse First Boston Corp	0.45%	A1
JP Morgan Chase Bank N.A., London	0.45%	Aa3
Royal Bank of Scotland Plc	0.18%	A3
Standard Chartered Bank	0.16%	A1
Credit Suisse International	0.12%	A1
Toronto Dominion Bank	0.11%	Aa2
Morgan Stanley Bank, N.A.	0.10%	A1
State Street Bank, London	0.07%	A1
Merrill Lynch International	0.06%	Baa1
Australia and New Zealand Banking	0.05%	Aa3
Standard Chartered Bank, London	0.05%	A1
Credit Suisse FOB CME	0.04%	A1
UBS AG London	0.04%	A1
Deutsche Bank Securities, Inc.	0.03%	Baa2
The Northern Trust Company	0.03%	A2
BNP Paribas, London	0.01%	A1
Citigroup Global Markets CME	0.01%	Baa1
Morgan Stanley and Co. International	0.01%	A3
National Australia Bank Limited	0.01%	Aa3
TOTAL	**100.00%**	

CalPERS – International Investment Securities[1] – Fair Value at June 30, 2017 (U.S. Dollars in Thousands)

Currency	Cash	Equity	Debt Securities	Real Assets	Private Equity	Forward Contracts	Total
Australian Dollar	$27,419	$3,030,068	$518,262	$795,296	$0	($6,935)	$4,364,110
Brazilian Real	1,062	1,031,324	489,391	835,723	—	(162)	2,357,338
British Pound	433,266	7,735,792	4,004,492	624,725	—	11,021	12,809,296
Canadian Dollar	22,650	4,145,513	1,433,445	444,224	163,307	(15,770)	6,193,369
Chilean Peso	626	119,452	95,650	8,200	—	2,140	226,068
Chinese Yuan Renminbi	—	—	—	927,716	—	(111)	927,605
Colombian Peso	52	46,762	1,466	—	—	344	48,624
Czech Koruna	339	22,978	28,155	—	—	834	52,306
Danish Krone	355	872,862	102,824	—	—	(777)	975,264
Egyptian Pound	44	23,806	—	—	—	—	23,850
Euro Currency	168,516	15,850,810	6,380,506	101,800	2,558,281	(30,528)	25,029,385
Guatemala Quetzal	—	—	—	94,109	—	—	94,109
Hong Kong Dollar	4,597	3,982,004	—	—	—	(207)	3,986,394
Hungarian Forint	1,154	101,821	13,799	—	—	530	117,304
Indian Rupee	10,057	1,416,504	120	31,859	—	173	1,458,713
Indonesian Rupiah	4,494	378,279	38,702	—	—	(135)	421,340
Israeli Shekel	382	252,859	338,676	—	—	(1,766)	590,151
Japanese Yen	49,039	11,433,189	1,607,213	30,496	42,167	(23,781)	13,138,323
Kazakhstani Tenge	—	—	—	—	—	(35)	(35)
Malaysian Ringgit	1,195	313,636	80,644	251	—	(99)	395,627
Mexican Peso	3,724	452,315	799,165	6,859	—	(7,778)	1,254,285
Moroccan Dirham	3	7,331	—	—	—	—	7,334
New Taiwan Dollar	5,839	1,961,991	—	—	—	(35)	1,967,795
New Zealand Dollar	982	162,278	139,287	—	—	(1,939)	300,608
Norwegian Krone	428	451,333	67,640	—	—	(356)	519,045
Pakistan Rupee	1,354	67,732	—	—	—	—	69,086
Peruvian Nuevo Sol	265	1,454	51,216	—	—	28	52,963
Philippine Peso	93	170,651	—	—	—	(58)	170,686
Polish Zloty	425	164,543	191,210	—	—	(3,305)	352,873
Qatari Riyal	81	51,496	—	—	—	—	51,577
Romanian Leu	—	—	28,327	—	—	362	28,689
Russian Ruble	973	—	497,276	361,721	—	1,897	861,867
Singapore Dollar	359	656,666	46,762	—	—	(53)	703,734
South African Rand	2,540	1,084,252	253,834	—	—	(1,415)	1,339,211
South Korean Won	1,167	2,835,377	—	—	—	319	2,836,863
Swedish Krona	391	1,682,144	783,001	—	—	(16,555)	2,448,981
Swiss Franc	1,151	3,657,497	100,542	—	—	497	3,759,687
Thailand Baht	953	490,039	107,887	—	—	94	598,973
Turkish Lira	151	432,558	425,157	—	—	(867)	856,999
UAE Dirham	47	66,371	—	—	—	—	66,418
Uruguayan Peso	—	—	651	—	—	4	655
Total	**$746,173**	**$65,153,687**	**$18,625,300**	**$4,262,979**	**$2,763,755**	**($94,424)**	**$91,457,470**

(1) This table presents investment securities of all CalPERS managed funds, including derivative instruments that are subject to foreign currency risk.

8. EMPLOYERS' NET PENSION LIABILITY/(ASSET)

The components of the net pension liability of the PERF B, PERF C, LRF, JRF, and JRF II as of June 30, 2017, are reported below. PERF A is an agent multiple-employer plan and therefore not disclosed in the following tables, consistent with GASB 67 reporting requirements.

Net Pension Liability/(Asset) (Dollars in Thousands)

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B:				
Schools Cost-Sharing Plan	$84,871,026	$60,998,387	$23,872,639	71.9%
PERF C:				
Public Agencies Cost-Sharing Plan	37,161,348	27,244,095	9,917,253	73.3%
LRF:				
State of California	102,760	116,884	(14,124)	113.7%
JRF:				
State of California	3,258,434	48,275	3,210,159	1.5%
JRF II:				
State of California	1,411,327	1,356,099	55,228	96.1%

The total pension liability by fund was determined by actuarial valuations as of June 30, 2016, which were rolled forward to June 30, 2017, using the following actuarial assumptions:

Actuarial Assumptions Used to Measure the Total Pension Liability

	PERF B Schools Cost-Sharing	PERF C Public Agency Cost-Sharing	LRF	JRF	JRF II
Inflation Rate	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies by Entry Age and Service	Varies by Entry Age and Service	3.00%	3.00%	3.00%
Mortality Rate Table[1]	Derived using CalPERS membership data for all funds				
Period Upon Which Actuarial Experience Survey Assumptions Were Based	1997-2011	1997-2011	1997-2011	1997-2011	1997-2011
Post-Retirement Benefit Increase	2.00% until PPPA floor on purchasing power applies, 2.75% thereafter	Contract COLA up to 2.75% until PPPA floor on purchasing power applies, 2.75% thereafter	2.75%	3.00%	2.75%
Discount Rate	7.15%	7.15%	5.25%	3.56%	6.65%

(1) The mortality table used was developed based on CalPERS-specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale BB. For more details on this table, please refer to the April 2014 experience study report (based on CalPERS demographic data from 1997 to 2011) available online at https://www.calpers.ca.gov/docs/forms-publications/calpers-experience-study-2014.pdf.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Using historical returns of all of the funds' asset classes, expected compound (geometric) returns were calculated over the short term (first 10 years) and the long term (11+ years) using a building-block approach. Using the expected nominal returns for both short term and long term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the rounded single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equal to the single equivalent rate calculated above and adjusted to account for assumed administrative expenses.

The tables below reflect long-term expected real rates of return by asset class. The rates of return were calculated using the capital market assumptions applied to determine the discount rate.

PERF B & PERF C – Long-Term Expected Real Rates of Return by Asset Class

Asset Class	Assumed Asset Allocation	Real Return Years 1 - 10[1]	Real Return Years 11+[2]
Global Equity	47.0%	4.90%	5.38%
Fixed Income	19.0%	0.80%	2.27%
Inflation Assets	6.0%	0.60%	1.39%
Private Equity	12.0%	6.60%	6.63%
Real Estate	11.0%	2.80%	5.21%
Infrastructure and Forestland	3.0%	3.90%	5.36%
Liquidity	2.0%	(0.40%)	(0.90%)

(1) An expected inflation of 2.50% used for this period.
(2) An expected inflation of 3.00% used for this period.

LRF – Long-Term Expected Real Rates of Return by Asset Class

Asset Class	Assumed Asset Allocation	Real Return Years 1 - 10[1]	Real Return Years 11+[2]
Global Equity	24.0%	3.95%	5.71%
Fixed Income	39.0%	0.70%	2.24%
TIPs	26.0%	(0.10%)	2.04%
Commodities	3.0%	1.10%	4.95%
REITs	8.0%	2.60%	7.88%

(1) An expected inflation of 2.50% used for this period.
(2) An expected inflation of 3.00% used for this period.

JRF II – Long-Term Expected Real Rates of Return by Asset Class

Asset Class	Assumed Asset Allocation	Real Return Years 1 - 10[1]	Real Return Years 11+[2]
Global Equity	50.0%	3.95%	5.71%
Fixed Income	34.0%	0.70%	2.24%
TIPs	5.0%	(0.10%)	2.04%
Commodities	3.0%	1.10%	4.95%
REITs	8.0%	2.60%	7.88%

(1) An expected inflation of 2.50% used for this period.
(2) An expected inflation of 3.00% used for this period.

DISCOUNT RATE

PERF B, PERF C, LRF, and JRF II

The discount rates used in the actuarial valuations used to measure the total pension liability as of June 30, 2017, reflect the long-term expected rates of return for the respective plans. This excludes the JRF, which is funded on a pay-as-you-go basis and does not have assets accumulated to pay future benefits.

The discount rates used to measure the total pension liability as of June 30, 2017, for the PERF B, PERF C, LRF, and JRF II were 7.15 percent, 7.15 percent, 5.25 percent, and 6.65 percent, respectively. These differ from the discount rates used as of June 30, 2016, for the PERF B, PERF C, LRF, and JRF II, which were 7.65 percent, 7.65 percent, 6.00 percent, and 7.15 percent, respectively due to a decrease in the long-term expected rate of return. For the LRF and JRF II, the financial reporting discount rates are consistent with the funding discount rates, but are without the adjustment for administrative expenses, consistent with generally accepted accounting principles. For the PERF B and PERF C, the financial reporting discount rates are not adjusted for administrative expenses and are consistent with the funding discount rates at the end of the three-year funding discount rate phase-in period.

To determine whether the municipal bond rate should be used in the calculation of a discount rate, the amortization and smoothing periods adopted by the Board in 2013 were used. For the PERF B, LRF, and JRF II, projections of expected benefit payments and contributions at the statutorily required member and employer rates were performed to determine if the assets would run out. The tests revealed the assets would not run out for the PERF B, LRF, and JRF II. Therefore, the long-term expected rates of return on pension plan investments were applied to all periods of projected benefit payments to determine the total pension liability for the PERF B, LRF, and JRF II.

For the PERF C, the crossover test was performed for a miscellaneous agent plan and a safety agent plan selected as being more at risk of failing the crossover test and resulting in a discount rate that would be different from the long-term expected rate of return on pension investments.

Based on the testing of the plans, the tests revealed the assets would not run out. Therefore the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability for the PERF C.

JRF

The discount rate used to measure the total pension liability as of June 30, 2017, was 3.56 percent, which differs from the discount rate used as of June 30, 2016, of 2.85 percent. The State funds the JRF benefit obligations using the pay-as-you-go method. Under the pay-as-you-go method, the pension plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments of current active and inactive employees. Therefore, a discount rate of 3.56 percent, which falls within a reasonable range of yields on 20-year tax-exempt General Obligation Municipal Bonds with an average rating of AA (as reported in Fidelity Index's "20-Year Municipal GO AA Index") as of June 30, 2017, was applied to all periods of projected benefit payments to measure the total pension liability.

