

All persons wishing to address the Board must complete a speaker's card, stating their name and the agenda item (including "Open Forum") they wish to address. The Committee may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

Oakland Police and Fire Retirement Board and committee meetings are held in wheelchair accessible facilities. Contact the Retirement Unit, 150 Frank Ogawa Plaza, Suite 3349 or call (510) 238-7295 for additional information.



AGENDA

AUDIT COMMITTEE MEMBERS

John C. Speakman
Chairman

Adam Benson
Member

Vacant
Member

**In the event a quorum of the Board participates in the Committee meeting, the meeting is noticed as a Special Meeting of the Board; however, no final Board action can be taken. In the event that the Audit Committee does not reach quorum, this meeting is noticed as an informational meeting between staff and the Chair of the Audit Committee.*

REGULAR MEETING of the AUDIT / OPERATIONS COMMITTEE of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, January 29, 2020 – 9:30 am
One Frank H. Ogawa Plaza, Hearing Room 1
Oakland, California 94612

- - - ORDER OF BUSINESS - - -

- | | |
|-----------|--|
| 1. | Subject: PFRS Audit Committee Meeting Minutes
From: Staff of the PFRS Board |
| | <hr/> |
| | Recommendation: APPROVE October 30, 2019 Audit Committee meeting minutes. |
| 2. | Subject: Report of the Audit of the Financial Statements of the Oakland PFRS as of, and for, the year ended June 30, 2019
From: Macias, Gini and O'Connell, LLP |
| | <hr/> |
| | Recommendation: RECOMMEND BOARD APPROVAL of the Report of the Audit of the Financial Statements of the Oakland PFRS as of, and for, the year ended June 30, 2019. |
| 3. | Subject: Administrative Expenses Report
From: Staff of the PFRS Board |
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| | Recommendation: ACCEPT an informational report regarding PFRS administrative expenses from July 1, 2019 through November 30, 2019. |

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

4. **Subject:** Annual Report for Fiscal Year ending June 30, 2019
From: Staff of the PFRS Board
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- Recommendation:** **RECOMMEND BOARD APPROVAL** of printing and publication of the Annual Report of the Oakland Police and Fire Retirement System for the Fiscal Year ending June 30, 2019.
5. **Subject:** Resolution No. 7084 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to Attend the Markets Group’s California institutional Forum on December 4, 2019 in Santa Rosa, California and Authorizing Reimbursement of the Cost for Attendance in the Amount of Sixty-five Dollars (\$65.00)
From: Staff of the PFRS Board
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7084 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to Attend the Markets Group’s California institutional Forum on December 4, 2019 in Santa Rosa, California and Authorizing Reimbursement of the Cost for Attendance in the Amount of Sixty-five Dollars (\$65.00).
6. **Subject:** Resolution No. 7085 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to attend the 2019 OPAL Alternative Investing Summit from December 4, 2019 through December 6, 2019 in Dana Point, California and Authorizing Reimbursement of the Costs for Attendance in the Amount of Three Hundred Thirty-two Dollars (\$332.00)
From: Staff of the PFRS Board
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7085 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to attend the 2019 OPAL Alternative Investing Summit from December 4, 2019 through December 6, 2019 in Dana Point, California and Authorizing Reimbursement of the Costs for Attendance in the Amount of Three Hundred Thirty-two Dollars (\$332.00).

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

7. **Subject:** Resolution No. 7086 – Resolution Approving Request of Oakland Police and Fire Retirement System Plan Administrator David Jones to Attend the 2020 California Association of Public Retirement Systems Administrators' Roundtable on February 7, 2020 in Costa Mesa, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Seven Hundred Dollars (\$700.00)

From: Staff of the PFRS Board

Recommendation: **RECOMMEND BOARD APPROVAL** of Resolution No. 7086 – Resolution Approving Request of Oakland Police and Fire Retirement System Plan Administrator David Jones to Attend the 2020 California Association of Public Retirement Systems Administrators' Roundtable on February 7, 2020 in Costa Mesa, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Seven Hundred Dollars (\$700.00).

8. **Subject:** Resolution No. 7087 – Resolution Approving Request of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson to Attend the 2020 California Association of Public Retirement Systems General Assembly from March 7, 2020 to March 10, 2020 in Rancho Mirage, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Two Thousand Dollars (\$2000.00)

From: Staff of the PFRS Board

Recommendation: **RECOMMEND BOARD APPROVAL** of Resolution No. 7086 – Resolution Approving Request of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson to Attend the 2020 California Association of Public Retirement Systems General Assembly from March 7, 2020 to March 10, 2020 in Rancho Mirage, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Two Thousand Dollars (\$2000.00).

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
JANUARY 29, 2020**

ORDER OF BUSINESS, continued

- 9. REVIEW OF PENDING AUDIT AGENDA ITEMS**
- 10. FUTURE SCHEDULING**
- 11. OPEN FORUM**
- 12. FUTURE SCHEDULING**

AN AUDIT/OPERATIONS COMMITTEE MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on Wednesday, October 30, 2019 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present:

- John C. Speakman, Chairman
- Adam Benson, Member
- Robert J. Muszar, Member

Additional Attendees:

- David Jones, Plan Administrator
- Teir Jenkins & David Low, Staff Member
- Jennifer Logue, PFRS Legal Counsel

The Meeting was called to order at 9:31 am.

1. **PFRS Audit Committee Meeting Minutes** – Member Benson made a motion to approve the September 25, 2019 Audit Committee meeting minutes, second by Member Muszar. Motion passed.

[SPEAKMAN – Y/ MUSZAR – Y/ BENSON – Y]
(AYES: 3 / NOES: 0 / ABSTAIN: 0)

2. **Administrative Expenses Report** – Teir Jenkins presented an informational report on the administrative expenditures of the PFRS plan through August 31, 2019.

MOTION: Member Muszar made a motion to accept the administrative expenses report, second by Member Benson. Motion passed.

[SPEAKMAN – Y/ MUSZAR – Y/ BENSON – Y]
(AYES: 3 / NOES: 0 / ABSTAIN: 0)

3. **Hearing Procedures** – PFRS Legal Counsel Jennifer Logue presented the current draft version of the PFRS hearing procedures related to section 2603 of the Charter of the City of Oakland. She described the updates to her earlier draft presented at the September 25 Audit Committee meeting. The Committee discussed and agreed to additional edits to the hearing procedures and agreed to move this matter to the PFRS board for discussion and approval.

MOTION: Member Muszar made a motion to recommend Board approval of the PFRS hearing procedures with the addition of a wavier provision for printing of seven (7) copies for the Board, second by Member Benson. Motion passed.

[SPEAKMAN – Y/ MUSZAR – Y/ BENSON – Y]
(AYES: 3 / NOES: 0 / ABSTAIN: 0)

4. **Resolution No. 7077 – Godfrey Travel** – Member Benson made a motion to recommend Board approval of Resolution No 7077 authorizing the request for travel for Member Godfrey, second by Member Muszar. Motion passed.

[SPEAKMAN – Y/ MUSZAR – Y/ BENSON – Y]
(AYES: 3 / NOES: 0 / ABSTAIN: 0)

5. **Pending Audit Agenda List** – Plan Administrator David Jones reported the status of agenda items on the Audit/Operations Committee's pending list. Mr. Jones requested

that the planned report of the Management Audit items to the Audit Committee be moved to the January 2020 meeting.

MOTION: Member Benson made a motion to approve the rescheduling of the Staff Report of the Management Audit matter to the January 2020 meeting, second by Member Muszar. Motion passed.

[SPEAKMAN – Y/ MUSZAR – Y/ BENSON – Y]
(AYES: 3 / NOES: 0 / ABSTAIN: 0)

6. **Future Scheduling** – The next Audit Committee meeting was scheduled for November 20, 2019.
7. **Open Forum** – No Report.
8. **Meeting Adjournment** – Meeting adjourned at 9:46 am.

JOHN C. SPEAKMAN, COMMITTEE CHAIRMAN

DATE



Board of Administration
Oakland Police and Fire Retirement System
Oakland, California

We have audited the financial statements of the Oakland Police and Fire Retirement System (System), a pension trust fund of the City of Oakland, California, as of and for the year ended June 30, 2019, and have issued our report thereon dated November 15, 2019. Professional standards require that we advise you of the following matters relating to our audit.

1. Our Responsibility in Relation to the Financial Statement Audit

As communicated in our engagement letter dated July 1, 2019, our responsibility, as described by professional standards, is to form and express an opinion about whether the financial statements that have been prepared by management with your oversight are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America. Our audit of the financial statements does not relieve you or management of your respective responsibilities.

Our responsibility, as prescribed by professional standards, is to plan and perform our audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes consideration of internal control over financial reporting as a basis for designing 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 over financial reporting. Accordingly, as part of our audit, we considered the internal control of the System solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are also responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you.

2. Planned Scope and Timing of the Audit

We conducted our audit consistent with the planned scope and timing we previously communicated to you.

3. Compliance with All Ethics Requirements Regarding Independence

The engagement team, others in our firm, as appropriate, our firm, and our network firms have complied with all relevant ethical requirements regarding independence.

**Oakland Police And Fire Retirement System
Report to the Board of Administration
For the Year Ended June 30, 2019**

4. Qualitative Aspects of the Entity's Significant Accounting Practices

Significant Accounting Policies

Management has the responsibility to select and use appropriate accounting policies. A summary of the significant accounting policies adopted by the System is included in Note 2 to the financial statements. There have been no initial selection of accounting policies and no changes in significant accounting policies or their application during the year ended June 30, 2019. No matters have come to our attention that would require us, under professional standards, to inform you about (1) the methods used to account for significant unusual transactions and (2) the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.

Significant Accounting Estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ markedly from management's current judgments.

The most sensitive estimates affecting the System's financial statements were:

- Fair value of investments, including derivative instruments, and related net appreciation in the fair value of investments; and
- Actuarial data of the pension plan.

Management's estimates were based on the following:

- The methodologies for determining the fair value of investments and derivative instruments are discussed in Notes 2.c) and 4.1) to the financial statements, respectively.
- The actuarial data for the pension plan is based on actuarial calculations performed in accordance with the parameters set forth in Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*, which incorporate actuarial methods and assumptions adopted by the System's Board of Administration.

We evaluated the key factors and assumptions used to develop these accounting estimates and determined that it is reasonable in relation to the financial statements taken as a whole.

5. Significant Difficulties Encountered during the Audit

We encountered no significant difficulties in dealing with management relating to the performance of the audit.

**Oakland Police And Fire Retirement System
Report to the Board of Administration
For the Year Ended June 30, 2019**

6. Uncorrected and Corrected Misstatements

For purposes of this communication, professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. Further, professional standards require us to also communicate the effect of uncorrected misstatements related to prior periods on the relevant classes of transactions, account balances or disclosures, and the financial statements as a whole and each applicable opinion unit. Management has corrected all identified misstatements.

7. Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, which could be significant to the System's financial statements or the auditor's report. No such disagreements arose during the course of the audit.

8. Representations Requested from Management

We have requested certain written representations from management, that are included in the management representation letter dated November 15, 2019.

9. Management's Consultations with Other Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing and accounting matters.

10. Other Significant Matters, Findings, or Issues

In the normal course of our professional association with the System, we generally discuss a variety of matters, including the application of accounting principles and auditing standards, operating and regulatory conditions affecting the entity, and operational plans and strategies that may affect the risks of material misstatement. None of the matters discussed resulted in a condition to our retention as the System's auditors.

This information is intended solely for the information and use of the System Board of Administration, management of the System, and is not intended to be, and should not be, used by anyone other than these specified parties.



Walnut Creek, California
November 15, 2019

**OAKLAND POLICE AND FIRE
RETIREMENT SYSTEM
(A Pension Trust Fund of the City of Oakland)**

Financial Statements and
Required Supplementary Information

Years Ended June 30, 2019 and 2018



Certified
Public
Accountants

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

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Independent Auditor's Report

Board of Administration
Oakland Police and Fire Retirement System
Oakland, California

We have audited the accompanying financial statements of the Oakland Police and Fire Retirement System (System), a pension trust fund of the City of Oakland, California (City), as of and for the years ended June 30, 2019 and 2018, 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 an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2019 and 2018, and the changes in financial position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As described in Note 1, the financial statements present only the System and do not purport to, and do not, present fairly the financial position of the City as of June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of changes in the employer's net pension liability and related ratios, the schedule of employer contributions, and the schedule of investment returns 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.

A handwritten signature in black ink that reads "Macias Gini & O'Connell LLP". The signature is written in a cursive, flowing style.

Walnut Creek, California

November 15, 2019

**Oakland Police and Fire Retirement System
Management's Discussion and Analysis – Unaudited
June 30, 2019 and 2018**

As management of the Oakland Police and Fire Retirement System (System), we offer readers of the System's financial statements this narrative overview and analysis of the financial activities of the System for the fiscal years ended June 30, 2019 and 2018. We encourage readers to consider the information presented here in conjunction with the System's financial statements that follow this section. These discussions and analyses are presented in the following sections:

- Organizational Overview and Highlights
- Financial Statement Overview
- Financial Analysis: 2019 vs. 2018
- Financial Analysis: 2018 vs. 2017
- Requests For Additional Information

ORGANIZATIONAL OVERVIEW AND HIGHLIGHTS

The City of Oakland City Charter established the System and provides for its funding. Accordingly, the System is an integral part of the City of Oakland (City) and its operations have been reported as a Pension Trust Fund in the City's basic financial statements. The System is a closed, single employer, defined benefit pension plan that provides retirement, disability and survivor benefits for eligible sworn safety employees of the City. The System serves the City's sworn employees hired prior to July 1, 1976 who have not transferred to the California Public Employees' Retirement System (CalPERS). The System is governed by a board of seven trustees: the Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation.

The System has been funded by periodic employee and City contributions at actuarially determined amounts sufficient to accumulate the necessary assets to pay benefits when due as specified by the City Charter, unless the Board and the City have agreed to other funding options. In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contribute a percentage of their earned salaries based upon entry age as determined by consulting actuaries. During the years ended June 30, 2019 and 2018, the employee contribution rates was 0% for both years. The City Charter limits employee contributions to 13.00% of earned salaries. Employee contributions are refundable with interest at 4.00% if an employee elects to withdraw from the System upon termination with the City. There are no active participants in the Plan as of June 30, 2019 and 2018.

In July 2012, the City deposited \$210 million in pension obligation bond proceeds into the System and entered into a funding agreement with the System Board, which suspended contributions until the fiscal year beginning July 1, 2017.

As of June 30, 2019, the total pension liability of \$628.2 million less the fiduciary net position of \$384.7 million results in a net pension liability of approximately \$243.5 million. The fiduciary net position as a percentage of the total pension liability is 61.2%.

As of June 30, 2018, the total pension liability of \$656.2 million less the fiduciary net position of \$376.0 million results in a net pension liability of approximately \$280.2 million. The fiduciary net position as a percentage of the total pension liability is 57.3%.

Oakland Police and Fire Retirement System
Management's Discussion and Analysis – Unaudited
June 30, 2019 and 2018

The System membership at June 30, 2019 is 798, which includes 547 retirees and 251 beneficiaries. The System membership at June 30, 2018 is 837, which includes 570 retirees and 267 beneficiaries. The following are the significant assumptions used to compute contribution requirements in the July 1, 2018 Actuarial Valuation Report:

- Select and ultimate rates, equal to 5.44% single equivalent investment rate of return
- 2.75% inflation rate, US
- 2.85% inflation rate, Bay Area
- 3.25% long-term post-retirement benefit increases

City contributions are based on spreading costs as a level percentage of the City's total uniform payroll to July 1, 2026. The System uses the entry age normal cost method for its disclosure and reporting. During fiscal years 2019 and 2018, the City of Oakland contributed \$44.82 million and \$44.86 million to the System. The next required City contribution is projected to be approximately \$43.41 million in FY 2019-2020.

FINANCIAL STATEMENT OVERVIEW

This annual financial report consists of three parts – management's discussion and analysis (this section), the basic financial statements and required supplementary information. The basic financial statements include *Statements of Fiduciary Net Position*; *Statements of Changes in Fiduciary Net Position*; and the *Notes to the Basic Financial Statements*.

The *Statements of Fiduciary Net Position* and the *Statements of Changes in Fiduciary Net Position* report information to assist readers in determining whether the System's finances as a whole have improved or deteriorated as a result of the year's activities. These statements report the net position of the System and the activities that caused the changes in the net position during the year, respectively.

The *Statements of Fiduciary Net Position* present information on all System assets and liabilities, with the difference between the two reported as net position restricted for pensions. Over time, increases or decreases in net position restricted for pensions may serve as a useful indicator of whether the financial condition of the System is improving or deteriorating.

While the *Statements of Fiduciary Net Position* provide information about the nature and amount of resources and obligations at year-end, the *Statements of Changes in Fiduciary Net Position* present the results of the System's activities during the fiscal year and information on the change in the net position restricted for pensions during the fiscal year. The *Statements of Changes in Fiduciary Net Position* measure the results of the System's investment performance as well as its additions from contributions and investment income and deductions for payment of benefits and administrative expenses. The *Statements of Changes in Fiduciary Net Position* can be viewed as indicators of the System's progress on the set goals of fully funding all current and past service costs and possessing sufficient additional resources to pay for current refunds of contributions and administrative and investment expenses.

The *Notes to the Basic Financial Statements* and *Required Supplementary Information* provide explanations and other information that is helpful to a full understanding of the data provided in the financial statements. The *Notes to the Financial Statements* and *Required Supplementary Information* are found starting on page 11 and page 26, respectively.

Oakland Police and Fire Retirement System
Management's Discussion and Analysis – Unaudited
June 30, 2019 and 2018

FINANCIAL ANALYSIS: 2019 VS. 2018

Table 1 summarizes net position restricted for pensions as of June 30, 2019 and 2018:

Table 1
Statements of Fiduciary Net Position
As of June 30, 2019 and 2018

	June 30		Change	
	2019	2018	Amount	Percentage
Assets:				
Cash and deposits	\$ 6,484,343	\$ 7,821,078	\$ (1,336,735)	-17.1%
Receivables	4,427,785	6,288,527	(1,860,742)	-29.6%
Investments	420,244,755	415,917,756	4,326,999	1.0%
Total Assets	<u>431,156,883</u>	<u>430,027,361</u>	<u>1,129,522</u>	0.3%
Liabilities:				
Accounts payable	15,871	94,654	(78,783)	-83.2%
Benefits payable	4,596,563	4,608,511	(11,948)	-0.3%
Investments payable	7,464,071	5,188,668	2,275,403	43.9%
Accrued investment management fees	351,847	343,919	7,928	2.3%
Securities lending liabilities	<u>34,017,817</u>	<u>43,815,338</u>	<u>(9,797,521)</u>	-22.4%
Total liabilities	<u>46,446,169</u>	<u>54,051,090</u>	<u>(7,604,921)</u>	-14.1%
Net position:				
Restricted for pensions	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>	<u>\$ 8,734,443</u>	2.3%

Net position restricted for pensions increased \$8,734,443 from June 30, 2018 to June 30, 2019. The main sources of this increase were from pension contribution payments from the City of Oakland of \$44.82 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Oakland Police and Fire Retirement System
Management's Discussion and Analysis – Unaudited
June 30, 2019 and 2018

Table 2 summarizes changes in net position restricted for pensions for the years ended June 30, 2019 and 2018:

Table 2
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2019 and 2018

	June 30		Change	
	2019	2018	Amount	Percentage
Additions:				
Contributions	\$ 44,821,000	\$ 44,860,000	\$ (39,000)	-0.1%
Net investment income/(loss)	21,551,868	35,435,113	(13,883,245)	-39.2%
Other additions	19,949	20,307	(358)	-1.8%
Total additions	<u>66,392,817</u>	<u>80,315,420</u>	<u>(13,922,603)</u>	-17.3%
Deductions:				
Benefits to members and beneficiaries	56,212,013	55,998,595	213,418	0.4%
Administrative expenses	1,446,361	1,490,486	(44,125)	-3.0%
Other expenses	-	52,926	(52,926)	-100.0%
Total deductions	<u>57,658,374</u>	<u>57,542,007</u>	<u>116,367</u>	0.2%
Changes in net position	8,734,443	22,773,413	(14,038,970)	-61.6%
Net position restricted for pensions:				
Beginning of year	<u>375,976,271</u>	<u>353,202,858</u>	<u>22,773,413</u>	6.4%
End of year	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>	<u>\$ 8,734,443</u>	2.3%

During fiscal year 2019, the City of Oakland contributed \$44.82 million to the System. In addition, the System's net investment income for the year ended June 30, 2019 was \$21,551,868, mainly due to net appreciation in fair value of the investment portfolio as a result of returns on investments. The time-weighted annual returns for the year ended June 30, 2019 was 6.2%, compared to a benchmark return of 5.5% and an actuarial expected rate of return of 5.44%.

Oakland Police and Fire Retirement System
Management's Discussion and Analysis – Unaudited
June 30, 2019 and 2018

FINANCIAL ANALYSIS: 2018 vs. 2017

Table 3 summarizes net position restricted for pensions as of June 30, 2018 and 2017:

Table 3
Statements of Fiduciary Net Position
As of June 30, 2018 and 2017

	June 30		Change	
	2018	2017	Amount	Percentage
Assets:				
Cash and deposits	\$ 7,821,078	\$ 3,382,372	\$ 4,438,706	131.2%
Receivables	6,288,527	7,254,799	(966,272)	-13.3%
Investments	415,917,756	383,785,196	32,132,560	8.4%
Total Assets	<u>430,027,361</u>	<u>394,422,367</u>	<u>35,604,994</u>	9.0%
Liabilities:				
Accounts payable	94,654	22,843	71,811	314.4%
Benefits payable	4,608,511	4,763,432	(154,921)	-3.3%
Investments payable	5,188,668	5,117,934	70,734	1.4%
Accrued investment management fees	343,919	281,445	62,474	22.2%
Securities lending liabilities	<u>43,815,338</u>	<u>31,033,855</u>	<u>12,781,483</u>	41.2%
Total liabilities	<u>54,051,090</u>	<u>41,219,509</u>	<u>12,831,581</u>	31.1%
Net position:				
Restricted for pensions	<u>\$ 375,976,271</u>	<u>\$ 353,202,858</u>	<u>\$ 22,773,413</u>	6.4%

Net position restricted for pensions increased \$22,773,413 from June 30, 2017 to June 30, 2018. The main sources of this increase were from pension contribution payments from the City of Oakland of \$44.86 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Oakland Police and Fire Retirement System
Management's Discussion and Analysis – Unaudited
June 30, 2019 and 2018

Table 4 summarizes changes in net position restricted for pensions for the years ended June 30, 2018 and 2017:

Table 4
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2018 and 2017

	June 30		Change	
	2018	2017	Amount	Percentage
Additions:				
Contributions	\$ 44,860,000	\$ -	\$ 44,860,000	n/a
Net investment income/(loss)	35,435,113	50,158,795	(14,723,682)	-29.4%
Other additions	20,307	70,282	(49,975)	-71.1%
Total additions	<u>80,315,420</u>	<u>50,229,077</u>	<u>30,086,343</u>	59.9%
Deductions:				
Benefits to members and beneficiaries	55,998,595	57,375,815	(1,377,220)	-2.4%
Administrative expenses	1,490,486	1,250,620	239,866	19.2%
Other expenses	52,926	11,021	41,905	380.2%
Total deductions	<u>57,542,007</u>	<u>58,637,456</u>	<u>(1,095,449)</u>	-1.9%
Changes in net position	22,773,413	(8,408,379)	31,181,792	-370.8%
Net position restricted for pensions:				
Beginning of year	<u>353,202,858</u>	<u>361,611,237</u>	<u>(8,408,379)</u>	-2.3%
End of year	<u>\$ 375,976,271</u>	<u>\$ 353,202,858</u>	<u>\$ 22,773,413</u>	6.4%

During fiscal year 2018, the City of Oakland contributed \$44.86 million to the System. In addition, the System's net investment income for the year ended June 30, 2018 was \$35,435,113, mainly due to net appreciation in fair value of the investment portfolio as a result of robust returns on investments. The time-weighted annual returns for the year ended June 30, 2018 was 10.5%, compared to a benchmark return of 9.4% and an actuarial expected rate of return of 5.50%.

REQUESTS FOR ADDITIONAL INFORMATION

This financial report is designed to provide a general overview of the System's finances and to account for the money that the System receives. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

Retirement System
City of Oakland
150 Frank H Ogawa Plaza, Suite 3349
Oakland, CA 94612

Oakland Police and Fire Retirement System
Statements of Fiduciary Net Position
June 30, 2019 and 2018

	<u>2019</u>	<u>2018</u>
Assets		
Cash and Cash Equivalents	\$ 6,484,343	\$ 7,821,078
Receivables:		
Interest Receivable	756,150	671,493
Dividends Receivable	128,434	233,615
Investments Receivable	2,542,199	3,606,103
Retired Members and Beneficiaries	867,195	1,641,443
Miscellaneous	133,807	135,873
Total Receivables	<u>4,427,785</u>	<u>6,288,527</u>
Investments, at Fair Value:		
Short-Term Investments	12,579,526	4,284,853
Bonds	120,250,504	98,312,996
Domestic Equities and Mutual Funds	151,450,528	151,600,666
International Equities and Mutual Funds	46,731,155	46,770,419
Alternative Investments	55,212,879	71,132,094
Foreign Currency Contracts, Net	-	(939)
Securities Lending Collateral	34,020,163	43,817,667
Total Investments	<u>420,244,755</u>	<u>415,917,756</u>
Total Assets	<u>431,156,883</u>	<u>430,027,361</u>
Liabilities		
Accounts Payable	15,871	94,654
Benefits Payable	4,596,563	4,608,511
Investments Payable	7,464,071	5,188,668
Investment Management Fees Payable	351,847	343,919
Securities Lending Liabilities	34,017,817	43,815,338
Total Liabilities	<u>46,446,169</u>	<u>54,051,090</u>
Net Position Restricted for Pensions	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>

See accompanying notes to the basic financial statements.

