



# Police and Fire Annual Fee Report - 2017

## Executive Summary

This report marks the third anniversary of our annual Fee Report for the Police and Fire Department Retirement Plan (“Police and Fire”, “Plan”). The goal of the report is to provide transparency and insight into the fees and expenses paid to investment managers along with the costs of operating the investment program. Pension plan fee data is generally underreported by peers, and typically represents only the portion of fees that are observable. This excludes often sizable embedded fees (such as incentive fees) that are deducted from account values of certain fund structures.

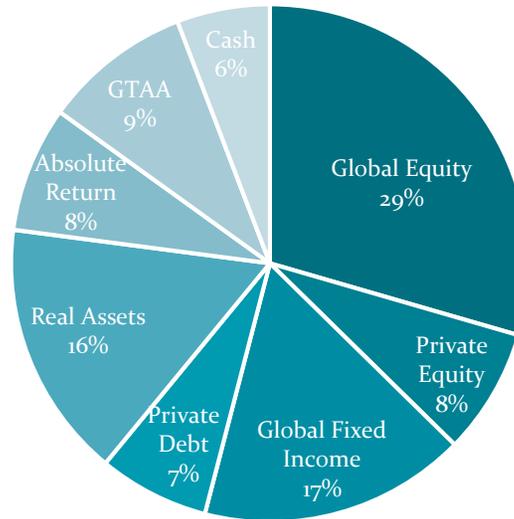
It is important to note that fees are a function of asset allocation and portfolio construction, which are byproducts of the Board’s objectives, investment beliefs, and risk tolerance. Each year, the Board typically reviews the asset allocation considering updated capital market assumptions and the expected returns and volatility of the portfolio associated with those assumptions. The asset allocations in effect for the period covered by this report, as illustrated in tables 1 and 2, are an expression of the Board’s Investment Policy Statement that “Investments shall be diversified with the intent to minimize the risk of large investment losses”.

Asset allocation is typically one of the largest determinants of investment management fees at the portfolio level. Asset allocations that introduce alternative asset classes (Private Equity, Private Debt, Real Estate, Hedge Funds, etc.) will have higher levels of investment manager fees, because these asset classes or strategies have higher fee structures than traditional asset classes. In addition, asset class structuring can have a significant impact on fees. The use of active management versus passive management, as well as alternative strategies within traditional asset classes, will increase fees. When evaluating investment managers, staff places a significant emphasis on fees by negotiating for lower fees and analyzing that expected value or return is worth the expected cost.

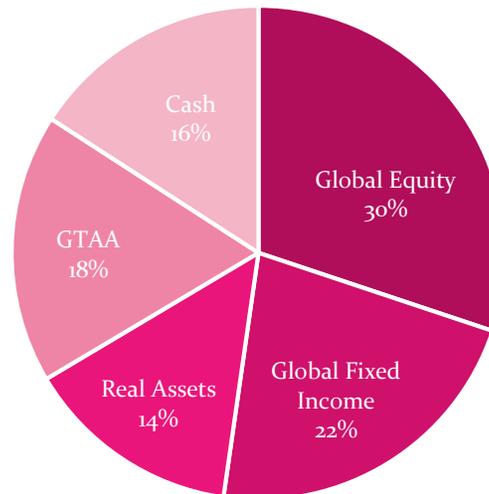
This year, the report introduces a new category of fees that was not previously captured (fund operating expenses) along with a disclosure in accordance with California Government Code §7514.7 (the result of Assembly Bill 2833), which requires annual reporting of fees paid by California public investment funds as a result of investing in alternative investment vehicles.

**For calendar year 2017, management and incentive fees for the pension plan totaled \$43.4 million with a fee ratio of 1.27% as compared to \$38.2 million and 1.21% for 2016 and \$33.3 million and 1.06% for 2015. Fund operating expenses were \$4.6 million in 2017 for a fee ratio of 0.14%. The health care trust management and incentive fees totaled \$0.3 million with a fee ratio of 0.25%, compared to \$0.2 million with a fee ratio of 0.28% in both 2016 and 2015. Other investment-related costs (staff, consultants, custodian bank, investment legal, etc.) for the pension plan in 2017 were \$2.5 million with a fee ratio of 0.07% as compared to \$2.5 million and 0.08% for 2016 and \$2.3 million and 0.07% for 2015. Other investment-related costs for the health care trust totaled \$0.1 million with a fee ratio of 0.08% as compared to \$0.1 million and 0.11% for 2016 and \$0.1 million and 0.10% for 2015.**

**Table 1 - Pension Average Asset Allocation for 2017**



**Table 2 - Health Care Trust Average Asset Allocation for 2017**



## Introduction

The fees in this report represent management fees, incentive fees, fund operating expenses, and other investment-related costs that were incurred during the calendar year. These amounts may include fees that were accrued for the year, but not paid out.

Management fees are fees charged by fund managers to invest and manage assets. Incentive fees are performance-based fees for exceeding a hurdle return and are only applicable to certain fund structures. It is important to note that incentive fees are a form of shared economics that are only paid if the manager has produced positive returns or exceeded a predetermined hurdle rate. In some situations, incentive fees can be negative, reflecting the complexity of fee agreements. Operating expenses include overhead related to managing a fund that are indirectly borne by investors, which may include professional, administration, research, tax, legal, custodial and audit expenses for a fund. Trading expenses such as broker commissions are excluded from this report. Other costs include salary and benefits compensation for investment staff (including a 50% allocation for the CEO), cost of consultants (general, absolute return, risk), custodian, other third party vendors utilized by the investment program, and investment staff travel.

Though best efforts have been made to capture all material fees and expenses, this report may not include all indirect expenses and charges that may be paid to managers' affiliates, consultants, or entities for services rendered to the managers, the funds or portfolio entities held by certain funds. Future iterations of this report will continue to grow in sophistication, benefiting from industry-wide initiatives to gain additional transparency, such as the increasing adoption of the Institutional Limited Partners Association ("ILPA") fee reporting template.

## Data Sources

Staff compiled this fee report using the best available information for each fund manager in order to develop a comprehensive view of fees. Fee amounts were reviewed for reasonableness and reconciled to fee schedules. Fees for all managers active at any point during the year are included in this report, including those that were initially funded or terminated mid-year.

Fees for mutual funds, short term investment funds (Cash), and certain public markets commingled funds that deduct fees directly from the funds were calculated by multiplying each funds' fee ratio by the funds' average monthly balance for the year. The average balances were sourced from the Plan custodian bank, State Street.

Absolute Return management and incentive fees were provided by managers with independent re-calculations and reconciliations completed by Plan consultant Albourne. Operating expenses were calculated by Albourne using audited financial statements for each fund. Fees for Private funds were gathered by asking managers to complete the ILPA fee reporting template. The ILPA template is intended to standardize and codify the presentation of fees, expenses, and carried interest information by fund managers to Limited Partners. The remaining manager fees were obtained by having the fund managers fill out a fee template designed by staff.