SENSITIVITY OF THE NET PENSION LIABILITY/(ASSET) TO CHANGES IN THE DISCOUNT RATE

The following presents the net pension liability/(asset) of the PERF B, PERF C, LRF, JRF, and JRF II calculated using the current discount rate, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (-100 basis points) or one percentage point higher (+100 basis points) than the current rate:

Sensitivity Analysis (Dollars in Thousands)

Discount Rate (assumed)

Plan	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/ (Asset)	Plan Fiduciary Net Position as a Percentage of Total Pension
PERF B				
Schools Cost-Sharing	$84,871,026	$60,998,387	$23,872,639	71.9%
PERF C				
Public Agency Cost-Sharing	37,161,348	27,244,095	9,917,253	73.3%
LRF				
State of California	102,760	116,884	(14,124)	113.7%
JRF				
State of California	3,258,434	48,275	3,210,159	1.5%
JRF II				
State of California	1,411,327	1,356,099	55,228	96.1%

Sensitivity Analysis (Dollars in Thousands)

Discount Rate -1%

Plan	Total Pension Liability (-1%)	Plan Fiduciary Net Position	Net Pension Liability/ (Asset) (-1%)	Plan Fiduciary Net Position as a Percentage of Total Pension
PERF B				
Schools Cost-Sharing	$96,122,689	$60,998,387	$35,124,302	63.5%
PERF C				
Public Agency Cost-Sharing	42,322,893	27,244,095	15,078,798	64.4%
LRF				
State of California	115,172	116,884	(1,712)	101.5%
JRF				
State of California	3,619,979	48,275	3,571,704	1.3%
JRF II				
State of California	1,595,080	1,356,099	238,981	85.0%

Sensitivity Analysis (Dollars in Thousands)

Discount Rate +1%

Plan	Total Pension Liability (+1%)	Plan Fiduciary Net Position	Net Pension Liability/ (Asset) (+1%)	Plan Fiduciary Net Position as a Percentage of Total Pension
PERF B				
Schools Cost-Sharing	$75,536,829	$60,998,387	$14,538,442	80.8%
PERF C				
Public Agency Cost-Sharing	32,918,321	27,244,095	5,674,226	82.8%
LRF				
State of California	92,658	116,884	(24,226)	126.1%
JRF				
State of California	2,952,029	48,275	2,903,754	1.6%
JRF II				
State of California	1,264,325	1,356,099	(91,774)	107.3%

9. OTHER POST-EMPLOYMENT BENEFIT TRUST FUND

The CERBTF was established by Chapter 331 of the 1988 Statutes and initially funded in 2007. At June 30, 2017, 524 employers had elected to participate in the fund. The purpose of the fund is to receive contributions from participating employers and establish separate employer prefunding accounts to pay for health care or other post-employment benefits in accordance with the terms of the participating employers' plans. Contributions are voluntarily determined by the employer's own funding schedule, and there are no long-term contracts for contributions to the plan. As such, contributions to the CERBTF are elective and not required. The CERBTF is an agent multiple-employer plan as defined in GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (GASB 74), with pooled administrative and investment functions.

Participating employers may receive disbursements from the fund not to exceed the annual premium and other costs of eligible post-employment benefits. If the employer's participation in the fund terminates, all assets in the employer's prefunding account shall remain in the fund except as otherwise provided. Allowable termination disbursements are to a trustee or as a trustee transfer of assets upon satisfactorily demonstrating to the Board one of the following: 1) the transfer will satisfy applicable requirements of the Internal Revenue Code, other law and accounting standards, and the Board's fiduciary duties, or 2) the employer substantiates to the Board that in conformance with applicable requirements of the Internal Revenue Code, other laws and accounting standards, and the Board's fiduciary duties that all of the employer's obligations for the payment of post-employment benefits have been satisfied.

As of June 30, 2017, there were 461,592 active plan members, 266,978 inactive plan members currently receiving benefit payments, and 8,675 inactive plan members entitled to but not yet receiving benefit payments.

CalPERS' costs to administer the plan are determined through the Board-approved cost allocation fund, where actual direct and indirect administrative costs are assessed to each fund.

The total Fiscal Year 2016-17 actual OPEB employer contributions from 524 participating employers representing 539 OPEB plans was $3.8 billion. In compliance with GASB 74, this amount includes the $1.2 billion in contributions made to the CERBTF, plus an additional $2.6 billion in retiree health care premiums paid by employers directly to healthcare providers.

The CERBTF mirrors the investment policies of the System as a whole. These policies are adopted by the CalPERS Investment Committee, which sets forth the System's overarching investment beliefs, purposes, and objectives with respect to all investment programs. Additionally, the CERBTF has separate, Board-approved asset allocation policies in place for the three investment options offered by the fund. Each strategy seeks to offer employers investment alternatives dependent upon expected levels of return and volatility. Overall, the CERBTF recognized an annual money-weighted rate of return of 10.0 percent for Fiscal Year 2016-17.

10. REPLACEMENT BENEFIT FUND (RBF)

The RBF was established as a custodial fund by Chapter 938 of the 1995 Statutes. Initially established in 1998, it provides benefits to retirees of the PERF whose retirement allowance exceeds the IRC section 415(b) limits. IRC section 415(b) imposes a dollar limit on the annual retirement benefits an individual may receive from a qualified defined benefit pension plan.

The RBF is funded on a "pay-as-you-go" basis. That is, the employer is invoiced for amounts payable to its former employees on a calendar year basis and upon receipt of payment by the employers, CalPERS remits the replacement benefits to the retirees on a monthly basis. Employer contributions must be in amounts equivalent to the benefits not paid from the PERF as a result of the limitations of IRC section 415(b) plus, if applicable, employer Federal Insurance Contributions Act taxes. CalPERS is responsible for calculating the applicable dollar limit under IRC section 415(b) and notifying the employer. At June 30, 2017, there were 978 retirees receiving replacement benefits.

Government Code section 7522.43 provides that a public retirement system may only continue to administer a plan of replacement benefits for employees first hired prior to January 1, 2013. Section 7522.43 prohibits any employer from offering a plan of replacement benefits for employees hired on or after January 1, 2013.

The RBF was impacted by the requirements of GASB 84, which resulted in reporting activity in the Statement of Changes in Fiduciary Net Position for Fiscal Year 2016-17. The beginning of year net position for Fiscal Year 2016-17 was restated despite total additions equaling total deductions for Fiscal Year 2015-16. Furthermore, the RBF will report a net position balance going forward.

11. PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF)

The HCF was established under the PEMHCA as of July 1, 1988. Health plan offerings include self-funded plans, PERS Choice, PERSCare, and PERS Select, and effective January 1, 2014, flex-funded plans, Anthem Blue Cross, Blue Shield of California, Health Net, Sharp, and UnitedHealthcare. Health plans are available to entities that contract for health insurance coverage under PEMHCA based on zip codes, as prescribed by state law. Having members in large risk pools spreads the catastrophic claims over a larger base and minimizes administrative expenses. The self-funded plans retain all risk of loss of allowable health claims while the flex-funded plans share a percentage of the risk of loss. Members are not subject to a supplemental assessment in the event of deficiencies. Health insurance premium rates are set by the Board based on a trend analysis of the historic cost, utilization, demographics, and administrative expenses of the HCF to provide for the claims incurred and the actuarially determined required level of reserves. The health plans rely on operating cash flows and investment income to fund health benefit payments. During Fiscal Year 2016-17, the Board approved increases in member premiums to continue to provide for benefits of the health plans.

Public agencies participating in the health plans are required to make monthly premium payments based on rates established annually by CalPERS. Employers' shares of premiums are determined by the public agency through benefit negotiations, subject to minimum share of premium levels established through PEMHCA. Public agency employee members pay the difference between the premium rate and the employers' share of premium.

The HCF establishes claim liabilities based on estimates of the ultimate costs of claims (including future claim adjustment expenses) that have been reported but not settled, and of claims that have been "Incurred But Not Reported" (IBNR). The estimated claims liability was calculated by health plan partners as of June 30, 2017, using a variety of actuarial and statistical techniques, and adjusted for actual experience to produce current estimates that reflect recent settlements, claim frequency, and other economic and social factors. Adjustments to claims liabilities are charged or credited to expense in the periods in which they are made. The estimated claims liability of $408.7 million is carried at its face amount, and no interest discount is assumed. The IBNR portion represents an estimate for claims that have been incurred prior to June 30, 2017, but have not been reported to the HCF. The total of the estimated claims liabilities at the end of the Fiscal Year 2016-17 also includes $227.3 million of known claims, which is reported as claims payable liability in the Statement of Net Position.

In the health care environment, it is reasonably possible that estimates regarding third-party payments could change in the near term as a result of one or more future confirming events. Differences between original estimates and subsequent revisions might arise due to final settlements, ongoing audits, and reconciliations. Retroactive adjustments are considered in the recognition of revenue and expenses on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known. For the HCF/CRF, these estimates also reflect health care contract termination, which are reported as Other Liabilities in the Statement of Net Position.

ANTICIPATED INVESTMENT INCOME AND REINSURANCE

Anticipated investment income is included in the annual premium requirement for HCF members. Also, the HCF has not entered into any reinsurance or excess insurance agreements. CalPERS has entered into agreements with flex-funded health plan partners that limit the HCF's risk to a maximum aggregate monthly cost per member.

The following schedule represents changes in the aggregate estimated claims liabilities for the fiscal years ended June 30, 2017, and June 30, 2016.

Changes in the Aggregate Estimate Claims Liabilities of the HCF (Dollars in Thousands)

Year ended June 30	2017	2016
Total Estimated Claims at Beginning of Fiscal Year	**$729,317**	**$689,202**
Total Incurred Claims and Claim Adjustment Expenses	3,373,052	3,417,480
Total Payments	(3,466,375)	(3,377,365)
Total Estimated Claims at End of Fiscal Year	**$635,994**	**$729,317**

12. PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

The CRF was established in 1962, with the passage of PEMHCA, to fund administrative expenses related to the PEMHCA program, and as a contingency reserve for such items as increases in future rates or in future benefits. PEMHCA was expanded to include local public agency employees on a contract basis in 1967. The CRF is reimbursed by the State and contracting public agencies for expenses incurred for administering the program. For financial reporting purposes only, activity in the CRF is reported in the HCF/CRF combined financial statements.

PEMHCA establishes eligibility rules for the following:

- Retirees and beneficiaries receiving health care benefits,

- Terminated plan members entitled to but not yet receiving benefits, and
- Active plan members.

The employer's contribution toward the CRF administrative expenses is determined as a percentage of gross health insurance premiums paid by the employer and employees. The percentage of the insurance premiums paid for the fiscal year ended June 30, 2017, was 0.31 percent. Administrative rates are reviewed annually and are adjusted, if needed, to cover budgeted administrative expenses.

Health insurance premiums are initially received in the CRF and then remitted to health insurance carriers, with the exception of premium dollars designated for self-funded and flex-funded health plans, which are transferred to the HCF. As of June 30, 2017, there were 1,164 public agencies and schools participating in health insurance coverage under PEMHCA.

13. PUBLIC EMPLOYEES' LONG-TERM CARE FUND (LTCF)

The LTCF began offering self-insured Long-Term Care (LTC) plans in 1995. The LTCF provides LTC coverage to enrolled participants under the Public Employees' Retirement Law (PERL), Chapter 15. The LTC program contracts with a third-party service provider to administer the program, normally for a period of 5 years. CalPERS conducted a procurement in 2017, which resulted in awarding a new 5-year contract to Long-Term Care Group, Inc., the current third-party administrator of the LTC program.The LTC program is a voluntary member-paid program and is not funded or subsidized by the employers.