Oakland Police and Fire Retirement System
Statements of Changes in Fiduciary Net Position
Years Ended June 30, 2019 and 2018

	<u>2019</u>	<u>2018</u>
Additions		
Contributions from the City	\$ 44,821,000	\$ 44,860,000
Investment Income:		
Net Appreciation in Fair Value of Investments	16,624,371	30,072,048
Interest	3,736,667	2,625,129
Dividend	2,431,327	4,032,421
Less: Investment Expenses	<u>(1,333,048)</u>	<u>(1,427,330)</u>
Net Appreciation in Fair Value of Investments	<u>21,459,317</u>	<u>35,302,268</u>
Securities Lending Income:		
Securities Lending Earnings	937,736	761,396
Securities Lending Expenses	<u>(845,185)</u>	<u>(628,551)</u>
Net Securities Lending Income	<u>92,551</u>	<u>132,845</u>
Net Investment Income	21,551,868	35,435,113
Claims and Settlements	13,856	9,145
Other Income	<u>6,093</u>	<u>11,162</u>
Total Additions	<u>66,392,817</u>	<u>80,315,420</u>
Deductions		
Benefits to Members and Beneficiaries:		
Retirement	34,238,470	34,369,814
Disability	20,160,033	19,854,675
Death	<u>1,813,510</u>	<u>1,774,106</u>
Total Benefits to Members and Beneficiaries	56,212,013	55,998,595
Administrative Expenses	1,446,361	1,490,486
Other Expenses	<u>-</u>	<u>52,926</u>
Total Deductions	<u>57,658,374</u>	<u>57,542,007</u>
Change in Net Position	8,734,443	22,773,413
Net Position Restricted for Pensions		
Beginning of Year	<u>375,976,271</u>	<u>353,202,858</u>
End of Year	<u><u>\$ 384,710,714</u></u>	<u><u>\$ 375,976,271</u></u>

See accompanying notes to the basic financial statements.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

1. Description of the Oakland Police and Fire Retirement System

The Oakland Police and Fire Retirement System (System) is a closed, single-employer defined benefit pension plan (Plan) established by the City of Oakland (City) Charter. The System is governed by a board of seven trustees (Board); the City Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation. As a result of a City Charter amendment, known as Measure R approved by the electorate on June 8, 1976, membership in the Plan is limited to uniformed employees hired prior to July 1, 1976.

The System is exempt from the regulations of the Employee Retirement Income Security Act of 1974. The System is also exempt from federal and California income taxes.

The System is considered to be a part of the City's financial reporting entity and is included in the City's basic financial statements as a pension trust fund. The financial statements of the System are intended to present only the plan net position and changes in plan net position of the System. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. The City's basic financial statements can be obtained from Finance Department, Controller's Bureau, City of Oakland, 150 Frank H. Ogawa Plaza, Suite 6353; Oakland, California 94612.

a) System Membership

At June 30, 2019 and 2018, the System membership consisted of only retirees and beneficiaries. The System's membership is as follows:

	2019	2018
Retirees and beneficiaries currently receiving benefits:		
Police	475	492
Fire	323	345
Total	<u>798</u>	<u>837</u>

b) Basic Benefit Provisions

The City Charter establishes plan membership, contribution, and benefit provisions. The System provides that any member who completes at least 25 years of service, regardless of age, or completes 20 years of service and attains age 55, or has attained age 65, is eligible for retirement benefits. The basic retirement allowance equals 50% of the compensation attached to the average rank held during the three years immediately preceding retirement, plus an additional allowance of 1 and 2/3% of such compensation for each year of service (up to ten) subsequent to (a) qualifying for retirement and (b) July 1, 1951. However, any member retiring at age 65 with less than 20 years of service shall receive a reduced retirement allowance based upon the number of years of service. A member is eligible for early retirement benefits after 20 to 24 years of service with a retirement allowance based upon 40% to 48% of the compensation attached to the average rank held during the three years preceding retirement. Additionally, a member with 10 to 19 years of service may retire and, on or after the 25th anniversary of his/her date of employment may receive a retirement allowance based upon 20% to 38% of the compensation attached to the average rank held during the three years preceding retirement.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

The System also provides for various death, disability, and survivors' benefits. Death and disability benefits are paid to eligible members who became disabled or passed away prior to retirement. If the member's death or disability is duty related, then the surviving spouse or member is paid a pension equivalent to an immediate service retirement. The duty related death or disability pension is paid at a level no less than 50% of the pay attached to the rank. If a death occurs after retirement, then a one-time payment of \$1,000 is paid to the member's designated beneficiary.

After retirement, members receive benefits based on a fixed monthly dollar amount. Pension amounts change based on changes to the compensation attached to the average rank. Upon a retiree's death, benefits are continued to an eligible surviving spouse at a two-thirds level for service and non-duty disabled retirees and at a 100% level for retirements for duty disability.

2. Summary of Significant Accounting Policies

a) Basis of Presentation

The financial statements are prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. The System adheres to the reporting requirements established by the Governmental Accounting Standards Board (GASB).

b) Measurement Focus and Basis of Accounting

The financial statements are prepared on a flow of economic resources measurement focus using the accrual basis of accounting. Contributions are recognized in the period in which the contributions are due pursuant to formal commitments as well as statutory or contractual requirements, and benefits and refunds are recognized when payable under plan provisions.

c) Methods Used to Value Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair values based on the net asset value as determined by the fund manager based on quoted market prices of fund holdings or values provided by the custodian or the applicable money manager.

d) Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

3. Contributions

In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contribute a percentage of their earned salaries based upon entry age as determined by consulting actuaries. During the years ended June 30, 2019 and 2018, there were no employee contributions.

In March 1997, the City issued pension obligation bonds and deposited \$417 million into the System to pay the City's contributions through June 2011. In accordance with an agreement entered into at the time the pension obligation bonds were issued in 1997, the City was not expected to contribute until July 2011. In the year ended June 30, 2005, the City transferred excess proceeds of \$17.7 million from the Oakland Joint Powers Financing Authority Refunding Revenue 2005 Series B Bond to fund a portion of the City's future obligation to the System.

Effective July 1, 2011, the City resumed contributing to the System. The City contributed \$45.5 million in the year ended June 30, 2012. Using the current actuarial cost method, these contributions are based on spreading costs as a level percentage of all uniformed employees' compensation through June 30, 2026. Budgeted administrative expenses are included in the City contribution rates. The City must contribute, at a minimum, such amounts as are necessary, on an actuarial basis, to provide assets sufficient to meet benefits to be paid to plan members.

On July 30, 2012, the City contributed \$210 million to the System. As a result of a funding agreement entered into between the System's Board and the City no additional contributions were required until July 1, 2017. The City resumed contributions to the System on July 1, 2017. The City contributed \$44.82 million and \$44.86 million in the years ended June 30, 2019 and 2018, respectively. The next required contribution for fiscal year 2020 is \$43.41 million.

4. Cash, Deposits and Investments

a) Investment Policy

The System's investment policy authorizes investment in U.S. equities, international equities, U.S. fixed income instruments including U.S. Treasury notes and bonds, government agency mortgage backed securities, U.S. corporate notes and bonds, collateralized mortgage obligations, Yankee bonds and non U.S.-issued fixed income securities denominated in foreign currencies. The System's investment portfolio is managed by external investment managers, except for the bond iShares which are managed internally. During the years ended June 30, 2019 and 2018, the number of external investment managers was twelve and eleven, respectively.

The System investments are also restricted by the City Charter. In November 2006, City voters passed Measure M to amend the City Charter to allow the System's Board to invest in non-dividend paying stocks and to change the asset allocation structure from 50% equities and 50% fixed income to the Prudent Person Standard as defined by the California Constitution.

The System's Investment Policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The System's investment policy allows the fixed income managers to invest in fixed income instruments and some exposure to investments below an investment grade rating of B-, as long as the portfolio maintains an average credit quality of BBB (investment grade using Standard & Poor's, Moody's or Fitch ratings).

The System's investment policy states that investments in securities known as collateralized mortgage obligations (CMOs) shall be limited to a maximum of 20% of a broker account's fair value with no

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

more than 5% in any one issue. CMOs are mortgage-backed securities that create separate pools of pass-through rates for different classes of bondholders with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options.

The Investment Policy allows for each fixed income asset manager to have a maximum of 10% of any single security investment in their individual portfolios with the exception of U.S. government securities, which is allowed to have a maximum of 25% in each manager's portfolio.

The following was the Board's adopted asset allocation policy as of June 30, 2019 and 2018:

Asset Class	Target Allocation	
	June 30, 2019	June 30, 2018
Fixed Income	21%	31%
Credit	2	2
Covered Calls	5	5
Domestic Equity	40	40
International Equity	12	12
Crisis Risk Offset	20	10
Total	100%	100%

The Board's target allocation does not include cash and cash equivalents, which are designated for approved administrative budget purposes.

b) Concentrations

GASB Statement No. 40 and GASB Statement No. 67 require the disclosure of investments in any one organization that represent 5 percent or more of the System's fiduciary net position. As of June 30, 2019, the System's investments in the Northern Trust Russell 1000 Growth Index Fund and the Parametric Research Affiliates Systematic U.S. Fund represented 22.5% and 6.3%, respectively, of its fiduciary net position. As of June 30, 2018, the System had commingled funds issued by State Street Global Advisors that represent 9.4% of its fiduciary net position.

c) Rate of Return

The money-weighted rate of return is a measure of the rate of return for an asset or portfolio of assets that incorporates the size and timing of cash flows. For the years ended June 30, 2019 and 2018, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expenses, were 6.10% and 10.60%, respectively.

d) Cash and Cash Equivalents

As of June 30, 2019 and 2018, cash and cash equivalents consisted of cash in treasury held in the City's cash and investment pool as well as cash deposits held in bank and with a custodian. Funds in the City Treasury are invested according to the investment policy adopted by the City Council. Interest earned in the City Treasury is allocated monthly to all participants based on the average daily cash balance maintained by the respective funds. Information regarding the characteristics of the entire investment pool can be found in the City's June 30, 2019 and 2018 basic financial statements. As of June 30, 2019 and 2018, the System's share of the City's investment pool totaled \$6,471,696 and \$7,819,269, respectively. The System also had cash not included in the City's investment pool. As of June 30, 2019 and 2018, the System's cash and cash deposits not held in the City's investment pool totaled \$12,647 and \$1,809, respectively.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

e) Hierarchy of Inputs

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The System has the following recurring fair value measurements as of June 30, 2019:

2019				
	Level One	Level Two	Level Three	Total
Investments by fair value level:				
Short-Term Investments	\$ -	\$ 2,485,991	\$ -	\$ 2,485,991
Bonds	13,419,178	98,870,991	-	112,290,169
Domestic Equities and Mutual Funds	64,821,686	-	-	64,821,686
International Equities and Mutual Funds	33,045,062	-	1,656	33,046,718
Alternative Investments	30,912,896	-	-	30,912,896
Total investments by fair value level	<u>\$ 142,198,822</u>	<u>\$ 101,356,982</u>	<u>\$ 1,656</u>	<u>243,557,460</u>

Investments measured at net asset value (NAV):

Short-Term Investments	10,093,535
Fixed Income Funds	7,960,335
Domestic Equities and Mutual Funds	86,628,842
International Equities and Mutual Funds	13,684,437
Hedge Fund	24,299,983
Securities Lending Collateral - Short-Term Investment Fund	34,020,163
Total investments measured at NAV	<u>176,687,295</u>

Total investments measured at fair value **\$420,244,755**

The System has the following recurring fair value measurements as of June 30, 2018:

2018				
	Level One	Level Two	Level Three	Total
Investments by fair value level:				
Short-Term Investments	\$ -	\$ 196,076	\$ -	\$ 196,076
Bonds	-	90,588,991	-	90,588,991
Domestic Equities and Mutual Funds	130,881,940	23,404	-	130,905,344
International Equities and Mutual Funds	32,161,981	-	1,718	32,163,699
Alternative Investments	71,132,094	-	-	71,132,094
Total investments by fair value level	<u>\$ 234,176,015</u>	<u>\$ 90,808,471</u>	<u>\$ 1,718</u>	<u>324,986,204</u>

Investments measured at net asset value (NAV):

Short-Term Investments	4,088,777
Fixed Income Funds	7,724,005
Domestic Equities and Mutual Funds	20,695,322
International Equities and Mutual Funds	14,606,720
Securities Lending Collateral - Short-Term Investment Fund	43,817,667
Total investments measured at NAV	<u>90,932,491</u>

Total investments measured at fair value **\$415,918,695**

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

Investments measured at NAV represent commingled funds where fair value is measured based on the System's pro rata share of the total NAV. As of June 30, 2019, the System's hedge fund investment has monthly liquidity with a notice period of 5 days. As of June 30, 2018, the System did not have any redemption restrictions on the commingled funds.

f) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As described previously, the System's Investment Policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The weighted average duration for the System's fixed income investment portfolio excluding fixed income short-term investments and securities lending investments was 6.92 years as of June 30, 2019, and 6.00 years as of June 30, 2018.

The following summarizes the System's fixed income investments by category as of June 30, 2019 and 2018:

Short-Term Investment Duration

Investment Type	2019		2018	
	Fair Value	Modified Duration (Years)	Fair Value	Modified Duration (Years)
Short-Term Investment Funds	\$ 12,579,526	n/a	\$ 4,284,853	n/a
Foreign Currency Exchange Contracts, Net	None	n/a	(939)	n/a

Long-Term Investment Duration

Investment Type	2019		2018	
	Fair Value	Modified Duration (Years)	Fair Value	Modified Duration (Years)
Fixed Income Investments				
U.S. Government Bonds				
U.S. Treasuries	\$ 18,478,407	6.42	\$ 20,481,395	6.74
Government Agencies	34,766,352	7.45	29,039,194	8.85
Total U.S. Government Bonds	<u>53,244,759</u>		<u>49,520,589</u>	
Corporate and Other Bonds				
Corporate Bonds	<u>67,005,745</u>	6.79	<u>48,792,407</u>	3.99
Total Fixed Income Investments	<u>\$120,250,504</u>	6.92	<u>\$ 98,312,996</u>	6.00
Securities Lending	<u>\$ 34,020,163</u>		<u>\$ 43,817,667</u>	

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

g) Fair Value Highly Sensitive to Change in Interest Rates

The terms of a debt investment may cause its fair value to be highly sensitive to interest rate changes. The System has invested in CMOs, which are mortgage-backed bonds that pay pass-through rates with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options, which are triggers related to quantities of delinquencies or defaults in the loans backing the mortgage pool. If a balance of delinquent loans reaches a certain threshold, interest and principal that would be used to pay junior bondholders is instead directed to pay off the principal balance of senior bondholders, shortening the life of the senior bonds.

The following are the System's investments in CMOs at June 30, 2019:

Investment Type	Weighted Average Coupon Rate	Weighted Average Maturity (Years)	Fair Value	Percent of Total Investments Fair Value
Mortgage-backed securities	3.88%	25.76	\$26,460,818	6.30%

The following are the System's investments in CMOs at June 30, 2018:

Investment Type	Weighted Average Coupon Rate	Weighted Average Maturity (Years)	Fair Value	Percent of Total Investments Fair Value
Mortgage-backed securities	3.43%	25.09	\$18,704,567	4.50%

h) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation.

The following provides information concerning the credit risk of fixed income securities as of June 30, 2019 and 2018:

Short-Term Investment Ratings

Investment Type	2019		2018	
	S&P Moody's/ Fitch Rating	Fair Value	S&P Moody's/ Fitch Rating	Fair Value
Short-Term Investment Funds	Not Rated	\$12,579,526	Not Rated	\$4,284,853
Foreign Currency Exchange Contracts, Net	N/A	None	Not Rated	(939)

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

Long-Term Investment Ratings

S&P / Moody's Rating	2019		2018	
	Fair Value	Percentage of Total Fair Value	Fair Value	Percentage of Total Fair Value
AAA/Aaa	\$ 41,409,989	34.44%	\$ 38,377,809	39.04%
AA/Aa	28,801,312	23.95%	24,802,989	25.23%
A/A	13,190,791	10.97%	11,368,132	11.56%
BBB/Baa	14,583,850	12.13%	14,624,173	14.88%
BB/Ba	885,050	0.74%	1,415,888	1.44%
CCC/CCC	-	0%	7,724,005	7.85%
Unrated	21,379,513	17.77%	-	0%
	<u>\$ 120,250,504</u>	<u>100.00%</u>	<u>\$ 98,312,996</u>	<u>100.00%</u>

Securities Lending Ratings

S&P / Moody's Rating	2019 Fair Value	2018 Fair Value
Not Rated	\$ 34,020,163	\$ 43,817,667

i) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of a depository financial institution or counterparty to a transaction, there will be an inability to recover the value of deposits, investments, or collateral securities in the possession of an outside party.

The California Government Code requires that governmental securities or first trust deed mortgage notes be used as collateral for demand deposits and certificates of deposit at 110 percent and 150 percent, respectively, of all deposits not covered by federal deposit insurance. As the City holds cash and certificates of deposit on behalf of the System, the collateral must be held by the pledging financial institution's trust department and is considered held in the City's name. For all other System deposits, the collateral must be held by the pledging financial institution's trust department and is considered held in the System's name.

The City, on behalf of the System, does not have any funds or deposits that are not covered by depository insurance, which are either uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent, but not in the City's name. The System does not have any investments that are not registered in the name of the System and are either held by the counterparty or the counterparty's trust department or agent but not in the System's name.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

j) Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchanges rates will adversely affect the fair values of an investment or deposit. Currency hedging is allowed under the System's investment policy for defensive purposes only. The investment policy limits currency hedging to a maximum of 25% of the portfolio value.

The following summarizes the System's investments denominated in foreign currencies as of June 30, 2019 and 2018:

Foreign Currency	Fair Value	
	June 30, 2019	June 30, 2018
Australian Dollar	\$ 726,669	\$ 633,313
British Pound	3,881,313	3,325,984
Canadian Dollar	190,691	614,019
Danish Krone	1,046,692	1,209,334
Euro	9,930,129	10,272,537
Hong Kong Dollar	2,806,718	2,577,428
Indonesian Rupiah	336,856	216,320
Japanese Yen	4,060,244	3,833,495
Mexican Peso	620,720	891,955
Norwegian Krone	173,665	233,382
Singapore Dollar	330,028	362,887
Swedish Krona	448,360	542,959
Swiss Franc	1,512,860	1,690,353
Total	<u>\$ 26,064,945</u>	<u>\$ 26,403,966</u>

k) Securities Lending Transactions

The System's investment policy authorizes participation in securities lending transactions, which are short-term collateralized loans of the System's securities to broker-dealers with a simultaneous agreement allowing the System to invest and receive earnings on the collateral received. All securities loans can be terminated on demand by either the System or the borrower, although the average term of loans is one week.

The administrator of the System's securities lending activities is responsible for maintaining an adequate level of collateral in an amount equal to at least 102% of market value of loaned U.S. government securities, common stock and other equity securities, bonds, debentures, corporate debt securities, notes, and mortgages or other obligations. Collateral received may include cash, letters of credit, or securities. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the said collateral. If securities collateral is received, the System cannot pledge or sell the collateral securities unless the borrower defaults.

As of June 30, 2019 and 2018, management believes the System has minimized its credit risk exposure to borrowers because the amounts held by the System as collateral exceeded the securities loaned by the System. The System's contract with the administrator requires it to indemnify the System if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities borrowed) or fails to pay the System for income distributions by the securities' issuers while the securities are on loan.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

The following summarizes investments in securities lending transactions and collateral received at June 30, 2019 and 2018:

Securities Lending as of June 30, 2019			
Investment Type	Fair Value of Loaned Securities		
	For Cash Collateral	For Non-Cash Collateral	Total
Securities on Loan for Cash Collateral			
U.S. Government and agencies	\$ 10,531,762	\$ 4,119,916	\$ 14,651,678
U.S. Corporate bonds	5,350,565	-	5,350,565
U.S. Equities	17,536,838	635,146	18,171,984
Non-U.S. equities	-	967,891	967,891
Total investments in securities lending transactions	<u>\$ 33,419,165</u>	<u>\$ 5,722,953</u>	<u>\$ 39,142,118</u>
Collateral Received	<u>\$ 34,017,817</u>	<u>\$ 5,913,897</u>	<u>\$ 39,931,714</u>
Securities Lending as of June 30, 2018			
Investment Type	Fair Value of Loaned Securities		
	For Cash Collateral	For Non-Cash Collateral	Total
Securities on Loan for Cash Collateral			
U.S. Government and agencies	\$ 11,585,884	\$ -	\$ 11,585,884
U.S. Corporate bonds	3,197,728	-	3,197,728
U.S. Equities	28,094,792	1,395,896	29,490,688
Non-U.S. equities	3,492	966,061	969,553
Total investments in securities lending transactions	<u>\$ 42,881,896</u>	<u>\$ 2,361,957</u>	<u>\$ 45,243,853</u>
Collateral Received	<u>\$ 43,815,338</u>	<u>\$ 2,452,457</u>	<u>\$ 46,267,795</u>

I) Derivative Instruments

The Retirement System reports its derivative instruments under the provisions of GASB Statement No. 53, *Accounting and Financial Reporting for Derivatives Instruments*. Pursuant to the requirements of this statement, the Retirement System has provided a summary of derivative instrument activities during the reporting periods presented and the related risks.

As of June 30, 2019 and 2018, the derivative instruments held by the Retirement System are considered investments and not hedges for accounting purposes. All investment derivatives are reported as investments at fair value in the statements of fiduciary net position. The gains and losses arising from this activity are recognized as incurred in the statement of changes in fiduciary net position. All investment derivatives discussed below are included within the investment risk schedules, which precede this subsection. Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio.

Valuation methods used by the System are described in more detail in Note 2.c). The fair value of the exchange traded derivative instruments, such as futures, options, rights, and warrants are based on quoted market prices. The fair values of forward foreign currency contracts are determined using a pricing service, which uses published foreign exchange rates as the primary source. The fair values of swaps are determined by the System's investment managers based on quoted market prices of the underlying investment instruments.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

The tables below present the notional amounts, the fair values, and the related net appreciation (depreciation) in the fair value of derivative instruments that were outstanding at June 30, 2019 and 2018:

As of and for the Year Ended June 30, 2019			
Derivative Type / Contract	Notional Amount	Fair Value	Net Appreciation (Depreciation) in Fair Value
Options			
Equity Contracts	\$ 82	\$ (588,704)	\$ (264,482)
Swaps			
Credit Contracts	1,660,000	74,601	9,478
Total	<u>\$ 1,660,082</u>	<u>\$ (514,103)</u>	<u>\$ (255,004)</u>

As of and for the Year Ended June 30, 2018			
Derivative Type / Contract	Notional Amount	Fair Value	Net Appreciation (Depreciation) in Fair Value
Forwards			
Foreign Currency Exchange Contracts	\$ -	\$ 345	\$ -
Options			
Equity Contracts	238	(195,759)	382,413
Swaps			
Credit Contracts	320,900	(19,038)	(39,278)
Total	<u>\$ 321,138</u>	<u>\$ (214,452)</u>	<u>\$ 343,135</u>

Counterparty Credit Risk

The System is not exposed to credit risk on non-exchange traded derivative instruments that are in asset positions. As of June 30, 2019, the System did not hold any forward currency contracts. As of June 30, 2018, the fair value of forward currency contracts to purchase and sell international currencies were \$345. The System's counterparties to these contract held credit ratings of A or better, as assigned by one or more of the major credit rating organizations (S&P, Moody's and/or Fitch).

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. At June 30, 2019 and 2018, all of the System's investments in derivative instruments are held in the System's name and are not exposed to custodial credit risk.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

Interest Rate Risk

The tables below describe the maturity periods of the derivative instruments exposed to interest rate risk at June 30, 2019 and 2018.

Derivative Interest Rate Risk as of June 30, 2019			
Derivative Type / Contract	Fair Value	Maturities	
		Less than 1 Year	1-5 years
Options			
Equity Contracts	\$ (588,704)	\$ (588,704)	\$ -
Swaps			
Credit Contracts	74,601	-	74,601
Total	<u>\$ (514,103)</u>	<u>\$ (588,704)</u>	<u>\$ 74,601</u>

Derivative Interest Rate Risk as of June 30, 2018			
Derivative Type / Contract	Fair Value	Maturities	
		Less than 1 Year	1-5 years
Forwards			
Forward Foreign Currency Exchange Contracts	\$ 345	\$ 345	\$ -
Options			
Equity Contracts	(195,759)	(195,759)	-
Swaps			
Credit Contracts	(19,038)	-	(19,038)
Total	<u>\$ (214,452)</u>	<u>\$ (195,414)</u>	<u>\$ (19,038)</u>

Foreign Currency Risk

At June 30, 2019 and 2018, the System is not exposed to foreign currency risk for its derivative instruments.

Contingent Features

At June 30, 2019 and 2018, the Retirement System held no positions in derivatives containing contingent features.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

5. Net Pension Liability

The components of the net pension liability of the City at June 30, 2019 and 2018, are as follows:

	<u>June 30, 2019</u>	<u>June 30, 2018</u>
Total pension liability	\$ 628,212,362	\$ 656,193,314
Less: Plan fiduciary net position	<u>(384,710,714)</u>	<u>(375,976,271)</u>
City's net pension liability	<u><u>\$ 243,501,648</u></u>	<u><u>\$ 280,217,043</u></u>
Plan fiduciary net position as a percentage of the total pension liability	61.2%	57.3%

a) Actuarial Method and Assumptions

The total pension liability as of June 30, 2019 was determined based on an actuarial valuation as of July 1, 2018, using the entry age normal actuarial cost method and the following actuarial assumptions, applied to all periods included in the measurement.

Investment Rate of Return	5.44%
Inflation Rate, U.S.	2.75%
Inflation Rate, Bay Area	2.85%
Long-term Post-Retirement Benefit Increases	3.25%

Measurements as of the June 30, 2019 are based on the fair value of assets as of June 30, 2019 and the total pension liability as of the valuation date, June 30, 2018, updated to June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019, and the Total Pension Liability as of the valuation date, June 30, 2018, updated to June 30, 2019. New Memorandums of Understanding (MOUs) went into effect for both Police and Fire members between the valuation date and the measurement date, changing both Police and Fire retirees' cost of living adjustments (COLAs). The update procedures included the changes in liability due to the new Police and Fire MOUs, and the addition of interest cost, offset by actual benefit payments. There are no active members of the Plan, and thus no service cost.

Mortality rates for healthy lives were based on the CalPERS Healthy Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. Mortality rates for disabled lives were based on the CalPERS Industrial Disability Mortality Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. The mortality tables are projected to improve with MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

The total pension liability as of June 30, 2018 was determined based on an actuarial valuation as of June 30, 2017, using the entry age normal actuarial cost method and the actuarial assumptions as described above for the June 30, 2018 valuation, except for the assumed investment rate of return was 5.50%. Measurements as of June 30, 2018 are based on the fair value of assets as of June 30, 2018, and the total pension liability as of the valuation date, June 30, 2017, updated to June 30, 2018. There were no significant events between the valuation date and the measurement date. The update procedures included the additional liability due to assumption changes and the addition of interest cost offset by actual benefit payments.

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

The actuarial assumptions used in the July 1, 2018 and 2017 valuations were based on the results of actuarial experience studies for the periods July 1, 2014 through June 30, 2017.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major class included in the pension plan's target asset allocation as of June 30, 2019 and 2018 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	
	June 30, 2019	June 30, 2018
Fixed Income	3.10%	3.40%
Domestic Equity	6.00	5.75
International Equity	6.80	6.80
Covered Calls	6.10	5.25
Crisis Risk Offset	4.80	4.40
Cash	2.50	2.25

b) Discount Rate

The discount rates used to measure the total pension liability were 5.44% and 5.50% as of June 30, 2019 and 2018, respectively. The projection of cash flows used to determine the discount rate assumed that the City would contribute to the Plan based on its July 1, 2012 funding agreement with the System. This agreement suspends City contributions until the fiscal year beginning July 1, 2017, after which they will resume, based upon the recommendation of the actuary, with a City Charter requirement that the Plan's liabilities be fully funded by July 1, 2026. A cash flow projection showed that the projected fiduciary net position would be greater than or equal to the benefit payments projected for each future period. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

c) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City, calculated using the discount rate, as well as what the Plan's net pension liability would be if it were calculated using a discount rate of 1-percentage-point lower or 1-percentage-point higher than the discount rate.