Within the Other Costs section, consultants, custodian, and other vendor costs were sourced from fee invoices from the vendors. Investment staff salary and benefits were allocated to each of the four San Jose plans by pro-rating the total costs by the average balance of each plan. Similarly, legal costs incurred by Police and Fire were allocated between the pension plan and health care trust by pro-rating the total costs by the average monthly balance of each plan.

## Changes from 2016 Report

This years report includes a new category of manager fees that was not previously reported – operating expenses. As previously mentioned, operating expenses generally represent overhead related to managing a fund, which may include professional, administration, research, tax, legal, custodial and audit expenses for a fund.

The year-over-year attribution is more detailed and now breaks out yearly changes from three categories – weight changes, management fee ratio changes, and incentive fee ratio changes. The 2016 report attribution did not distinguish between management fee and incentive fee ratio changes.

Finally, the plan Overlay base fee has now been moved to the Other Vendors category with asset-based fees captured in their respective asset classes.

## Total Portfolio Fee Summaries

The tables in this report present fees by asset class and management type. Fees by management type are presented by segregating investments into four “fund type” categories: passive, active, hedged, and private. Passive strategies are intended to generate a return that emulates an index. Active strategies include investment managers that attempt to outperform an index on a long only basis. Hedged strategies generally seek to achieve an absolute return (“alpha”) regardless of market direction (“beta”) by employing

various strategies including long and short positions. Private strategies utilize a diverse set of approaches to invest in illiquid assets, such as equity of privately held companies or real estate.

## Year-over-Year Comparisons

The year-over-year comparison tables in this report present a time series of changes in average weights, fees, fee ratios, contribution to total plan fee ratios, and a year-over-year attribution. The year-over-year attribution uses the Brinson-Fachler methodology to decompose the change in contribution to total plan fee ratio into 1) impact due to weight changes, 2) impact due to management fee ratio changes, and 3) impact due to incentive fee ratio changes

## California Government Code §7514.7 (AB 2833)

Assembly Bill 2833 (“AB 2833”) was approved on September 14, 2016 adding Section 7514.7 to California Government Code. The addition to the Code requires California public investment funds to make annual disclosures of fees for alternative investment vehicles at a public meeting.

Tables 15-18 of this report are intended to comply with the law.

*Note: Some values on the report may not sum due to rounding.*

Table 3 - Pension Fees by Asset Class and Management Type

Asset Class	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio -		
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)							Mgmt, Incent, and Op Exp	% of Total Contribution Plan Fee to Total Plan Fee Ratio	
Global Equity	5.7	2.4	0.3	8.1	8.4	1,010	29.5%	0.57%	0.23%	0.03%	0.80%	0.83%	17.4%	0.24%
Passive	0.2	-	0.1	0.2	0.3	426	12.4%	0.05%	0.00%	0.02%	0.05%	0.07%	0.6%	0.01%
Active	3.6	-	0.1	3.6	3.6	489	14.3%	0.73%	0.00%	0.01%	0.73%	0.74%	7.6%	0.11%
Hedged	1.9	2.4	0.2	4.3	4.4	94	2.8%	2.02%	2.50%	0.16%	4.52%	4.68%	9.2%	0.13%
Private Equity	2.9	3.3	1.1	6.2	7.3	269	7.9%	1.07%	1.24%	0.41%	2.31%	2.72%	15.3%	0.21%
Passive	0.0	-	0.0	0.0	0.0	108	3.1%	0.03%	0.00%	0.01%	0.03%	0.04%	0.1%	0.00%
Private	2.9	3.3	1.1	6.2	7.3	162	4.7%	1.77%	2.06%	0.68%	3.83%	4.51%	15.2%	0.21%
Global Fixed Income	4.0	2.3	0.5	6.3	6.8	572	16.7%	0.69%	0.41%	0.09%	1.10%	1.19%	14.1%	0.20%
Passive	0.0	-	-	0.0	0.0	91	2.6%	0.05%	0.00%	0.00%	0.05%	0.05%	0.1%	0.00%
Active	1.3	-	0.1	1.3	1.4	255	7.4%	0.51%	0.00%	0.04%	0.51%	0.56%	3.0%	0.04%
Hedged	2.6	2.3	0.4	4.9	5.3	226	6.6%	1.16%	1.02%	0.17%	2.18%	2.35%	11.1%	0.16%
Private Debt	2.5	-0.1	0.7	2.4	3.1	237	6.9%	1.07%	-0.05%	0.29%	1.02%	1.31%	6.5%	0.09%
Private	2.5	-0.1	0.7	2.4	3.1	237	6.9%	1.07%	-0.05%	0.29%	1.02%	1.31%	6.5%	0.09%
Real Assets	6.6	2.9	1.2	9.5	10.7	552	16.1%	1.20%	0.52%	0.22%	1.72%	1.93%	22.2%	0.31%
Passive	0.1	-	-	0.1	0.1	67	2.0%	0.15%	0.00%	0.00%	0.15%	0.15%	0.2%	0.00%
Active	1.2	-	0.2	1.2	1.4	222	6.5%	0.52%	0.00%	0.11%	0.52%	0.64%	2.9%	0.04%
Hedged	1.6	0.4	0.3	2.0	2.3	61	1.8%	2.65%	0.61%	0.53%	3.26%	3.79%	4.8%	0.07%
Private	3.7	2.5	0.6	6.2	6.8	201	5.9%	1.85%	1.25%	0.31%	3.10%	3.40%	14.2%	0.20%
Absolute Return	4.2	3.8	0.8	8.0	8.9	269	7.9%	1.57%	1.42%	0.31%	2.99%	3.30%	18.5%	0.26%
Hedged	4.2	3.8	0.8	8.0	8.9	269	7.9%	1.57%	1.42%	0.31%	2.99%	3.30%	18.5%	0.26%
GTAA	2.7	-	0.0	2.7	2.7	317	9.3%	0.84%	0.00%	0.00%	0.84%	0.84%	5.5%	0.08%
Active	2.7	-	0.0	2.7	2.7	317	9.3%	0.84%	0.00%	0.00%	0.84%	0.84%	5.5%	0.08%
Cash	0.2	-	-	0.2	0.2	199	5.8%	0.12%	0.00%	0.00%	0.12%	0.12%	0.5%	0.01%
Passive	0.2	-	-	0.2	0.2	199	5.8%	0.12%	0.00%	0.00%	0.12%	0.12%	0.5%	0.01%
<b>Total Plan</b>	<b>28.8</b>	<b>14.6</b>	<b>4.6</b>	<b>43.4</b>	<b>48.1</b>	<b>3,425</b>	<b>100.0%</b>	<b>0.84%</b>	<b>0.43%</b>	<b>0.14%</b>	<b>1.27%</b>	<b>1.40%</b>	<b>100.0%</b>	<b>1.40%</b>

The table above illustrates that management, incentive, and operating expenses for the pension plan totaled \$48.1 million for 2017 which equated to a total plan fee ratio of 1.40%. The Real Assets and Absolute Return asset classes contributed the most to the total plan fee ratio at 0.31% and 0.26%, respectively. The GTAA and Private Debt asset classes contributed the least to the total plan fee ratio at 0.08% and 0.09%, respectively.