There are four LTC policy types:

- LTC 1: policies purchased from the program inception in 1995 through 2002.
- LTC 2: policies purchased from 2003 through 2004.
- LTC 3: policies purchased from 2005 through 2008.
- LTC 4: policies purchased effective December 2013 and forward through open application.

As of June 30, 2017, there are 128,276 active participants in the LTC 1, LTC 2, LTC 3, and LTC 4 policy series, of which 6,315 are receiving benefits.

The LTCF estimate of the funding level, to provide for the payment of future claim benefits, is projected based on actual enrolled participant levels. Participants in the Long-Term Care program with a lifetime benefit period or inflation protection received a 36 percent rate increase in both 2015 and 2016, which totaled an 85 percent overall rate increase.

The LTCF establishes the liability for future policy benefits based on the present value of future benefits and expenses less the present value of future premiums. The actuarial valuations are very sensitive to the underlying actuarial assumptions, including a discount rate of 5.75 percent, morbidity, lapse rates, voluntary termination, mortality, and plan expenses. In Fiscal Year 2016-17, the actual investment returns were approximately $177.3 million lower than expected. Economic and demographic assumptions are evaluated periodically in accordance with Board policy. An evaluation of assumptions used in the long-term care actuarial valuation is currently in progress. Any changes resulting from the experience study will be applied prospectively. The estimated liability for future policy benefits at June 30, 2017, has been rolled forward from the June 30, 2016, actuarial valuation using standard actuarial techniques, and all assumptions remained the same as the previous year.

Total LTCF investments as of June 30, 2017, were approximately $4.4 billion. For Fiscal Year 2016-17, the annual premium was $306.3 million and the total benefits paid out were $293.6 million. Since the program's inception in 1995 through June 30, 2017, the total benefits paid were approximately $2.2 billion.

14. CONTINGENCIES

CalPERS is a Defendant in litigation involving investments, individual pension, health benefit payments and participant eligibility issues arising from its normal activities. Generally, in the event of an adverse decision, any payments awarded by the courts would be recovered by CalPERS through prospective adjustments to the affected employer's contribution rate or rates and, where applicable, member premiums. During the fiscal year, specific pending cases were litigated and new ones arose that could potentially impact the future financial health of funds administered by CalPERS.

In the case of *Robert M. Mallano, et al. v. John Chiang*, the Controller of the State of California (SCO), the Judges' Retirement System (JRS), and the Judges' Retirement System II (JRS II) were sued as part of a class action by all active and retired jurists (and their beneficiaries) in the State of California. The judges' primary contention was that they were not paid salary required by applicable statutes over the prior five years, and that JRS and JRS II must in the future independently raise pension benefits to these retirees and beneficiaries based on the statutory salary mandates. JRS and JRS II in turn contended that they did not have statutory authority to increase benefits until the active judges have received an actual pay increase and JRS and JRS II have received a copy of an official Pay Letter from California Department of Human Resources to SCO authorizing an increase. JRS has been included in this suit because retired JRS judges receive increases to their retirement benefits when active judges receive salary increases. For JRS II, salary increases impact final compensation at retirement.

A Statement of Decision was issued on December 16, 2015, entering declaratory judgment in favor of the Plaintiff class and against JRS, JRS II, and SCO. The court found that, since Fiscal Year 2008-09, SCO, JRS, and JRS II had failed to pay constitutionally and statutorily mandated salary increases to active judges, as well as increased benefits to judicial retirees, as required by statute. The judges and their beneficiaries were awarded the unpaid salary increases and benefits payable to judicial retirees and their beneficiaries together with 10% per annum interest, owing from the dates on which such sums vested until such increases and benefits are paid. Final Judgment was issued on March 10, 2016.

JRS, JRS II, and SCO filed an appeal on May 5, 2016. On April 5, 2017, the Court of Appeal issued its non-published Decision affirming the judgment of the Superior Court and the attorney fee award. Plaintiffs filed a Motion to Enforce Judgment in the Superior Court, which was heard on July 27, 2017. At that hearing, the Superior Court granted the motion and ordered that retroactive damages be paid by the Defendants in amounts consistent with the court's interpretation of the salary provisions in Government Code section 68203.

Defendants have already implemented the court's Order on a prospective basis. However, on September 19, 2017, Defendants filed a Notice of Appeal from Post-Remittitur Order Entered July 28, 2017. The appeal is taken from paragraph 1 of the Order, directing "Defendants pay to Plaintiff and the class members the difference between what Defendants actually paid Plaintiff and class members and the amounts that should have been paid, as specified in the judgment, together with the pre and post judgment interest at the rate of 10% per annum from the date on which the additional payment should have been paid to the actual date of payment." The grounds for this appeal are that the Order directs retroactive monetary relief to the Plaintiff class for past alleged wrongs, by ordering Defendants to pay prior salary increases. In so doing, Defendants argue that the trial court has disregarded the ruling of the Court of Appeal, which expressly held that, "the judgment includes no monetary damages award."

Both JRS and JRS II funds could potentially be impacted, in an unknown amount, depending upon how the Court of Appeal rules on the most recently filed appeal.

Sanchez, Elma, et al. v. CalPERS is a class action lawsuit by members of the CalPERS Long-Term Care Plan against CalPERS and eight individual CalPERS Board members. Plaintiffs claim that CalPERS breached its contract with the long-term care purchasers by allegedly promising that long-term care premiums would never increase during the lifetime of the purchaser, but then increased the premiums, and failed to continue the Inflation Prevention Benefit without an increase in premiums. Plaintiffs seek to recover all money paid for the long-term care coverage and rescission of the policies sold to the class members, as well as interest and attorneys' fees.

The operative Complaint alleges a cause of action for breach of fiduciary duty against both CalPERS and the Board Defendants and four causes of action against CalPERS for breach of contract, breach of the implied covenant of good faith and fair dealing, rescission, and declaratory relief. Plaintiffs sought to certify a class consisting of California citizens who purchased LTC 1 and LTC 2 policies issued from 1995-2004 with lifetime coverage and built-in inflation protection, lifetime policies without inflation protection, as well as three-year and six-year policies with inflation protection from CalPERS.

CalPERS and the Board Defendants deny that the policies were intentionally or negligently underpriced, and assert that the long-term care coverage was a new product with little actuarial data when the program started in 1995, making it difficult to accurately price. Premium increases were imposed across the entire long-term care industry as actuarial and claims data became available. CalPERS asserts that it timely informed policyholders about the need to impose premium increases and has managed the program and the Long-Term Care Trust Fund prudently and properly. CalPERS has also asserted other legal defenses.

On January 18, 2016, the court granted Plaintiffs' Motion for Class Certification. Two claims were certified for class treatment against CalPERS: (1) the breach of contract claim; and (2) Plaintiffs' breach of fiduciary duty claim, on the "duty of care" theory only.

None of Plaintiffs' claims against the individual Board members were certified for class treatment.

The CalPERS Defendants filed a Motion for Summary Judgment/Adjudication that was argued on June 8, 2017. The court granted summary judgment as to the claims against the individual Board Defendants. The court also granted summary judgment for CalPERS as to the certified breach of fiduciary duty and rescission claims, but denied summary judgment as to the certified breach of contract claim and the uncertified declaratory relief claim. The court set a tentative trial date of November 19, 2018.

Heinz, et al. v. CalPERS, Anthem et al. is a putative class action lawsuit filed against CalPERS in June 2017. The Complaint alleges breach of contract, breach of fiduciary duties, misrepresentation, and a variety of other claims. The class is described as "people who were enrolled in Preferred Provider Organization health insurance offered and/or administered by CalPERS and Anthem Blue Cross." The primary allegation is that CalPERS and Anthem engaged in a common policy of improperly and artificially reducing the "allowable amount" for "out-of-network" non-emergency medical services.

A second lawsuit related to CalPERS' administration of health benefits is *County of Monterey dba Natividad Medical Center v. CalPERS, Anthem et al*. CalPERS was served with this Complaint on August 10, 2017. The dispute in this case arises out of a "Facility Agreement" between Natividad Medical Center ("NMC") and Anthem effective August 1, 2012, pursuant to which NMC agreed to provide certain healthcare services to Anthem members for certain agreed-upon reimbursements. The Facility Agreement governs not only claims for Anthem insureds, but also services for and claims by members of "Other Payors" for whom Anthem provides claim processing services for its Managed Care Network, such as CalPERS. No reimbursement rates for "trauma services" were established in the 2012 Agreement because NMC was not yet providing such services and these rates were to be negotiated at a later date, when NMC had set up its trauma care services. However, the parties have been unable to agree upon trauma rates since 2012. As a result, the Complaint alleges that Anthem has been instructing its Other Payors, including CalPERS, to pay NMC's trauma services claims at the "emergency services" rate. With regard to CalPERS' plan members' treatment for trauma, NMC alleges it has been underpaid by $2.8 million.

The amount of potential loss or range of loss on these cases is not estimable at this time due to the many unknowns and complexities of litigation.

15. FUTURE ACCOUNTING PRONOUNCEMENT

The objective of GASB Statement No. 87, *Leases* (GASB 87), is to improve accounting and financial reporting for leases by governments. GASB 87 requires recognition of certain lease assets and liabilities for leases that were previously classified as operating leases and recognized as inflows or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The requirements of GASB 87 are effective for fiscal years beginning after December 15, 2019.

Required Supplementary Information

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS

PERF B – Four-Year Review[1] (Dollars in Thousands)

	2017	2016	2015	2014
Discount Rate Assumption	7.15%	7.65%	7.65%	7.50%
Total Pension Liability:				
Service Cost	$2,031,914	$1,716,677	$1,624,993	$1,576,667
Interest	5,719,835	5,441,918	5,152,519	4,820,116
Changes of Assumptions	4,649,299	—	(1,217,974)	—
Differences Between Expected and Actual Experience	531,862	400,103	1,119,011	—
Benefit Payments, Including Refunds of Member Contributions	(3,724,910)	(3,546,836)	(3,334,081)	(3,139,923)
Net Change in Total Pension Liability	**$9,208,000**	**$4,011,862**	**$3,344,468**	**$3,256,860**
Total Pension Liability – Beginning	75,663,026	71,651,164	68,306,696	65,049,836
Total Pension Liability – Ending (a)	**$84,871,026**	**$75,663,026**	**$71,651,164**	**$68,306,696**
Plan Fiduciary Net Position:				
Contributions – Employer	$1,783,736	$1,434,632	$1,323,090	$1,203,071
Contributions – Member	897,438	851,133	773,580	744,437
Total Net Investment Income	6,211,781	297,514	1,272,365	8,625,601
Benefit Payments, Including Refunds of Member Contributions	(3,724,910)	(3,546,836)	(3,334,081)	(3,139,923)
Net Plan to Plan Resource Movement	(134)	10	(71,460)	—
Administrative Expenses	(82,489)	(34,554)	(64,124)	(72,167)
Net Change in Plan Fiduciary Net Position	**$5,085,422**	**($998,101)**	**($100,630)**	**$7,361,019**
Plan Fiduciary Net Position – Beginning	$55,912,965	$56,911,066	$57,011,696	$49,650,677
Plan Fiduciary Net Position – Ending (b)	60,998,387	55,912,965	56,911,066	57,011,696
Net Pension Liability (a) - (b)	**$23,872,639**	**$19,750,061**	**$14,740,098**	**$11,295,000**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**71.9%**	**73.9%**	**79.4%**	**83.5%**
Covered Payroll	$12,643,354	$11,747,602	$10,964,872	$10,120,248
Net Pension Liability as a Percentage of Covered Payroll	**188.8%**	**168.1%**	**134.4%**	**111.6%**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In Fiscal Year 2016-17, the financial reporting discount rate for the PERF B was lowered from 7.65 percent to 7.15 percent. In December 2016, the CalPERS Board approved lowering the funding discount rate used in the PERF B from 7.50 percent to 7.00 percent, which is to be phased-in over a three-year period (7.50 percent to 7.375 percent, 7.375 percent to 7.25 percent, and 7.25 percent to 7.00 percent) beginning with the June 30, 2017, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 7.50 percent to 7.65 percent resulting from eliminating the 15 basis-point reduction for administrative expenses. The funding discount rate remained at 7.50 percent during this period, and remained adjusted for administrative expenses.