	June 30, 2019		
	1% Decrease (4.44%)	Current Discount Rate (5.44%)	1% increase (6.44%)
City's net pension liability	\$301,403,454	\$243,504,648	\$193,837,313

	June 30, 2018		
	1% Decrease (4.50%)	Current Discount Rate (5.50%)	1% increase (6.50%)
City's net pension liability	\$341,960,228	\$280,217,043	\$227,411,930

Oakland Police and Fire Retirement System
Notes to the Basic Financial Statements
Years Ended June 30, 2019 and 2018

6. Reserves

Retired Member Contribution Reserve represents the total accumulated transfers from active member contributions and investments, less payments to retired members and beneficiaries.

Employer Reserve represents the total accumulated employer contributions for retirement payments. Additions include contributions from the employer, investment earnings and other income; deductions include payments to retired members and beneficiaries and administrative expenses.

The aggregate total of the System's major reserves as of June 30, 2019 and 2018 equals net position restricted for pensions and comprises the following:

	2019	2018
Retired member contribution reserve	\$ 31,655,922	\$ 34,171,935
Employer reserve	353,054,722	341,804,336
Total	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>

7. Administrative Expenses

The City provides the System with accounting and other administrative services. Staff salaries included in administrative expenses for the years ended June 30, 2019 and 2018 were \$1,073,971 and \$1,100,074, respectively. Other administrative expenses including accounting and audit services, legal fees, annual report and miscellaneous expense for the years ended June 30, 2019 and 2018 were \$372,390 and \$390,412, respectively.

8. Receivable from Retired Members and Beneficiaries

The City filed a lawsuit (City of Oakland v. Oakland Police and Fire Retirement System, et al., Alameda County Superior Court case number RG 11580626) in June 2011, and sought to stop the System from paying retirement benefits based on certain holidays and shift differential premium pay (7.25%) to many police retirees. The City also sought an order requiring the System to collect overpayments. The trial court ruled in favor of the City and the decision was partially upheld upon appeal. The Court of Appeal agrees that those elements were overpayments, but limited the extent to which shift differential overpayments could be recovered back from retirees.

The writ and judgment entered by the trial court after the appeals process directed the System's board to cease paying excessive holidays and the shift differential premium. In September and October 2014, the System's Board passed Resolutions No. 6819 and No. 6824 to seek 100% recovery of the combined overpayments, which totals approximately \$3.9 million. On October 28, 2015, the System's Board approved a collection methodology to recover the overpayments from police members over a 48-month period. The System began deducting these repayments from benefit disbursement commencing in June 2016. Eleven payees were granted a delayed repayment date, which commenced on May 1, 2017. Nine payees received a discharge of their debt totaling \$51,886. These actions increased fund assets by approximately \$3.3 million. As of June 30, 2019 and 2018, the receivable totaled \$0.9 million and \$1.6 million, respectively.

**Oakland Police and Fire Retirement System
Required Supplementary Information
Years Ended June 30, 2019 and 2018**

**Schedule of Changes in the Employer's Net Pension Liability
and Related Ratios (Unaudited)**

	2019	2018	2017	2016	2015	2014
<u>Total Pension Liability</u>						
Interest (includes interest on service cost)	\$ 37,621,301	\$ 44,320,094	\$ 44,931,829	\$ 42,480,394	\$ 41,262,826	\$ 42,333,496
Differences between expected and actual experience	(7,915,210)	(10,656,139)	3,027,944	6,977,470	(21,208,627)	-
Changes of assumptions	(1,475,030)	17,858,013	-	43,480,232	34,219,433	-
Benefit payments, including refunds of member contributions	(56,212,013)	(55,998,595)	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Net change in total pension liability	(27,980,952)	(4,476,627)	(9,416,042)	34,496,743	(4,733,904)	(15,075,617)
Total pension liability – beginning	656,193,314	660,669,941	670,085,983	635,589,240	640,323,144	655,398,761
Total pension liability – ending (a)	\$ 628,212,362	\$ 656,193,314	\$ 660,669,941	\$ 670,085,983	\$ 635,589,240	\$ 640,323,144
<u>Plan fiduciary net position</u>						
Contributions - member	\$ 44,821,000	\$ 44,860,000	\$ -	\$ -	\$ -	\$ 4,441
Net investment income	21,557,961	35,446,275	50,158,795	(1,418,645)	15,438,586	66,392,409
Benefit payments, including refunds of member contributions	(56,212,013)	(55,998,595)	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Administrative expense	(1,446,361)	(1,543,412)	(1,261,641)	(1,375,749)	(985,227)	(776,112)
Claims and settlements	13,856	9,145	70,282	3,593,096	-	-
Net change in plan fiduciary net position	8,734,443	22,773,413	(8,408,379)	(57,642,651)	(44,554,177)	8,211,625
Plan fiduciary net position – beginning	375,976,271	353,202,858	361,611,237	419,253,888	463,808,065	455,596,440
Plan fiduciary net position – ending (b)	\$ 384,710,714	\$ 375,976,271	\$ 353,202,858	\$ 361,611,237	\$ 419,253,888	\$ 463,808,065
City's net pension liability – ending (a) – (b)	\$ 243,501,648	\$ 280,217,043	\$ 307,467,083	\$ 308,474,746	\$ 216,335,352	\$ 176,515,079
Plan fiduciary net position as a percentage of the total pension liability	61%	57%	53%	54%	66%	72%
Covered payroll	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net pension liability as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A

Note: This is a 10-year schedule. Information for additional years will be presented when available.

**Oakland Police and Fire Retirement System
Required Supplementary Information
Years Ended June 30, 2019 and 2018**

**Schedule of Employer Contributions (Unaudited)
(dollars in millions)**

	<u>2019</u>	<u>2018</u>	<u>2017*</u>	<u>2016*</u>	<u>2015*</u>	<u>2014*</u>	<u>2013**</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Actuarially determined contribution	\$ 44.8	\$ 44.9	N/A	N/A	N/A	\$ 20.3	\$ 34.2	\$ 45.1	\$ 41.4	\$ 37.5
Contributions in relation to the actuarially determined contribution	<u>\$ 44.8</u>	<u>\$ 44.9</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 210.0</u>	<u>\$ 45.5</u>	<u>\$ -</u>	<u>\$ -</u>
Contribution deficiency/(excess)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 20.3</u>	<u>\$(175.8)</u>	<u>\$(0.4)</u>	<u>\$ 41.4</u>	<u>\$ 37.5</u>
Covered payroll	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1
Contributions as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	210000%	45500%	0%	0%

* Actuarially determined contributions are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year. Although actuarial valuations were performed as of June 30, 2014, June 30, 2015, and June 30, 2016, the System did not determine an actuarially determined contribution for FY 2015-2017, based on the City's funding policy.

** In July 2012, the City of Oakland contributed \$210 million in Pension Obligation Bond (POB) proceeds to the Plan.

**Oakland Police and Fire Retirement System
Required Supplementary Information
Years Ended June 30, 2019 and 2018**

Schedule of Investment Returns (Unaudited)

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Annual money-weighted rate of return net of investment	6.10%	10.57%	15.57%	-0.75%	3.90%	16.40%	9.70%	1.40%	24.50%	17.20%

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)

As of November 30, 2019

	Approved Budget					
		November 2019	FYTD	Remaining	Percent Remaining	
Internal Administrative Costs						
PFRS Staff Salaries	\$ 1,134,000	\$ 79,903	\$ 453,157	\$ 680,843	60.0%	
Board Travel Expenditures	52,500	296	3,514	48,986	93.3%	
Staff Training	20,000	-	125	19,875	99.4%	
Staff Training - Tuition Reimbursement	7,500	-	-	7,500	100.0%	
Annual Report & Duplicating Services	4,000	-	-	4,000	100.0%	
Board Hospitality	3,600	306	995	2,605	72.4%	
Payroll Processing Fees	40,000	-	-	40,000	100.0%	
Miscellaneous Expenditures	40,000	430	5,751	34,249	85.6%	
Internal Service Fees (ISF)	77,000	5,492	67,631	9,369	12.2%	
Contract Services Contingency	50,000	-	1,200	48,800	97.6%	
Office Construction Costs*	5,128	-	-	5,128	100.0%	
Internal Administrative Costs Subtotal :	\$ 1,433,728	\$ 86,428	\$ 532,372	\$ 901,356	62.9%	
Actuary and Accounting Services						
Audit	\$ 45,000	\$ 21,446	\$ 21,446	\$ 23,554	52.3%	
Actuary	46,500	13,341	13,341	33,159	71.3%	
Actuary and Accounting Subtotal:	\$ 91,500	\$ 34,787	\$ 34,787	\$ 56,713	62.0%	
Legal Services						
City Attorney Salaries	\$ 188,000	\$ 12,020	\$ 55,414	\$ 132,586	70.5%	
Legal Contingency	150,000	-	695	149,306	99.5%	
Legal Services Subtotal:	\$ 338,000	\$ 12,020	\$ 56,108	\$ 281,892	83.4%	
Investment Services						
Money Manager Fees	\$ 1,349,000	\$ 107,428	\$ 286,232	\$ 1,062,768	78.8%	
Custodial Fee	124,000	29,125	29,125	94,875	76.5%	
Investment Consultant (Meketa)	100,000	-	25,000	75,000	75.0%	
Investment Subtotal:	\$ 1,573,000	\$ 136,553	\$ 340,357	\$ 1,232,643	78.4%	
Total Operating Budget	\$ 3,436,228	\$ 269,789	\$ 963,624	\$ 2,472,604	71.96%	

*Carry Forward from FY 2018-2019

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of November 30, 2019

	November 2019
Beginning Cash as of 10/31/2019	\$ 6,867,976
Additions:	
City Pension Contribution - November	\$ 3,617,417
Investment Draw (Incoming Wire) - 11/1/2019	1,000,000
Misc. Receipts	775
Total Additions:	<u>\$ 4,618,192</u>
Deductions:	
Pension Payment (October Pension Paid on 11/1/2019)	(4,533,611)
Expenditures Paid	(311,817)
Total Deductions	<u>\$ (4,845,428)</u>
Ending Cash Balance as of 11/30/2019*	<u><u>\$ 6,640,739</u></u>

* On 12/1/2019, November pension payment of appx \$4,594,000 will be made leaving a cash balance of \$2,047,000

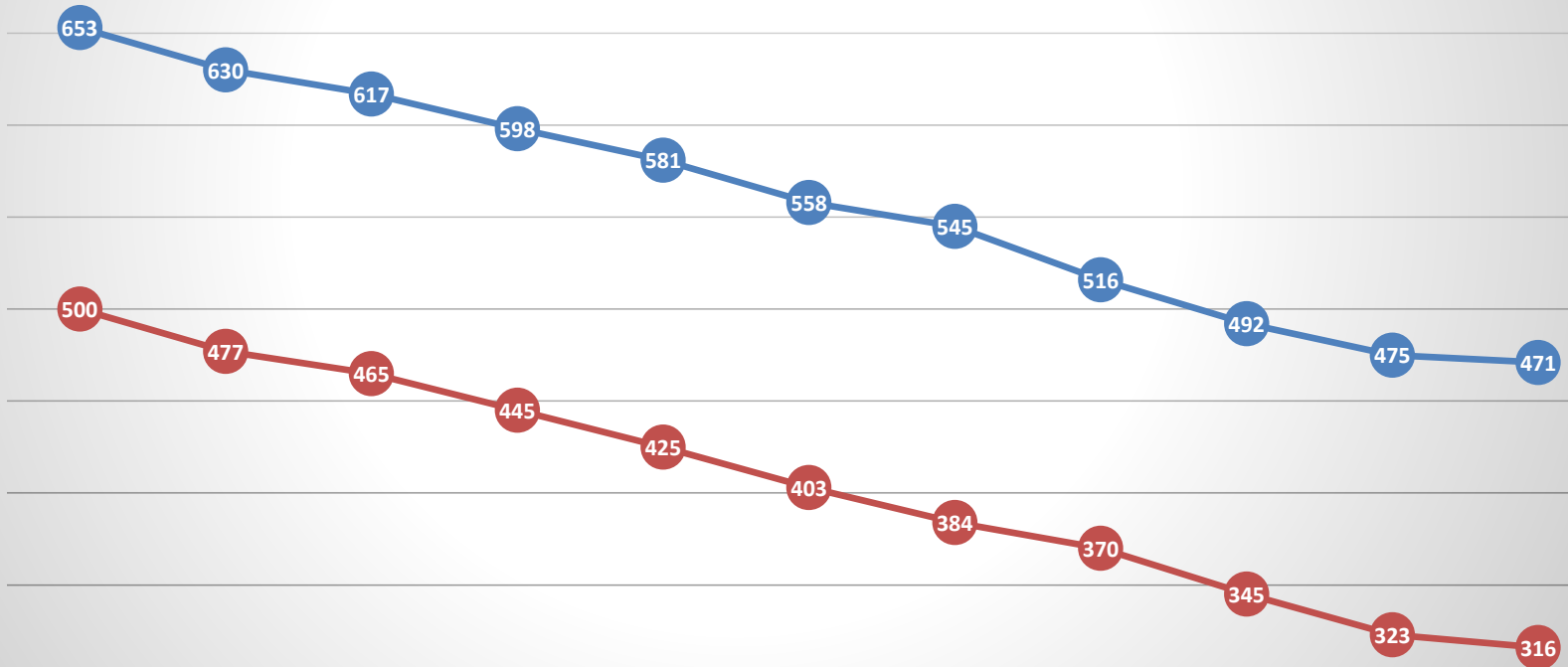
Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census
As of November 30, 2019

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	345	197	542
Beneficiary	126	119	245
<i>Total Retired Members</i>	471	316	787
<i>Total Membership:</i>	471	316	787

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	312	164	476
Disability Retirement	145	139	284
Death Allowance	14	13	27
<i>Total Retired Members:</i>	471	316	787
<i>Total Membership as of November 30, 2019:</i>	471	316	787
<i>Total Membership as of June 30, 2019:</i>	475	323	798
<i>Annual Difference:</i>	-4	-7	-11

Oakland Police and Fire Retirement System Pension Plan Membership Count As of November 30, 2019 (FY 2010 - FY 2019)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 FYTD
Police	653	630	617	598	581	558	545	516	492	475	471
Fire	500	477	465	445	425	403	384	370	345	323	316
Total	1153	1107	1082	1043	1006	961	929	886	837	798	787



A G E N D A R E P O R T

TO: Oakland Police and Fire
Retirement Board

FROM: David Jones

SUBJECT: Approve Printing and Distribution of PFRS
Annual Report for the Fiscal Year ended
June 30, 2019

RECOMMENDATION

The PFRS Annual Report for the Fiscal Year ended June 30, 2019 has been completed and is submitted here for Board approval for Printing and Distribution.

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

Attachment(1):

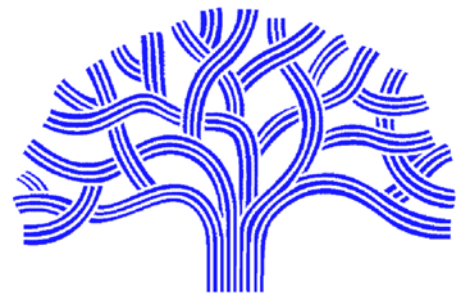
- DRAFT Annual Report of the Oakland Police and Fire Retirement System for the Fiscal Year Ended June 30, 2019

ATTACHMENT 1

POLICE & FIRE RETIREMENT SYSTEM



ANNUAL REPORT
Fiscal Year Ended June 30, 2019



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SECTION 1

INTRODUCTION



*Raul Martin, Police Officer,
Served with OPD from 1969 to 1983.*

LETTERS OF TRANSMITTAL

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, SUITE 3349 · OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-3307
FAX (510) 238-7129
TDD (510) 839-6451

December 1, 2019

Oakland City Council
1 Frank H. Ogawa Plaza
Oakland, CA 94612

Honorable Mayor Schaaf and Members of the City Council:

In compliance with Ordinance Number 713 C.M.S., I am pleased to present the annual report of the Oakland Police and Fire Retirement System for the fiscal year ended June 30, 2019. Provided in this report are the Plan's Financial Information, Investment Performance, and Actuarial Valuation for the corresponding year.

The members of the Board express their appreciation to the Mayor and City Council, City Manager, City Attorney, the various City Agencies and Departments and the members of their staff for their cooperation and assistance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Walter L. Johnson, Sr.", written in a cursive, flowing style.

Walter L. Johnson, Sr., President
Oakland Police and Fire Retirement System

LETTERS OF TRANSMITTAL

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, SUITE 3349 · OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-3307
FAX (510) 238-7129
TDD (510) 839-6451

November 21, 2019

Oakland Police and Fire Retirement Board
150 Frank H. Ogawa Plaza, Suite 3349
Oakland CA 94612

Board of Trustees:

I am pleased to present the Annual Report of the Oakland Police and Fire Retirement System for the fiscal year ending June 30, 2019.

ACCOUNTING SYSTEM

The accompanying financial statements have been prepared in compliance with the City Charter and in accordance with the accounting and reporting requirements of the Governmental Accounting Standards Board (GASB) and the reporting requirements prescribed by the Government Finance Officers' Association of the United States and Canada (GFOA).

The method for recording revenues and expenses is on an accrual basis. Revenue is taken into account when earned, regardless of the date of the collection, and expenses are recorded when the corresponding liabilities are incurred instead of when payment is made. Amortization of bond premiums and discounts are over the life of the investment security and actuarial reserves are funded via the entry age normal cost method.

ADDITIONS

Additions to the plan includes all income received into the Plan for the Fiscal Year. Pension Plan's sources of income include items such as contributions and investment income. Total additions for the fiscal year ended June 30, 2019 were \$66,392,817. This amount includes a net investment gains of \$21,551,868. Net investment includes appreciation or depreciation in fair value of investments, interest income and dividend income less investment expenses during the fiscal year. As of June 30, 2019, all the System's members are retired.

LETTERS OF TRANSMITTAL

On July 30, 2012, the City deposited \$210 million from the issuance of Pension Obligation Bonds into the System. As a result of a funding agreement entered into between the System's Board and the City of Oakland no additional contributions are required until July 1, 2017. The City contributed \$44,821,000 and \$44,860,000 in the years ended June 30, 2019 and 2018, respectively.

DEDUCTIONS

Total deductions to the plan in the fiscal year ended June 30, 2019 were \$57,658,374. This amount includes deductions of \$56,212,013 for pension payments to members and qualified beneficiaries.

RESERVES AND FUNDING

The Police and Fire Retirement System's most recent actuarial study values the Plan as of July 1, 2018. Details regarding this actuarial study can be found in Section 4 of this annual report.

As of the most recent actuary study dated July 1, 2018, the System's Unfunded Actuarial Liability is approximately \$299.79 million and the System had a Funded Ratio of 58.1 percent on a Market Value of Assets (MVA) basis. During fiscal year 2019, the City of Oakland contributed \$44.82 million to the System. The next required City contribution is projected to be approximately \$43.41 million in FY 2019-2020.

INVESTMENTS

The Police and Fire Retirement System Investment Policy is used as a guideline for all investment activities. The Investment Policy includes an asset allocation plan. The plan consists of six asset classes: Domestic Stocks, International Stocks, Fixed Income Instruments, Credit, Covered Calls and Crisis Risk Offset (CRO). In addition, the Policy also allocates among the different investment management styles.

In November 2006, Oakland voters passed Measure M, which modified the City Charter to allow the PFRS Board to invest in non-dividend paying stocks and to switch the asset allocation structure from 50% equities and 50% fixed income to the Prudent Person Standard. During the fiscal year that ended June 30, 2011, the allocation was 70% equities and 30% fixed income. The Board's adopted asset allocation policy as of June 30, 2019 and 2018 and can be found on page 28 of this report.

LETTERS OF TRANSMITTAL

Total Investment Income resulted in a gain of \$21,551,868 in fiscal year 2019. The actual money-weighted annual investment return for fiscal year 2019 was 6.1%. GASB requires that investments be reported at fair value. The appreciation (depreciation) in fair value of investments held by PFRS is recorded as an increase (decrease) in investment income based on the valuation of investments at year-end.

The historical annualized money-weighted rates of return on the portfolios are as follows:

	Total Returns %		
	1 Year	3 Year	5 Year
Total Fund	6.10%	10.8%	6.4%

ACKNOWLEDGEMENTS

The compilation of this report reflects the combined efforts of the Retirement System Administration Staff, the Board of Trustees, and various professional consultants. Its intent is to provide complete and reliable information to the beneficiaries of the Plan, to serve as a basis for making management decisions, and to ensure compliance with legal provisions affecting the administration of the Plan.

Respectfully submitted,



David Jones
Plan Administrator

MEMBERS OF THE BOARD OF ADMINISTRATION



Jaime T. Godfrey
Vice President
Bank Representative



Walter L. Johnson, Sr.
President
Community
Representative



John C. Speakman
Fire Department
Representative



R. Steven Wilkinson
Insurance
Representative

Plan Administrator
David Jones
Treasury Administrator

Legal Advisor, City of Oakland
Jennifer Logue
Deputy City Attorney



Robert J. Muszar
Police Department
Representative

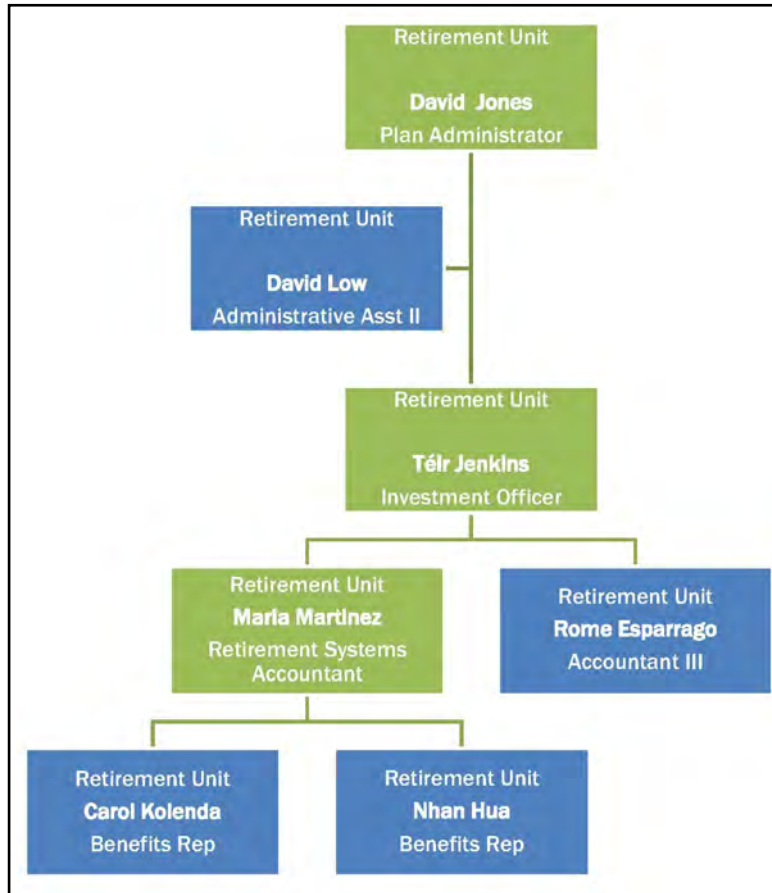


Robert W. Nichelini
Alternating Police / Fire
Representative



Adam Benson
Mayoral
Designate

ADMINISTRATIVE STAFF



PROFESSIONAL SERVICES

Over the past year the Board of Administration has engaged the following consultants to assist in making investments and in developing a sound retirement plan:

Actuary	Cheiron, Inc.
Auditors	Macias Gini & O'Connell LLP
Custodial Service	The Northern Trust Company
Investment Consultant	Meketa Investment Group

A complete list of Investment Professionals is included on page 49 of this Annual Report.

BOARD MEETING INFORMATION

Meeting Location 1 Frank H. Ogawa Plaza, Oakland, CA 94612

Date Last Wednesday of each month

For more information, visit our website at www.oaklandca.gov.

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SECTION 2

FINANCIAL



Mary C. Colletti
Widow of Joseph L. Colletti, Deputy Chief of Police
Served with OPD from 1963 to 1987

INDEPENDENT AUDITOR'S REPORT

For The Years Ended June 30, 2019 and 2018



Independent Auditor's Report

Board of Administration
Oakland Police and Fire Retirement System
Oakland, California

We have audited the accompanying financial statements of the Oakland Police and Fire Retirement System (System), a pension trust fund of the City of Oakland, California (City), as of and for the years ended June 30, 2019 and 2018, 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 an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2019 and 2018, and the changes in financial position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

INDEPENDENT AUDITOR'S REPORT

For The Years Ended June 30, 2019 and 2018

Emphasis of Matter

As described in Note 1, the financial statements present only the System and do not purport to, and do not, present fairly the financial position of the City as of June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of changes in the employer's net pension liability and related ratios, the schedule of employer contributions, and the schedule of investment returns 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 audits were conducted for the purpose of forming an opinion on the System's basic financial statements. The introduction section, investment section, and actuarial section 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. These 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.

Macias Gini & O'Connell LLP

Walnut Creek, California
November 15, 2019

MANAGEMENT'S DISCUSSION & ANALYSIS

As management of the Oakland Police and Fire Retirement System (System), we offer readers of the System's financial statements this narrative overview and analysis of the financial activities of the System for the fiscal years ended June 30, 2019 and 2018. We encourage readers to consider the information presented here in conjunction with the System's financial statements that follow this section. These discussions and analyses are presented in the following sections:

- Organizational Overview and Highlights
- Financial Statement Overview
- Financial Analysis: 2019 vs. 2018
- Financial Analysis: 2018 vs. 2017
- Requests For Additional Information

ORGANIZATIONAL OVERVIEW AND HIGHLIGHTS

The City of Oakland City Charter established the System and provides for its funding. Accordingly, the System is an integral part of the City of Oakland (City) and its operations have been reported as a Pension Trust Fund in the City's basic financial statements. The System is a closed, single employer, defined benefit pension plan that provides retirement, disability and survivor benefits for eligible sworn safety employees of the City. The System serves the City's sworn employees hired prior to July 1, 1976 who have not transferred to the California Public Employees' Retirement System (CalPERS). The System is governed by a board of seven trustees: the Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation.

The System has been funded by periodic employee and City contributions at actuarially determined amounts sufficient to accumulate the necessary assets to pay benefits when due as specified by the City Charter, unless the Board and the City have agreed to other funding options. In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contribute a percentage of their earned salaries based upon entry age as determined by consulting actuaries. During the years ended June 30, 2019 and 2018, the employee contribution rates was 0% for both years. The City Charter limits employee contributions to 13.00% of earned salaries. Employee contributions are refundable with interest at 4.00% if an employee elects to withdraw from the System upon termination with the City. There are no active participants in the Plan as of June 30, 2019 and 2018.