**Table 4 - Pension Fees by Management Type**

Fund Type	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp	% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)									
Passive	0.6	-	0.1	0.6	0.7	891	26.0%	0.07%	0.00%	0.01%	0.07%	0.08%	1.5%	0.02%
Active	8.7	-	0.4	8.7	9.1	1,284	37.5%	0.68%	0.00%	0.03%	0.68%	0.71%	19.0%	0.27%
Hedged	10.4	8.9	1.7	19.2	20.9	651	19.0%	1.59%	1.36%	0.26%	2.96%	3.22%	43.6%	0.61%
Private	9.1	5.7	2.4	14.8	17.2	600	17.5%	1.52%	0.95%	0.40%	2.47%	2.87%	35.9%	0.50%
<b>Total Plan</b>	<b>28.8</b>	<b>14.6</b>	<b>4.6</b>	<b>43.4</b>	<b>48.1</b>	<b>3,425</b>	<b>100.0%</b>	<b>0.84%</b>	<b>0.43%</b>	<b>0.14%</b>	<b>1.27%</b>	<b>1.40%</b>	<b>100.0%</b>	<b>1.40%</b>

For the total pension plan, hedged management strategies accounted for 0.61% of the total plan fee ratio and represented about 19% of average plan assets. Private management strategies were the next largest contributor to the total plan fee ratio accounting for 0.50% of the total plan fee ratio and represented 18% of average plan assets. Passive and active management strategies accounted for 0.02% and 0.27% of the total plan fee ratio and represented 26% and 38% of plan assets, respectively.

**Table 5 - Pension Other Investment Costs**

Investment Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
0.8	0.8	0.4	0.5	2.5	0.07%

Other investment costs for the pension plan equated to a total fee ratio of 0.07%. As previously discussed, other costs include salary and benefits compensation for investment staff, cost of consultants, custodian, third party vendors utilized by the investment program, and investment staff travel.

**Table 6 - Health Care Fees by Asset Class and Management Type**

Asset Class	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp	% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)									
Global Equity	0.03	-	-	0.03	0.03	34	30.1%	0.09%	0.00%	0.00%	0.09%	0.09%	10.4%	0.03%
Passive	0.03	-	-	0.03	0.03	34	30.1%	0.09%	0.00%	0.00%	0.09%	0.09%	10.4%	0.03%
Global Fixed Income	0.01	-	-	0.01	0.01	25	22.1%	0.04%	0.00%	0.00%	0.04%	0.04%	3.4%	0.01%
Passive	0.01	-	-	0.01	0.01	25	22.1%	0.04%	0.00%	0.00%	0.04%	0.04%	3.4%	0.01%
Real Assets	0.05	-	0.01	0.05	0.06	16	14.2%	0.30%	0.00%	0.08%	0.30%	0.38%	20.6%	0.05%
Passive	0.01	-	-	0.01	0.01	7	6.5%	0.12%	0.00%	0.00%	0.12%	0.12%	3.0%	0.01%
Active	0.04	-	0.01	0.04	0.05	9	7.7%	0.45%	0.00%	0.15%	0.45%	0.60%	17.6%	0.05%
GTAA	0.17	-	0.00	0.17	0.17	20	17.7%	0.85%	0.00%	0.01%	0.85%	0.86%	58.3%	0.15%
Active	0.17	-	0.00	0.17	0.17	20	17.7%	0.85%	0.00%	0.01%	0.85%	0.86%	58.3%	0.15%
Cash	0.02	-	-	0.02	0.02	18	15.9%	0.12%	0.00%	0.00%	0.12%	0.12%	7.3%	0.02%
Passive	0.02	-	-	0.02	0.02	18	15.9%	0.12%	0.00%	0.00%	0.12%	0.12%	7.3%	0.02%
<b>Total Plan</b>	<b>0.28</b>	<b>-</b>	<b>0.02</b>	<b>0.28</b>	<b>0.29</b>	<b>112</b>	<b>100.0%</b>	<b>0.25%</b>	<b>0.00%</b>	<b>0.01%</b>	<b>0.25%</b>	<b>0.26%</b>	<b>100.0%</b>	<b>0.26%</b>

The table above illustrates that management, incentive, and operating expenses for the health care trust totaled \$0.3 million for 2017 which equated to a total plan fee ratio of 0.26%. The GTAA asset class contributed the most to the total plan fee ratio at 0.15%. The Global Fixed Income asset class contributed the least to the total plan fee ratio at 0.01%.

**Table 7 - Health Care Fees by Management Type**

Fund Type	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp	% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)									
Passive	0.07	-	-	0.07	0.07	83	74.7%	0.08%	0.00%	0.00%	0.08%	0.08%	24.1%	0.06%
Active	0.21	-	0.02	0.21	0.22	28	25.3%	0.73%	0.00%	0.05%	0.73%	0.78%	75.9%	0.20%
<b>Total Plan</b>	<b>0.28</b>	<b>-</b>	<b>0.02</b>	<b>0.28</b>	<b>0.29</b>	<b>112</b>	<b>100.0%</b>	<b>0.25%</b>	<b>0.00%</b>	<b>0.01%</b>	<b>0.25%</b>	<b>0.26%</b>	<b>100.0%</b>	<b>0.26%</b>

For the total health care trust, active management strategies accounted for 0.20% of the total plan fee ratio and represented 25% of average plan assets. Passive strategies accounted for 0.06% of the total plan fee ratio and represented 75% of plan assets.

**Table 8 - Health Care Other Investment Costs**

Investment Staff		Other Vendors		Total Other	
Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	and Travel (\$ mm)	Costs (\$ mm)	Other Costs Fee Ratio
0.03	0.02	0.04	0.01	0.09	0.08%

Other investment costs for the health care trust equated to a total fee ratio of 0.08%.