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

PERF C – Four-Year Review[1] (Dollars in Thousands)

	2017	2016	2015	2014
Discount Rate Assumption	7.15%	7.65%	7.65%	7.50%
Total Pension Liability:				
Service Cost	$820,583	$712,307	$698,416	$713,731
Interest	2,506,761	2,399,259	2,285,565	2,169,786
Changes of Benefit Terms	2,119	1,478	—	—
Changes of Assumptions	2,122,413	—	(543,686)	—
Differences Between Expected and Actual Experience	(18,554)	(6,333)	(5,678)	—
Benefit Payments, Including Refunds of Member Contributions	(1,630,602)	(1,519,301)	(1,423,756)	(1,335,871)
Net Change in Total Pension Liability	**$3,802,720**	**$1,587,410**	**$1,010,861**	**$1,547,646**
Total Pension Liability – Beginning	$33,358,628	$31,800,055	$30,789,194	$29,241,548
Adjustment to Beginning Amount	—	(28,837)	—	—
Total Adjusted Pension Liability – Beginning	**$33,358,628**	**$31,771,218**	**$30,789,194**	**$29,241,548**
Total Pension Liability – Ending (a)	**$37,161,348**	**$33,358,628**	**$31,800,055**	**$30,789,194**
Plan Fiduciary Net Position:				
Contributions – Employer	$980,359	$882,991	$859,456	$747,694
Contributions – Member	317,024	300,135	278,529	291,772
Total Net Investment Income	2,774,321	127,043	548,097	3,770,935
Benefit Payments, Including Refunds of Member Contributions	(1,630,602)	(1,519,301)	(1,423,756)	(1,335,871)
Net Plan to Plan Resource Movement	134,513	22,621	(267,581)	—
Administrative Expenses	(37,052)	(15,263)	(27,967)	(31,550)
Net Change in Plan Fiduciary Net Position	**$2,538,563**	**($201,774)**	**($33,222)**	**$3,442,980**
Plan Fiduciary Net Position – Beginning	$24,705,532	$24,907,306	$24,940,528	$21,497,548
Plan Fiduciary Net Position – Ending (b)	27,244,095	24,705,532	24,907,306	24,940,528
Net Pension Liability (a) - (b)	**$9,917,253**	**$8,653,096**	**$6,892,749**	**$5,848,666**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**73.3%**	**74.1%**	**78.3%**	**81.0%**
Covered Payroll	$3,631,919	$3,472,950	$3,356,312	$3,248,018
Net Pension Liability as a Percentage of Covered Payroll	**273.1%**	**249.2%**	**205.4%**	**180.1%**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

Public agencies can make changes to their plan provisions, and such changes occur on an ongoing basis. A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In Fiscal Year 2016-17, the financial reporting discount rate for the PERF C was lowered from 7.65 percent to 7.15 percent. In December 2016, the CalPERS Board approved lowering the funding discount rate used in the PERF C from 7.50 percent to 7.00 percent, which is to be phased-in over a three-year period (7.50 percent to 7.375 percent, 7.375 percent to 7.25 percent, and 7.25 percent to 7.00 percent) beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 7.50 percent to 7.65 percent resulting from eliminating the 15 basis-point reduction for administrative expenses. The funding discount rate remained at 7.50 percent during this period, and remained adjusted for administrative expenses.

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

LRF – Four-Year Review[1] (Dollars in Thousands)

	2017	2016	2015	2014
Discount Rate Assumption	5.25%	6.00%	6.00%	5.75%
Total Pension Liability:				
Service Cost	$639	$608	$769	$732
Interest	5,291	5,978	6,427	6,465
Changes of Assumptions	7,857	—	(2,655)	—
Differences Between Expected and Actual Experience	(5,998)	(3,530)	(4,246)	—
Benefit Payments, Including Refunds of Member Contributions	(7,249)	(7,407)	(9,086)	(7,482)
Net Change in Total Pension Liability	**$540**	**($4,351)**	**($8,791)**	**($285)**
Total Pension Liability – Beginning	$102,220	$106,730	$115,521	$115,806
Adjustment to Beginning Amount	—	(159)	—	—
Total Adjusted Pension Liability – Beginning	**$102,220**	**$106,571**	**$115,521**	**$115,806**
Total Pension Liability – Ending (a)	**$102,760**	**$102,220**	**$106,730**	**$115,521**
Plan Fiduciary Net Position:				
Contributions – Employer	$516	$549	$590	$565
Contributions – Member	94	97	105	113
Total Net Investment Income	5,048	4,545	(94)	15,372
Benefit Payments, Including Refunds of Member Contributions	(7,249)	(7,407)	(9,086)	(7,482)
Administrative Expenses	(575)	(203)	(400)	(362)
Net Change in Plan Fiduciary Net Position	**($2,166)**	**($2,419)**	**($8,885)**	**$8,206**
Plan Fiduciary Net Position – Beginning	$119,050	$121,469	$130,354	$122,148
Plan Fiduciary Net Position – Ending (b)	116,884	119,050	121,469	130,354
Net Pension Asset (a) - (b)	**($14,124)**	**($16,830)**	**($14,739)**	**($14,833)**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**113.7%**	**116.5%**	**113.8%**	**112.8%**
Covered Payroll	$1,360	$1,313	$1,545	$1,470
Net Pension Asset as a Percentage of Covered Payroll	**(1,038.5%)**	**(1,281.8%)**	**(954.0%)**	**(1,009.0%)**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In Fiscal Year 2016-17, the financial reporting discount rate for the LRF was lowered from 6.00 percent to 5.25 percent. In April 2017, the CalPERS Board approved lowering the funding discount rate used in the LRF from 5.75 percent to 5.00 percent beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 25 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 5.75 percent to 6.00 percent resulting from eliminating the 25 basis-point reduction for administrative expenses. The funding discount rate remained at 5.75 percent during this period, and remained adjusted for administrative expenses.

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

JRF – Four-Year Review[1] (Dollars in Thousands)

	2017	2016	2015	2014
Discount Rate Assumption	3.56%	2.85%	3.82%	4.25%
Total Pension Liability:				
Service Cost	$22,733	$29,314	$25,372	$27,581
Interest	115,067	107,515	127,074	140,256
Changes of Assumptions	(107,670)	384,306	167,036	—
Differences Between Expected and Actual Experience	(366,200)	(59,421)	57,568	—
Benefit Payments, Including Refunds of Member Contributions	(200,440)	(199,349)	(201,868)	(193,935)
Net Change in Total Pension Liability	**($536,510)**	**$262,365**	**$175,182**	**($26,098)**
Total Pension Liability – Beginning	$3,794,944	$3,532,394	$3,357,212	$3,383,310
Adjustment to Beginning Amount	—	185	—	—
Total Adjusted Pension Liability – Beginning	**$3,794,944**	**$3,532,579**	**$3,357,212**	**$3,383,310**
Total Pension Liability – Ending (a)	**$3,258,434**	**$3,794,944**	**$3,532,394**	**$3,357,212**
Plan Fiduciary Net Position:				
Contributions – Employer	$204,475	$192,287	$180,910	$191,148
Contributions – Member	3,398	3,559	3,877	4,724
Total Net Investment Income	2,819	2,762	2,286	2,583
Benefit Payments, Including Refunds of Member Contributions	(200,440)	(199,349)	(201,868)	(193,935)
Administrative Expenses	(1,771)	(642)	(1,227)	(1,141)
Net Change in Plan Fiduciary Net Position	**$8,481**	**($1,383)**	**($16,022)**	**$3,379**
Plan Fiduciary Net Position – Beginning	$39,794	$41,177	$57,199	$53,820
Plan Fiduciary Net Position – Ending (b)	48,275	39,794	41,177	57,199
Net Pension Liability (a) - (b)	**$3,210,159**	**$3,755,150**	**$3,491,217**	**$3,300,013**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**1.5%**	**1.0%**	**1.2%**	**1.7%**
Covered Payroll	$39,413	$34,301	$41,378	$54,649
Net Pension Liability as a Percentage of Covered Payroll	**8,144.9%**	**10,947.6%**	**8,437.4%**	**6,038.6%**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

The discount rate used to measure the total pension liability was 3.56 percent. The State funds the JRF benefit obligations using the pay-as-you-go method. Member contributions plus State contributions are designed to cover only benefit payments and expenses each year. Under the pay-as-you-go method, the pension plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments of current active and inactive employees. Therefore, a discount rate of 3.56 percent, which falls within a reasonable range of yields on 20-year tax-exempt General Obligation Municipal Bonds with an average rating of AA (as reported in Fidelity Index's "20-Year Municipal GO AA Index") as of June 30, 2017, was applied to all periods of projected benefit payments to measure the total pension liability.

For the JRF, the changes to actuarial methods include an increase in maximum benefit allowable for active members to 75 percent of pay from 65 percent of pay; the benefit payable for a termination changed from being equal to a retirement benefit to one equal to a percent (generally 3.75 percent) times years of service; and the allocated service for the non-member spouse for Qualified Domestic Relations Order changed to full service for the member in order to determine both eligibility and the benefit multiplier. These changes were reflected in the total pension liabilities starting June 30, 2015.

Assumption changes were made in the JRF June 30, 2016, valuation that are reflected in the total pension liability starting June 30, 2017. The assumption changes included a lowering of the rates of retirement to reflect that fewer actual retirements over the past six years than were assumed. In addition, pre-retirement termination and disability rates were removed due to low expected future terminations and disability retirements for this group.