In July 2012, the City deposited \$210 million in pension obligation bond proceeds into the System and entered into a funding agreement with the System Board, which suspended contributions until the fiscal year beginning July 1, 2017.

As of June 30, 2019, the total pension liability of \$628.2 million less the fiduciary net position of \$384.7 million results in a net pension liability of approximately \$243.5 million. The fiduciary net position as a percentage of the total pension liability is 61.2%.

As of June 30, 2018, the total pension liability of \$656.2 million less the fiduciary net position of \$376.0 million results in a net pension liability of approximately \$280.2 million. The fiduciary net position as a percentage of the total pension liability is 57.3%.

The System membership at June 30, 2019 is 798, which includes 547 retirees and 251 beneficiaries. The System membership at June 30, 2018 is 837, which includes 570 retirees and 267 beneficiaries. The following are the significant assumptions used to compute contribution requirements in the July 1, 2018 Actuarial Valuation Report:

- Select and ultimate rates, equal to 5.44% single equivalent investment rate of return
- 2.75% inflation rate, US
- 2.85% inflation rate, Bay Area
- 3.25% long-term post-retirement benefit increases

City contributions are based on spreading costs as a level percentage of the City's total uniform payroll to July 1, 2026. The System uses the entry age normal cost method for its disclosure and reporting. During fiscal years 2019 and 2018, the City of Oakland contributed \$44.82 million and \$44.86 million to the System. The next required City contribution is projected to be approximately \$43.41 million in FY 2019-2020.

FINANCIAL STATEMENT OVERVIEW

This annual financial report consists of three parts – management's discussion and analysis (this section), the basic financial statements and required supplementary information. The basic financial statements include *Statements of Fiduciary Net Position*; *Statements of Changes in Fiduciary Net Position*; and the *Notes to the Basic Financial Statements*.

The *Statements of Fiduciary Net Position* and the *Statements of Changes in Fiduciary Net Position* report information to assist readers in determining whether the System's finances as a whole have improved or deteriorated as a result of the year's activities. These statements report the net position of the System and the activities that caused the changes in the net position during the year, respectively.

The *Statements of Fiduciary Net Position* present information on all System assets and liabilities, with the difference between the two reported as net position restricted for pensions. Over time, increases or decreases in net position restricted for pensions may serve as a useful indicator of whether the financial condition of the System is improving or deteriorating.

While the *Statements of Fiduciary Net Position* provide information about the nature and amount of resources and obligations at year-end, the *Statements of Changes in Fiduciary Net Position* present the results of the System's activities during the fiscal year and information on the change in the net position restricted for pensions during the fiscal year. The *Statements of Changes in Fiduciary Net Position* measure the results of the System's investment performance as well as its additions from contributions and investment income and deductions for payment of benefits and administrative expenses. The *Statements of Changes in Fiduciary Net Position* can be viewed as indicators of the System's progress on the set goals of fully funding all current and past service costs and possessing sufficient additional resources to pay for current refunds of contributions and administrative and investment expenses.

The *Notes to the Basic Financial Statements* and *Required Supplementary Information* provide explanations and other information that is helpful to a full understanding of the data provided in the financial statements. The *Notes to the Financial Statements* and *Required Supplementary Information* are found starting on page 24 and page 44, respectively.

FINANCIAL ANALYSIS: 2019 VS. 2018

Table 1 summarizes net position restricted for pensions as of June 30, 2019 and 2018:

Table 1
Statements of Fiduciary Net Position
As of June 30, 2019 and 2018

	June 30		Change	
	2019	2018	Amount	Percentage
Assets:				
Cash and deposits	\$ 6,484,343	\$ 7,821,078	\$ (1,336,735)	-17.1%
Receivables	4,427,785	6,288,527	(1,860,742)	-29.6%
Investments	420,244,755	415,917,756	4,326,999	1.0%
Total Assets	431,156,883	30,027,361	1,129,522	0.3%
Liabilities:				
Accounts payable	15,871	94,654	(78,783)	-83.2%
Benefits payable	4,596,563	4,608,511	(11,948)	-0.3%
Investments payable	7,464,071	5,188,668	2,275,403	43.9%
Accrued investment management fees	351,847	343,919	7,928	2.3%
Securities lending liabilities	34,017,817	43,815,338	(9,797,521)	-22.4%
Total liabilities	46,446,169	54,051,090	(7,604,921)	-14.1%
Net position:				
Restricted for pensions	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>	<u>\$ 8,734,443</u>	2.3%

Net position restricted for pensions increased \$8,734,443 from June 30, 2018 to June 30, 2019. The main sources of this increase were from pension contribution payments from the City of Oakland of \$44.82 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Table 2 summarizes changes in net position restricted for pensions for the years ended June 30, 2019 and 2018:

Table 2
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2019 and 2018

	June 30		Change	
	2019	2018	Amount	Percentage
Additions:				
Contributions	\$ 44,821,000	\$ 44,860,000	\$(39,000)	-0.1%
Net investment income/(loss)	21,551,868	35,435,113	\$ (13,883,245)	-39.2%
Other additions	19,949	20,307	\$ (358)	-1.8%
Total additions	<u>66,392,817</u>	<u>80,315,420</u>	<u>(13,922,603)</u>	-17.3%
Deductions:				
Benefits to members and beneficiaries	56,212,013	55,998,595	213,418	0.4%
Administrative expenses	1,446,361	1,490,486	(44,125)	-3.0%
Other expenses	-	52,926		-100.0%
Total deductions	<u>57,658,374</u>	<u>57,542,007</u>	<u>116,367</u>	0.2%
Changes in net position	8,734,443	22,773,413	(14,038,970)	-61.6%
Net position restricted for pensions:				
Beginning of year	375,976,271	353,202,858	213,418	6.4%
End of year	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>	<u>\$ (44,125)</u>	2.3%

During fiscal year 2019, the City of Oakland contributed \$44.82 million to the System. In addition, the System's net investment income for the year ended June 30, 2019 was \$21,551,868, mainly due to net appreciation in fair value of the investment portfolio as a result of returns on investments. The time-weighted annual returns for the year ended June 30, 2019 was 6.2%, compared to a benchmark return of 5.5% and an actuarial expected rate of return of 5.44%.

FINANCIAL ANALYSIS: 2018 VS. 2017

Table 3 summarizes net position restricted for pensions as of June 30, 2018 and 2017:

Table 3
Statements of Fiduciary Net Position
As of June 30, 2018 and 2017

	June 30		Change	
	2018	2017	Amount	Percentage
Assets:				
Cash and deposits	\$ 7,821,078	\$ 3,382,372	\$ 4,438,706	131.2%
Receivables	6,288,527	7,254,799	(966,272)	-13.3%
Investments	<u>415,917,756</u>	<u>383,785,196</u>	<u>32,132,560</u>	8.4%
Total Assets	<u>430,027,361</u>	<u>394,422,367</u>	<u>35,604,994</u>	9.0%
Liabilities:				
Accounts payable	94,654	22,843	71,811	314.4%
Benefits payable	4,608,511	4,763,432	(154,921)	-3.3%
Investments payable	5,188,668	5,117,934	70,734	1.4%
Accrued investment management fees	343,919	281,445	62,474	22.2%
Securities lending liabilities	<u>43,815,338</u>	<u>31,033,855</u>	<u>12,781,483</u>	41.2%
Total liabilities	<u>54,051,090</u>	<u>41,219,509</u>	<u>12,831,581</u>	31.1%
Net position:				
Restricted for pensions	<u>\$ 375,976,271</u>	<u>\$ 353,202,858</u>	<u>\$ 22,773,413</u>	6.4%

Net position restricted for pensions increased \$22,773,413 from June 30, 2017 to June 30, 2018. The main sources of this increase were from pension contribution payments from the City of Oakland of \$44.86 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Table 4 summarizes changes in net position restricted for pensions for the years ended June 30, 2018 and 2017:

Table 4
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2018 and 2017

	June 30		Change	
	2018	2017	Amount	Percentage
Additions:				
Contributions	\$ 44,860,000	\$ -	\$ 44,860,000	n/a
Net investment income/(loss)	33,435,113	50,158,795	(14,723,682)	-29.4%
Other additions	20,307	70,282	(49,975)	-71.1%
Total additions	80,315,420	50,229,077	30,086,343	59.9%
Deductions:				
Benefits to members and beneficiaries	55,998,595	57,375,815	(1,377,220)	-2.4%
Administrative expenses	1,490,486	1,250,620	239,866	19.2%
Other expenses	52,926	11,021	41,905	380.2%
Total deductions	57,542,007	58,637,456	(1,095,449)	-1.9%
Changes in net position	22,773,413	(8,408,379)	31,181,792	-370.8%
Net position restricted for pensions:				
Beginning of year	353,202,858	361,611,237	(8,408,379)	-2.3%
End of year	<u>\$ 375,976,271</u>	<u>\$ 353,202,858</u>	<u>\$ 22,773,413</u>	6.4%

During fiscal year 2018, the City of Oakland contributed \$44.86 million to the System. In addition, the System's net investment income for the year ended June 30, 2018 was \$35,435,113, mainly due to net appreciation in fair value of the investment portfolio as a result of robust returns on investments. The time-weighted annual returns for the year ended June 30, 2018 was 10.5%, compared to a benchmark return of 9.4% and an actuarial expected rate of return of 5.50%.

REQUESTS FOR ADDITIONAL INFORMATION

This financial report is designed to provide a general overview of the System's finances and to account for the money that the System receives. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

Retirement System
City of Oakland
150 Frank H Ogawa Plaza, Suite 3349
Oakland, CA 94612

Oakland Police and Fire Retirement System
Statements of Fiduciary Net Position
June 30, 2019 and 2018

	<u>2019</u>	<u>2018</u>
Assets		
Cash and Cash Equivalents:	\$ 6,484,343	\$ 7,821,078
Receivables:		
Interest Receivable	756,150	671,493
Dividends Receivable	128,434	233,615
Investments Receivable	2,542,199	3,606,103
Retired Members and Beneficiaries	867,195	1,641,443
Miscellaneous	133,807	135,873
Total Receivables	<u>4,427,785</u>	<u>6,288,527</u>
Investments, at Fair Value:		
Short-Term Investments	12,579,526	4,284,853
Bonds	120,250,504	98,312,996
Domestic Equities and Mutual Funds	151,450,528	151,600,666
International Equities and Mutual Funds	46,731,155	46,770,419
Alternative Investments	55,212,879	71,132,094
Foreign Currency Contracts, Net	-	(939)
Securities Lending Collateral	<u>34,020,163</u>	<u>43,817,667</u>
Total Investments	<u>420,244,755</u>	<u>415,917,756</u>
Total Assets	<u>431,156,883</u>	<u>430,027,361</u>
Liabilities		
Accounts Payable	15,871	94,654
Benefits Payable	4,596,563	4,608,511
Investments Payable	7,464,071	5,188,668
Investment Management Fees Payable	351,847	343,919
Securities Lending Liabilities	<u>34,017,817</u>	<u>43,815,338</u>
Total Liabilities	<u>46,446,169</u>	<u>54,051,090</u>
Net Position Restricted for Pensions	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>

See accompanying notes to basic financial statements.

Oakland Police and Fire Retirement System
Statements of Changes in Fiduciary Net Position
Years Ended June 30, 2019 and 2018

	<u>2019</u>	<u>2018</u>
Additions		
Contributions from the City	\$ 44,821,000	\$ 44,860,000
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	16,624,371	30,072,048
Interest	3,736,667	2,625,129
Dividends	2,431,327	4,032,421
Less: Investment Expenses	(1,333,048)	(1,427,330)
Net Appreciation in Fair Value of Investments	21,459,317	35,302,268
Securities Lending Income:		
Securities Lending Earnings	937,736	761,396
Securities Lending Expenses	(845,185)	(628,551)
Net Securities Lending Income	92,551	132,845
Net Investment Income (Loss)	21,551,868	35,435,113
Claims and Settlements	13,856	9,145
Other Income	6,093	11,163
Total Additions (Declines)	66,392,817	80,315,420
Deductions		
Benefits to Members and Beneficiaries:		
Retirement	34,238,470	34,369,814
Disability	20,160,033	19,854,675
Death	1,813,510	1,774,107
Total Benefits to Members and Beneficiaries	56,212,013	55,998,595
Administrative Expenses	1,446,361	1,490,486
Other Expenses	-	52,926
Total Deductions	57,658,374	57,542,007
Change in Net Position	8,734,443	22,773,413
Net Position Restricted for Pensions		
Beginning of Year	375,976,271	353,202,858
End of Year	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>

See accompanying notes to basic financial statements.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

1. Description of the Oakland Police and Fire Retirement System

The Oakland Police and Fire Retirement System (System) is a closed, single-employer defined benefit pension plan (Plan) established by the City of Oakland (City) Charter. The System is governed by a board of seven trustees (Board); the City Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation. As a result of a City Charter amendment, known as Measure R approved by the electorate on June 8, 1976, membership in the Plan is limited to uniformed employees hired prior to July 1, 1976.

The System is exempt from the regulations of the Employee Retirement Income Security Act of 1974. The System is also exempt from federal and California income taxes.

The System is considered to be a part of the City's financial reporting entity and is included in the City's basic financial statements as a pension trust fund. The financial statements of the System are intended to present only the plan net position and changes in plan net position of the System. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. The City's basic financial statements can be obtained from Finance Department, Controller's Bureau, City of Oakland, 150 Frank H. Ogawa Plaza, Suite 6353; Oakland, California 94612.

a) System Membership

At June 30, 2019 and 2018, the System membership consisted of only retirees and beneficiaries. The System's membership is as follows:

	2019	2018
Retirees and beneficiaries currently receiving benefits:		
Police	475	492
Fire	323	345
Total	<u>798</u>	<u>837</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

b) Basic Benefit Provisions

The City Charter establishes plan membership, contribution, and benefit provisions. The System provides that any member who completes at least 25 years of service, regardless of age, or completes 20 years of service and attains age 55, or has attained age 65, is eligible for retirement benefits. The basic retirement allowance equals 50% of the compensation attached to the average rank held during the three years immediately preceding retirement, plus an additional allowance of 1 and 2/3% of such compensation for each year of service (up to ten) subsequent to (a) qualifying for retirement and (b) July 1, 1951. However, any member retiring at age 65 with less than 20 years of service shall receive a reduced retirement allowance based upon the number of years of service. A member is eligible for early retirement benefits after 20 to 24 years of service with a retirement allowance based upon 40% to 48% of the compensation attached to the average rank held during the three years preceding retirement. Additionally, a member with 10 to 19 years of service may retire and, on or after the 25th anniversary of his/her date of employment may receive a retirement allowance based upon 20% to 38% of the compensation attached to the average rank held during the three years preceding retirement.

The System also provides for various death, disability, and survivors' benefits. Death and disability benefits are paid to eligible members who became disabled or passed away prior to retirement. If the member's death or disability is duty related, then the surviving spouse or member is paid a pension equivalent to an immediate service retirement. The duty related death or disability pension is paid at a level no less than 50% of the pay attached to the rank. If a death occurs after retirement, then a one-time payment of \$1,000 is paid to the member's designated beneficiary.

After retirement, members receive benefits based on a fixed monthly dollar amount. Pension amounts change based on changes to the compensation attached to the average rank. Upon a retiree's death, benefits are continued to an eligible surviving spouse at a two-thirds level for service and non-duty disabled retirees and at a 100% level for retirements for duty disability.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

2. Summary of Significant Accounting Policies

a) Basis of Presentation

The financial statements are prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. The System adheres to the reporting requirements established by the Governmental Accounting Standards Board (GASB).

b) Measurement Focus and Basis of Accounting

The financial statements are prepared on a flow of economic resources measurement focus using the accrual basis of accounting. Contributions are recognized in the period in which the contributions are due pursuant to formal commitments as well as statutory or contractual requirements, and benefits and refunds are recognized when payable under plan provisions.

c) Methods Used to Value Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair values based on the net asset value as determined by the fund manager based on quoted market prices of fund holdings or values provided by the custodian or the applicable money manager.

d) Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

3. Contributions

In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contribute a percentage of their earned salaries based upon entry age as determined by consulting actuaries. During the years ended June 30, 2019 and 2018, there were no employee contributions.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

In March 1997, the City issued pension obligation bonds and deposited \$417 million into the System to pay the City's contributions through June 2011. In accordance with an agreement entered into at the time the pension obligation bonds were issued in 1997, the City was not expected to contribute until July 2011. In the year ended June 30, 2005, the City transferred excess proceeds of \$17.7 million from the Oakland Joint Powers Financing Authority Refunding Revenue 2005 Series B Bond to fund a portion of the City's future obligation to the System.

Effective July 1, 2011, the City resumed contributing to the System. The City contributed \$45.5 million in the year ended June 30, 2012. Using the current actuarial cost method, these contributions are based on spreading costs as a level percentage of all uniformed employees' compensation through June 30, 2026. Budgeted administrative expenses are included in the City contribution rates. The City must contribute, at a minimum, such amounts as are necessary, on an actuarial basis, to provide assets sufficient to meet benefits to be paid to plan members.

On July 30, 2012, the City contributed \$210 million to the System. As a result of a funding agreement entered into between the System's Board and the City no additional contributions were required until July 1, 2017. The City resumed contributions to the System on July 1, 2017. The City contributed \$44.82 million and \$44.86 million in the years ended June 30, 2019 and 2018, respectively. The next required contribution for fiscal year 2020 is \$43.41 million.

4. Cash, Deposits and Investments

a) Investment Policy

The System's investment policy authorizes investment in U.S. equities, international equities, U.S. fixed income instruments including U.S. Treasury notes and bonds, government agency mortgage backed securities, U.S. corporate notes and bonds, collateralized mortgage obligations, Yankee bonds and non U.S.-issued fixed income securities denominated in foreign currencies. The System's investment portfolio is managed by external investment managers, except for the bond iShares which are managed internally. During the years ended June 30, 2019 and 2018, the number of external investment managers was twelve and eleven, respectively.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

The System investments are also restricted by the City Charter. In November 2006, City voters passed Measure M to amend the City Charter to allow the System's Board to invest in non-dividend paying stocks and to change the asset allocation structure from 50% equities and 50% fixed income to the Prudent Person Standard as defined by the California Constitution.

The System's Investment Policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The System's investment policy allows the fixed income managers to invest in fixed income instruments and some exposure to investments below an investment grade rating of B-, as long as the portfolio maintains an average credit quality of BBB (investment grade using Standard & Poor's, Moody's or Fitch ratings).

The System's investment policy states that investments in securities known as collateralized mortgage obligations (CMOs) shall be limited to a maximum of 20% of a broker account's fair value with no more than 5% in any one issue. CMOs are mortgage-backed securities that create separate pools of pass-through rates for different classes of bondholders with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options.

The Investment Policy allows for each fixed income asset manager to have a maximum of 10% of any single security investment in their individual portfolios with the exception of U.S. government securities, which is allowed to have a maximum of 25% in each manager's portfolio.

The following was the Board's adopted asset allocation policy as of June 30, 2019 and 2018:

Asset Class	Target Allocation	
	June 30, 2019	June 30, 2018
Fixed Income	21%	31%
Credit	2	2
Covered Calls	5	5
Domestic Equity	40	40
International Equity	12	12
Crisis Risk Offset	20	10
Total	100%	100%

The Board's target allocation does not include cash and cash equivalents, which are designated for approved administrative budget purposes.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

b) Concentrations

GASB Statement No. 40 and GASB Statement No. 67 require the disclosure of investments in any one organization that represent 5 percent or more of the System's fiduciary net position. As of June 30, 2019, the System's investments in the Northern Trust Russell 1000 Growth Index Fund and the Parametric Research Affiliates Systematic U.S. Fund represented 22.5% and 6.3%, respectively, of its fiduciary net position. As of June 30, 2018, the System had commingled funds issued by State Street Global Advisors that represent 9.4% of its fiduciary net position.

c) Rate of Return

The money-weighted rate of return is a measure of the rate of return for an asset or portfolio of assets that incorporates the size and timing of cash flows. For the years ended June 30, 2019 and 2018, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expenses, were 6.10% and 10.60%, respectively.

d) Cash and Cash Equivalents

As of June 30, 2019 and 2018, cash and cash equivalents consisted of cash in treasury held in the City's cash and investment pool as well as cash deposits held in bank and with a custodian. Funds in the City Treasury are invested according to the investment policy adopted by the City Council. Interest earned in the City Treasury is allocated monthly to all participants based on the average daily cash balance maintained by the respective funds. Information regarding the characteristics of the entire investment pool can be found in the City's June 30, 2019 and 2018 basic financial statements. As of June 30, 2019 and 2018, the System's share of the City's investment pool totaled \$6,471,696 and \$7,819,269, respectively. The System also had cash not included in the City's investment pool. As of June 30, 2019 and 2018, the System's cash and cash deposits not held in the City's investment pool totaled \$12,647 and \$1,809, respectively.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

e) Hierarchy of Inputs

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The System has the following recurring fair value measurements as of June 30, 2019:

	2019			
	Level One	Level Two	Level Three	Total
Investments by fair value level:				
Short-Term Investments	\$ -	\$ 2,485,991	\$ -	\$ 2,485,991
Bonds	13,419,178	98,870,991	-	112,290,169
Domestic Equities and Mutual Funds	64,821,686	-	-	64,821,686
International Equities and Mutual Funds	33,045,062	-	1,656	33,046,718
Alternative Investments	30,912,896	-	-	55,212,879
Total investments by fair value level	<u>\$ 142,198,822</u>	<u>\$101,356,982</u>	<u>\$ 1,656</u>	<u>243,557,460</u>
Investments measured at net asset value (NAV):				
Short-Term Investments				10,093,535
Bonds				7,960,336
Domestic Equities and Mutual Funds				86,628,842
International Equities and Mutual Funds				13,684,437
Hedge Funds				24,299,893
Securities Lending Collateral Pool				34,020,163
Total investments measured at NAV				<u>152,387,314</u>
Total investments measured at fair value				<u>\$ 420,244,755</u>

The System has the following recurring fair value measurements as of June 30, 2018:

	2018			
	Level One	Level Two	Level Three	Total
Investments by fair value level:				
Short-Term Investments	\$ -	\$ 196,076	\$ -	\$ 196,076
Bonds	-	90,588,991	-	90,588,991
Domestic Equities and Mutual Funds	130,881,940	23,404	-	130,905,344
International Equities and Mutual Funds	32,161,981	-	1,718	32,163,699
Alternative Investments	71,132,094	-	-	71,132,094
Total investments by fair value level	<u>\$ 234,176,015</u>	<u>\$ 90,808,471</u>	<u>\$ 1,718</u>	<u>324,986,204</u>
Investments measured at net asset value (NAV):				
Short-Term Investments				4,088,777
Fixed Income Funds				7,724,005
Domestic Equities and Mutual Funds				20,695,322
International Equities and Mutual Funds				14,606,720
Securities Lending Collateral - Short-Term Investment Fund				43,817,667
Total investments measured at NAV				<u>90,932,491</u>
Total investments measured at fair value				<u>\$ 415,918,695</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

Investments measured at NAV represent commingled funds where fair value is measured based on the System's pro rata share of the total NAV. As of June 30, 2019, the System's hedge fund investment has monthly liquidity with a notice period of 5 days. As of June 30, 2018, the System did not have any redemption restrictions on the commingled funds.

f) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As described previously, the System's Investment Policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The weighted average duration for the System's fixed income investment portfolio excluding fixed income short-term investments and securities lending investments was 6.92 years as of June 30, 2019, and 6.00 years as of June 30, 2018.

The following summarizes the System's fixed income investments by category as of June 30, 2019 and 2018:

Short-Term Investment Duration

Investment Type	2019		2018	
	Fair Value	Modified Duration (Years)	Fair Value	Modified Duration (Years)
Short-Term Investment Funds	\$ 12,579,526	n/a	\$ 4,284,853	n/a
Foreign Currency Exchange Contracts, Net	None	n/a	(939)	n/a

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

Long-Term Investment Duration

Investment Type	2019		2018	
	Fair Value	Modified Duration (Years)	Fair Value	Modified Duration (Years)
Fixed Income Investments				
U.S. Government Bonds				
U.S. Treasuries	\$ 18,478,407	6.42	\$ 20,481,395	6.74
Government Agencies	34,766,352	7.45	29,039,194	8.85
Total U.S. Government Bonds	53,244,759		49,520,589	
Corporate and Other Bonds				
Corporate Bonds	67,005,745	6.79	48,792,407	3.99
Total Fixed Income Investments	\$ 120,250,504	6.92	\$ 98,312,996	6.00
Securities Lending				
	\$ 34,020,163		\$ 43,817,667	

g) Fair Value Highly Sensitive to Change in Interest Rates

The terms of a debt investment may cause its fair value to be highly sensitive to interest rate changes. The System has invested in CMOs, which are mortgage-backed bonds that pay pass-through rates with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options, which are triggers related to quantities of delinquencies or defaults in the loans backing the mortgage pool. If a balance of delinquent loans reaches a certain threshold, interest and principal that would be used to pay junior bondholders is instead directed to pay off the principal balance of senior bondholders, shortening the life of the senior bonds.

The following are the System's investments in CMOs at June 30, 2019:

Investment Type	Weighted Average Coupon Rate	Weighted Average Maturity (Years)	Fair Value	Percent of Total Investments Fair Value
Mortgage-backed securities	3.88%	25.76	\$26,460,818	6.30%

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

The following are the System's investments in CMOs at June 30, 2018:

<u>Investment Type</u>	<u>Weighted Average Coupon Rate</u>	<u>Weighted Average Maturity (Years)</u>	<u>Fair Value</u>	<u>Percent of Total Investments Fair Value</u>
Mortgage-backed securities	3.43%	25.09	\$18,704,567	4.50%

h) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation.

The following provides information concerning the credit risk of fixed income securities as of June 30, 2019 and 2018:

Short-Term Investment Ratings

<u>Investment Type</u>	<u>2019</u>		<u>2018</u>	
	<u>S&P Moody's/ Fitch Rating</u>	<u>Fair Value</u>	<u>S&P Moody's/ Fitch Rating</u>	<u>Fair Value</u>
Short-Term Investment Funds	Not Rated	\$12,579,526	Not Rated	\$4,284,853
Foreign Currency Exchange Contracts, Net	N/A	None	Not Rated	(939)

Long-Term Investment Ratings

<u>S&P / Moody's Rating</u>	<u>2019</u>		<u>2018</u>	
	<u>Fair Value</u>	<u>Percentage of Total Fair Value</u>	<u>Fair Value</u>	<u>Percentage of Total Fair Value</u>
AAA/Aaa	\$ 41,409,989	34.44%	\$ 38,377,809	39.04%
AA/Aa	28,801,312	23.95%	24,802,989	25.23%
A/A	13,190,791	10.97%	11,368,132	11.56%
BBB/Baa	14,583,850	12.13%	14,624,173	14.88%
BB/Ba	885,050	0.74%	1,415,888	1.44%
CCC/CCC	-	0%	7,724,005	7.85%
Unrated	21,379,513	17.77%	-	0%
	<u>\$ 120,250,504</u>	<u>100.00%</u>	<u>\$ 98,312,996</u>	<u>100.00%</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

Securities Lending Ratings

<u>S&P / Moody's Rating</u>	<u>2019 Fair Value</u>	<u>2018 Fair Value</u>
Not Rated	\$ 34,020,163	\$ 43,817,667

i) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of a depository financial institution or counterparty to a transaction, there will be an inability to recover the value of deposits, investments, or collateral securities in the possession of an outside party.