Table 9 - Pension Year-over-Year Comparison by Asset Class and Management Type

Asset Class	Average Weight			Management Fees			Incentive Fees			Mgmt and Incent Fees			Fee Ratio (Mgmt and Incent)			Contrib to Total Plan Fee Ratio			YoY Attribution		
	2016	2017	Change	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016	2017	Change	2016	2017	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio
Global Equity	29.6%	29.5%	-0.1%	5.2	5.7	0.5	0.1	2.4	2.2	5.3	8.1	2.8	0.57%	0.80%	0.23%	0.17%	0.24%	0.07%	0.00%	0.00%	0.06%
Passive	14.7%	12.4%	-2.2%	0.3	0.2	-0.1	-	-	-	0.3	0.2	-0.1	0.07%	0.05%	-0.02%	0.01%	0.01%	0.00%	0.03%	0.00%	0.00%
Active	12.1%	14.3%	2.2%	3.1	3.6	0.5	-	-	-	3.1	3.6	0.5	0.80%	0.73%	-0.07%	0.10%	0.10%	0.01%	-0.01%	-0.01%	0.00%
Hedged	2.8%	2.8%	0.0%	1.8	1.9	0.1	0.1	2.4	2.2	1.9	4.3	2.4	2.17%	4.52%	2.35%	0.06%	0.12%	0.06%	0.00%	0.00%	0.06%
Private Equity	7.8%	7.9%	0.1%	2.8	2.9	0.1	1.9	3.3	1.5	4.6	6.2	1.6	1.89%	2.31%	0.42%	0.15%	0.18%	0.03%	0.00%	0.00%	0.04%
Passive	2.8%	3.1%	0.3%	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.03%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Private	4.9%	4.7%	-0.2%	2.7	2.9	0.1	1.9	3.3	1.5	4.6	6.2	1.6	2.95%	3.83%	0.88%	0.15%	0.18%	0.03%	0.00%	0.00%	0.04%
Global Fixed Income	17.0%	16.7%	-0.3%	4.3	4.0	-0.4	4.4	2.3	-2.0	8.7	6.3	-2.4	1.62%	1.10%	-0.52%	0.28%	0.18%	-0.09%	0.00%	-0.02%	-0.07%
Passive	0.0%	2.6%	2.6%	0.1	0.0	-0.0	-	-	-	0.1	0.0	-0.0	N/A	0.05%	N/A	0.00%	0.00%	0.00%	N/A	N/A	N/A
Active	9.5%	7.4%	-2.0%	1.5	1.3	-0.2	-	-	-	1.5	1.3	-0.2	0.50%	0.51%	0.01%	0.05%	0.04%	-0.01%	0.01%	0.00%	0.00%
Hedged	7.5%	6.6%	-0.9%	2.8	2.6	-0.1	4.4	2.3	-2.0	7.1	4.9	-2.2	3.01%	2.18%	-0.83%	0.23%	0.14%	-0.08%	-0.02%	0.00%	-0.05%
Private Debt	7.5%	6.9%	-0.5%	3.1	2.5	-0.6	-0.4	-0.1	0.3	2.7	2.4	-0.3	1.16%	1.02%	-0.13%	0.09%	0.07%	-0.02%	0.00%	-0.02%	0.01%
Private	7.5%	6.9%	-0.5%	3.1	2.5	-0.6	-0.4	-0.1	0.3	2.7	2.4	-0.3	1.16%	1.02%	-0.13%	0.09%	0.07%	-0.02%	0.00%	-0.02%	0.01%
Real Assets	15.5%	16.1%	0.6%	6.9	6.6	-0.3	1.6	2.9	1.3	8.5	9.5	1.0	1.73%	1.72%	-0.02%	0.27%	0.28%	0.01%	0.00%	-0.03%	0.03%
Passive	1.5%	2.0%	0.4%	0.1	0.1	0.0	-	-	-	0.1	0.1	0.0	0.13%	0.15%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Active	5.9%	6.5%	0.6%	1.1	1.2	0.1	-	-	-	1.1	1.2	0.1	0.59%	0.52%	-0.07%	0.04%	0.03%	0.00%	0.00%	0.00%	0.00%
Hedged	2.1%	1.8%	-0.3%	1.8	1.6	-0.1	1.0	0.4	-0.6	2.7	2.0	-0.8	4.19%	3.26%	-0.93%	0.09%	0.06%	-0.03%	-0.01%	0.00%	-0.02%
Private	6.0%	5.9%	-0.1%	3.9	3.7	-0.2	0.6	2.5	1.9	4.6	6.2	1.6	2.43%	3.10%	0.67%	0.15%	0.18%	0.04%	0.00%	-0.01%	0.05%
Absolute Return	7.0%	7.9%	0.8%	3.8	4.2	0.5	1.9	3.8	1.9	5.7	8.0	2.3	2.57%	2.99%	0.42%	0.18%	0.24%	0.05%	0.01%	-0.01%	0.04%
Hedged	7.0%	7.9%	0.8%	3.8	4.2	0.5	1.9	3.8	1.9	5.7	8.0	2.3	2.57%	2.99%	0.42%	0.18%	0.24%	0.05%	0.01%	-0.01%	0.04%
GTAA	9.3%	9.3%	0.0%	2.4	2.7	0.2	-	-	-	2.4	2.7	0.2	0.82%	0.84%	0.01%	0.08%	0.08%	0.00%	0.00%	0.00%	0.00%
Active	9.3%	9.3%	0.0%	2.4	2.7	0.2	-	-	-	2.4	2.7	0.2	0.82%	0.84%	0.01%	0.08%	0.08%	0.00%	0.00%	0.00%	0.00%
Cash	6.4%	5.8%	-0.6%	0.2	0.2	0.0	-	-	-	0.2	0.2	0.0	0.11%	0.12%	0.01%	0.01%	0.01%	0.00%	0.01%	0.00%	0.00%
Passive	6.4%	5.8%	-0.6%	0.2	0.2	0.0	-	-	-	0.2	0.2	0.0	0.11%	0.12%	0.01%	0.01%	0.01%	0.00%	0.01%	0.00%	0.00%
Total Plan	100.0%	100.0%	0.0%	28.6	28.8	0.2	9.5	14.6	5.1	38.2	43.4	5.2	1.21%	1.27%	0.06%	1.21%	1.27%	0.06%	0.02%	-0.08%	0.12%

Table 10 - Pension Year-over-Year Comparison by Management Type

Type	Average Weight			Management Fees			Incentive Fees			Mgmt and Incent Fees			Fee Ratio (Mgmt and Incent)			Contrib to Total Plan Fee Ratio			YoY Attribution		
	2016	2017	Change	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016	2017	Change	2016	2017	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio
Passive	25.4%	26.0%	0.6%	0.7	0.6	-0.1	-	-	-	0.7	0.6	-0.1	0.09%	0.07%	-0.02%	0.02%	0.02%	0.00%	-0.01%	0.00%	0.00%
Active	36.8%	37.5%	0.7%	8.1	8.7	0.6	-	-	-	8.1	8.7	0.6	0.70%	0.68%	-0.02%	0.26%	0.25%	0.00%	0.00%	-0.01%	0.00%
Hedged	19.4%	19.0%	-0.4%	10.1	10.4	0.3	7.4	8.9	1.4	17.5	19.2	1.7	2.86%	2.96%	0.10%	0.55%	0.56%	0.01%	-0.01%	-0.01%	0.03%
Private	18.4%	17.5%	-0.9%	9.8	9.1	-0.7	2.1	5.7	3.6	11.9	14.8	2.9	2.05%	2.47%	0.42%	0.38%	0.43%	0.06%	-0.01%	-0.03%	0.10%
<b>Total Plan</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>28.6</b>	<b>28.8</b>	<b>0.2</b>	<b>9.5</b>	<b>14.6</b>	<b>5.1</b>	<b>38.2</b>	<b>43.4</b>	<b>5.2</b>	<b>1.21%</b>	<b>1.27%</b>	<b>0.06%</b>	<b>1.21%</b>	<b>1.27%</b>	<b>0.06%</b>	<b>-0.02%</b>	<b>-0.05%</b>	<b>0.13%</b>

Table 11 - Pension Year-over-Year Comparison of Other Costs

	Inv Staff Salary and Benefits (\$ mm)		Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
	2016	0.9	0.8	0.4	0.4	2.5	0.08%
2017	0.8	0.8	0.4	0.5	2.5	0.07%	
Change	-0.2	-0.0	-0.0	0.2	-0.0	-0.01%	