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

JRF II – Four-Year Review[1] (Dollars in Thousands)

	2017	2016	2015	2014
Discount Rate Assumption	6.65%	7.15%	7.15 %	7.00 %
Total Pension Liability:				
Service Cost	$97,678	$86,635	$81,679	$78,670
Interest	85,654	78,412	70,389	61,044
Changes of Assumptions	69,233	—	(14,883)	—
Differences Between Expected and Actual Experience	(26,382)	(4,546)	(17,319)	—
Benefit Payments, Including Refunds of Member Contributions	(22,406)	(21,704)	(14,040)	(8,950)
Net Change in Total Pension Liability	**$203,777**	**$138,797**	**$105,826**	**$130,764**
Total Pension Liability – Beginning	$1,207,550	$1,073,788	$967,962	$837,198
Adjustment to Beginning Amount	—	(5,035)	—	—
Total Adjusted Pension Liability – Beginning	**$1,207,550**	**$1,068,753**	**$967,962**	**$837,198**
Total Pension Liability – Ending (a)	**$1,411,327**	**$1,207,550**	**$1,073,788**	**$967,962**
Plan Fiduciary Net Position:				
Contributions – Employer	$67,102	$65,839	$65,629	$57,027
Contributions – Member	25,076	24,598	22,242	20,413
Total Net Investment Income	115,057	20,810	(2,401)	150,168
Benefit Payments, Including Refunds of Member Contributions	(22,406)	(21,704)	(14,040)	(8,950)
Administrative Expenses	(1,683)	(732)	(1,127)	(785)
Net Change in Plan Fiduciary Net Position	**$183,146**	**$88,811**	**$70,303**	**$217,873**
Plan Fiduciary Net Position – Beginning	$1,172,953	$1,084,142	$1,013,839	$795,966
Plan Fiduciary Net Position – Ending (b)	1,356,099	1,172,953	1,084,142	1,013,839
Net Pension Liability/(Asset) (a) - (b)	**$55,228**	**$34,597**	**($10,354)**	**($45,877)**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**96.1%**	**97.1%**	**101.0 %**	**104.7 %**
Covered Payroll	$291,097	$280,879	$259,133	$249,248
Net Pension Liability/(Asset) as a Percentage of Covered Payroll	**19.0%**	**12.3%**	**(4.0%)**	**(18.4%)**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In Fiscal Year 2016-17, the financial reporting discount rate for the JRF II was lowered from 7.15 percent to 6.65 percent. In April 2017, the CalPERS Board approved lowering the funding discount rate used in the JRF II from 7.00 percent to 6.50 percent beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 7.00 percent to 7.15 percent resulting from eliminating the 15 basis-point reduction for administrative expenses. The funding discount rate remained at 7.00 percent during this period, and remained adjusted for administrative expenses.

SCHEDULES OF PLAN CONTRIBUTIONS

Four-Year Review[1] (Dollars in Thousands)

	2017	2016	2015	2014
PERF B:				
Actuarially Determined Contribution	$1,767,813	$1,421,289	$1,303,162	$1,201,125
Contributions in Relation to the Actuarially Determined Contribution	1,767,813	1,421,289	1,303,162	1,201,125
Contribution Excess	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$12,643,354	$11,747,602	$10,964,872	$10,120,248
Contributions as a Percentage of Covered Payroll	14.0%	12.1%	11.9%	11.8%
PERF C:				
Actuarially Determined Contribution	$858,954	$789,103	$691,602	$732,142
Contributions in Relation to the Actuarially Determined Contribution	858,954	789,103	691,602	732,142
Contribution Excess	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$3,631,919	$3,472,950	$3,356,312	$3,248,018
Contributions as a Percentage of Covered Payroll	23.7%	22.7%	20.6%	22.5%
LRF:				
Actuarially Determined Contribution	$0	$141	$260	$33
Contributions in Relation to the Actuarially Determined Contribution[2]	516	549	590	565
Contribution Excess	**($516)**	**($408)**	**($330)**	**($532)**
Covered Payroll	$1,360	$1,313	$1,545	$1,470
Contributions as a Percentage of Covered Payroll	37.9%	41.8%	38.2%	38.4%
JRF:				
Actuarially Determined Contribution[3]	$448,636	$463,073	$1,884,555	$1,569,630
Contributions in Relation to the Actuarially Determined Contribution[4]	204,475	192,287	180,910	191,148
Contribution Deficiency	**$244,161**	**$270,786**	**$1,703,645**	**$1,378,482**
Covered Payroll	$39,413	$34,301	$41,378	$54,649
Contributions as a Percentage of Covered Payroll	518.8%	560.6%	437.2%	349.8%
JRF II:				
Actuarially Determined Contribution	$67,102	$65,839	$63,193	$55,538
Contributions in Relation to the Actuarially Determined Contribution	67,102	65,839	63,193	55,538
Contribution Excess	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$291,097	$280,879	$259,133	$249,248
Contributions as a Percentage of Covered Payroll	23.1%	23.4%	24.4%	22.3%

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.
(2) Because of the provisions of PEPRA, the required employer contribution is the greater of the actuarially determined employer contribution or the employer normal cost.
(3) The 2016 and 2017 actuarially determined contributions are based on a 10-year amortization period, while the 2015 and 2014 actuarially determined contributions are based on a two-year amortization period.
(4) Contributions to the JRF are made on the pay-as-you-go basis.

Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions – Four-Year Review

	2016-17	2015-16	2014-15	2013-14
PERF B				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	14-30 years	15-30 years	16-30 years	17-30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%
PERF C				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%
LRF				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	63 years	29-30 years	30 years	30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	5.75%	5.75%	5.75%	5.75%
JRF				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Dollar	Level Dollar	Level Dollar	Level Dollar
Remaining Amortization Periods	10 years	10 years	2 years	2 years
Asset Valuation Method	Market Value	Market Value	Market Value	Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	4.25%	4.25%	4.25%	4.25%
JRF II				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	30 years	30 years	16-30 years	17-30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	7.00%	7.00%	7.00%	7.00%

(1) Remaining periods vary by portion of unfunded liability balance being amortized.

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense – Four-Year Review

Plan	2017 Rate of Return	2016 Rate of Return	2015 Rate of Return	2014 Rate of Return
PERF A[1]				
Agent	11.2%	0.5%	2.2%	17.7%
PERF B[1]				
Schools Cost-Sharing	11.2%	0.5%	2.2%	17.7%
PERF C[1]				
Public Agency Cost-Sharing	11.2%	0.5%	2.2%	17.7%
LRF[1]	4.3%	3.8%	(0.1%)	12.9%
JRF[1]	1.0%	0.5%	0.2%	0.1%
JRF II[1]	9.6%	1.9%	(0.2%)	18.3%
CERBTF[2]	10.0%	1.6%	—	—

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future years until 10 years of data is presented.
(2) Early implementation of GASB 74 results in prospective application of calculating the MWRR for the CERBTF. As such, MWRR data prior to 2016 is not available.

PUBLIC EMPLOYEES' HEALTH CARE FUND

Schedule of Claims Development Information (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
1) Net Earned Required Premium and Investment Revenues	$3,829,095	$3,801,266	$3,642,206	$2,808,384	$1,948,531	$1,912,355	$1,775,005	$1,409,621	$1,608,738	$1,543,643
2) Unallocated Expenses	$312,924	$355,779	$371,916	$192,987	$105,154	$96,043	$88,392	$90,292	$85,511	$78,607
3) Estimated Incurred Claims and Expenses, End of Policy Year	$3,391,183	$3,424,147	$3,432,102	$2,748,821	$1,921,957	$1,816,245	$1,792,599	$1,654,214	$1,530,264	$1,385,438
4) Paid (Cumulative) as of:										
End of Policy Year	$3,061,085	$3,000,726	$3,378,857	$2,122,865	$1,640,709	$1,635,839	$1,550,306	$1,444,509	$1,313,680	$1,197,390
One Year Later	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Two Years Later	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Three Years Later	—	—	—	—	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Four Years Later	—	—	—	—	—	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Five Years Later	—	—	—	—	—	—	1,698,615	1,589,771	1,448,134	1,316,774
Six Years Later	—	—	—	—	—	—	—	1,589,771	1,448,134	1,316,774
Seven Years Later	—	—	—	—	—	—	—	—	1,448,134	1,316,774
Eight Years Later	—	—	—	—	—	—	—	—	—	1,316,774
Nine Years Later	—	—	—	—	—	—	—	—	—	—
5) Re-Estimated Incurred Claims Expenses:										
End of Policy Year	$3,391,183	$3,424,147	$3,432,102	$2,748,821	$1,921,957	$1,816,245	$1,792,599	$1,654,214	$1,530,264	$1,385,438
One Year Later	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Two Years Later	—	—	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Three Years Later	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Four Years Later	—	—	—	—	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Five Years Later	—	—	—	—	—	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Six Years Later	—	—	—	—	—	—	1,698,615	1,589,771	1,448,134	1,316,774
Seven Years Later	—	—	—	—	—	—	—	1,589,771	1,448,134	1,316,774
Eight Years Later	—	—	—	—	—	—	—	—	1,448,134	1,316,774
Nine Years Later	—	—	—	—	—	—	—	—	—	1,316,774
6) Decrease in Estimated Incurred Claims and Expenses From End of Policy Year	$0	($18,131)	$370,175	($69,915)	($125,370)	($28,110)	($93,984)	($64,443)	($82,130)	($68,664)

Rows 1 through 6 contain the following information:

(1) This line shows the total earned premium revenues and investment revenues for each fiscal year.

(2) This line shows other HCF/CRF operating costs, including overhead and claims expense not allocable to individual claims, for each fiscal year.

(3) This line shows the HCF/CRF incurred claims and allocated claim adjustment expenses (both paid and accrued) as reported at the end of the policy year. The policy year is the first year in which the triggering event under the contract occurred.

(4) This section shows the cumulative amounts paid as of the end of each policy year and years succeeding the policy year.

(5) This section shows re-estimated incurred claims as of the end of each policy year and years succeeding the policy year. Re-estimates are based on new information on new claims not previously reported.

(6) This line compares the amount of the re-estimated incurred claims to the amount initially established (line 3), and shows whether the re-estimate is greater or less than projected. As data mature for individual policy years, the correlation between initial estimates and re-estimates is used to evaluate the accuracy of incurred claims currently recognized.

Other Supplementary Information

ADMINISTRATIVE EXPENSE – ALL FUNDS (DOLLARS IN THOUSANDS)

	2017
PERSONNEL SERVICES	
Salaries & Wages	$181,413
Employee Benefits	86,720
Total Personnel Services	**$268,133**
CONSULTANT & PROFESSIONAL SERVICES	
State of California Agencies	$6,142
External Consultants	47,062
Retiree Benefit Trust Management Fees	102
Deferred Compensation Management/Custody Fees	3,297
Health Plan Administrator Fees	254,352
Long-Term Care Administrator Fees	20,690
Total Consultant & Professional Services	**$331,645**
OPERATING EXPENSES & EQUIPMENT	
General Expense	$5,403
Software	1,825
Printing	1,963
Building	22,694
Postage	2,698
Communications	1,564
Data Processing Services	18,932
Travel	1,817
Training	1,010
Medical Examiners	1,999
Facilities Operation	4,034
Central Administrative Services	21,118
Administrative Hearings	1,696
Consolidated Data Center	65
Equipment	3,053
Total Operating Expenses & Equipment	**$89,871**
OTHER EXPENSES & ADJUSTMENTS	
Depreciation Expense	$19,120
Amortization	67,843
Miscellaneous	42,055
Total Other Expenses & Adjustments	**$129,018**
TOTAL ADMINISTRATIVE EXPENSES — ALL FUNDS	**$818,667**

INVESTMENT EXPENSE – ALL FUNDS

Investment Management Fees[1,2] (Dollars in Thousands)