The California Government Code requires that governmental securities or first trust deed mortgage notes be used as collateral for demand deposits and certificates of deposit at 110 percent and 150 percent, respectively, of all deposits not covered by federal deposit insurance. As the City holds cash and certificates of deposit on behalf of the System, the collateral must be held by the pledging financial institution's trust department and is considered held in the City's name. For all other System deposits, the collateral must be held by the pledging financial institution's trust department and is considered held in the System's name.

The City, on behalf of the System, does not have any funds or deposits that are not covered by depository insurance, which are either uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent, but not in the City's name. The System does not have any investments that are not registered in the name of the System and are either held by the counterparty or the counterparty's trust department or agent but not in the System's name.

j) Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchanges rates will adversely affect the fair values of an investment or deposit. Currency hedging is allowed under the System's investment policy for defensive purposes only. The investment policy limits currency hedging to a maximum of 25% of the portfolio value.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

The following summarizes the System's investments denominated in foreign currencies as of June 30, 2019 and 2018:

Foreign Currency	Fair Value	
	June 30, 2019	June 30, 2018
Australian Dollar	\$ 726,669	\$ 633,313
British Pound	3,881,313	3,325,984
Canadian Dollar	190,691	614,019
Danish Krone	1,046,692	1,209,334
Euro	9,930,129	10,272,537
Hong Kong Dollar	2,806,718	2,577,428
Indonesian Rupiah	336,856	216,320
Japanese Yen	4,060,244	3,833,495
Mexican Peso	620,720	891,955
Norwegian Krone	173,665	233,382
Singapore Dollar	330,028	362,887
Swedish Krona	448,360	542,959
Swiss Franc	1,512,860	1,690,353
Total	<u>\$ 26,064,945</u>	<u>\$ 26,403,966</u>

k) Securities Lending Transactions

The System's investment policy authorizes participation in securities lending transactions, which are short-term collateralized loans of the System's securities to broker-dealers with a simultaneous agreement allowing the System to invest and receive earnings on the collateral received. All securities loans can be terminated on demand by either the System or the borrower, although the average term of loans is one week.

The administrator of the System's securities lending activities is responsible for maintaining an adequate level of collateral in an amount equal to at least 102% of market value of loaned U.S. government securities, common stock and other equity securities, bonds, debentures, corporate debt securities, notes, and mortgages or other obligations. Collateral received may include cash, letters of credit, or securities. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the said collateral. If securities collateral is received, the System cannot pledge or sell the collateral securities unless the borrower defaults.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

As of June 30, 2019 and 2018, management believes the System has minimized its credit risk exposure to borrowers because the amounts held by the System as collateral exceeded the securities loaned by the System. The System's contract with the administrator requires it to indemnify the System if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities borrowed) or fails to pay the System for income distributions by the securities' issuers while the securities are on loan.

The following summarizes investments in securities lending transactions and collateral received at June 30, 2019 and 2018:

Securities Lending as of June 30, 2019			
Investment Type	Fair Value of Loaned Securities		
	For Cash Collateral	For Non-Cash Collateral	Total
Securities on Loan for Cash Collateral			
U.S. Government and agencies	\$10,531,762	\$ 4,119,916	\$ 14,651,678
U.S. Corporate bonds	5,350,565	-	5,350,565
U.S. Equities	17,536,838	635,146	18,171,984
Non-U.S. equities	-	967,891	967,891
Total investments in securities lending transactions	<u>\$33,419,165</u>	<u>\$ 5,722,953</u>	<u>\$ 39,142,118</u>
Collateral Received	<u>\$34,017,817</u>	<u>\$ 5,913,897</u>	<u>\$ 39,931,714</u>

Securities Lending as of June 30, 2018			
Investment Type	Fair Value of Loaned Securities		
	For Cash Collateral	For Non-Cash Collateral	Total
Securities on Loan for Cash Collateral			
U.S. Government and agencies	\$11,585,884	\$ -	\$ 11,585,884
U.S. Corporate bonds	3,197,728	-	3,197,728
U.S. Equities	28,094,792	1,395,896	29,490,688
Non-U.S. equities	3,492	966,061	969,553
Total investments in securities lending transactions	<u>\$42,881,896</u>	<u>\$ 2,361,957</u>	<u>\$ 45,243,853</u>
Collateral Received	<u>\$43,815,338</u>	<u>\$ 2,452,457</u>	<u>\$ 46,267,795</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

1) Derivative Instruments

The Retirement System reports its derivative instruments under the provisions of GASB Statement No. 53, *Accounting and Financial Reporting for Derivatives Instruments*. Pursuant to the requirements of this statement, the Retirement System has provided a summary of derivative instrument activities during the reporting periods presented and the related risks.

As of June 30, 2019 and 2018, the derivative instruments held by the Retirement System are considered investments and not hedges for accounting purposes. All investment derivatives are reported as investments at fair value in the statements of fiduciary net position. The gains and losses arising from this activity are recognized as incurred in the statement of changes in fiduciary net position. All investment derivatives discussed below are included within the investment risk schedules, which precede this subsection. Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio.

Valuation methods used by the System are described in more detail in Note 2.c). The fair value of the exchange traded derivative instruments, such as futures, options, rights, and warrants are based on quoted market prices. The fair values of forward foreign currency contracts are determined using a pricing service, which uses published foreign exchange rates as the primary source. The fair values of swaps are determined by the System's investment managers based on quoted market prices of the underlying investment instruments.

The tables below present the notional amounts, the fair values, and the related net appreciation (depreciation) in the fair value of derivative instruments that were outstanding at June 30, 2019 and 2018:

As of and for the Year Ended June 30, 2019			
Derivative Type / Contract	Notional Amount	Fair Value	Net Appreciation (Depreciation)
Options			
Equity Contracts	\$ 82	\$ (588,704)	\$ (264,482)
Swaps			
Credit Contracts	1,660,000	74,601	9,478
Total	<u>\$ 1,660,082</u>	<u>\$ (514,103)</u>	<u>\$ (255,004)</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

As of and for the Year Ended June 30, 2018

Derivative Type / Contract	Notional Amount	Fair Value	Net Appreciation (Depreciation)
Forwards			
Foreign Currency Exchange Contracts	\$ -	\$ 345	\$ -
Options			
Equity Contracts	238	(195,759)	382,413
Swaps			
Credit Contracts	320,900	(19,038)	(39,278)
Total	<u>\$ 321,138</u>	<u>\$ (214,452)</u>	<u>\$ 343,135</u>

Counterparty Credit Risk

The System is not exposed to credit risk on non-exchange traded derivative instruments that are in asset positions. As of June 30, 2019, the System did not hold any forward currency contracts. As of June 30, 2018, the fair value of forward currency contracts to purchase and sell international currencies were \$345. The System's counterparties to these contract held credit ratings of A or better, as assigned by one or more of the major credit rating organizations (S&P, Moody's and/or Fitch).

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. At June 30, 2019 and 2018, all of the System's investments in derivative instruments are held in the System's name and are not exposed to custodial credit risk.

Interest Rate Risk

The tables below describe the maturity periods of the derivative instruments exposed to interest rate risk at June 30, 2019 and 2018.

Derivative Interest Rate Risk as of June 30, 2019

Derivative Type / Contract	Fair Value	Maturities	
		Less than 1 Year	1-5 years
Options			
Equity Contracts	\$ (588,704)	\$ (588,704)	\$ -
Swaps			
Credit Contracts	74,601	-	74,601
Total	<u>\$ (514,103)</u>	<u>\$ (588,704)</u>	<u>\$ 74,601</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

Derivative Interest Rate Risk as of June 30, 2018

Derivative Type / Contract	Fair Value	Maturities	
		Less than 1 Year	1-5 years
Forwards			
Forward Foreign Currency Exchange Contracts	\$ 345	\$ 345	\$ -
Options			
Equity Contracts	(195,759)	(195,759)	-
Swaps			
Credit Contracts	(19,038)	-	(19,038)
Total	<u>\$ (214,452)</u>	<u>\$ (195,414)</u>	<u>\$ (19,038)</u>

Foreign Currency Risk

At June 30, 2019 and 2018, the System is not exposed to foreign currency risk for its derivative instruments.

Contingent Features

At June 30, 2019 and 2018, the Retirement System held no positions in derivatives containing contingent features.

5. Net Pension Liability

The components of the net pension liability of the City at June 30, 2019 and 2018, are as follows:

	June 30, 2019	June 30, 2018
Total pension liability	\$ 628,212,362	\$ 656,193,314
Less: Plan fiduciary net position	<u>(384,710,714)</u>	<u>(375,976,271)</u>
City's net pension liability	<u>\$ 243,501,648</u>	<u>\$ 280,217,043</u>
Plan fiduciary net position as a percentage of the total pension liability	61.2%	57.3%

a) Actuarial Method and Assumptions

The total pension liability as of June 30, 2019 was determined based on an actuarial valuation as of July 1, 2018, using the entry age normal actuarial cost method and the following actuarial assumptions, applied to all periods included in the measurement.

Investment Rate of Return	5.44%
Inflation Rate, U.S.	2.75%
Inflation Rate, Bay Area	2.85%
Long-term Post-Retirement Benefit Increases	3.25%

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

Measurements as of the June 30, 2019 are based on the fair value of assets as of June 30, 2019 and the total pension liability as of the valuation date, June 30, 2018, updated to June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019, and the Total Pension Liability as of the valuation date, June 30, 2018, updated to June 30, 2019. New Memorandums of Understanding (MOUs) went into effect for both Police and Fire members between the valuation date and the measurement date, changing both Police and Fire retirees' cost of living adjustments (COLAs). The update procedures included the changes in liability due to the new Police and Fire MOUs, and the addition of interest cost, offset by actual benefit payments. There are no active members of the Plan, and thus no service cost.

Mortality rates for healthy lives were based on the CalPERS Healthy Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. Mortality rates for disabled lives were based on the CalPERS Industrial Disability Mortality Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. The mortality tables are projected to improve with MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

The total pension liability as of June 30, 2018 was determined based on an actuarial valuation as of June 30, 2017, using the entry age normal actuarial cost method and the actuarial assumptions as described above for the June 30, 2018 valuation, except for the assumed investment rate of return was 5.50%. Measurements as of June 30, 2018 are based on the fair value of assets as of June 30, 2018, and the total pension liability as of the valuation date, June 30, 2017, updated to June 30, 2018. There were no significant events between the valuation date and the measurement date. The update procedures included the additional liability due to assumption changes and the addition of interest cost offset by actual benefit payments.

The actuarial assumptions used in the July 1, 2018 and 2017 valuations were based on the results of actuarial experience studies for the periods July 1, 2014 through June 30, 2017.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major class included in the pension plan's target asset allocation as of June 30, 2019 and 2018 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	
	June 30, 2019	June 30, 2018
Fixed Income	3.10%	3.40%
Domestic Equity	6.00	5.75
International Equity	6.80	6.80
Covered Calls	6.10	5.25
Crisis Risk Offset	4.80	4.40
Cash	2.50	2.25

b) Discount Rate

The discount rates used to measure the total pension liability were 5.44% and 5.50% as of June 30, 2019 and 2018, respectively. The projection of cash flows used to determine the discount rate assumed that the City would contribute to the Plan based on its July 1, 2012 funding agreement with the System. This agreement suspends City contributions until the fiscal year beginning July 1, 2017, after which they will resume, based upon the recommendation of the actuary, with a City Charter requirement that the Plan's liabilities be fully funded by July 1, 2026. A cash flow projection showed that the projected fiduciary net position would be greater than or equal to the benefit payments projected for each future period. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

c) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City, calculated using the discount rate, as well as what the Plan's net pension liability would be if it were calculated using a discount rate of 1-percentage-point lower or 1-percentage-point higher than the discount rate.

	June 30, 2019		
	1% Decrease (4.44%)	Current Discount Rate (5.44%)	1% increase (6.44%)
City's net pension liability	\$301,403,454	\$243,504,648	\$193,837,313

	June 30, 2018		
	1% Decrease (4.50%)	Current Discount Rate (5.50%)	1% increase (6.50%)
City's net pension liability	\$341,960,228	\$280,217,043	\$227,411,930

6. Reserves

Retired Member Contribution Reserve represents the total accumulated transfers from active member contributions and investments, less payments to retired members and beneficiaries.

Employer Reserve represents the total accumulated employer contributions for retirement payments. Additions include contributions from the employer, investment earnings and other income; deductions include payments to retired members and beneficiaries and administrative expenses.

The aggregate total of the System's major reserves as of June 30, 2019 and 2018 equals net position restricted for pensions and comprises the following:

	2019	2018
Retired member contribution reserve	\$ 31,655,922	\$ 34,171,935
Employer reserve	353,054,722	341,804,336
Total	<u>\$ 384,710,714</u>	<u>\$ 375,976,271</u>

Notes to Basic Financial Statements

For Years Ended June 30, 2019 and 2018

7. Administrative Expenses

The City provides the System with accounting and other administrative services. Staff salaries included in administrative expenses for the years ended June 30, 2019 and 2018 were \$1,073,971 and \$1,100,074, respectively. Other administrative expenses including accounting and audit services, legal fees, annual report and miscellaneous expense for the years ended June 30, 2019 and 2018 were \$372,390 and \$390,412, respectively.

8. Receivable from Retired Members and Beneficiaries

The City filed a lawsuit (City of Oakland v. Oakland Police and Fire Retirement System, et al., Alameda County Superior Court case number RG 11580626) in June 2011, and sought to stop the System from paying retirement benefits based on certain holidays and shift differential premium pay (7.25%) to many police retirees. The City also sought an order requiring the System to collect overpayments. The trial court ruled in favor of the City and the decision was partially upheld upon appeal. The Court of Appeal agrees that those elements were overpayments, but limited the extent to which shift differential overpayments could be recovered back from retirees.

The writ and judgment entered by the trial court after the appeals process directed the System's board to cease paying excessive holidays and the shift differential premium. In September and October 2014, the System's Board passed Resolutions No. 6819 and No. 6824 to seek 100% recovery of the combined overpayments, which totals approximately \$3.9 million. On October 28, 2015, the System's Board approved a collection methodology to recover the overpayments from police members over a 48-month period. The System began deducting these repayments from benefit disbursement commencing in June 2016. Eleven payees were granted a delayed repayment date, which commenced on May 1, 2017. Nine payees received a discharge of their debt totaling \$51,886. These actions increased fund assets by approximately \$3.3 million. As of June 30, 2019 and 2018, the receivable totaled \$0.9 million and \$1.6 million, respectively.

Required Supplementary Information

For Years Ended June 30, 2019 and 2018

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios (Unaudited)

	2019	2018	2017	2016	2015	2014
<u>Total Pension Liability</u>						
Interest (includes interest on service cost)	\$ 37,621,301	\$ 44,320,094	\$ 44,931,829	\$ 42,480,394	\$ 41,262,826	\$ 42,333,496
Differences between expected and actual experience	(7,915,210)	(10,656,139)	3,027,944	6,977,470	(21,208,627)	-
Changes of assumptions	(1,475,030)	17,858,013	-	43,480,232	34,219,433	-
Benefit payments, including refunds of member contributions	(56,212,013)	(55,998,595)	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Net change in total pension liability	(27,980,952)	(4,476,627)	(9,416,042)	34,496,743	(4,733,904)	(15,075,617)
Total pension liability – beginning	656,193,314	660,669,941	670,085,983	635,589,240	640,323,144	655,398,761
Total pension liability – ending (a)	\$ 628,212,362	\$ 656,193,314	\$ 660,669,941	\$ 670,085,983	\$ 635,589,240	\$ 640,323,144
<u>Plan fiduciary net position</u>						
Contributions - member	\$ 44,821,000	\$ 44,860,000	\$ -	\$ -	\$ -	\$ 4,441
Net investment income	21,557,961	35,446,275	50,158,795	(1,418,645)	15,438,586	66,392,409
Benefit payments, including refunds of member contributions	(56,212,013)	(55,998,595)	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Administrative expense	(1,446,361)	(1,543,412)	(1,261,641)	(1,375,749)	(985,227)	(776,112)
Claims and settlements	13,856	9,145	70,282	3,593,096	-	-
Net change in plan fiduciary net position	8,734,443	22,773,413	(8,408,379)	(57,642,651)	(44,554,177)	8,211,625
Plan fiduciary net position – beginning	375,976,271	353,202,858	361,611,237	419,253,888	463,808,065	455,596,440
Plan fiduciary net position – ending (b)	\$ 384,710,714	\$ 375,976,271	\$ 353,202,858	\$ 361,611,237	\$ 419,253,888	\$ 463,808,065
City's net pension liability – ending (a) – (b)	\$ 243,501,648	\$ 280,217,043	\$ 307,467,083	\$ 308,474,746	\$ 216,335,352	\$ 176,515,079
Plan fiduciary net position as a percentage of the total pension liability	61%	57%	53%	54%	66%	72%
Covered payroll	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net pension liability as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A

Note: This is a 10-year schedule. Information for additional years will be presented when available.

Required Supplementary Information

For Years Ended June 30, 2019 and 2018

Schedule of Employer Contributions (Unaudited) (dollars in millions)

	<u>2019</u>	<u>2018</u>	<u>2017*</u>	<u>2016*</u>	<u>2015*</u>	<u>2014*</u>	<u>2013**</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Actuarially determined contribution	\$ 44.8	\$ 44.9	N/A	N/A	N/A	\$ 20.3	\$ 34.2	\$ 45.1	\$ 41.4	\$ 37.5
Contributions in relation to the actuarially determined contribution	<u>\$ 44.8</u>	<u>\$ 44.9</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 210.0</u>	<u>\$ 45.5</u>	<u>\$ -</u>	<u>\$ -</u>
Contribution deficiency/(excess)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 20.3</u>	<u>\$(175.8)</u>	<u>\$ (0.4)</u>	<u>\$ 41.4</u>	<u>\$ 37.5</u>
Covered payroll	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1
Contributions as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	210000%	45500%	0%	0%

* Actuarially determined contributions are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year. Although actuarial valuations were performed as of June 30, 2014, June 30, 2015, and June 30, 2016, the System did not determine an actuarially determined contribution for FY 2015-2017, based on the City's funding policy.

** In July 2012, the City of Oakland contributed \$210 million in Pension Obligation Bond (POB) proceeds to the Plan.

Schedule of Investment Returns (Unaudited)

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Annual money-weighted rate of return net of investment	6.10%	10.57%	15.57%	-0.75%	3.90%	16.40%	9.70%	1.40%	24.50%	17.20%

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SECTION 3

INVESTMENT



*Gilbert Greengrass, Retired Firefighter with the
Oakland Fire Department from 1972 through 2001.*

INVESTMENT CONSULTANT'S REPORT



BOSTON MA
CHICAGO IL
MIAMI FL
NEW YORK NY
PORTLAND OR
SAN DIEGO CA
LONDON UK

MEKETA INVESTMENT GROUP

October 3, 2019

Retirement Board
City of Oakland Police and Fire Retirement System
150 Frank Ogawa Plaza, Suite 3332
Oakland, CA 94612

Dear Board Members,

This letter reviews the investment performance of the City of Oakland Police and Fire Retirement System ("the System" or "OPFRS") for the fiscal year ended June 30, 2019. During this 12-month period, the OPFRS total investment portfolio increased 6.1% on a money-weighted, net of fees basis. The System has been effective in using its resources in a cost-effective manner to ensure that benefits continue to flow to plan participants.

Meketa serves as OPFRS' independent investment consultant. The performance data is provided by the System's custodian, Northern Trust, and is independently calculated by Meketa's performance measurement team.

A major factor influencing overall investment performance is the allocation of the OPFRS portfolio across major asset classes. The portfolio's end-of-year actual allocation was overweight covered calls and underweight fixed income relative to policy. As of June 30, 2019, the covered calls, cash, domestic equity, and international equity were overweight, while fixed income and crisis risk offset were underweight.

Over the latest 3-year period, the OPFRS portfolio produced an annualized money-weighted, net of fee return of 10.8%, outperforming its benchmark return of 9.5% by 130 basis points. Over the latest 5-year period, OPFRS' average annual money-weighted net return of 6.4% underperformed the Policy Benchmark by 40 basis points.

OPFRS Annualized Money-Weighted Returns As of 6/30/2019

	1 Year	3 Year	5 Year
Total Portfolio ¹	6.1	10.8	6.4
Policy Benchmark ²	5.5	9.5	6.8
Excess Return	0.6	1.3	(0.4)

DS/SC/hs

¹ Money-Weighted & Net of Fees. Performance since 2005 includes securities lending.

² Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bbg BC Universal, 5% CBOE EXM, 6.7% SG Multi Asset Risk Premia, and 3.3% BB Long Treasury.

List of Investment Professionals

Domestic Equity Managers:

EARNEST Partners
Northern Trust
Nuveen NWQ
Rice Hall James and Associates
State Street Global Advisors
SPI Technologies

International Equity Managers:

Fisher Investments Institutional Group
Hansberger Global Investor
State Street Global Advisors

Covered Calls:

Parametric Portfolio Associates, LLC.

Fixed Income Managers:

DDJ Capital Management
Reams Asset Management
Ramirez Asset Management

Investment Consultant:

Meketa Investment Group

Custodian:

Northern Trust

Security Lending:

Northern Trust

Investment Manager Fees and Other Investment Expenses

Periods ended June 30, 2019 and June 30, 2018

	2019	2018
Investment Manager Fees		
Domestic Equity Managers	\$ 503,122	\$ 530,794
International Equity Managers	250,486	271,696
Domestic Fixed Income Managers	214,704	166,811
Covered Calls	148,235	241,529
Total Investment Manager Fees	\$ 1,116,548	\$ 1,210,830
Other Investment Fees		
Custodian Fees	\$ 100,000	\$ 100,000
Investment Consulting	116,500	116,500
Total Other Investment Fees	\$ 216,500	\$ 216,500
Total Investment Fees	\$ 1,333,048	\$ 1,427,330

Largest Stock Holdings (by Market Value)
As of June 30, 2019

	Stock	Market Value
1	Hartford Financial Services Group	\$ 1,410,050
2	Celgene	1,396,861
3	PTC	1,380,419
4	VEREIT	1,356,483
5	Keurig Dr. Pepper	1,351,104
6	Everest	1,349,108
7	Microsoft	1,323,257
8	Applied Materials	1,221,148
9	Apple	1,115,081
10	Global Payments	1,100,253

Note: The above schedules do not reflect holdings in index funds. A complete list is available upon request.

Largest Bond Holdings (by Market Value)
As of June 30, 2019

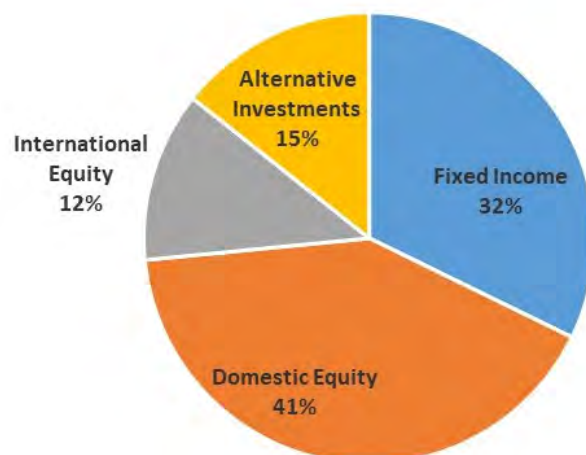
	Description	Interest Rate	Maturity Date	Market Value
1	United States Treasury	3.00%	8/15/2048	\$ 2,357,946
2	United States Treasury	2.63%	5/15/2021	2,096,863
3	United States Treasury	1.63%	8/31/2019	1,957,840
4	United States Treasury	2.38%	5/15/2029	1,684,439
5	United States Treasury	2.25%	11/15/2027	1,597,050
6	North Shore Long Island Jewish Health Care	6.15%	11/1/2043	1,423,194
7	United States Treasury	2.50%	5/31/2020	1,406,180
8	United States Treasury	2.63%	12/31/2025	1,330,077
9	United States Treasury	1.88%	12/31/2019	1,263,963
10	Metropolitan Transportation Authority New York	7.34%	11/15/2039	1,232,536

Note: The above schedules do not reflect holdings in index funds. A complete list is available upon request.

Investments by Manager
Year Ended June 30, 2019

Investment Firm	Portfolio Type	Amount
Fixed Income Managers		
Reams Asset Management	Core Plus	\$ 30,370,501
Ramirez Asset Management	Core	72,723,829
Long Duration	Long Term	13,419,638
DDJ	High Yield/ Bank Loans	7,964,936
Total Fixed Income		124,478,904
Domestic Equity Managers		
Northern Trust Global Investments	Large Cap Core	86,712,164
EARNEST Partners	Mid Cap Core	32,559,868
SSGA - Russell 1000 Growth Index	Large Cap Growth	2,247
SSGA - Russell 1000 Value Index	Large Cap Value	-
NWQ	Small Cap Value	9,608,395
Rice Hall James	Small Cap Growth	12,516,431
SPI Technologies	Defensive Equity	17,837,904
Transition Account	Short Term	8,326
Total Domestic Equity		159,245,335
International Equity Managers		
Hansberger Global Investors	International	16,685,269
Fisher Investments Institutional Group	International	16,762,361
State Street Global Advisors	Non-US Developed Core	13,684,437
Total International Equity		47,132,067
Alternative Managers		
Parametric	Covered Calls	55,368,286
Total Alternative Investments		55,368,286
Total Investment		\$ 386,224,592

Asset Allocation
As of June 30, 2019



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SECTION 4

ACTUARIAL



Bonnie W. Peakes
Widow of William C. Peakes, Engineer of Fire
Served with OFD from 1958 to 1983

ACTUARY'S CERTIFICATION LETTER



Classic Values, Innovative Advice

Via Electronic Mail

November 21, 2019

Actuarial Certification

This is the Actuary's Certification Letter for the Actuarial Section of the Annual Report for the Oakland Police and Fire Retirement System (PFRS, the Plan) as of June 30, 2019. This letter includes references to two documents produced by Cheiron for the Plan: the actuarial valuation report as of June 30, 2018 (transmitted February 15, 2019) and the GASB 67/68 report as of June 30, 2019 (transmitted October 17, 2019).