Table 12 - Health Care Year-over-Year Comparison by Asset Class and Management Type

Asset Class	Average Weight			Management Fees			Incentive Fees			Mgmt and Incent Fees			Fee Ratio (Mgmt and Incent)			Contrib to Total Plan Fee Ratio			YoY Attribution		
	2016	2017	Change	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016	2017	Change	2016	2017	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio
Global Equity	33.7%	30.1%	-3.6%	0.04	0.03	-0.01	-	-	-	0.04	0.03	-0.01	0.13%	0.09%	-0.04%	0.04%	0.03%	-0.02%	0.01%	-0.01%	0.00%
Passive	33.7%	30.1%	-3.6%	0.04	0.03	-0.01	-	-	-	0.04	0.03	-0.01	0.13%	0.09%	-0.04%	0.04%	0.03%	-0.02%	0.01%	-0.01%	0.00%
Global Fixed Income	18.3%	22.1%	3.9%	0.01	0.01	0.00	-	-	-	0.01	0.01	0.00	0.05%	0.04%	-0.01%	0.01%	0.01%	0.00%	-0.01%	0.00%	0.00%
Passive	18.3%	22.1%	3.9%	0.01	0.01	0.00	-	-	-	0.01	0.01	0.00	0.05%	0.04%	-0.01%	0.01%	0.01%	0.00%	-0.01%	0.00%	0.00%
Real Assets	16.0%	14.2%	-1.8%	0.04	0.05	0.01	-	-	-	0.04	0.05	0.01	0.30%	0.30%	-0.01%	0.05%	0.04%	-0.01%	0.00%	0.00%	0.00%
Passive	7.9%	6.5%	-1.4%	0.01	0.01	0.00	-	-	-	0.01	0.01	0.00	0.12%	0.12%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
Active	8.1%	7.7%	-0.4%	0.03	0.04	0.01	-	-	-	0.03	0.04	0.01	0.49%	0.45%	-0.03%	0.04%	0.03%	0.00%	0.00%	0.00%	0.00%
GTAA	19.5%	17.7%	-1.8%	0.14	0.17	0.03	-	-	-	0.14	0.17	0.03	0.84%	0.85%	0.01%	0.16%	0.15%	-0.01%	-0.01%	0.00%	0.00%
Active	19.5%	17.7%	-1.8%	0.14	0.17	0.03	-	-	-	0.14	0.17	0.03	0.84%	0.85%	0.01%	0.16%	0.15%	-0.01%	-0.01%	0.00%	0.00%
Cash	12.6%	15.9%	3.3%	0.01	0.02	0.01	-	-	-	0.01	0.02	0.01	0.11%	0.12%	0.01%	0.01%	0.02%	0.01%	-0.01%	0.00%	0.00%
Passive	12.6%	15.9%	3.3%	0.01	0.02	0.01	-	-	-	0.01	0.02	0.01	0.11%	0.12%	0.01%	0.01%	0.02%	0.01%	-0.01%	0.00%	0.00%
Total Plan	100.0%	100.0%	0.0%	0.23	0.28	0.04	-	-	-	0.23	0.28	0.04	0.28%	0.25%	-0.03%	0.28%	0.25%	-0.03%	-0.02%	-0.01%	0.00%

Table 13 - Health Care Year-over-Year Comparison by Management Type

Type	Average Weight			Management Fees			Incentive Fees			Mgmt and Incent Fees			Fee Ratio (Mgmt and Incent)			Contrib to Total Plan Fee Ratio			YoY Attribution		
	2016	2017	Change	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016 (\$ mm)	2017 (\$ mm)	Change (\$ mm)	2016	2017	Change	2016	2017	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio
Passive	72.4%	74.7%	2.2%	0.06	0.07	0.01	-	-	-	0.06	0.07	0.01	0.11%	0.08%	-0.02%	0.08%	0.06%	-0.01%	0.00%	-0.02%	0.00%
Active	27.6%	25.3%	-2.2%	0.17	0.21	0.04	-	-	-	0.17	0.21	0.04	0.73%	0.73%	-0.01%	0.20%	0.18%	-0.02%	-0.01%	0.00%	0.00%
Total Plan	100.0%	100.0%	0.0%	0.23	0.28	0.04	-	-	-	0.23	0.28	0.04	0.28%	0.25%	-0.03%	0.28%	0.25%	-0.03%	-0.01%	-0.02%	0.00%

Table 14 - Health Care Year-over-Year Comparison of Other Costs

	Inv Staff Salary and Benefits (\$ mm)		Other Vendors and Travel (\$ mm)		Total Other Costs (\$ mm)		Other Costs Fee Ratio
	(\$ mm)	(\$ mm)	(\$ mm)	(\$ mm)	(\$ mm)	(\$ mm)	Fee Ratio
2016	0.03	0.02	0.04	0.01	0.10	0.11%	
2017	0.03	0.02	0.04	0.01	0.09	0.08%	
Change	0.00	-0.00	-0.00	0.00	-0.00	-0.03%	

## Analysis of Pension Year-over-Year Changes by Asset Class

As presented in Table 9, the pension total plan fee ratio (management and incentive fees only) increased by +6 bps from 1.21% in 2016 to 1.27% in 2017. Operating expenses are excluded from this analysis since 2017 is the first year this expense category has been reported.

The largest drivers of the increase from an asset class perspective were Global Equity (+7 bps contribution), Absolute Return (+5 bps contribution), and Private Equity (+3 bps), partially offset by a decrease in Global Fixed Income (-9 bps).

Asset class weight changes contributed +2 bps to the year-over-year change in total plan fee ratio. The largest asset class weight changes came from a 0.8% increase in Absolute Return weight (+1 bp attribution due to weight) and a 0.6% decrease in Cash (+1 bp).

Changes in management fee ratios contributed -8 bps to the year-over-year change in total plan fee ratio. This was spread across Real Assets (-3 bps), Global Fixed Income (-2 bps), Private Debt (-2 bps), and Absolute Return (-1 bp).

Changes in incentive fee ratios contributed +12 bps to the year-over-year change in total plan fee ratio. Global Equity (+6 bps), Private Equity (+4 bps), Absolute Return (+4 bps), and Real Assets (+3 bps) were the largest contributors, partially offset by a decrease in Global Fixed Income (-7 bps).

A summary of the key drivers in year-over-year changes to pension fee ratios from 2016 to 2017 for each asset class is below along with comparisons of performance net of fees. The pension plan return increased from 6.4% in calendar year 2016 to 12.1% in 2017.

The **Global Equity** fee ratio increased from 0.57% in 2016 to 0.80% in 2017 due to higher incentive fees to hedged long/short equity managers and a lower weighting to passive strategies. The Marketable Alternative Equity composite return increased from 0.6% in 2016 to 11.6% in 2017 leading to higher incentive fees and bringing the fee ratio for hedged Global Equity managers up from 2.17% in 2016 to 4.52% in 2017. Global Equity asset class performance improved from 7.6% in 2016 to 23.5% in 2017.