	Fees
Equity Managers	
Allianz Global Investors U.S., LLC	$4,862
Arrowstreet Capital, LP	9,394
Ashmore Equities Investment Management	174
Baillie Gifford Overseas, Ltd.	1,684
Cartica Corporate Governance Fund, LP	5,739
Epoch Investment Partners, Inc.	7,815
First Quadrant, LP	932
FIS CalBear Fund, LLC	1,741
Genesis Asset Managers, LLP	2,545
Hamilton Lane Advisors, LLC	705
Hermes Sourcecap Limited	2,447
Huber Capital Management, LLC	2,292
J.P. Morgan Investment Management, Inc.	873
Lazard Asset Management, LLC	3,927
Legato Capital Management Investments, LLC	5,036
LEIA GEM Investment, LLC	2,661
Progress Investments II, LLC	3,315
Pyramis Global Advisors Trust Company	1,922
Pzena Investment Management, LLC	1,716
State Street Global Advisors	3,221
Strategic Investment Group II, LLC	2,744
Strategic Investment Management, LP	399
Taiyo Fund, LP	773
The Boston Company Asset Management, LLC	519
TOBAM	2,494
Wasatch Advisors, Inc.	4,780
Wellington Management Company, LLP	6,197
Total Equity Managers	**$80,907**
Fixed Income Managers	
Alliance Bernstein, LP	$441
Baring International Investment Limited	371
Bluebay Asset Management, LLP	526
Investec Asset Management North America	619
Neuberger Berman	206
Pacific Investment Management Co.	761
Total Fixed Income Managers	**$2,924**
Private Equity Managers[3]	
57 Stars Global Opportunities Fund 2, LLC	$500
57 Stars Global Opportunities Fund, LLC	600
Aberdare Ventures III, LP	28
Aberdare Ventures IV, LP	386
Advent International GPE V-D, LP	140
Advent International GPE VI-A, LP	2,738
Advent International GPE VII-C, LP	4,068
Advent International GPE VIII-B Limited Partnership	6,669
Advent Latin America Private Equity Fund IV-D, LP	1,501
Advent Latin America Private Equity Fund V-H, LP	1,111
Advent Latin American Private Equity Fund III-D, LP	186
Affinity Asia Pacific Fund III, LP	1,399

	Fees
Aisling Capital II, LP	$59
Aisling Capital III, LP	719
Apollo Asia Opportunity Fund, LP	(3,618)
Apollo European Principal Finance Fund, LP	6
Apollo Investment Fund VII, LP	1,074
Apollo Investment Fund VIII, LP	1,563
Apollo Special Opportunities Managed Account, LP	3,751
ArcLight Energy Partners Fund IV, LP	473
Ares Corporate Opportunities Fund III, LP	1,536
Ares Corporate Opportunities Fund V, LP	479
Asia Alternatives Capital Partners II, LP	335
Asia Alternatives Capital Partners, LP	144
Avenue Asia Special Situations Fund IV, LP	137
Avenue Special Situations Fund VI (A), LP	304
Baring Vostok Private Equity Fund IV, LP	1,283
BDC III C, LP	384
Birch Hill Equity Partners (US) III, LP	131
Birch Hill Equity Partners (US) IV, LP	990
Blackstone / GSO Capital Solutions Fund, LP	1,258
Blackstone Capital Partners V, LP	548
Blackstone Capital Partners VI, LP	2,254
Blackstone Capital Partners VII, LP	2,569
Blackstone Tactical Opportunities Fund - C, LP	8,055
Blackstone Tactical Opportunities Fund II - C, LP	2,155
Bridgepoint Europe II 'A', LP	(5)
Bridgepoint Europe IV 'B', LP	514
Bridgepoint Europe IV 'D', LP	3,985
Bridgepoint Europe V	5,062
California Asia Investors, LP	229
California Emerging Ventures II, LLC	200
California Emerging Ventures III, LLC	200
California Emerging Ventures IV, LLC	562
California Mezzanine Investment Fund, LP	39
CalPERS Clean Energy & Technology Fund, LLC	800
CalPERS Corporate Partners, LLC	86
Capital Link Fund I, LLC	382
Capital Link Fund II, LLC	380
Carlyle Asia Growth Partners III, LP	237
Carlyle Asia Growth Partners IV, LP	1,043
Carlyle Asia Partners II, LP	638
Carlyle Asia Partners III, LP	851
Carlyle Europe Partners III, LP	882
Carlyle Europe Technology Partners II, LP	481
Carlyle Global Financial Services Partners, LP	1,654
Carlyle Japan Partners II, LP	442
Carlyle Partners V, LP	1,383
Carlyle Partners VI, LP	4,400
Carlyle Strategic Partners II, LP	171
Carlyle Strategic Partners IV, LP	1,950
Carlyle U.S. Equity Opportunities II, LP	2,504
Carlyle U.S. Growth Fund III, LP	330
Carlyle/Riverstone Global Energy and Power Fund III, LP	697

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Investment Management Fees[1,2] (Dollars in Thousands) (continued)

	Fees
CDH Fund V, LP	$4,461
Centerbridge Capital Partners III, LP	2,295
Cerberus CAL II Partners, LP	9
Cerberus CP Partners, LP	1,692
Cerberus Institutional Partners V, LP	1,716
Clarus Lifesciences I, LP	96
Clarus Lifesciences II, LP	1,156
Clearlake Capital Partners III, LP	427
Clearlake Capital Partners IV, LP	855
Clearlake Opportunities Partners (P), LP	658
Clearwater Capital Partners Fund II Holdings, LP	22
Clearwater Capital Partners Fund III, LP	494
Coller International Partners V-A, LP	2,628
Craton Equity Investors I, LP	239
CVC Capital Partners Strategic Opportunities Compounding	3,045
CVC Capital Partners VI, LP	6,386
CVC Credit Strategic Investment A, LP	1,442
CVC European Equity Partners IV (D), LP	(313)
CVC European Equity Partners Tandem Fund (B), LP	(430)
CVC European Equity Partners V (B), LP	894
EMAlternatives Investments, LP	800
ESP Golden Bear Europe Fund	120
Essex Woodlands Health Ventures Fund VIII, LP	1,896
First Reserve Fund XI, LP	927
First Reserve Fund XII, LP	1,554
First Reserve Fund XIII, LP	4,958
Francisco Partners II, LP	681
Francisco Partners III, LP	991
GCM Grosvenor DEM II, LP	750
GCM Grosvenor DEM, LP	590
Golden State Investment Fund, LLC	371
Granite Global Ventures II, LP	123
Granite Global Ventures III, LP	169
Green Equity Investors IV, LP	(109)
Green Equity Investors V, LP	326
GSO Capital Opportunities Fund II, LP	1,972
GSO Capital Opportunities Fund, LP	144
GSO Capital Solutions Fund II, LP	2,962
GSO Energy Partners-C II, LP	545
GSO Energy Partners-C, LP	1,970
Hellman & Friedman Capital Partners VI	476
Hellman & Friedman Capital Partners VII	2,217
Hellman & Friedman Capital Partners VIII, LP	4,488
Insight Venture Partners Growth-Buyout Coinvestment Fund	4,158
Insight Venture Partners IX, LP	1,957
Insight Venture Partners VI, LP	500
Khosla Ventures III, LP	2,000
Khosla Ventures Seed, LP	1,018
KKR 2006 Fund, LP	246
KKR Asian Fund II, LP	3,399

	Fees
KKR Asian Fund, LP	$488
KKR European Fund II, LP	211
KKR European Fund III, LP	977
KKR Millennium Fund, LP	12
Kline Hawkes Pacific, LP	(67)
KM Corporate Partners Fund II, LP	980
KPS Special Situations Fund III, LP	200
Levine Leichtman Capital Partners Deep Value Fund, LP	22
Levine Leichtman Capital Partners IV, LP	136
Lime Rock Partners IV, LP	182
Lime Rock Partners V, LP	487
Lindsay Goldberg IV, LP	3,591
Lion Capital Fund II, LP	442
Lombard Asia III, LP	195
Madison Dearborn Capital Partners V, LP	217
Magnum Capital, LP	713
MHR Institutional Partners III, LP	1,569
New Mountain Partners III, LP	1,249
Newbridge Asia IV, LP	181
Nogales Investors Fund I , LP	(195)
Oak Hill Capital Partners II, LP	73
Oak Hill Capital Partners III, LP	1,754
Oaktree Opportunities Fund VIIIb, LP	2,218
Onex Partners IV, LP	4,865
PAG Asia I, LP	708
Patria Brazilian Private Equity Fund V, LP	3,000
Permira Europe III	—
Permira IV, LP 2	322
Permira V, LP	3,218
Permira VI, LP 1	2,867
Polish Enterprise Fund VI, LP	1,245
Providence Equity Partners V	—
Providence Equity Partners VI, LP	1,079
RFG Private Equity Limited Partnership No. 1A, 1B and 1C	89
Richardson Capital Private Equity Limited Partnership No.2A,	33
Riverstone Global Energy and Power Fund V, LP	2,652
Riverstone Global Energy and Power Fund VI, LP	7,142
Riverstone/Carlyle Global Energy and Power Fund IV, LP	1,720
Riverstone/Carlyle Renewable & Alternative Energy Fund II,	1,517
Riverwood Capital Partners (Parallel - A), LP	542
Sacramento Private Equity Partners, LP	1,500
SAIF Partners III, LP	1,299
SAIF Partners IV, LP	2,188
Sankaty Managed Account, LP	263
Silver Lake Partners II, LP	58
Silver Lake Partners III, LP	1,174
Silver Lake Partners IV, LP	2,676
Siris Partners III, LP	350
Tailwind Capital Partners (PP), LP	247
Tailwind Capital Partners II, LP	1,781

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Investment Management Fees[1,2] (Dollars in Thousands) (continued)

	Fees
The Central Valley Fund II SBIC, LP	$557
The Central Valley Fund, LP	50
The Resolute Fund II, LP	396
TowerBrook Investors II, LP	907
TowerBrook Investors III, LP	981
TowerBrook Investors IV (Onshore), LP	5,390
Towerbrook Structured Opportunities Fund (Onshore), LP	1,648
TPG Asia V, LP	1,270
TPG Biotechnology Partners III, LP	479
TPG Partners V, LP	524
TPG Partners VI, LP	2,716
TPG STAR, LP	638
Trident VI	2,684
Triton Fund IV, LP	1,411
VantagePoint Venture Partners 2006 (Q), LP	1,492
Vicente Capital Partners Growth Equity Fund, LP	270
W Capital Partners II, LP	651
Wellspring Capital Partners V, LP	(537)
Welsh, Carson, Anderson & Stowe X, LP	31
Welsh, Carson, Anderson & Stowe XI, LP	463
Welsh, Carson, Anderson & Stowe XII, LP	4,799
WLR Recovery Fund II, LP	(138)
WLR Recovery Fund IV, LP	(462)
Yucaipa American Alliance Fund I, LP	61
Yucaipa American Alliance Fund II, LP	3,026
Yucaipa Corporate Initiatives Fund II, LP	329
Total Private Equity Managers	**$233,789**
Real Asset Managers	
301 Capitol Mall, LP	$127
AGI Resmark Housing Fund, LLC	570
Alinda Infrastructure Fund I, LP	723
Alinda Infrastructure Fund II, LP	2,363
ARA Asia Dragon Fund II	525
ARA China Long Term Hold	5,825
Asia Pacific Property Fund SCSP	523
CalEast Canada Limited Partnership	29
CalEast Industrial Investors, LLC	842
CalEast Solstice - Base	7,414
CalEast Solstice - DT Land	1,584
CalEast Solstice - DT Other	2,002
CalWest - CalPERS	159
Canyon Catalyst Fund, LLC	1,606
Canyon Johnson Urban Fund, III	93
Carlyle Infrastructure Partners, LP	480
CBRE Strategic Partners UK Fund II	44
CUC III, LLC	49
CIM Fund III, LP	7,610
CIM Infrastructure Fund, LP	2,043
CIM Urban Real Estate Fund, LP	2,348