Actuarial Valuation Report as of June 30, 2018

The purpose of the annual actuarial valuation report as of June 30, 2018 is to determine the actuarial funding status of the Plan on that date and to calculate an actuarially determined contribution amount in accordance with the Plan's funding agreement with the City of Oakland. The prior review was conducted by Cheiron as of June 30, 2017.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution amount provides for current cost (normal cost and expected administrative expenses) plus an amount to amortize the Unfunded Actuarial Liability (UAL). All members of the Plan have retired, therefore no normal cost has been computed, and the actuarially determined contributions are equal to the unfunded liability amortization payment plus administrative expenses.

As part of the funding agreement with the City, the UAL is expected to be amortized as level percentage of overall City Safety payroll, with payments commencing in the fiscal year beginning July 1, 2017, and completed in the year ending June 30, 2026.

For actuarial valuation purposes, Plan assets are valued at actuarial value. Under this method, the Actuarial Value of Assets recognizes one-fifth of the difference between the expected asset value (based on the 6.00% return assumption for the current Plan year) and the actual market value each year. The actuarial value is restricted to fall between 90% and 110% of the market value.

The Retirement System Board is responsible for establishing and maintaining the funding policy of the Plan.

We prepared the following schedules, which we understand will be used in the Actuarial Section of the 2019 PFRS Annual Report, based on the June 30, 2018 actuarial valuation. All historical information prior to the June 30, 2013 actuarial valuation shown in these schedules is based on information reported by Bartel Associates, who served as the actuary prior to 2013.

www.cheiron.us 1.877.CHEIRON (243,4766)

ACTUARY'S CERTIFICATION LETTER

November 21, 2019

Page 2

- Statement of Actuarial Assumptions and Methods
- Summary of Participant Data
- Development of Actuarial Gain/Loss (Analysis of Financial Experience)
- Schedule of Funding Status
- Summary of Plan Provisions

The assumptions used in this report reflect the results of an experience study performed by Cheiron covering the period from July 1, 2014 through June 30, 2017, and adopted by the Board. The assumptions used are intended to produce results that, in aggregate, reasonably approximate the anticipated future experience of the Plan.

We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet the requirements of the Actuarial Standards of Practice, in particular Standards No. 4, 27, 35, and 44.

GASB 67/68 Report as of June 30, 2019

The purpose of the GASB 67/68 report as of June 30, 2019 is to provide accounting and financial reporting information under GASB 67 for the Plan and under GASB 68 for the City of Oakland. This report is not appropriate for other purposes, including the measurement of funding requirements for the Plan.

For financial reporting purposes, the Total Pension Liability (TPL) is based on the June 30, 2018 actuarial valuation updated to the measurement date of June 30, 2019. The update included a reduction in the liability due to assumption changes, and the addition of interest cost offset by actual benefit payments.

Beginning of year measurements are based on the actuarial valuation as of June 30, 2017, updated to the measurement date of June 30, 2018. The June 30, 2019 Total Pension Liability (TPL) presented in the GASB 67/68 report was based upon the same data, plan provisions, actuarial methods, and assumptions as were used in the actuarial valuation report as of June 30, 2018.

Please refer to our GASB 67 report as of June 30, 2019 for additional information related to the financial reporting of the System. We prepared the following schedules for inclusion in the Financial Section of the 2019 PFRS Annual Report based on the June 30, 2019 GASB 67/68 report:

- Change in Net Pension Liability
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Notes to the Schedule of Employer Contributions



ACTUARY'S CERTIFICATION LETTER

November 21, 2019

Page 3

We certify that the letter was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for disclosure purposes have been prepared in accordance with our understanding of generally accepted accounting principles as promulgated by the GASB.

Disclaimers

In preparing our reports, we relied on information (some oral and some written) supplied by the Plan. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

These reports are for the use of the Plan, the participating employer, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of these reports is not an intended user and is considered a third party.


Cheiron's reports were prepared solely for the Plan for the purposes described herein, except that the Plan and its auditors may rely on these reports solely for the purpose of completing an audit related to the matters herein. Other users of these reports are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users..

We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. These reports do not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Respectfully Submitted,
Cheiron



Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary
703-893-1456, x1137
gschmidt@cheiron.us



Timothy S. Doyle, ASA, EA, MAAA
Consulting Actuary
703-893-1456, x1140
tdoyle@cheiron.us



SUMMARY OF ACTUARIAL VALUE, ASSUMPTIONS AND FUNDING METHODS

PURPOSE OF ACTUARIAL VALUATION

The Oakland Police and Fire Retirement System (PFRS) is a closed defined benefit pension plan. It was closed to new members on June 30, 1976. As of July 1, 2018, there are no active member. All members are retirees and beneficiaries.

The actual costs of a defined benefit plan are determined entirely by the amount of the benefit promise, the actual salaries and service of the plan participants, and how long they and their beneficiaries live to receive payments. In addition, the actuarial methodology provides a reasonable plan, or method, towards funding the expected costs of the plan. This information assists the plan trustees so they can make informed decisions regarding plan investments and how much in contributions will be required from the employer to eventually fully pay for the plan's costs.

The most recent actuarial valuation was as of July 1, 2018. The key results of the actuarial valuation are as follows:

- The actuarially determined employer contribution amount for Fiscal Year 2019-2020 is \$43.4 million, based on projecting the Actuarial Liabilities and the Actuarial Value of Assets to the end of the 2018-2019 Fiscal Year. This represents a decrease of \$2.3 million from the amount determined in the prior valuation for the same Fiscal Year. The contribution is assumed to be paid in equal installments throughout the year.
- New Memorandums of Understanding (MOUs) went into effect for Police members between the previous and current valuation dates, changing Police retirees' Cost-of-Living Adjustments (COLAs). The change in COLAs from the new Police MOUs lowered the liability by \$6.4 million since the scheduled increases under the new MOUs were lower than the amounts originally assumed, in aggregate.

- New Memorandums of Understanding (MOUs) went into effect for Fire members between the previous and current valuation dates, changing Fire retirees' Cost-of-Living Adjustments (COLAs) and granting Longevity Pay to Fire retirees. The change in COLAs from the new Fire MOUs increased the liability by \$3.4 million since the scheduled increases under the new MOUs were higher than the amounts originally assumed, in aggregate. Longevity Pay increased the liability by about \$1.5 million.
- During the year ended June 30, 2018, the return on Plan assets was 10.22% on a market value basis net of investment expenses, as compared to the 6.00% assumption for the 2017-2018 Plan year. This resulted in a market value gain on investments of \$13.3 million. The Actuarial Value of Assets (AVA) is calculated as the expected AVA plus 20% of the difference between the market value and the expected AVA. This smoothed value of assets returned 8.18%, for an actuarial asset gain of \$7.1 million.
- The Plan experienced a gain on the Actuarial Liability of \$7.5 million, the net result of changes in the population, in particular more deaths than expected among disabled retirees and beneficiaries. Combining the liability losses and asset gains, the Plan experienced a total gain of \$14.6 million.
- The Plan's smoothed funded ratio, the ratio of actuarial assets over Actuarial Liability, increased from 49.5% last year to 53.7% on an AVA basis as of June 30, 2018.
- The Plan's funded ratio increased from 52.4% to 58.1% on a Market Value of Assets (MVA) basis.
- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Actuarial Value of Assets. The Plan experienced a decrease in the UAL from \$340.1 million to \$299.8 million as of July 1, 2018.
- Overall participant membership decreased compared to last year. 41 members died, 19 of whom had their benefits continue to a surviving spouse. In addition, 27 surviving beneficiaries died. There are no active members of the Plan.
- If the contribution were determined using a projected asset value based on the current market (i.e., non-smoothed) value of assets, the contribution for FY 2019-2020 would be \$39.6 million. The contribution is smaller than that determined using the projected AVA, because the current market value reflects the full amount of recent investment gains, while under the AVA projection a portion of those gains are deferred until years after FY 2019-2020.

VALUATION SUMMARY

Table I-1 below summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

Table I-1
Summary of Principal Plan Results
(\$ in Thousands)

	<u>July 1, 2017</u>	<u>July 1, 2018</u>	<u>% Change</u>
<u>Participant Counts</u>			
Active Participants	0	0	
Participants Receiving a Benefit	886	837	-5.53%
Total	886	837	-5.53%
 Annual Pay of Active Members	 \$ 0	 \$ 0	
<u>Assets and Liabilities</u>			
Actuarial Liability (AL)	\$ 673,441	\$ 647,251	-3.89%
Actuarial Value of Assets (AVA)	333,373	347,467	4.23%
Unfunded Actuarial Liability (UAL)	\$ 340,068	\$ 299,784	-11.85%
Funded Ratio (AVA)	49.5%	53.7%	4.18%
Funded Ratio (MVA)	52.4%	58.1%	5.64%
<u>Contributions</u>			
Employer Contribution (FY2017-18)	\$ 44,821	\$ N/A	
Employer Contribution (FY2018-19)	\$ 45,722	\$ 43,409	-5.06%

ACTUARIAL DEFINITIONS

The **Present Value of Future Benefits (PVFB)** is used for measuring all future Plan obligations, the obligations of the Plan earned as of the valuation date and those to be earned in the future by current plan participants under the current Plan provisions, if all assumptions are met.

The **Actuarial Liability** is calculated taking the Present Value of Future Benefits and subtracting the Present Value of Future Normal Costs under an acceptable actuarial funding method. Because the Plan has no active members, the Actuarial Liability is equal to the Present Value of Future Benefits (i.e., all benefits are fully accrued).

The **Unfunded Actuarial Liability** is the excess of the Actuarial Liability over the Actuarial Value of Assets.

The **Actuarial Value of Assets** is the value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

ACTUARIAL METHODS AND ASSUMPTIONS

ACTUARIAL METHODS

The actuarial funding method used to determine the System’s normal cost and the unfunded actuarial liability is the **Entry Age Normal** cost method.

The normal cost rate is determined with the normal cost percentage equal to the total Projected Value of Benefits at Entry Age, divided by Present Value of Future Salary at Entry Age. Since there are no longer any active employees, the normal cost for this plan is \$0.

Actuarial Value of Plan Assets

The excess of the AL over the Actuarial Value of Assets (AVA) is the Unfunded Actuarial Liability (UAL). In accordance with the Plan’s funding agreement with the City of Oakland, the UAL must be amortized by July 1, 2026, with contributions resuming in the 2017-2018 fiscal year. The projected fiscal year 2019-2020 contribution has been calculated using level percent of pay amortization, based on total projected City payroll for all Safety employees.

ACTUARIAL ASSUMPTIONS

The assumptions used in this report reflect the results of an Experience Study performed by Cheiron covering the period from July 1, 2014 through June 30, 2017 and adopted by the Board. More details on the rationale for the demographic and economic assumptions can be found in the Experience Analysis presented to the Board on February 28, 2018.

Longevity Pay for Fire Retirees

Longevity Pay payments for Fire retirees are assumed to be the dollar amount below multiplied by the retiree’s benefit percentage at retirement. Surviving spouses are assumed to receive the same payment, multiplied by their assumed continuance percentage.

Benefit Payment Year	Fire Longevity Pay
2019	\$1,250
2020	\$1,300
2021+	\$1,350

Rate of Return

The expected annual rates of return, net of investment expenses, on all Plan assets are shown in the table on the next page. The equivalent single discount rate for these returns using the Plan's expected projected benefit payments is 5.50%.

Benefit Payment Year	Expected Return (%)
2018 - 2026	6.000
2027	5.725
2028	5.450
2029	5.175
2030	4.900
2031	4.625
2032	4.350
2033	4.075
2034	3.800
2035	3.525
2036+	3.250

Cost of Living Adjustments

Cost-of-living adjustments are based on salary increases for a retiree's rank at retirement.

The long-term rate of salary increase is assumed to be 3.25% (2.85% inflation plus 0.4% productivity). The following schedule shows salary increases based on the current Police contract which expires on June 30, 2023, and the Fire contract which expired on October 31, 2020. All increases shown after those dates are assumptions (we have assumed a 3.25% increase for Fire will occur in FY 2020-21).

Post-Retirement Benefit Increases (Based on Salary Increases for Rank at Retirement)		
Date of Increase	Police	Fire
November 1, 2018	0.00%	1.00%
January 1, 2019	2.50%	1.00%
November 1, 2019	0.00%	2.00%
July 1, 2020	2.50%	3.25%
July 1, 2021	3.00%	3.25%
July 1, 2022	3.50%	3.25%
July 1, 2023	3.50%	3.25%
Annual Increases Starting July 1, 2024	3.25%	3.25%

Inflation

The assumed rate of general inflation is 2.75% (entire US) and local inflation is 2.85% (Bay Area). The general inflation rate is used in the determination of the investment return assumptions. The local inflation rate is used in the determination of the growth in expenses and salaries (which determine the COLA increases).

Rates of Termination, Disability and Retirement: None.

Rates of Mortality for Healthy Lives (for service retirees and beneficiaries)

CalPERS Healthy Annuitant Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016.

Rates of Mortality for Disabled Retirees

CalPERS Industrial Disability Mortality Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016.

Mortality Improvement

The mortality tables are projected to improve with the MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

Survivor Continuance

30% of disabled retirees' deaths are assumed to be related to injuries arising out of the performance of duty, entitling the surviving spouse to a 100% continuance.

Changes in Assumptions since the Last Valuation

New Memorandums of Understanding (MOUs) went into effect for Police and Fire members after the previous valuation, changing Police and Fire retirees' Cost-of-Living Adjustments (COLAs) and adding benefits tied to Longevity Pay for Fire retirees. No other changes have been made to the actuarial assumptions.

Administrative Expenses

Annual administrative expenses are assumed to be \$1,007,070, growing at 2.85% per year.

Service Retired Participants

	Police		Fire		Total	
	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	\$0	0	\$0	0	\$0
50–54	0	\$0	0	\$0	0	\$0
55–59	0	\$0	0	\$0	0	\$0
60–64	2	\$180,986	0	\$0	2	\$180,986
65–69	43	\$3,432,355	5	\$293,341	48	\$3,725,697
70–74	97	\$7,193,936	30	\$2,235,561	127	\$9,429,496
75–79	72	\$5,391,215	24	\$1,872,484	96	\$7,263,698
80–84	16	\$1,484,219	18	\$1,473,484	34	\$2,957,703
85–89	10	\$761,713	12	\$864,969	22	\$1,626,682
90–94	8	\$744,746	15	\$1,286,872	23	\$2,031,617
95–99	2	\$165,871	6	\$467,041	8	\$632,911
100+	0	\$0	0	\$0	0	\$0
Total	250	\$19,355,040	110	\$8,493,751	360	\$27,848,791

Disability Retired Participants

	Police		Fire		Total	
	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	\$0	0	\$0	0	\$0
50–54	0	\$0	0	\$0	0	\$0
55–59	0	\$0	0	\$0	0	\$0
60–64	0	\$0	0	\$0	0	\$0
65–69	18	\$1,374,158	18	\$1,173,872	36	\$2,548,029
70–74	51	\$3,662,356	38	\$2,664,960	89	\$6,327,317
75–79	25	\$1,817,543	26	\$1,921,611	51	\$3,739,154
80–84	12	\$907,855	9	\$777,041	21	\$1,684,896
85–89	2	\$185,176	8	\$671,763	10	\$856,939
90–94	1	\$114,473	2	\$126,839	3	\$241,312
95–99	0	\$0	0	\$0	0	\$0
100+	0	\$0	0	\$0	0	\$0
Total	109	\$8,061,561	101	\$7,336,085	210	\$15,397,647

Beneficiaries

	Police		Fire		Total	
	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	\$0	0	\$0	0	\$0
50–54	0	\$0	0	\$0	0	\$0
55–59	2	\$116,871	1	\$81,377	3	\$198,248
60–64	4	\$239,806	4	\$202,166	8	\$441,973
65–69	13	\$702,921	12	\$706,884	25	\$1,409,805
70–74	28	\$1,446,498	13	\$711,007	41	\$2,157,505
75–79	20	\$1,018,632	16	\$827,609	36	\$1,846,241
80–84	14	\$870,859	22	\$1,191,379	36	\$2,062,238
85–89	19	\$1,148,869	26	\$1,217,755	45	\$2,366,624
90–94	25	\$1,425,349	29	\$1,662,162	54	\$3,087,511
95–99	7	\$395,347	7	\$355,737	14	\$751,084
100+	1	\$76,482	4	\$320,966	5	\$397,448
Total	133	\$7,441,635	134	\$7,277,041	267	\$14,718,675

PARTICIPANT DATA SUMMARY

Data Summary

	July 1, 2017			July 1, 2018		
<u>Active Participants</u>	Police	Fire	Total	Police	Fire	Total
Number	0	0	0	0	0	0
Number Vested	0	0	0	0	0	0
Average Age	00.0	00.0	00.0	00.0	00.0	00.0
Average Service	00.0	00.0	00.0	00.0	00.0	00.0
Average Pay	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
<u>Service Retirees</u>						
Number	260	120	380	250	110	360
Average Age	74.3	80.2	76.1	75.0	80.8	76.8
Average Annual Benefit	\$ 72,011	\$ 73,308	\$ 72,420	\$ 77,420	\$ 77,216	\$ 77,358
<u>Disabled Retirees</u>						
Number	117	114	231	109	101	210
Average Age	73.8	75.6	74.6	74.2	75.6	74.9
Average Annual Benefit	\$ 68,956	\$ 68,799	\$ 68,879	\$ 73,959	\$ 72,635	\$ 73,322
<u>Beneficiaries</u>						
Number	139	136	275	133	134	267
Average Age	80.6	83.9	82.2	80.5	83.4	82.0
Average Annual Benefit	\$ 52,291	\$ 51,846	\$ 52,071	\$ 55,952	\$ 54,306	\$ 55,126
<u>All Inactives</u>						
Number	516	370	886	492	345	837
Average Age	75.9	80.1	77.6	76.3	80.3	77.9
Average Annual Benefit	\$ 66,006	\$ 64,030	\$ 65,181	\$ 70,850	\$ 66,976	\$ 69,253

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In Memoriam

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Retiree Deaths in Fiscal Year 2018-19

Fire Department		Police Department	
Bowers, John	Retiree	Anderson, Leland	Retiree
Evans, Robert	Retiree	Crabtree, Billy	Retiree
Gaillard, Martin	Retiree	Dulgar, Scott	Retiree
Lawrence, Melvin	Retiree	Gain, Charles	Retiree
Martin, Herbert	Retiree	Lietzke, Frederick	Retiree
Moyles, Francis	Retiree	Newberry, Harold	Retiree
Myers, Truett	Retiree	Peets, Ira	Retiree
Schreiber, Manfred	Retiree	Stevenson, Norman	Retiree
Scott, Archie	Retiree	Teich, Terrance	Retiree
Sperry, Charles	Retiree	Tomatis, Joseph	Retiree
Tinsley, Donald	Retiree	Williams, Robert	Retiree
Wolfe, Kenneth	Retiree		



MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: David Jones

SUBJECT: Authorization and
Reimbursement of Board/Staff
Travel/Education Expenses

DATE: January 21, 2020

R. Steven Wilkinson, Board member of the Oakland Police and Fire Retirement System board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Board member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel / Education Event: 2019 Markets Group Ca Institutional Forum

Event Location: Hyatt Regency Sonoma Wine Country, Santa Rosa, CA

Event Date: December 4, 2019

Estimated Event Expense*: \$ 65.00

Notes: Prior Approval received from President Walter L. Johnson, Sr.

* If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the traveling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

For questions please contact David Low, Administrative Assistant, at 510-238-7295.

Attachments (if any):
Resolution # 7084
Conference Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7084

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION RATIFYING THE BOARD PRESIDENT'S APPROVAL OF OAKLAND POLICE AND FIRE RETIRMENT SYSTEM BOARD MEMBER R. STEVEN WILKINSON'S REQUEST TO ATTEND THE MARKETS GROUP'S CALIFORNIA INSTITUTIONAL FORUM ON DECEMBER 4, 2019 IN SANTA ROSA, CALIFORNIA AND AUTHORIZING REIMBURSEMENT OF THE COST FOR ATTENDANCE IN THE AMOUNT OF SIXTY-FIVE DOLLARS (\$65.00)

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy ("Travel Policy") requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimbursed by PFRS; and

WHEREAS, pursuant to Section IV(2)(c) of the Travel Policy, the PFRS Board President, in consultation with the Plan Administrator, may authorize education and travel expenses without prior approval of the Board when prior Board approval cannot be obtained; and

WHEREAS, PFRS Board Member R. Steven Wilkinson attended the Markets Group's California Institutional Forum ("the Conference") in Santa Rosa, CA on December 4, 2019; and

WHEREAS, Member Wilkinson has submitted documentation showing that he incurred Sixty-Five Dollars (\$65.00) in reimbursable expenses to attend the Conference; and

WHEREAS, Member Wilkinson was unable to obtain Board approval prior to attending the Conference due to the cancellation of the November 2019 PFRS Board meeting; and

WHEREAS, in compliance with Section IV(2)(c) of the Travel Policy, Member Wilkinson obtained written authorization from PFRS Board President Walter L. Johnson, Sr. to attend the Conference at a cost of Sixty-Five Dollars (\$65.00); now, therefore be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLVED: That the PFRS Board hereby ratifies the Board President's approval of PFRS Board Member R. Steven Wilkinson's request to attend at the Markets Group's California Institutional Forum in Santa Rosa, CA on December 4, 2019 at a cost of Sixty-Five Dollars (\$65.00); and be it

FURTHER RESOLVED: That the PFRS Board authorizes the reimbursement of Member Wilkinson's expenses in the amount of Sixty-Five Dollars (\$65.00) for attendance at the Markets Group's California Institutional Forum on December 4, 2019.

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, NICHELINI, SPEAKMAN, AND PRESIDENT JOHNSON**

NOES:

ABSTAIN: **WILKINSON**

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY



7th Annual California Institutional Forum

An Annual Meeting of the Regional Institutional Investor Community – Wednesday, December 4, 2019

Hyatt Regency Sonoma Wine Country, 170 Railroad St, Santa Rosa, CA 95401

DESIGNED FOR:

Pensions, Endowments, Foundations, Hospital Plans, Insurance Companies & Investment Consultants

2019 SPEAKERS

Betty Yee, State Controller, **California**
Robert Maynard, Chief Investment Officer, **Public Employee Retirement System of Idaho**
Jonathan Shear, Chief Investment Officer, **University of Utah**
Elmer H. Huh, Chief Investment Officer, **M.J. Murdock Charitable Trust**
Sean Bill, Chief Investment Officer, **Santa Clara Valley Transportation Authority**
Ralph Goldsticker, Chief Investment Officer, **Alan Biller & Associates**
Robert Shaw, Chief Investment Officer, **City and County of San Francisco Office of the Treasurer**
Ronald Lagnado, Investment Director, **The California Public Employees' Retirement System**
Mary Morris, Investment Officer, **California State Teachers' Retirement System**
Kurt Braitberg, Managing Director, Public Markets, **San Francisco Employees' Retirement System**
David Wong, Director of Investments, **San Manuel Band of Mission Indians**
Damien Charléty, Investment Officer, **East Bay Municipal Utility District Employees' Retirement System**
Tim Barron, Chief Investment Officer, **Segal Marco**
John Meier, Managing Director, Senior Consultant, **Verus**
Stephen Marshall, Director, Head of Asset Allocation, **Beacon Point Advisors**
Stacy Lewis Daher, Assoc. Vice President, Finance & Treasury, **University of San Francisco**
William Beck, Vice President, Fixed Income Manager Research, **Wilshire Associates**
Don Stracke, Senior Consultant, **NEPC**
Bill Bracamontes, Managing Director, Private Markets, **Wilshire Associates**
Greg DeForrest, Senior Vice President, Manager, San Francisco Fund Sponsor Consulting, **Callan**
James Walsh, Head of Portfolio Advisory, **Albourne Partners**
Ryan Lobdell, Senior Vice President, **Meketa Investment Group**
Jackson Garton, Managing Director, **Makena Capital Management**
Chad Yaskiw, Portfolio Manager, Public Markets, **University of Alberta**
Marisa Walters, Associate, Fixed Income Manager Research, **Wilshire Associates**
Steven Wilkinson, Trustee, **Oakland Police & Fire Retirement System**

2019 CONTRIBUTING PARTNERS

Allianz Global Investors | Nuveen | Putnam Investments | World Gold Council
Voya Investment Management | ArrowMark Partners | Capital Fund Management
Brandes Investment Partners | IFM Investors | HSBC Global Asset Management
Morgan Stanley Investment Management | Vontobel Asset Management | Robeco

7:30 Registration & Welcome Coffee**8:00 Breakfast Workshop: Enhanced Indexing – Beyond Passive Investing**

Despite its popularity, passive investing isn't offering investors the best available exposure to the equity markets. We argue that enhanced indexing may be an even better alternative. It is supported by theory and evidence, allows for better ESG integration, and contributes to a liquid and efficient market.

Presenter: **Jan de Koning**, Senior Portfolio Manager, **Robeco**

8:30 Welcome Remarks

Organizer: **William Coba**, Co-Head of Investor Relations, North America Institutional, **Markets Group**

Co-Chairperson: **Joel Damon**, Director, Senior Relationship Manager, **Allianz Global Investors**

Co-Chairperson: **Amanda Montgomery**, Director, Senior Relationship Manager, **Allianz Global Investors**

8:40 Panel: Portfolio Construction in the Face of Uncertainty

A low-growth, high-volatility environment gives more power to an argument for diversification. However, in the face of greater uncertainty, how can investors keep track of and counter changing risk profiles and more complex correlations? How should an investor construct portfolios to avoid concentration risks and fat tails? How should an investor look at alpha and beta within the context of an overall portfolio? While many funds appropriately tend not to change asset allocations as result of political events or near-term or even intermediate risks, is this different this time? Should we look at a different approach to constructing portfolios that would be resilient over the next decade?

Moderator:

Stephen Marshall, Director, Head of Asset Allocation, **Beacon Point Advisors**

Panelists:

Amit Sinha, Head of Multi Asset Design, **Voya Investment Management**

Ronald Lagnado, Investment Director, **The California Public Employees' Retirement System**

9:15 Keynote Presentation: Understanding the Chinese Markets

The opening of the China A-shares market to foreign investors is expected to transform global markets and how investors look at Emerging Markets allocations. While the market is large -it is roughly equivalent in size to the European equity market- and offers access to high growth "new economy" sectors, risks still remain, especially for those not familiar with investing in China. Allianz Global Investors CEO Doug Eu began managing China equities in the early 1990s and built a strong Asia business in the following decade. He offers insight on the past and present Chinese equity markets, the unique role of the Chinese government, and other considerations investors in the A-share market should understand in order to best capture this new market opportunity.

Presenter:

Christian McCormick, Director, Senior Product Specialist, **Allianz Global Investors**

9:45 Panel: Alternatives with Global Diversification Can Offer a Different Type of Performance in a Late Cycle

2019 predictions suggest slower growth, rising rates, ongoing geopolitical tensions and more volatility. Many institutional investors today are looking to alternatives to deliver return potential when stocks and bonds suffer and to protect against inflation. Can alternatives heed these challenges? Real assets have emerged as a compelling alternative to traditional equity and bond markets for their diversification benefits, as well as the opportunity for income and capital appreciation. This panel will explore the benefits of a diversified approach to alternatives investing, both by asset class, sector and geography.