**Private Equity** saw an increase from 1.89% in 2016 to 2.31% in 2017 from higher incentive fees. The performance of Private Equity improved on a time-weighted return basis from 8.6% in 2016 to 16.9% in 2017.

**Global Fixed Income** decreased from 1.62% in 2016 to 1.10% in 2017. The fee ratio for hedged Global Fixed Income strategies decreased from 3.01% in 2016 to 2.18% in 2017. The performance of Global Fixed Income increased from 6.4% in 2016 to 7.3% in 2017.

**Private Debt** decreased from 1.16% in 2016 to 1.02% in 2017 due to a reduction in management fees. The performance of Private Debt on a time-weighted basis increased from 4.7% in 2016 to 6.4% in 2017.

**Real Assets** was roughly flat from 1.73% in 2016 to 1.72% in 2017. Lower management fees were offset by higher incentive fees in Real Estate funds. The performance of Real Assets on a time-weighted basis declined from 9.0% in 2016 to 7.6% in 2017, but Real Estate increased from 9.3% in 2016 to 11.3% in 2017.

**Absolute Return** increased from 2.57% in 2016 to 2.99% in 2017 due to higher incentive fees. The performance of Absolute Return increased from 1.2% in 2016 to 2.5% in 2017.

The **GTAA** and **Cash** asset classes were nearly unchanged year over year.

## Analysis of Pension Year-over-Year Changes by Management Type and Other Costs

As shown in the Table 10 contribution to total plan fee ratio change column, the driver of the +6 bps total plan fee ratio increase was private funds (+6 bps change in contribution). The increase can be attributed to higher incentive fee ratios (+10 bps) which were partially offset by lower management fee ratios (-3 bps) and a lower weight (-1 bp).

As displayed in Table 11, **Other Costs** decreased slightly from 0.08% in 2016 to 0.07% in 2017.

## Analysis of Health Care Year-over-Year Changes by Asset Class, Management Type and Other Costs

As seen in Tables 12 and 13, the Health Care total plan fee ratio declined from 0.28% in 2016 to 0.25% due to a reduction in management fee ratio for passive funds (-2 bps) and reduction in active fund exposure (-1 bp).

As displayed in Table 14, **Other Costs** decreased from 0.11% to 0.08% in 2017.

Table 15 – California Government Code §7514.7 Disclosure, Private Equity

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2017 (\$)	2017 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2017 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2017 (\$)	Fees and expenses paid from the Fund to GP and related parties 2017 (\$)					Fees and expenses paid by all portfolio companies 2017 (\$)	Carried Interest Paid 2017 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Pantheon USA Fund VI, L.P.	600 Montgomery Street, 23rd Floor San Francisco, CA 94111	2005	40,000,000	38,600,000	13,361,980	5,160,000	18,521,980	1,839,556	7.17%	1.53	-	189,539	9,193	-	-	-	-	-
Portfolio Advisors Private Equity Fund III, L.P.	9 Old Kings Highway South Darien, CT 06820	2005	25,000,000	22,140,607	5,588,315	1,909,682	7,497,997	476,851	6.76%	1.51	-	19,396	-	-	50,191	-	-	-
HarbourVest Partners VII - 2005 Buyout Partnership Fund, L.P.	One Financial Center Boston, MA 02111	2005	15,000,000	14,027,840	1,729,888	4,046,626	5,776,514	1,266,143	6.53%	1.57	-	56,321	8,275	-	-	37,096	-	(26,250)
HarbourVest Partners VIII - Buyout Fund, L.P.	One Financial Center Boston, MA 02111	2006	15,000,000	14,325,000	6,913,258	2,875,035	9,788,293	1,821,365	10.41%	1.68	-	161,929	9,991	-	-	400,707	-	267,664
HarbourVest Partners VIII - Venture Fund, L.P.	One Financial Center Boston, MA 02111	2006	10,000,000	9,800,000	6,749,621	1,736,507	8,486,128	1,337,387	10.34%	1.77	-	177,672	9,221	-	-	338,483	-	-
Siguler Guff Distressed Opportunities Fund III, L.P.	825 Third Avenue, 10th Floor New York, NY 10022	2008	30,000,000	29,100,000	6,298,153	4,355,447	10,653,600	611,364	8.04%	1.58	-	108,665	16,387	-	-	(23,361)	-	103,073
TCW/Crescent Mezzanine Partners V, L.P.	11100 Santa Monica Boulevard, Suite 2000 Los Angeles, CA 90025	2008	20,000,000	13,230,694	2,287,718	798,932	3,086,650	-	10.29%	1.52	-	36,260	6,246	-	-	61,414	-	-
TPG Opportunities Partners II, L.P.	345 California St., Suite 3300 San Francisco, CA 94104	2012	15,000,000	12,250,794	3,964,271	1,857,500	5,821,771	-	16.38%	1.56	-	70,898	31,032	-	-	49,890	-	75,968
Crescent Mezzanine Partners VI, L.P.	11100 Santa Monica Boulevard, Suite 2000 Los Angeles, CA 90025	2013	20,000,000	18,977,624	10,666,635	3,906,397	14,573,032	117,758	8.10%	1.20	-	165,291	15,334	(14,681)	-	(37,380)	14,681	-
Warburg Pincus Private Equity XI, L.P.	450 Lexington Avenue New York, NY 10017	2013	20,000,000	20,770,000	18,366,243	6,466,400	24,832,643	2,392,960	13.23%	1.42	-	134,147	82,209	(2,459)	-	830,049	2,459	472,750
TPG Opportunities Partners III, L.P.	345 California St., Suite 3300 San Francisco, CA 94104	2013	15,000,000	8,216,997	8,190,432	1,096,186	9,286,618	-	11.04%	1.22	-	224,999	54,842	(4,906)	-	233,651	4,906	58,815
Industry Ventures Partnership Holdings III, L.P.	30 Hotaling Place, 3rd Floor, San Francisco, CA 94111	2013	15,000,000	12,015,611	15,041,193	201,446	15,242,639	-	15.11%	1.36	-	131,713	150,800	-	-	201,023	-	-
57 Stars Global Opportunity Fund 3, L.P.	616 H Street, N.W., Suite 450 Washington, D.C. 20001	2014	30,000,000	25,969,042	29,047,341	699,638	29,746,979	-	7.26%	1.18	-	185,625	178	-	-	-	-	-
CCMP Capital Investors III, L.P.	277 Park Avenue, 27th Floor New York, NY 10172	2014	20,000,000	17,146,393	17,478,435	2,323,672	19,802,107	828,459	8.85%	1.19	-	300,000	21,674	(22,462)	-	52,078	19,141	-
Francisco Partners IV, L.P.	One Letterman Drive, Bldg C - Suite 410 San Francisco, CA 94129	2015	15,000,000	12,292,500	15,628,162	-	15,628,162	-	18.09%	1.27	-	225,000	258,604	(4,709)	87,924	833,916	4,709	-
Dover Street IX, L.P.	One Financial Center Boston, MA 02111	2015	30,000,000	6,300,000	6,805,606	1,273,414	8,079,020	439,964	84.89%	1.35	-	146,386	51,217	-	-	275,765	-	-
SJPF Private Equity Strategic Partnership, L.P.	325 N. Saint Paul St., Ste. 4900 Dallas, TX 75201	2017	200,271,506	10,121,506	10,171,361	-	10,171,361	-	2.20%	1.00	-	525,097	117,214	-	165,594	-	-	-