	Fees
FSP - Base	$17,105
FSP - DT 2011	2,521
FSP - DT 2012 and Beyond	5,512
Global Infrastructure Partners II, LP (GIP II)	3,051
Global Retail Investors, LLC	1,678
Golden Reef Infrastructure Trust	914
GRI - Base	11,016
GRI - DT 2011	118
Harbert Gulf Pacific Power, LLC (HGPP)	3,821
Harbert Power Fund V, LP (HPF V)	783
HC Green Development Fund, LP	518
HC NOP Holdings, LP	118
HCB Interests II, LP	1,725
HCB LTH	5,408
HCC Interests, LP	252
HCM Holdings II, LP	(3)
HCR LTH, LLC	4,008
Hearthstone Housing Partners II, LLC	1,382
Hearthstone Housing Partners III, LLC	258
Hearthstone Multi-State Residential Value-Added III	3
IHP Investment Fund I, LP	530
IHP Investment Fund II, LP	731
IHP Investment Fund III, LP	1,355
IMI - Base	21,583
IMI - DT 2011	375
IMP - Base	16,374
IMP - DT 2011	99
IMP - DT 2012 and Beyond	711
Institutional Core Multifamily Investors	3,508
Institutional Logistics Partners, LLC	2,769
Institutional Multifamily Partners	1,129
KC 2011, LLC	2,922
KSC Affordable Housing Investment Fund, LLC	935
Land Management Company, LLC	2,465
LaSalle French Fund II, LP	4
Lincoln Timber, LP	7,343
Meriwether Farms, LLC	322
National Office Partners, LLC (CWP)	707
North Haven Infrastructure Partners II, LP	1,550
ORA Multifamily Investments I, LLC	3,404
ORA Residential Investments I, LP	4,021
Pacific Multifamily Investors, LLC	3,250
Pacific Vineyard Partners, LLC	328
PLA Retail Fund I, LP	29
PRECO Account Partnership III, LP	48
Stockbridge Hollywood Park Co-Investors, LP	311
Stockbridge Real Estate Fund II -B, LP	151
Sylvanus, LLC	2,774
TechCore, LLC	7,267
TPG Hospitality Investments IV, LLC	438

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Investment Management Fees[1,2] (Dollars in Thousands) (continued)

	Fees
UBS International Infrastructure Fund II (B), LP	$445
UBS International Infrastructure Fund II (C), LP	945
Whitney Ranch Venture, LLC	702
Xander Co-Investment	321
Xander JV Fund I (India Realty)	75
Total Real Asset Managers	**$187,068**
Other Investment Management Fees	
AQR Capital Management, LLC	$3,597
Brookside Capital Partners Fund, LP	34
Deephaven Market Neutral, LLC	4
OZ Domestic Partners II, LP	25
OZ Eureka Fund, LP	841
Rock Creek 1848 Fund, LP	(230)
Standard Life Investments Limited	4,597
Total Other Investment Management Fees	**$8,868**
Total Management Fees	**$513,556**

(1) Expenses and fees less than a thousand dollars are indicated by a dash.
(2) Negative management fees are due to adjusting entries.
(3) CalPERS makes a good faith attempt to account for fees that are not readily separable. These management fees are net of management fee offsets. For more detail, see the Private Equity Management Fees & Profit Sharing table in the Investment Section.

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Performance Fees[1] (Dollars in Thousands)

	Fees
Absolute Return Strategy Managers	
Brookside Capital Partners Fund, LP	($28)
Chatham Eureka Fund, LP	(39)
OZ Domestic Partners II, LP	34
OZ Eureka Fund, LP	2,740
Rock Creek 1848 Fund, LP	(18)
Total Absolute Return Strategy Managers	**$2,689**
Equity Managers	
Arrowstreet Capital, LP	$8,142
Baillie Gifford Overseas, Ltd.	11,418
J.P. Morgan Investment Management, Inc.	2,306
Pyramis Global Advisors Trust Company	173
The Boston Company Asset Management, LLC	1,004
Total Equity Managers	**$23,043**
Fixed Income Managers	
Alliance Bernstein, LP	$358
Baring International Investment Limited	242
Pacific Investment Management Co.	2,314
Total Fixed Income Managers	**$2,914**
Real Asset Managers	
AGI Resmark Housing Fund, LLC	$7,724
AGI-TMG Housing Partners I, LLC	16,292
CalEast Solstice, LLC	1,665
Canyon Catalyst Fund, LLC	5,077
Canyon Johnson Urban Fund, III	(1,757)
CIM Fund III, LP	(36,891)
CIM Infrastructure Fund, LP	4,328
FSP - Base	2,674
FSP - DT 2011	1,997
FSP - DT 2012 and Beyond	(8,849)
Global Infrastructure Partners II, LP (GIP II)	5,534
Global Innovation Partners, LLC	(489)
Global Retail Investors, LLC	14,742
GRI - Base	5,620
GRI - DT 2011	1,188
Harbert Power Fund V, LP (HPF V)	712
HCB Interests II, LP	807
Hearthstone Housing Partners, LP	(74)
Hearthstone Multi-State Residential Value-Added III	(1)
Hearthstone-MSII Homebuilding Investors, LLC	72
IHP Investment Fund I, LP	2,200
IMI - Base	(21,618)
IMP - Base	2,383
IMP - DT 2011	274
IMP - DT 2012 and Beyond	7,883
Institutional Core Multifamily Investors	856
Institutional Logistics Partners, LLC	2,159
Institutional Multifamily Partners	8,461
Ivy Investment Vehicle LDC (SWPM)	19,307

	Fees
National Office Partners, LLC (CWP)	($19,072)
ORA Multifamily Investments I, LLC	14,156
ORA Residential Investments I, LP	3,647
Pacific Multifamily Investors, LLC	1,485
TechCore, LLC	14,101
Total Real Asset Managers	**$56,593**
Total Performance Fees	**$85,239**
Total Management and Performance Fees	**$598,795**

(1) Negative performance fees are due to the reversal of accruals caused by the fluctuation in market values.

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,2] (Dollars in Thousands)

	Fees
Advisory Fees	
Fan Asset Management, LLC	$391
FIS CalBear Fund, LLC	1,501
Goldman Sachs Asset Management	431
Legato Capital Management Investments, LLC	2,188
LEIA GEM Investment, LLC	1,250
Principal Life Insurance Company	(143)
Progress Investments II, LLC	1,250
QS Investors, LLC	423
Research Affiliates, LLC	1,394
Strategic Investment Group II, LLC	1,250
Total Advisory Fees	**$9,935**
Auditor Fees	
Conrad, LLP	$251
KPM & Associates, LLP	40
KPM & Associates, LLP (Partnership)	225
Total Auditor Fees	**$516**
Appraisal Fees	
Altus Group U.S. Inc.	$8,637
Total Appraisal Fees	**$8,637**
Company Expense	
FIS CalBear Fund, LLC	$123
Legato Capital Management, LLC	203
LEIA GEM Investment, LLC	177
Progress Investments II, LLC	161
Strategic Investment Group II, LLC	102
Strategic Investment Management, LP	56
Total Company Expense	**$822**
Investment Consultant Fees	
Adviser Compliance Associates, LLC	$40
Bard Consulting, LLC	580
BDO USA, LLP	31
Cambridge Associates, LLC	105
Courtland Partners, Ltd	70
Crosswater Realty Advisors, LLC	56
Cutter Associates, LLC	250
Edhec Business School	149
Fitch 7City Learning, Inc.	1
FTI Consulting, Inc.	184
Garland Associates, Inc.	238
Hamilton Lane Advisors, LLC	250
KPMG, LLP	30
Meketa Investment Group, Inc.	40
Mercer Investment Consulting, Inc.	18
Mosaic Investment Advisors, Inc.	176
Pacific Alternative Asset Mgmt Company	200
Pacific Community Ventures, Inc.	383
Pavilion Alternatives Group, Ltd	10
Pavilion Alternatives Group, LLC	$38
Pension Consulting Alliance, LLC	102
Persell Design Group, LLC	(10)
Propoint Technology, Inc.	1,820
Pyramid Technical Consultants, Inc.	244
Qualapps, Inc.	127
RCLCO	45
RVK, Inc.	88
Ryedale, Inc.	462
SRI Infotech, Inc.	240
Technology Crest Corporation	190
Trinity Technology Group, Inc.	253
University of California, Davis	47
Wilcox, Miller & Nelson	108
Total Investment Consultant Fees	**$6,565**
Legal Fees	
AlvaradoSmith, a Professional Corporation	$0
Berman DeValerio	10
Cox, Castle & Nicholson, LLP	281
Hogan Lovells, US, LLP	102
Jackson Walker, LLP	79
K & L Gates, LLP	1,396
Katten Muchin Rosenman, LLP	9
Morgan Lewis & Bockius, LLP	555
Nixon Peabody, LLP	14
Orrick Herrington & Sutcliffe, LLP	25
Pacific Corporate Group, LLC	153
Pillsbury Winthrop Shaw Pittman, LLP	764
Soltman, Levitt, Flaherty & Wattles, LLP	—
Steptoe & Johnson, LLP	54
Stoel Rives, LLP	7
Total Legal Fees	**$3,449**
Master Custodian Fees	
State Street Bank and Trust Company	$5,103
Total Master Custodian Fees	**$5,103**
Fund Administration Fees	
State Street Bank and Trust Company	$2,816
Total Fund Administration Fees	**$2,816**
Tax Advisory Fees	
Ernst & Young, LLP	$1,072
Total Tax Advisory Fees	**$1,072**
Technology Expenses	
13D Research, Inc	$60
Ablegov, Inc.	19
Acadiasoft, Inc.	10
Allied Network Solutions, Inc.	1
Barclays Capital	100

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,2] (Dollars in Thousands) (continued)

	Fees
Barra, LLC	$2,026
BCA Research	129
Blackrock Financial Management, Inc.	8,582
Bloomberg, LP	2,667
Business Entity Data B.V.	—
Cambridge Associates, LLC	185
Candeal, Inc.	16
Carahsoft Technology Corp.	130
CBRE, Inc.	37
Charles River Systems, Inc.	2,921
Convergence, Inc.	17
Cornerstone Macro, LP	120
Cost Effectiveness Measurement, Inc.	70
Costar Investment Analysis	150
Covenant Review, LLC	30
Creditsights	75
Depository Trust Co.	1
Derived Data, LLC	9
eFront Financial Solutions, Inc.	1,767
eMBS, Inc.	9
Empirical Research Partners, LLC	400
Equilar, Inc.	12
Esai Energy, LLC	9
Etrali North America, LLC	304
Eurasia Group	132
Euromoney Trading Limited	15
eVestment Alliance	42
Factset Research Systems, Inc.	2,641
Fan Asset Management, LLC	(91)
Firstrain, Inc.	10
Fitch Ratings, Inc.	90
FTSE	700
FX Alliance, Inc.	16
GaveKal Capital Management Limited	25
Glass Lewis & Co., LLC	528
Global Financial Data	25
Global Investor Collaboration Svcs., LLC	5
Green Street Advisors	105
IHS Global, Inc.	100
Institutional Shareholder Services, Inc.	192
Intex Solutions, Inc.	254
Ives Group, Inc.	13
Kyriba Corporation	50
London Stock Exchange PLC	32
Macroeconomic Advisers, LLC	16
Mcgraw Hill/Standard & Poors	—
Microsoft Services	1
Moody's Analytics, Inc.	431
Morningstar	13
Mountainview Analytics, LLC	15
MRB Partners, Inc.	50

	Fees
MRI Software, LLC	$282
MSCI, Inc.	598
MUFG Capital Analytics, LLC	5,961
NYSE Market, Inc.	11
Omgeo	106
Options Price Reporting Authority	2
Preqin Limited	35
Quantal International, Inc.	37
Radianz Americas, Inc.	168
Real Capital Analytics, Inc.	136
RG & Associates	8
Russell Investment Group	34
Ryedale Europe Limited	472
S&P Global Market Intelligence, LLC	323
SNL Financial LC	84
Standard & Poor's Corporation	782
Stone & Kanto, LLC	4
Strategic Economic Decisions, Inc.	15
Summit Financial Printing, LLC	8
The Depository Trust & Clearing Corp.	17
The Mathworks, Inc.	37
The Statestore, Inc.	1
The Yield Book, Inc.	184
Thomson Financial/Nelson	283
Thomson Reuters Scientific	(18)
Toronto Stock Exchange	4
Trade Web	114
Trend Macrolytics, LLC	25
TriOptima AB	38
Viola Risk Advisors, LLC	5
William O'Neil & Company	30
Yardeni Research, Inc.	19
Zeno Consulting Group, LLC	49
Total Technology Expenses	**$35,120**
Internal Investment Personnel and Administrative	
Internal Investment Personnel and Administrative Expenses	$69,100
Total Internal Investment Personnel and Administrative	**$69,100**
Miscellaneous Investment Expense Fees	
Miscellaneous Investment Expense Fees	$428
Transaction Fees	128,986
Total Miscellaneous Investment Expense Fees	**$129,414**
Total Other Investment Fees and Expenses	**$272,549**
Total Investment Expenses - All Funds	**$871,344**

(1) Expenses and fees less than a thousand dollars are indicated by a dash.
(2) Negative expenses are due to market fluctuations, adjusting entries, and reimbursements.