Moderator:

James Walsh, Head of Portfolio Advisory, **Albourne Partners**

Panelists:

David Wong, Director of Investments, **San Manuel Band of Mission Indians**

John Goodreds, Managing Director, **AGR Partners**

10:20 Morning Coffee Break**10:40: Panel: Fixed Income Risks**

Evaluating the real risks in a fixed income portfolio has always been a challenging endeavor. Is it interest rate risk, credit risk or liquidity risk that is moving the value of portfolio up or down? Is it worth paying for active management or will simply trying to invest in a fixed income benchmark at a rock bottom fee accomplish the same portfolio objective? As central banking policy evolves from quantitative easing to quantitative tightening, seeking the right solutions may lead to significant performance dispersion depending on the true risk that either an active manager or a benchmark is taking.

Moderator:

Stacy Lewis Daher, Assoc. Vice President, Finance & Treasury, **University of San Francisco**

Panelists:

William Schmitt, Risk Manager, Investment Management, **Putnam Investments**

Damien Charléty, Investment Officer, **East Bay Municipal Utility District Employees' Retirement System**

Greg DeForrest, Senior Vice President, Manager, San Francisco Fund Sponsor Consulting, **Callan**

11:20 Panel: An Evolving World for Alternative Credit

Following the global financial crisis, a low-rate environment has forced investors to rethink asset allocation in order to meet their portfolio objectives. This prolonged market condition has put particular stress on traditional credit and fixed income instruments that have historically played a critical role in portfolios. Further, hedge fund strategies employed to provide diversification and non-correlation have struggled to deliver. These dynamics are leading investors to increasingly embrace alternative credit strategies that look to take advantage of more complex, and often less liquid, opportunities. The panelists will seek to define the various segments within alternative credit, to highlight several key characteristics of these strategies, and to discuss real-time examples of opportunities in today's market.

Moderator:

Don Stracke, Senior Consultant, **NEPC**

Panelists:

Kurt Braitberg, Managing Director, Public Markets, **San Francisco Employees' Retirement System**

William Beck, Vice President, Fixed Income Manager Research, **Wilshire Associates**

Timothy Beresford, Client Portfolio Manager, **ArrowMark Partners**

12:00 Panel: Commodities in Your Alternative Bucket

After years of low inflation and falling costs for gold, commodities are again showing signs of life. With prices on the upswing, there may be value now in revisiting some fundamental questions regarding the class, such as what role do commodities play in an alternative's allocation? What are some of the different ways to get exposure, and are oil and gold enough for a portfolio? Could performance figures and diversification benefits make a compelling case for commodities? These questions, along with discourse around rising interest rates, the value of the U.S. dollar, and inflation expectations, will be taken on by the panel with respect to a prognosis for commodities performance in 2019 and beyond.

Moderator:

Steven Wilkinson, Trustee, **Oakland Police & Fire Retirement System**

Panelists:

Matthew Mark, Head of Distribution, **World Gold Council**

Chad Yaskiw, Portfolio Manager, Public Markets, **University of Alberta**

12:35 Networking Luncheon Hosted By: **Vontobel Asset Management**

In the format of roundtables, small discussion groups are formed by topic. This is your opportunity to interact with some of our star speakers of the day, ask questions, and make connections.

Table 1: **Understanding the Chinese Markets** – hosted by **Allianz Global Investors**

Table 2: **Portfolio Construction in the Face of Uncertainty**– hosted by **Voya Investment Management**

Table 3: **Enhanced Indexing – Beyond Passive Investing** - hosted by **Robeco**

Table 4: Alternatives with Global Diversification Can Offer a Different Type of Performance in a Late Cycle – hosted by **Nuveen**

Table 5: Fixed Income Risks – hosted by **Putnam Investments**

Table 6: An Evolving World for Alternative Credit – hosted by **ArrowMark Partners**

Table 7: Commodities in Your Alternative Bucket – hosted by **World Gold Council**

Table 8: Evolution of Emerging Market Equities – hosted by **Brandes Investment Partners**

Table 9: Managed Futures: The End of Trend? – hosted by **Capital Fund Management**

Table 10: Trends in Private Equity: Selectively Deploying Capital – hosted by **Morgan Stanley Investment Management**

Table 11: ESG Now and Then: Recent Trends in ESG Implementation – hosted by **HSBC Global Asset Management**

Table 12: Benefits of a Global Approach – hosted by **Vontobel Asset Management**

1:35 Fireside Chat: State Controller Betty T. Yee

Ms. Yee was elected in November 2014, following two terms of service on the California Board of Equalization. As Controller, she continues to serve the Board as its fifth voting member. Reelected for a second term as Controller in 2018, Ms. Yee is only the tenth woman in California history to be elected to statewide office. As the state's chief fiscal officer, Ms. Yee chairs the Franchise Tax Board and serves as a member of the California Public Employees' Retirement System (CalPERS) and the California State Teachers' Retirement System (CalSTRS) Boards. These two boards have a combined portfolio of more than \$570 billion. Ms. Yee also serves on the Ceres Board of Directors, a nonprofit organization working to mobilize many of the world's largest investors to advance global sustainability and take stronger action on climate change.

Interviewer:

Ralph Goldsticker, Chief Investment Officer, **Alan Biller & Associates**

Interviewee:

Betty T. Yee, State Controller, **California**

1:55 Panel: Evolution of Emerging Market Equities

Over the course of the past two decades, investment in emerging market equities has been polarizing. Return patterns have been volatile, along with a seemingly ever-changing set of opportunities and challenges. While emerging market countries remain drivers of global growth and are expected to deliver higher relative returns, on average compared to developed countries, institutional investors have less than 3% of their capital dedicated to the asset class. What factors should investors consider when debating whether to allocate to or diversify within the asset class?

Moderator:

Tim Barron, Chief Investment Officer, **Segal Marco**

Panelists:

Elmer H. Huh, Chief Investment Officer, **M.J. Murdock Charitable Trust**

Christopher Garrett, Director, Institutional Group, **Brandes Investment Partners**

Jackson Garton, Managing Director, **Makena Capital Management**

2:35 Interview: Managed Futures: The End of Trend?

Interest in Managed Futures grew steadily during the years following the Global Financial Crisis in 2008. However, managed futures strategies that leverage a trend-following approach have struggled over the past few years to deliver returns. Is there still alpha to be found in Managed Futures? Or has something fundamentally changed in the market? Given today's macro environment, join us in a discussion around performance expectations, portfolio applications, and what to look for when evaluating Managed Futures strategies.

Interviewer:

Ryan Lobdell, Senior Vice President, **Meketa Investment Group**

Interviewee:

Pierre-Alain Reigner, Executive Director and Product Specialist, **Capital Fund Management**



3:05 Afternoon Coffee Break

3:20 Panel: Trends in Private Equity: Selectively Deploying Capital

It seems that private equity managers have lately been quite selective in deploying the capital they have at their disposal, characterized by smaller deals. What implications, if any, does this behavior have for valuations? What industry sectors could be desirable considering the economic outlook? And for institutional investors still looking to commit more, what has and what has not changed in their expectations? These and other critical questions regarding investing in the asset class will be discussed.

Moderator:

Bill Bracamontes, Managing Director, Private Markets, **Wilshire Associates**

Panelists:

Scott Norby, Executive Director, **Morgan Stanley Investment Management**

Elmer H. Huh, Chief Investment Officer, **M.J. Murdock Charitable Trust**

Jonathan Shear, Chief Investment Officer, **University of Utah**

4:00 Panel: ESG Now and Then: Recent Trends in ESG Implementation

The ESG discussion is rapidly evolving as are the techniques for incorporating ESG analytics and factors into the portfolio construction process. This panel will explore how investors are assessing ESG's longer-term material impacts and how they are positioning their portfolios to avoid these potential risks. The panel will also examine specific strategies investors are using to address and integrate ESG issues in active management frameworks.

Moderator:

Marisa Walters, Associate, Fixed Income Manager Research, **Wilshire Associates**

Panelists:

Mary Morris, Investment Officer, Sustainable Investment & Stewardship Strategies, **California State Teachers' Retirement System**

Brian Dunnett, Senior Fixed Income Product Specialist, **HSBC Global Asset Management**

4:35 Chief Investment Officer Roundtable

Chief Investment Officers constantly face unique sets of challenges and investing environments. In this discussion, chief investment officers will focus on the key investment and management issues facing their funds, along with what they consider to be their plans' "best ideas" with regard to investment strategy. They will speak to what are the best performing asset allocations they have made this year, what a successful allocation looks like, and how they are identifying these investments.

Moderator:

John Meier, Managing Director, Senior Consultant, **Verus**

Panelists:

Sean Bill, Chief Investment Officer, **Santa Clara Valley Transportation Authority**

Robert Maynard, Chief Investment Officer, **Public Employee Retirement System of Idaho**

Robert Shaw, Chief Investment Officer, **City and County of San Francisco Office of the Treasurer**

5:15 Closing Remarks

Co-Chairperson: **Joel Damon**, Director, Senior Relationship Manager, **Allianz Global Investors**

Co-Chairperson: **Amanda Montgomery**, Director, Senior Relationship Manager, **Allianz Global Investors**

5:20 Networking Cocktail Hosted By: IFM Investors

6:15 Invitation-Only Dinner Hosted By: Allianz Global Investors



MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: David Jones

SUBJECT: Authorization and
Reimbursement of Board/Staff
Travel/Education Expenses

DATE: January 21, 2020

R. Steven Wilkinson, Board member of the Oakland Police and Fire Retirement System board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Board member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel / Education Event: 2020 OPAL Alternative Investing Summit

Event Location: Ritz Carlton Hotel, Dana Point, CA

Event Date: December 4-6, 2019

Estimated Event Expense*: \$332.00

Notes: Prior Approval received from President Walter L. Johnson, Sr.

* If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the traveling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

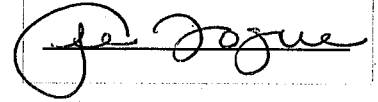
For questions please contact David Low, Administrative Assistant, at 510-238-7295.

Attachments (if any):
Resolution # 7085
Conference Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved as to
Form and Legality

RESOLUTION No. 7085



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION RATIFYING THE BOARD PRESIDENT'S APPROVAL OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM BOARD MEMBER R. STEVEN WILKINSON'S REQUEST TO ATTEND THE 2019 OPAL ALTERNATIVE INVESTING SUMMIT FROM DECEMBER 4, 2019 THROUGH DECEMBER 6, 2019 IN DANA POINT, CALIFORNIA AND AUTHORIZING REIMBURSEMENT OF THE COSTS FOR ATTENDANCE IN THE AMOUNT OF THREE HUNDRED THIRTY-TWO DOLLARS (\$332.00)

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy ("Travel Policy") requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimbursed by PFRS; and

WHEREAS, pursuant to Section IV(2)(c) of the Travel Policy, the PFRS Board President, in consultation with the Plan Administrator, may authorize education and travel expenses without prior approval of the Board when prior Board approval cannot be obtained; and

WHEREAS, PFRS Board Member R. Steven Wilkinson attended the 2019 OPAL Alternative Investing Summit ("the Conference") in Dana Point, CA from December 4, 2019 through December 6, 2019; and

WHEREAS, Member Wilkinson has submitted documentation showing that he incurred Three Hundred Thirty-Two Dollars (\$332.00) in reimbursable expenses to attend the Conference; and

WHEREAS, Member Wilkinson was unable to obtain Board approval prior to attending the Conference due to the cancellation of the November 2019 PFRS Board meeting; and

WHEREAS, in compliance with Section IV(2)(c) of the Travel Policy, Member Wilkinson obtained written authorization from PFRS Board President Walther L. Johnson, Sr. to attend the Conference at a cost of Three Hundred Thirty-Two Dollars (\$332.00); now, therefore be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLVED: That the PFRS Board hereby ratifies the Board President's approval of PFRS Board Member R. Steven Wilkinson's request to attend the 2019 OPAL Alternative Investing Summit in Dana Point, CA from December 4, 2019 through December 6, 2019 at a cost of Three Hundred Thirty-Two Dollars (\$332.00); and be it

FURTHER RESOLVED: That the PFRS Board authorizes reimbursement of Member Wilkinson's expenses in the amount of Three Hundred and Thirty-Two Dollars (\$332.00) for attendance at the 2019 OPAL Alternative Investing Summit on December 4, 2019.

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: BENSON, GODFREY, NICHELINI, SPEAKMAN, AND PRESIDENT JOHNSON

NOES:

ABSTAIN: WILKINSON

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

WEDNESDAY, DECEMBER 4, 2019



7:40AM-12:00PM	Golf Outing at Monarch Beach
10:30AM-12:00PM	Exhibit Set-Up
11:00AM	<p>Registration/Information Desk Opens</p> <p><i>All confirmed pre-registered delegates must approach the Registration Desk to check in and pick up conference badges. Business Cards are required to retrieve badges.</i></p>
LOCATION	GENERAL SESSION
12:30PM-12:45PM	<p>Chairman Welcoming Remarks</p> <p>Robert Grden, Executive Director, Wayne County Employees Retirement System</p>
12:45PM-1:30PM	<p>Global Alternative Investment Outlook: Measuring the Winds of Change</p> <ul style="list-style-type: none"> • Overview of 2019 • What to expect in 2020 <p><u>Moderator:</u> Joe McIntosh, Executive Director, Tarrant County College Foundation</p> <p><u>Panelists:</u> Mustafa Saiyid, Senior Financial Sector Expert, IMF Elisabeth Préfontaine, Founder, Octonomics Michael Levas, Senior Managing Partner, ROSC Global Investments (SFO) David R. Grosner, CFA, CAIA, Chief Investment Officer, Lebanese American University</p>
1:30PM-2:15PM	<p>LP Perspectives & Allocation Plans</p> <p><i>Investment Officers discuss:</i></p> <ul style="list-style-type: none"> • Where is "smart money" currently invested? • What have been the biggest hurdles you have seen? • Where are you seeing most pushback from investment committees? • Given current market conditions and a risk of overexposure, what are your allocation and investment plans for 2020? <p><u>Moderator:</u> Brandon Laughren, Chief Investment Officer, The Laughren Group (SFO)</p> <p><u>Panelists:</u> Stephen Marsh, Senior Investment Officer, Sonoma County Employees' Retirement Association Steve Braverman, Co-Chief Executive Officer, Pathstone (MFO)</p>
2:15PM-2:35PM	<p>The Progression from Crowdfunding to 506(c) to Regulation A</p> <ul style="list-style-type: none"> • From small investors to big investors and back again. <p>Gene Trowbridge, Founding Partner, Trowbridge Sidoti LLP</p>

LOCATION	EXHIBIT HALL	
2:35PM-3:00PM	Networking Refreshment Break <i>Sponsored by:</i> Trowbridge Sidoti LLP	
LOCATION	GENERAL SESSION	
3:00PM-3:45PM	Alternative Ideas for Alternative Thinkers: Alternative Investment Strategies for Wealth Managers <i>Moderator:</i> James Rosebush, CEO and Founder, Intersection Impact Fund/The Wealth and Family Office Management Group (SFO) <i>Panelists:</i> Carl Ludwigson, Director of Manager Research, Bel Air Investment Advisors Alan Snyder, Managing Partner, Shinnecock Partners L.P. Todd Dawes, Managing Partner and Founder, Merus Advisors, LLC (MFO) Jerry Olynuk, Sr. Vice President & Portfolio Manager, Northland Wealth Management (MFO)	
3:45PM-4:30PM	Finding Alpha: Non-Correlated/Niche Fund Strategies <i>Moderator:</i> Craig Robbins, Director of Investments, Children's Hospital of Minnesota <i>Panelists:</i> Jonathan Bergman, President, TAG Associates (MFO) William Corry, Founder and General Manager, Corry Capital Advisors, LLC Biff A. Pusey, Jr., Partner, Kimble Advisory (MFO) Dave Hicks, Portfolio Manager, Perast Capital Management	
LOCATION	TRACK A	TRACK B
4:30PM-5:15PM	The Digitization and Trading of Alternative Assets <i>Moderator:</i> Dana Blydenburgh, Director, City of Tampa General Employees' Retirement Fund <i>Panelists:</i> Juan Hernandez, Co-Chief Executive Officer, Openfinance Erol A. Peköz, Professor, Operations & Technology Management, Questrom School of Business, Boston University Paul Brodsky, Partner, Pantera Capital Jamie Finn, Co-Founder & President, Securitize	Looking into the New Frontier of Cannabis Investing <i>Moderator:</i> Kurt Vroman, Chairman of the Pension Board, Deltona Firefighters Pension Plan <i>Panelists:</i> Andrew Hodges, Managing Member, Value Investment Professionals (MFO) Christopher Henderson, Chief Investment Officer, Myrtlewood Capital (SFO)
5:15PM-5:45PM	Keynote Presentation Investing in an Angry World: Deindustrialization, Deglobalization, Disinformation, and Discontent <i>Presented by:</i> Peter Marber, Ph.D., DCE Faculty of Management & Finance, Harvard University	

LOCATION	EXHIBIT HALL
5:45PM-6:45PM	Networking Cocktail Reception <i>Join us and unwind with fellow industry professionals for refreshments during our last networking break of the day.</i>

THURSDAY, DECEMBER 5, 2019

8:00AM	Registration/Information Desk Opens <i>All confirmed pre-registered delegates must approach the Registration Desk to check in and pick up conference badges. Business Cards are required to retrieve badges.</i>
LOCATION	EXHIBIT HALL
8:00AM-8:45AM	Continental Breakfast <i>Sponsored by: Kineta, Inc</i>
LOCATION	GENERAL SESSION
8:45AM-9:00AM	Chairman Opening Remarks Robert Grden, Executive Director, Wayne County Employees Retirement System
9:00AM-9:30AM	Keynote Presentation An Institutional Investor's Perspective <i>As the state's chief fiscal officer, Controller Yee serves as a board member for the California Public Employees' Retirement System (CalPERS) and California State Teachers' Retirement System (CalSTRS), the two largest public pension funds in the United States with a combined AUM of more than \$629 billion. Controller Yee has more than 35 years of experience in public service, specializing in taxation and government finance.</i> <u>Presented by:</u> Betty T. Yee, Controller, State of California
9:30AM-9:50AM	Harvard, Wharton, or Bust? What You Need to Know About ED, EQ, and ROI in Admissions To Highly Selective Universities Arun Ponnusamy, Chief Academic Officer, Collegewise
9:50AM-10:10AM	Gold: The Most Effective Commodity Investment Matthew Mark, Director US Asset Owners/Distribution, World Gold Council
10:10AM-10:30AM	Networking Refreshment Break <i>Sponsored by: Collegewise</i>
10:30AM-10:50AM	Making A Difference In Cancer Innovation With New Therapies Craig Philips, President, Kineta, Inc
10:50AM-11:10AM	Portfolio Protection in the Time of Global Uncertainty <ul style="list-style-type: none"> • This is the 11th year of post-Global Financial Crisis recovery, but geopolitical and macroeconomic clouds are gathering • Easy-to-implement protection is not easy to stomach • What is your portfolio's tail risk exposure? Scott Peng, Founder and CEO, Advocate Capital Management, LLC

LOCATION	TRACK A	TRACK B
11:15AM-12:00PM	<p>Driving Growth with Private Equity and Venture Capital: Deal Structures + Opportunities</p> <p><u>Moderator:</u> Tim Rafalovich, Senior Vice President, Wells Fargo, Alternative Equity Investor</p> <p><u>Panelists:</u> Cari Lodge, Head of Secondaries and Member of the Investment Committee, Commonfund Xingyu Yang, Co-Founder, T&J Brothers Group, LLC Joe Merrill, Partner, Sputnix ATX Consuelo Valverde, B.S.E.E., M.Sc., Founder & Managing Partner, SV LATAM Capital</p>	<p>The Financial Performance of Real Assets: Opportunities, Strategies, Risks & Rewards</p> <p><u>Moderator:</u> Will Buividas, Chairman, Arizona Public Safety Personnel Retirement System (PSPRS)</p> <p><u>Panelists:</u> Brandon Rath, Chief Investment Officer, Pelican Cove Partners Ian Selig, Manager Investor Relations, Safety, Income & Growth Elmer H. Huh, Chief Investment Officer, M.J. Murdock Charitable Trust Michael Mauceli, CEO, REI Energy</p>
12:00PM-1:00PM	<p>Real Estate Investing: Building, Balancing and Tweaking Your Portfolio</p> <p><u>Moderator:</u> David McConico, Chairman, City of Aurora (CO)- General Employees' Retirement Plan</p> <p><u>Panelists:</u> Blair Richards, CEO, Halifax Port ILA/HEA Pension Plan and Trust Funds Bradley Baker, Managing Director, Wilshire Consulting Jason Avishay, Principal, MSD Partners, L.P. (SFO) Dino Champagne, Vice President & Los Angeles Division Managers, Asset Preservation, Inc. Matthew M. May, President, May Realty Advisors</p>	<p>Opportunities in Credit Lending: Private Debt and Direct Lending</p> <p><u>Moderator:</u> Biff A. Pusey, Jr., Partner, Kimble Advisory (MFO)</p> <p><u>Panelists:</u> John Cocke, Partner & Co-Head of Credit Strategies, Corbin Capital Partners Mark Perry, Managing Director, Wilshire Private Markets Ravi Ugale, Managing Director, Private Equity and Credit, SunTrust Advisory Services Thomas Wiese, Senior Managing Director-Institutional Solutions, Lombard International</p>
LOCATION	MONARCH BAY COURTYARD	
1:00PM-2:15PM	Networking Luncheon	
LOCATION	GENERAL SESSION	
2:15PM-2:45PM	<p>KEYNOTE PRESENTATION</p> <p>The Importance of Impacting and Investing in Our Youth</p> <p><u>Presented by:</u> Chris 'Ludacris' Bridges</p>	
LOCATION	EXHIBIT HALL	
2:45PM-3:00PM	<p>Networking Refreshment Break</p> <p><u>Sponsored by:</u> Advocate Capital Management</p>	
LOCATION	TRACK A	TRACK B
3:00PM-3:45PM	Multi-Strategy Asset Allocation in A Fragmented World Market	Exploring Investment Strategies in Emerging and Frontier Markets

	<p><u>Moderator:</u> Joseph Boushelle, Managing Director, Alternative Investments, Clearstead</p> <p><u>Panelists:</u> Erik Ridgley, CFA, Chief Executive Officer & Chief Investment Officer, Salem Partners Wealth Management (MFO) George Craddock, Principal, Ranger Global Holdings, LLC, Executive Committee, Mayo Center for Asset Management Jerry Olynuk, Sr. Vice President & Portfolio Manager, Northland Wealth Management (MFO)</p> <p>3:45PM-4:30PM</p> <p>Smarter Alternatives: How Responsible and Sustainable Impact Strategies Drive Long Term Returns</p> <ul style="list-style-type: none"> • Tips on Creating an Impact Portfolio • Navigating ESG Strategies • Selection and Monitoring <p><u>Moderator:</u> Don Shannon, Director, StepStone Group</p> <p><u>Panelists:</u> Ophir Bruck, Relationship Manager, Western North America, United Nations-supported Principles for Responsible Investment (PRI) Craig Robbins, Director of Investments, Children's Hospital of Minnesota Tami Kesselman, Chief Impact Strategist & Alchemist, Aligned Investing Global</p>	<p><u>Moderator:</u> Guy Pinkman, Trustee, Pension Benefit Guaranty Corporation / Lincoln Fire & Police Retirement System</p> <p><u>Panelists:</u> Jerry Davis, Consulting Analyst and CIO, Piedmont Family Offices (MFO) Oliver Fratzscher, Chief Executive Officer, EM Leaders LLC Andy Mantel, Founder & CEO, Pacific Sun Advisors</p> <p>Risk vs. Reward: Examining Litigation Finance as an Asset Class</p> <p><u>Moderator:</u> Adam Frankel, Trustee, City of Delray Beach General Employees Retirement Fund</p> <p><u>Panelists:</u> Reynolds Williams, Chairman Emeritus, South Carolina Retirement System Investment Commission Brett Rentmeester, Chief Investment Officer, Jaggi Family Office (SFO) Don Plotsky, Co-Founder/Managing Member, Uinta Investment Partners LLC</p>
LOCATION	GENERAL SESSION	
<p>4:30PM-5:15PM</p>	<p>KEYNOTE PANEL</p> <p>Professional Athlete Innovators and Influencers Deliver Greater Investor Returns and Partners in Impact to the Alternative Investing Community</p> <p><i>Continuing from the tremendous success and reception at Opal Group's prior Private Wealth and Impact events, Danny Hughes brings another stellar panel of professional athletes.</i></p> <p><i>Beyond the field and court, both active and former professional athletes are expanding their talents into business, non-profit, and philanthropy. Their goal is to leave an impactful legacy, as well as expand and preserve their wealth. Hear first-hand stories of how they transitioned beyond the game, and learn about how they have aligned their passions to becoming innovators in a variety of alternative businesses. The athletes will share wisdom about how they used their untapped brand and "influence capital" to support new ventures, social impact initiatives, and philanthropic endeavors.</i></p> <p><u>Moderator:</u> Daniel Hughes, Partner/Co-Founder, LOHAS Advisors</p> <p><u>Panelists:</u> Rashad McCants, Former NBA, Big3 Trilogy League, Founder, Hemp House Global, LLC and Vegano Energy, Inc. Shawne Merriman, 3X All-Pro, Former NFL Defensive Rookie of the Year, Entrepreneur, "Lights Out" Brand, Media, and Production Ephraim Salaam, 13 year NFL career, Broadcast Sports Media Personality, Founder/Producer, Independent Film Company, Active Supporter, Right to Vote</p>	

	Will Blackmon, Former 12-year NFL Free Safety, Green Bay Packers, NYGiants (Super Bowl Championship) , NFL Analyst, Sky Sports London , Wine Connoisseur - the "NFL Wine Guy"
LOCATION	EXHIBIT HALL
5:15PM-6:15PM	Networking Cocktail Reception <i>Join us and unwind with fellow industry professionals for refreshments during our last networking break of the day.</i>

FRIDAY, DECEMBER 6, 2019

8:30AM	Registration/Information Desk Opens
8:30AM-9:30AM	Continental Breakfast <i>Sponsored by: World Gold Council</i>
LOCATION	GENERAL SESSION
8:45AM-9:00AM	Chairman Opening Remarks Robert Grden, Executive Director, Wayne County Employees Retirement System
9:00AM-9:45AM	Open Workshop Cryptocurrency and Blockchain: An Introduction to the Technology with Opportunities and Risks for Investors <i>This interactive workshop is designed for investors interested in an introduction to the opportunities and risks presented by cryptocurrency. You will walk away with sufficient fundamental technical and investment overviews of blockchain and crypto, additional lists of information sources and an in-depth understanding of the investment opportunities in the space.</i> <u>Facilitator:</u> Erol A. Peköz, Professor, Operations & Technology Management, Questrom School of Business, Boston University
9:45AM-10:30AM	The Art of Manager Selection and Due Diligence <u>Moderator:</u> John Agenbroad, Chairman, Inter-Local Pension Fund <u>Panelists:</u> Joshua M. Barlow, CPA, CAIA, Managing Director, Valhalla Fiduciary Jeffrey Johnson, Trustee, Municipal Employees' Annuity and Benefit Fund of Chicago Elmer H. Huh, Chief Investment Officer, M.J. Murdock Charitable Trust Barclay Leib, CFE, CAIA, Senior Research Advisor. Cooper Family Office (SFO)
10:30AM-11:15AM	Direct vs. Co-Investment vs. Commingled Funds <u>Moderator:</u> Skip Coomber, III, President, Coomber Family Estates (SFO) / Dragon Trust Family Office (SFO) <u>Panelists:</u> Bill Li, Director, Portfolio Completion Strategies, Massachusetts Pension Reserves Investment Management Board David Robb, Managing Director, Frontier Group (SFO)