Source: Fund managers, Meketa Investment Group

Table 16 – California Government Code §7514.7 Disclosure, Private Debt

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2017 (\$)	2017 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2017 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2017 (\$)	Fees and expenses paid from the Fund to GP and related parties 2017 (\$)					Fees and expenses paid by all portfolio companies 2017 (\$)	Carried Interest Paid 2017 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Medley Opportunity Fund II, L.P.	280 Park Avenue, 6th Floor East New York, NY 10017	2010	50,000,000	55,149,363	33,430,285	6,454,138	39,884,423	3,872,483	6.62%	1.29	-	482,136	153,120	(160,799)	-	(1,585)	-	-
GSO 5J Partners	345 Park Avenue New York, NY 10154	2010	50,000,000	44,044,333	11,814,303	397,159	12,211,462	366,327	7.41%	1.22	-	186,690	59,079	-	-	(894,687)	-	-
White Oak Direct Lending	3 Embarcadero Center, 5th Floor San Francisco, CA 94111	2010	50,000,000	85,220,954	22,820,262	1,022,496	23,842,758	-	4.20%	1.10	281,449	-	28,410	-	-	-	-	-
Marathon European Credit Opportunity Fund SPC	One Bryant Park, 38th Floor New York, NY 10036	2011	25,000,000	25,000,001	4,224,366	3,400,418	7,624,784	-	8.05%	1.21	-	32,615	45,836	-	-	134,924	-	-
Cross Ocean USD ESS Fund I, L.P.	11 Charles II St. London, SW1Y4QU	2013	90,000,000	75,960,008	30,329,356	18,167,998	48,497,354	-	8.00%	1.21	-	262,363	157,020	-	-	-	-	-
Park Square Capital Credit Opportunities II	2nd Floor, Stratton House, 5 Stratton St. London W1J8LA	2013	50,000,000	44,352,929	44,479,342	2,797,963	47,277,305	-	6.27%	1.14	-	733,513	93,938	-	-	(80,545)	-	-
Shoreline China Value III, L.P.	3 Jin Sui Road, Zhujiang New, Suite 1201A Guangzhou, 510623, China	2014	22,500,000	22,046,300	16,938,702	5,944,239	22,882,941	22,915	9.99%	1.22	-	225,832	-	-	30,244	(9,914)	-	-
Octagon CLO Debt Fund II (US)	250 Park Avenue, 15th Floor New York, NY 10017	2015	25,000,000	25,000,000	-	28,504,790	28,504,790	-	11.24%	1.14	-	59,437	117,522	-	-	201,649	-	201,649
Cross Ocean USD ESS Fund II, L.P.	11 Charles II St. London, SW1Y4QU	2016	75,000,000	45,000,000	49,374,370	1,429,258	50,803,628	-	17.03%	1.13	-	213,544	162,773	-	-	521,358	-	-
Arrowmark Co-Investment	100 Fillmore Street, Suite 325, Denver, CO 80206	2017	10,000,000	10,000,000	10,037,067	-	10,037,067	-	0.37%	1.00	-	-	-	-	-	5,179	-	-

Source: Fund managers, Meketa Investment Group

Table 17 – California Government Code §7514.7 Disclosure, Private Real Assets

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2017 (\$)	2017 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2017 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2017 (\$)	Fees and expenses paid from the Fund to GP and related parties 2017 (\$)					Fees and expenses paid by all portfolio companies 2017 (\$)	Carried Interest Paid 2017 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Brookfield Strategic Real Estate Partners	250 Vesey Street, 15th Floor New York, NY 10281	2012	10,000,000	11,393,448	10,183,000	6,123,041	16,306,041	-	21.84%	1.76	-	108,000	5,600	-	-	1,040,898	-	-
Orion European Real Estate Fund IV, C.V.	6th Floor, 2 Cavendish Square London W1G0PU	2013	8,360,027	5,895,539	3,106,239	1,059,815	4,166,054	452,274	6.74%	1.15	-	55,806	-	-	-	77,561	-	-
Realty Associates Fund X, L.P., The	28th State Street Boston, MA 02109	2013	10,000,000	10,000,000	6,983,201	2,749,561	9,732,762	817,834	12.61%	1.46	-	179,388	8,417	-	-	179,496	-	-
Och-Ziff Real Estate Fund III	9 West 57th Street, 39th Floor New York, NY 10019	2013	20,000,000	9,271,024	8,804,904	3,636,721	12,441,625	1,019,849	24.78%	1.38	300,000	-	35,583	-	-	301,489	-	-
European Property Investors Special Opportunities 3, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2013	8,807,339	8,370,729	6,919,917	2,470,705	9,390,622	881,355	14.41%	1.36	-	105,141	106,822	-	-	222,432	-	-
Blackstone Real Estate Debt Strategies II	345 Park Avenue New York, NY 10154	2013	12,500,000	12,750,627	3,624,722	3,937,264	7,561,986	185,945	9.98%	1.16	-	69,571	16,619	-	-	70,293	-	-
KSL Capital Partners IV, L.P.	100 St. Paul St, Suite 800 Denver, CO 80206	2015	20,000,000	8,763,861	7,350,569	1,120,459	8,471,028	-	5.87%	1.04	-	350,000	31,433	(11,191)	-	-	-	-
European Property Investors Special Opportunities 4, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2015	19,822,116	9,354,091	9,601,044	244,836	9,845,879	-	12.50%	1.11	-	254,250	22,641	-	-	-	-	-
Brookfield Strategic Real Estate Partners II	250 Vesey Street, 15th Floor New York, NY 10281	2015	20,000,000	12,293,015	13,255,238	461,969	13,717,207	-	12.05%	1.14	-	295,150	28,675	(7,532)	-	432,982	26,073	-
Global Infrastructure Partners III, L.P.	1345 Avenue of the Americas, 30th Floor, New York, NY 10105	2016	20,000,000	5,620,439	4,498,392	299,198	4,797,590	299,198	-9.81%	0.92	-	348,804	25,502	-	-	-	-	9,595
DRA Growth and Income Fund IX, LLC	220 East 42nd Street, 27th Floor New York, NY 10017	2016	20,000,000	7,195,348	7,079,966	852,277	7,932,243	389,446	20.43%	1.10	-	128,342	21,488	-	-	-	-	-
Brookfield Infrastructure Fund III, L.P.	250 Vesey Street, 15th Floor New York, NY 10281	2016	20,000,000	7,251,026	6,978,673	453,587	7,432,260	10,159	13.46%	1.12	-	259,494	15,583	-	-	190,489	3,638	-
GEM Realty Fund VI, L.P.	900 North Michigan Avenue #1450, Chicago, IL 60611	2017	15,000,000	750,000	434,425	-	434,425	-	N/A	0.58	-	169,313	28,857	-	32,446	-	10,640	-