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS)

Individual or Firm	Fees	Nature of Services
Accenture, LLP	$21	Business Process Re-engineering
Aisitech, LLC	(28)	Release Management/Quality Assurance/Configuration Management
Allied Network Solutions, Inc.	49	Business Analysis Services, Application Development, Information Services
Anthem Blue Cross	107,364	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
ATV Video Center, Inc.	111	Video and Multimedia Production Services
Avenue Solutions	288	Management Analysis
Baker Hostetler	(21)	Legal Services
Base 3 Consulting	201	Management Support Services
Bedrosian & Associates	24	Stakeholder Outreach & Communications
Belmonte Enterprises, LLC	896	Application Development, Information Services
Blue Shield of California	85,228	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
BluePath Health	104	Organizational and Leadership Development
Business Advantage Consulting, Inc.	120	Business Process Re-engineering, Technical Writing
California Department of Corrections & Rehabilitation	49	Management Support Services
California Department of Health Care Services	20	Annual Fee for Long-Term Care Policy & Partnership Services
Carahsoft Technology Corp.	24	Innovation and Development
Cast Software, Inc.	35	Information Services
Centers for Disease Control	125	Survey and Research Services
CoachSource, LLC	20	Organizational and Leadership Development
Conduent HR Consulting, LLC	402	Systems Analysis, Design, Implementation, Maintenance and Support
Cooperative Personnel Services, Inc.	38	Organizational and Leadership Development
Cornerstone Fitness, Inc.	99	Employee Training and Development
Corporate Executive Board	54	Employee Training and Development
Cutter Associates, LLC	(51)	Investment Business Consulting
CVS Caremark	(852)	Pharmacy Claims Administration, Account Management, Eligibility, Retail & Other Reporting Services
Delegata Corporation	1,426	Application Development, Business Intelligence and Reporting, Project Management Services
Delfino Madden O'Malley Coyle & Koewler, LLP	60	Advice on Labor/Employment Law
Department of Finance	35	Employee Training and Development
Department of Human Resources	255	Election Forms for the Alternate Retirement Program (ARP) Processing Services
Department of Justice	544	Conduct & Provide External Investigative Services
DLT Solutions	104	Software Installation, Implementation and Configuration Services
Drinker Biddle & Reath, LLP	157	Legal Services
DSS Research	172	Medical Consulting Services
Eagle Management Group, LLC, dba Matran	53	Marketing Services
Eaton Interpreting Services, Inc.	94	Interpreting Services
Elegant Enterprise Wide Solutions, Inc.	99	Application Development, IT Security, Management Support Services, Business Process Reengineering
Elynview Corporation	271	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Enterprise Networking Solutions, Inc.	84	Systems Analysis, Design, Implementation, Maintenance and Support

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
Enterprise Services, LLC	$202	Business Analysis Services, Project Management Services, Information Services, Application Development, Disaster Recovery, Management Support Services, IT Security, Business Intelligence and Reporting
Equanim Technologies	775	Management Support Services, Project Management Services
Esoft Infosystems, Inc.	626	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Eterasys Consulting, Inc.	386	Application Development, Data Base Administration
Experis US, Inc.	35	Business Analysis Services, Project Management Services, Application Development, Business Intelligence and Reporting
First Data Merchant Services Corporation	67	Banking services
Fortuna BMC	173	IT Security
Gartner, Inc.	410	Management Support Services
Government Operations Agency	268	Operations and Strategic Business Planning
GovernmentJobs.com, Inc., dba NEOGOV	21	Recruiting and Placement
Grant Thornton, LLP	873	Operations and Strategic Business Planning, Performance Management and Program Evaluation, Project Oversight Services
Group One Consultants, Inc.	23	Recruiting and Placement
H&B Joint Venture	757	Business Transformation/Transition, Release Management/Quality Assurance/ Configuration Management
Health Net of California	14,573	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
Heidrick & Struggles	809	Recruiting and Placement
Innovative Software Technologies, Inc.	629	Specialized IT Support Services for Actuarial Systems/Business
IVS/Everyone Counts, Inc.	1,376	Election services
J & K Court Reporting, LLC	67	Legal Services
Jay Gaines & Company, Inc.	39	Recruiting and Placement
JLynn Consulting, Inc.	1,117	Application Development, Information Services
K & L Gates, LLP	(573)	Legal Services
KearnFord Application Systems Design	3,862	Business Transformation/Transition, Information Services, Management Support Services, Project Management Services, Release Management/Quality Assurance/ Configuration Management
King & Spalding, LLP	213	Legal Services
Knowledge Structures, Inc.	58	Employee Training and Development
Kong Consulting, Inc.	483	Systems Analysis, Design, Implementation, Maintenance and Support
LCS Technologies, Inc.	192	Data Base Administration
Long-Term Care Group, Inc.	20,254	Third-Party Member Record-Keeper, Medical Claims Administration, Eligibility, Retail & Other Reporting Services, IT services
Lussier Group	176	Management Analysis, Legal Services
Macias Gini & O'Connell LLP	2,851	Audit Services
Matrix Software Services	149	Systems Analysis, Design, Implementation, Maintenance and Support, Data Base Administration
Mazel Immigration Law, PC	37	Legal Services
McKinsey & Company, Inc.	85	Organizational and Leadership Development
Mellon Bank	321	Banking services
Mercer Health and Benefits	577	Actuarial Consulting Services, Medical Consulting Services
Michael Scales Consulting, LLC	239	Application Development
Milliman, Inc.	2,428	Project Management Services
Modis, Inc.	28	Architecture, Specialized IT Support Services
National Association of Corporate Directors	22	Operations and Strategic Business Planning
Nichols Consulting	158	Management Support Services

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
Northeast Retirement Services	$102	Third-Party Member Record-Keeper
Nossaman, LLP	80	Legal Services
OnCore Consulting, LLC	7,106	Application Development, Information Services, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Ope Technology, LLC	456	Release Management/Quality Assurance/Configuration Management, Business Transformation/Transition
OptumRx	10,284	Pharmacy Claims Administration, Account Management, Eligibility, Retail and Other Reporting Services
Orrick Herrington & Sutcliffe, LLP	284	Legal Services
Pacific Business Group on Health	62	Application Development
Pasanna Consulting Group, LLC	1,822	Application Development, Data Base Administration, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Paul Benefits Law Corporation	65	Legal Services
Persell Design Group, LLC	78	User Experience Design, Strategy and Research
President and Fellows of Harvard College	260	Innovation and Development
Princeton Solutions Group, Inc.	576	Business Transformation/Transition, Project Management Services, Release Management/Quality Assurance/Configuration Management
Propoint Technology, Inc.	21	Management Support Services
Qualapps, Inc.	1,359	Application Development, Business Process Re-engineering, IT Architecture, Technical Writing
Radian Solutions, LLC	26	Application Development
Randstad Technologies US, LP	23	IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Recon Distribution, Inc.	36	Exhibition Management
Reed Smith, LLP	1,131	Legal Services
Ridgeway Partners, LLC	187	Recruitment and Placement
Root9B Technologies, Inc.	209	Project Management Services, Project Oversight Services
RR Donnelley	792	Open Enrollment Printing, Mail Processing & Postage
Runyon Saltzman, Inc.	(88)	Marketing Services
Saba Software, Inc.	164	Employee Training and Development
Senn-Delaney Leadership Conslt Group, LLC	(35)	Organizational and Leadership Development
Shah & Associates, A Professional Law Company	198	Legal Services
Sharp Health Plan	5,042	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
Shooting Star Solutions, LLC	158	IT Security
Sign Language Interpreting Service Agency	53	Interpreting Services
Softsol Technologies, Inc.	382	Application Development, Business Intelligence and Reporting, Business Transformation/Transition, Information Services, Release Management/Quality Assurance/Configuration Management
Sophus Consulting	276	Legal Services
SRI Infotech, Inc.	110	Application Development
State Controller's Office	8,835	Account Management, Performance Management and Program Evaluation
Steptoe & Johnson, LLP	1,021	Legal Services
Stoel Rives, LLP	29	Legal Services
T5 Consulting	1,802	Application Development, Business Intelligence and Reporting, Information Services
Take 1 Productions	54	Video and Multimedia Production Services
Teranomic	287	Project Management Services
TG Page Design Group	68	Marketing Services, Video and Multimedia Production Services
The Ballard Group, Inc.	150	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
The Harry Walker Agency, Inc.	$20	Employee Training and Development
Regents of the University of CA, Davis	291	Organizational and Leadership Development
The Taylor Feldman Group, LLC	27	Management Support Services
Thomson Reuters	71	Electronic Legal Library Database
Trinity Technology Group, Inc.	1,606	Application Development, Business Intelligence and Reporting, IT Architecture, Specialized IT Support Services for Investment Systems/Business
Truven Health Analytics, LLC	374	Performance Management and Program Evaluation
United Health Actuarial Services, Inc.	318	Medical Consulting Services
United Healthcare	28,154	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
Unleashing Leaders, Inc.	24	Organizational Leadership and Development, Employee Training and Development, Succession and Workforce Planning, Performance Management
Van Dermyden Maddux Law Corporation	32	Labor and Employment Outside Counsel
Vantage Consulting Group, Inc.	388	Application Development, IT Architecture
VanWrite Writing Consultants, LLC	52	Employee Training and Development
Vasquez Benisek & Lindgren, LLP	41	Outside Counsel, Intellectual Property Law
Viaspire	145	Marketing Services, Social Media Services, Writing and Editorial Services
Visionary Integration Professionals, LLC (VIP)	180	Management Support Services, Application Development, Business Process Re-engineering
Voya	3,297	Third-Party Member Record-Keeper
VPI Strategies	46	Organizational Leadership and Development, Employee Training and Development, Succession and Workforce Planning, Performance Management
Warrigal Consulting, Inc.	300	Business Transformation/Transition, Release Management/Quality Assurance/ Configuration Management
Worktank Enterprises, LLC	186	Video and Multimedia Production Services, Web Event Services
Various	168	
Total Consultant and Professional Services Expenses	**$331,645**	

Note: Negative Consultant and Professional Expenses are due to adjusting entries.