Source: Fund managers, Meketa Investment Group

Table 18 – California Government Code §7514.7 Disclosure, Hedge Funds

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2017 (\$)	2017 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2017 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2017 (\$)	Fees and expenses paid from the Fund to GP and related parties 2017 (\$)					Fees and expenses paid by all portfolio companies 2017 (\$)	Carried Interest Paid 2017 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Arrowgrass International Fund Ltd	1330 Avenue of the Americas, 32nd Floor	N/A	N/A	20,000,000	-	25,194,006	25,194,006	N/A	5.41%	1.26	-	120,168	8,203	-	-	100,188	-	100,188
Beach Point Total Ret Fund II	1620 26th St Suite 6000N Santa Monica, CA 90404	N/A	N/A	75,000,000	67,452,862	-	67,452,862	N/A	3.71%	1.17	-	884,643	130,993	-	-	890,457	-	890,457
BlueTrend Fund Limited	650 Fifth Ave New York, NY 10019	N/A	N/A	20,000,000	-	16,101,764	16,101,764	N/A	-7.02%	0.81	-	126,610	13,148	-	-	-	-	-
Brevan Howard Fund Ltd	590 Madison Ave., 9th Floor New York, NY 10022	N/A	N/A	20,747,465	8,243,218	12,036,179	20,279,397	N/A	-1.36%	0.98	-	272,063	86,519	-	-	-	-	-
Claren Road Credit Master Fund Ltd	51 Astor Place, 12th Floor New York, NY 10003	N/A	N/A	30,000,000	127,983	3,370,909	3,498,892	N/A	-10.84%	0.79	-	-	14,922	-	-	-	-	-
Davidson Kempner Institutional Partners, L.P.	520 Madison Avenue, 30th Floor New York, NY 10022	N/A	N/A	20,000,000	25,926,827	-	25,926,827	N/A	5.52%	1.30	-	381,507	17,741	-	-	395,224	-	395,224
DE Shaw Composite International Fund	1166 Avenue of the Americas, 9th Floor	N/A	N/A	27,000,000	40,932,537	1,000,496	41,933,033	N/A	11.95%	1.55	-	1,007,705	46,718	-	-	1,345,542	-	1,345,542
Dymon Asia Macro	1 Temasek Avenue #11-01 Millenia Tower,	N/A	N/A	25,000,000	25,971,676	-	25,971,676	N/A	1.86%	1.04	-	397,553	32,294	-	-	-	-	-
Horizon Portfolio I Limited	16 New Burlington Place, London, W1S 2HX, United Kingdom	N/A	N/A	25,000,000	28,718,046	-	28,718,046	N/A	4.51%	1.15	-	552,656	50,622	-	-	376,606	-	376,606
Hudson Bay Cap Structure Arbitrage Enhanced Fund	777 Third Ave. 30th Floor, New York, NY 10017	N/A	N/A	30,000,000	30,424,416	-	30,424,416	N/A	4.29%	1.01	-	150,915	48,437	-	-	249,517	-	249,517
Iguazu Partners LP Fund	2 Embarcadero Center # 1645 San Francisco, CA 94111	N/A	N/A	50,000,000	64,406,750	-	64,406,750	N/A	6.83%	1.29	-	649,654	89,275	-	-	583,181	-	583,181
Kepos Alpha Fund	620 8th Ave., 44th Floor, New York, NY 10018	N/A	N/A	19,000,000	10,490,673	4,874,131	15,364,804	N/A	-7.41%	0.81	-	284,327	36,709	-	-	-	-	-
Keynes Leveraged Quantitative Strategies Fund	9th Floor Orion House, 5 Upper St Martin's	N/A	N/A	20,000,000	9,398,457	10,000,000	19,398,457	N/A	-1.65%	0.97	-	121,744	43,527	-	-	-	-	-
Man AHL Evolution Frontier	100 St. Paul Street, Suite 800, Denver, CO 80206	N/A	N/A	13,000,000	15,303,172	-	15,303,172	N/A	13.31%	1.18	-	278,688	31,045	-	-	524,547	-	524,547
MKP Opportunity	600 Lexington Avenue New York, NY 10022	N/A	N/A	10,000,000	-	10,031,288	10,031,288	N/A	0.19%	1.00	-	63,031	5,000	-	-	-	-	-
MW Eureka Fund Ltd	350 Park Avenue, 18th Floor New York, NY 10022	N/A	N/A	37,500,000	42,721,237	-	42,721,237	N/A	7.87%	1.14	-	486,479	17,055	-	-	677,006	-	545,534
Pharo Macro Fund, Ltd	1370 Avenue of the Americas, 26th Floor	N/A	N/A	30,000,000	31,231,571	4,388,017	35,619,588	N/A	12.75%	1.19	-	693,264	28,626	-	-	1,294,157	-	1,294,157
Pine River Fund Ltd	580 California Street, San Francisco, CA 94104	N/A	N/A	20,000,000	6,218,397	16,520,018	22,738,415	N/A	2.73%	1.14	-	219,244	139,662	-	-	-	-	-
Pine River Volatility Arbitrage Fund	580 California Street, San Francisco, CA 94104	N/A	N/A	25,000,000	24,646,000	-	24,646,000	N/A	-2.11%	0.99	-	102,228	112,221	-	-	-	-	-
Pinnacle Natural Resources Fund	712 Fifth Avenue, 29th Floor New York, NY 10019	N/A	N/A	65,000,000	61,414,015	-	61,414,015	N/A	-2.49%	0.94	-	1,615,317	323,063	-	-	371,828	-	371,828
Sandler Plus Fund	711 5th Ave #15, New York, NY 10022	N/A	N/A	15,000,000	20,590,807	-	20,590,807	N/A	8.50%	1.37	-	400,120	56,064	-	-	683,248	-	683,248
Senator Global Opportunity Offshore Fund Ltd	510 Madison Ave # 28, New York, NY 10022	N/A	N/A	19,300,000	25,063,867	-	25,063,867	N/A	7.86%	1.30	-	465,792	26,603	-	-	626,165	-	307,343
Symphony Long Short Credit LP	555 California St #2975 San Francisco, CA 94104	N/A	N/A	75,000,000	70,730,966	-	70,730,966	N/A	3.71%	1.14	-	703,242	136,232	-	-	451,179	-	451,179
Systematica Alternative Markets Master Fund	650 Fifth Ave New York, NY 10019	N/A	N/A	2,000,000	2,185,499	-	2,185,499	N/A	42.73%	1.09	-	14,164	1,304	-	-	46,375	-	46,375
Systematica Trend Following Fund	650 Fifth Ave New York, NY 10019	N/A	N/A	20,000,000	20,910,515	-	20,910,515	N/A	11.21%	1.05	-	48,988	94,846	-	-	-	-	-
Tempo Volatility Fund	1 Greenwich Plaza, Greenwich, CT 06830	N/A	N/A	20,000,000	21,123,071	-	21,123,071	N/A	4.98%	1.06	-	308,250	113,654	-	-	210,609	-	210,609

Source: Fund managers, Albourne, State Street, ORS