	<p>Roman Brent, President, Anacapa LLC</p> <p>Ronald S. Diamond, Chairman and CEO, Diamond Wealth</p>
11:15AM-12:00PM	<p>Risk Management: Building Portfolio Hedges Against Market and Interest Rate Volatility</p> <p><i>Moderator:</i> Lily Cavanagh, Treasurer, Redford Township Police & Firemen's' Retirement System</p> <p><i>Panelists:</i> Aaron Rosen, CFA, Co-Portfolio Manager Senior Vice President, Pinhook Capital Steven Wilkinson, Sr., Trustee, Oakland Police and Fire Retirement System John Repetti, CPA, Investment Team, Cooper Family Office (SFO)</p>
12:00PM	Conference Concludes

2019 CONFIRMED PARTICIPANTS

FAMILY OFFICES/PRIVATE WEALTH

<p>Chief Investment Officer, The Laughren Group (SFO)</p> <p>President, Coomber Family Estates (SFO) / Dragon Trust Family Office (SFO)</p> <p>Sr. Vice President & Portfolio Manager, Northland Wealth Management (MFO)</p> <p>President, PrideCo Capital (MFO)</p> <p>Managing Director, Woodbridge Capital Partners LLC (SFO)</p> <p>Administrator, Herring Family Trust (SFO)</p> <p>CEO and Founder, Intersection Impact Fund/The Wealth and Family Office Management Group (SFO)</p> <p>President & Managing Director, Warhorse Wealth Advisors (SFO)</p> <p>Managing Partner, Lugen Family Office Inc. (MFO)</p> <p>Managing Partner & CIO, Centricity Financial, LLC (MFO)</p> <p>Director, Global Capital Strategies LLC (MFO)</p> <p>Chief Investment Officer, Pelican Cove Partners</p> <p>Director, Alternative Research, Mirador Family Wealth Advisors (MFO)</p> <p>Managing Director & Chief Investment Officer, Tishman Capital Partners (MFO)</p> <p>Partner, Kimble Advisory (MFO)</p> <p>Chief Investment Officer, Jaggi Family Office (SFO)</p> <p>Managing Member, Value Investment Professionals (MFO)</p> <p>Managing Principal, Attis Capital Partners LLC (SFO)</p> <p>Managing Director, Howell Family Trust (SFO)</p> <p>Vice President, Glen Una Management (SFO)</p> <p>Chief Investment Officer, Myrtlewood Capital (SFO)</p> <p>Chief Investment Officer, Aleph Capital (SFO)</p> <p>Chief Risk Officer, Certis Capital Management (MFO)</p> <p>Consulting Analyst and CIO, Piedmont Family Offices (SFO)</p> <p>Co-Chief Executive Officer, Pathstone (MFO)</p> <p>Managing Director, Frontier Group (SFO)</p> <p>Managing Partner, Vista Capital Advisors (SFO)</p> <p>Managing Director, Kentrus Capital (MFO)</p> <p>Principal, MA Wealthy Family's Office (MFO)</p> <p>Managing Director, Straits Venture International (SFO)</p> <p>Head of Investment Research, Clarmond House Limited (MFO)</p> <p>CEO, Fc Capital Management (SFO)</p> <p>President, TD Group (SFO)</p> <p>Managing Partner, NPS Capital (SFO)</p>	<p>Chief Executive Officer & Chief Investment Officer, Salem Partners Wealth Management (MFO)</p> <p>Family Member, Jeras (SFO) / Millennial Venturing</p> <p>Principal, Sequoia Holdings (SFO)</p> <p>Partner, West Partners (SFO)</p> <p>Chairman & CEO, Privos Capital (MFO)</p> <p>CEO, CIO, Glencoe Asset Management LLC (SFO)</p> <p>Director, Karas Partners (SFO)</p> <p>CEO, Karas Partners (SFO)</p> <p>CIO, Real Estate Officer, RedBridge Capital / GFO Companies (SFO)</p> <p>Chief Investment Officer, Al Sharqi Holding (SFO)</p> <p>Managing Director, Private Equity and Credit, SunTrust Advisory Services</p> <p>Director, RD Heritage Group, LLC (MFO)</p> <p>Principal, Vformation (SFO)</p> <p>Principal, Vformation (SFO)</p> <p>Financial Advisor, Merrill Lynch Wealth Management (Multi-Family Office Division)</p> <p>Managing Director, Arrivato LLC (SFO)</p> <p>Founder, Rockwell Capital Management (SFO)</p> <p>Chairman, Endeavor Capital Management Holdings, LLC (SFO)</p> <p>Vice President, Jaggi Family Office (SFO)</p> <p>Principal, Schneider Family Office (SFO)</p> <p>Managing Director, TAG Associates (MFO)</p> <p>Chief Investment Officer, Lederer Investment Office LLC</p> <p>Managing Director - UHNW Family Office Group, BMO Family Office. Formerly CTC myCFO</p> <p>Advisor, GL Capital (SFO)</p> <p>Managing Director, Grider Family Trust (SFO)</p> <p>Managing Principal, The Beverly Park Group (SFO)</p> <p>Director of Research & Operations, BlueArc Capital Management, LLC (SFO)</p> <p>Principal, Frontier Group (SFO)</p> <p>Chief Investment Officer, Allen Exploration (SFO)</p> <p>Director, MT Holdings (SFO)</p> <p>Investment Team, Cooper Family Office (SFO)</p> <p>Counsel, Titan Global Enterprises (MFO)</p> <p>CEO, RyVest Inc. (SFO)</p> <p>Partner, Park South Capital LLC (SFO)</p> <p>Partner, Park South Capital LLC (SFO)</p>
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Director, Oak Sky Capital (SFO)
Principal, MSD Partners, L.P. (SFO)
Founder/CEO, Gideon Strategic Partners (MFO)
Partner, Gideon Strategic Partners (MFO)
Partner, Elon Life (MFO)
Board Member, M-J & Cie (MFO)
Manager, DS&Tcubed, LLC (SFO)
Managing Partner, SEBO Enterprises, LLC
Principal, Titan Global Enterprises (MFO)
Senior Financial Advisor, West Coast, Congress Wealth
Management (MFO)
Chairman & CEO, Privos Capital (MFO)

Director, BZV Private Office (SFO)
Principal, Harper Foster Family Advisory (SFO)
Managing Partner, Harper Foster Family Advisory (SFO)
Partner, DFK Group (SFO)
Chief Operations Officer, DFK Group (SFO)
Owner, CS Holdings (SFO)
Manager, Moonbridge LLC/ Curran Family Office (SFO)
Family Office Advisor, Copley Financial (MFO)
Junior Associate, CS Holdings (SFO)
Managing Director, Ravinia Capital Group (SFO)
Managing Partner and Founder, Merus Advisors, LLC (MFO)

PUBLIC PENSIONS, CORPORATE PENSIONS, TAFT HARTLEYS, & GOVERNMENT

Chairman, Inter-Local Pension Fund
Executive Director, Wayne County Employees Retirement
System
Treasurer, Redford Township Police & Firemen's, Retirement
System
Chief Executive Officer, Orange County Employees Retirement
System
Board Member, Orange County Employees' Retirement
System
Trustee, Detroit's Police & Fire Retirement System
Chairman, Arizona Public Safety Personnel Retirement System
(PSPRS)
Chairman Emeritus, South Carolina Retirement System
Investment Commission
CEO, Halifax Port ILA/HEA Pension Plan and Trust Funds
Investment Officer, Sonoma County Employees' Retirement
Association
Trustee, City of Delray Beach General Employees Retirement
Fund
Trustee, Stanislaus County Employees' Retirement Association
(StanCERA)
Trustee, Lincoln (NE) Fire & Police Retirement System
Former Chairman, Burlington (VT) Employees' Retirement
System
City Treasurer, City of Laguna Beach, CA

Chairman of the Pension Board, Deltona Firefighters Pension
Plan
Investment Management Analyst, Los Angeles City Employees
Retirement System (LACERS)
Trustee, Municipal Employees' Annuity and Benefit Fund of
Chicago
Investment Officer, Los Angeles Fire & Police Pension System
President, Firemen's Annuity and Benefit Fund of Chicago
Trustee, Alameda County Employees Retirement Association
Pension Administrator, City Of Fort Lauderdale Police & Fire
Retirement System
Trustee, Lincoln (NE) Fire & Police Retirement System
Trustee, The Educational Employees Supplementary
Retirement System of Fairfax County
Trustee, Oakland Police and Fire Retirement System
Employee Trustee, Houston Municipal Employees' Retirement
System
Trustee, Oakland Police and Fire Retirement System
Trustee, American Samoa Government Employees Retirement
Fund
Chairman, American Samoa Government Employees
Retirement Fund
Trustee, American Samoa Government Employees Retirement
Fund

CONSULTANTS

Managing Director, Wilshire Consulting
Managing Director, Wilshire Private Markets
Vice President, Hedge Fund Advisory, Wilshire Consulting
AVP | Wilshire Alternatives Research, Wilshire Associates
Incorporated
Managing Director, Valhalla Fiduciary
Senior Investment Management Consultant & Vice President,
Morgan Stanley Consulting Group & Institutional Services
Director, StepStone Group
Director of Manager Research, Bel Air Investment Advisors
President & Chief Executive Officer, CORNERSTONE GROUP
™
Principal, Executive Director, Alexandria Capital, LLC
Chief Risk Officer, Verus Investments
Managing Director, Bandel Interests LLC
President, Quality Manager Consultants, LLC

Co-Founder & Managing Partner, Taiber Kosmala &
Associates
President and Founder, Mack International, LLC
Managing Partner, Priority Advisors, LLC
Advisor, Tilted Funds Group, LLC
Vice President, Wilshire Consulting
Director Alternative Investments, First Dominion Capital Corp
President, Anacapa LLC
Founder, Jones Consulting Group
Vice President, Wilshire Associates
Principal, Sr. Consultant, The Hackett Group
Principal & Consulting Actuary, Milliman
Principal, Irvine Advisors
Consultant, NEPC
Managing Director, Alternative Investments, Clearstead
Chief Impact Strategist & Alchemist, Aligned Investing Global
Alternative Investment Operations, Beacon Pointe Advisors

ENDOWMENTS & FOUNDATIONS

President, Laguna Woods United Methodist Foundation Inc.
Trustee, Tennessee State University Foundation
Assistant Treasurer, New World Foundation
Executive Director, Tarrant County College Foundation
Director of Investments, Childrens Hospital of Minnesota
Associate General Counsel, University of Michigan Investment
Office
Investment Committee, Maine Medical Center

Head of Secondaries and Member of the Investment
Committee, Commonfund
Vice President, Investments and Administration, Chapman
University
Director, Lakeshore Community Foundation
Trustee, Thomas Ackerman Foundation
President, The Lutheran Church - Missouri Synod Foundation
Director, Treasurer, Red Butterfly Foundation

FUND OF FUNDS & OTHER ASSET ALLOCATORS

CIO/Allocator, Global Wealth Analytics
Finance Director, Scripps Health
Associate Director, PAAMCO
Senior Vice President, Wells Fargo, Alternative Equity Investor
Chief Investment Officer, Prophecy Asset Management LP
Managing Partner, Shinnecock Partners L.P.

Co-Founder & Managing Partner, Celeres Capital
General Partner, Protocol Ventures
Chairman/Trustee, Hispanic & Business Alliance Education Fund
Managing Partner, Wingspan Capital

MANAGERS/SERVICE PROVIDERS

Advocate Capital Management
Aperture Investors
Apex Clean Energy, Inc.
Asset Preservation, Inc.
BDO
Bert Smith & Co.
BFG Wealth Management
Caliber
Collegewise
Corbin Capital Partners
Corry Capital Advisors, LLC
Efficient Capital Management
EJF Capital LLC
FQS Capital Partners
Grail Partners, LLC
Hack VC
Hartman
Hatch Biofund Management
Hillside Capital
JPR Manager
Keystone National Group, LLC
Kineta

Laconia Capital Group
Lombard International
M360 Advisors
MacKay Shields LLC
Magnitude Capital
Openfinance
Pacific Sun Advisors
Park Cities Asset Management
Perast Capital Management
REI Energy
Safety, Income & Growth
Securitize
Siguler Guff & Company, LP
Sputnix ATX
Sower Capital Management
SSI Investment Management, Inc
SV LATAM Capital
T&J Brothers Group, LLC
Ternary Fund Management
Topline
World Gold Council



MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: Teir Jenkins

SUBJECT: Authorization and
Reimbursement of Board/Staff
Travel/Education Expenses

DATE: January 21, 2020

David Jones, Staff member of the **Oakland Police and Fire Retirement System** board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Staff member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel / Education Event: 2020 CALAPRS Administrators' Roundtable

Event Location: Avenue of the Arts Hotel, Costa Mesa, CA

Event Date: February 7, 2020

Estimated Event Expense*: \$ 700.00 (estimated)

Notes: _____

* If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the traveling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

Respectfully submitted,

Teir Jenkins, Investment Manager
Oakland Police and Fire Retirement System

For questions please contact David Low, Administrative Assistant, at 510-238-7295.

Attachments (if any):

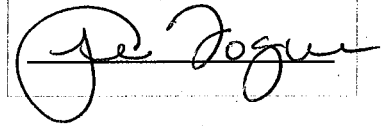
Resolution #7086

2020 CALAPRS Administrators' Roundtable Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 7086

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION APPROVING REQUEST OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM PLAN ADMINISTRATOR DAVID JONES TO ATTEND THE 2020 CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS ADMINISTRATORS' ROUNDTABLE ON FEBRUARY 7, 2020 IN COSTA MESA, CALIFORNIA AND FOR REIMBURSEMENT OF REGISTRATION FEES AND TRAVEL-RELATED EXPENSES IN AN AMOUNT NOT TO EXCEED SEVEN HUNDRED DOLLARS (\$700.00)

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy ("Travel Policy") requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimbursed by PFRS; and

WHEREAS, PFRS Plan Administrator David Jones would like to attend the 2020 California Association of Public Retirement Systems Administrator's Roundtable ("the Conference") in Costa Mesa, CA on February 7, 2020; and

WHEREAS, in compliance with the Travel Policy, Plan Administrator Jones has submitted documentation showing that registration fees and estimated travel-related expenses to attend the Conference will be Seven Hundred Dollars (\$700.00); now, therefore, be it

RESOLVED: That Plan Administrator David Jones's request to attend the 2020 California Association of Public Retirement Systems Administrators' Roundtable in Costa Mesa, CA on February 7, 2020 at an estimated cost of Seven Hundred Dollars (\$700.00) is approved; and be it

FURTHER RESOLVED: That the PFRS Board authorizes reimbursement of registration fees and travel-related expenses in an amount not to exceed Seven Hundred Dollars (\$700.00) for Plan Administrator Jones's attendance at the 2020 California Association of Public Retirement Systems Administrators' Roundtable.

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, NICHELINI, SPEAKMAN, WILKINSON
AND PRESIDENT JOHNSON**

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY



California Association of Public Retirement Systems

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Administrators' Round Table

[Register](#)[Tell a Friend \(/members/send.asp?event=1316031\)](/members/send.asp?event=1316031)**2/7/2020**

You registered for this event on 1/8/2020

When: Friday, February 7, 2020
8:30 am - 3:30 pm

[Register](#)

Where: Avenue of the Arts Costa Mesa Hotel
3350 Avenue of the Arts
Costa Mesa, California 92626
United States

Online registration is available until: 2/7/2020

[« Go to Upcoming Event List \(/events/event_list.asp?group=187241\)](/events/event_list.asp?group=187241)

Meeting Agenda

The agenda for this meeting will be posted on the Administrators Round Table group (<https://www.calaprs.org/members/group.aspx?id=187241>) page once available. Share your suggestions for discussion topics with info@calaprs.org (mailto:info@calaprs.org) or CALAPRS President Carl Nelson.

Hotel Reservations

CALAPRS has secured a room block at the Avenue of the Arts Costa Mesa hotel at the rate of \$169/night. This rate is guaranteed until Thursday, January 16th or until sold out, whichever comes first. To make your reservation, please click the link below or call 714-751-5100 and identify yourself as part of the CALAPRS Round Table room block.

<https://www.marriott.com/event-reservations/reservation-link.mi?id=1576872828363&key=GRP&app=resvlink>
(<https://www.marriott.com/event-reservations/reservation-link.mi?id=1576872828363&key=GRP&app=resvlink>)

Contact Us:



575 Market Street, Suite 2125, San Francisco, CA 94105

Phone: 415-764-4860 or Toll-Free: 1-800-RETIRE-0

Fax: 415-764-4915

Email: info@calaprs.org (mailto:info@calaprs.org)

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MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: David Jones

SUBJECT: Authorization and
Reimbursement of Board/Staff
Travel/Education Expenses

DATE: January 21, 2020

R. Steven Wilkinson, Board member of the Oakland Police and Fire Retirement System board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Board member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel / Education Event: 2020 CALAPRS General Assembly

Event Location: Omni Rancho Las Palmas Resort, Rancho Mirage, CA

Event Date: March 7 to March 10, 2020

Estimated Event Expense*: \$2,000.00 estimated

Notes: _____

* If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the traveling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

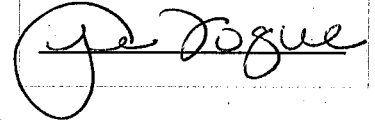
For questions please contact David Low, Administrative Assistant, at 510-238-7295.

Attachments (if any):
Resolution # 7087
Conference Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7087

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION APPROVING REQUEST OF OAKLAND POLICE AND FIRE RETIRMENT SYSTEM BOARD MEMBER R. STEVEN WILKINSON TO ATTEND THE 2020 CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS GENERAL ASSEMBLY FROM MARCH 7, 2020 TO MARCH 10, 2020 IN RANCHO MIRAGE, CALIFORNIA AND FOR REIMBURSEMENT OF REGISTRATION FEES AND TRAVEL-RELATED EXPENSES IN AN AMOUNT NOT TO EXCEED TWO THOUSAND DOLLARS (\$2000.00)

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy ("Travel Policy") requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimbursed by PFRS; and

WHEREAS, PFRS Board Member R. Steven Wilkinson would like to attend the 2020 California Association of Public Retirement Systems General Assembly ("the Conference") in Rancho Mirage, CA from March 7, 2020 to March 10, 2020; and

WHEREAS, in compliance with the Travel Policy, Member Wilkinson has submitted documentation showing that registration fees and estimated travel-related expenses to attend the Conference will be Two Thousand Dollars (\$2000.00); and

WHEREAS, in compliance with the Travel Policy, Member Wilkinson seeks Board authorization to attend the Conference in Rancho Mirage, CA from March 7, 2020 to March 10, 2020 at an estimated cost of Two Thousand Dollars (\$2000.00); now, therefore be it

RESOLVED: That PFRS Board Member R. Steven Wilkinson's request to attend the 2020 California Association of Public Retirement Systems General Assembly in Rancho Mirage, CA from March 7, 2020 to March 10, 2020 at an estimated cost of Two Thousand Dollars (\$2000.00) is approved; and be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

FURTHER RESOLVED: That the PFRS Board authorizes reimbursement of registration fees and travel-related expenses in an amount not to exceed Two Thousand Dollars (\$2,000.00) for Member Wilkinson's attendance at the 2020 California Association of Public Retirement Systems General Assembly.

IN BOARD MEETING, CITY HALL, OAKLAND, CA, JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: BENSON, GODFREY, NICHELINI, SPEAKMAN, AND PRESIDENT JOHNSON

NOES:

ABSTAIN: WILKINSON

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY



20 20

VISION

INTO THE FUTURE
OF PENSION MANAGEMENT

CALAPRS GENERAL ASSEMBLY

MARCH 7-10, 2020

**Omni Rancho Las Palmas Resort
Rancho Mirage, CA**

CALAPRS

EDUCATION • COMMUNICATION • NETWORKING
California Association of Public Retirement Systems

575 Market Street, Suite 2125
San Francisco, CA 94105
P: 415-764-4860
info@calaprs.org | www.calaprs.org

CALAPRS 2020 GENERAL ASSEMBLY

Preliminary PROGRAM

The California Association of Public Retirement Systems, CALAPRS, invites you to attend the General Assembly on March 7-10, 2020 at the Omni Rancho Las Palmas Resort in Rancho Mirage, CA. The General Assembly is an educational conference for retirement system trustees, senior staff, and annual sponsors of CALAPRS.

Saturday – March 7, 2020

4:00 - 6:00 PM | Early-Bird Registration

Sunday - March 8, 2020

10:00 AM – 5:00 PM | Registration Open

10:00 AM – 12:00 PM | AB 1234 Ethics in Public Service

Required ethics training for public fund trustees.

Certificate of completion will be provided.

Speaker: Ashley Dunning, Partner, Nossaman

1:00 – 2:00 PM | Investment Staff Round Table

For retirement system staff only. Pre-registration required.

2:00 – 2:15 PM | Opening Remarks

Speakers: Carl Nelson, SLOPT, CALAPRS President and Steve Delaney, OCERS, General Assembly Conference Chair

2:15 – 3:00 PM | Fund Governance War Stories – A Real World Examination of Distressed or Adversarial Fund Governance Scenarios

Speaker: John D'Agostino, Global Head of Investor Engagement, DMS Governance

3:00 – 3:15 PM | Networking Break

3:15 - 4:30 PM | 6 Years Post-PEPRA – Are We Getting the Savings As Promised?

Speakers: Nicholas J. Collier, Principal, Consulting Actuary, Milliman; Paul Angelo, Senior VP and Actuary, Segal Consulting; Graham Schmidt, Consulting Actuary, Cheiron; and Scott Terando, Chief Actuary, CalPERS

7:00 - 9:30 PM | Dinner at the Palm Springs Air Museum

Transportation provided. Retirement system guests welcome.

Monday - March 9, 2020

7:00 AM – 4:00 PM | Registration Open

7:15 - 8:15 AM | Breakfast

8:15 – 8:30 AM | Opening Remarks

Speakers: Carl Nelson, SLOPT, CALAPRS President and Steve Delaney, OCERS, Conference Chair

8:30 – 9:30 AM | The Canadian Model

Speaker: Ron Mock, President and CEO, Ontario Teacher's Pension Plan

9:30 – 10:00 AM | Networking Break

10:00 - 11:00 AM | Revisiting Simplicity in Investing

Speakers: Stephen J. Edmundson, Investment Officer, Public Employees' Retirement System of Nevada; Don Pierce, CIO, SBCERA; and Michael Coultrip, CIO, SamCERA

11:00 AM – 12 Noon | Lessons from China

Speaker: Gordon G. Chang, Author

12:00 - 1:30 PM | Lunch

1:30 - 2:30 PM | Economic Outlook

Speaker: Simona Mocuta, Vice President & Senior Economist, State Street Global Advisors

2:30 - 3:00 PM | Networking Break

3:00 - 4:00 PM | Updates about National Trends

Speaker: Keith Brainard, Research Director, National Association of State Retirement Administrators

5:00 – 6:00 PM | Hosted Networking Reception

Tuesday – March 10, 2020

7:30 – 8:30 AM | Breakfast

8:30 – 9:30 AM | Disaster Recovery: Lessons Learned from New Orleans and Sonoma Retirement Systems

Speakers: Julie Wyne, Administrator, SCERA and Jesse Evans, Jr., Director, City of New Orleans Municipal Retirement System

9:30 – 10:00 AM | Networking Break

10:00 – 11:00 AM | Governance Best Practices

Speaker: Dr. Ashby Monk, Executive and Research Director, Stanford Global Projects Center

11:00 - 11:15 AM | Closing Remarks & Adjourn

Register online at: <http://www.calaprs.org>

- Retirement Systems: \$250/person
- Sponsors: \$2,500/company (2 representatives)

Book your room at: Omni Rancho Las Palmas

41000 Bob Hope Drive, Rancho Mirage, CA 92270
Room Rate: \$239/night

Cut-Off: February 7, 2020 (or until sold out)

- Online: <https://www.omnihotels.com/hotels/palm-springs-rancho-las-palmas/meetings/ca-public-retirement-2020-03062020>
- By phone: 1-800-THE-OMNI with group code "CALAPRS"



A G E N D A R E P O R T

TO: Oakland Police and Fire
Retirement Board

FROM: David Jones
Plan Administrator

SUBJECT: Audit Committee Agenda Pending List

DATE: January 21, 2020

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	
2	Staff review of the 2006 Management Audit.	MAR 2020	

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

All persons wishing to address the Board must complete a speaker's card, stating their name and the agenda item (including "Open Forum") they wish to address. The Committee may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

Oakland Police and Fire Retirement Board and committee meetings are held in wheelchair accessible facilities. Contact the Retirement Unit, 150 Frank Ogawa Plaza, Suite 3349 or call (510) 238-7295 for additional information.



AGENDA

INVESTMENT COMMITTEE MEMBERS

Jaime T. Godfrey
Chairman

R. Steve Wilkinson
Member

Robert W. Nichelini
Member

**In the event a quorum of the Board participates in the Committee meeting, the meeting is noticed as a Special Meeting of the Board; however, no final Board action can be taken. In the event that the Investment Committee does not reach quorum, this meeting is noticed as an informational meeting between staff and the Chair of the Investment Committee.*

REGULAR MEETING of the INVESTMENT AND FINANCIAL MATTERS COMMITTEE of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, January 29, 2020 – 10:00 am
One Frank H. Ogawa Plaza, Hearing Room 1
Oakland, California 94612

- - - ORDER OF BUSINESS - - -

- | | |
|------------------------|---|
| 1. Subject: | PFRS Investment Committee Meeting Minutes |
| From: | Staff of the PFRS Board |
| <hr/> | |
| Recommendation: | APPROVE October 30, 2019 Investment Committee meeting minutes. |
- | | |
|------------------------|---|
| 2. Subject: | Investment Manager Overview – Earnest Partners |
| From: | Earnest Partners |
| <hr/> | |
| Recommendation: | ACCEPT an informational report regarding the investment performance and managerial assessment of Earnest Partners, a PFRS Mid Cap Core Domestic Equity Investment Manager. |
- | | |
|------------------------|--|
| 3. Subject: | Investment Manager Overview – Earnest Partners |
| From: | Meketa Investment Group |
| <hr/> | |
| Recommendation: | RECOMMEND BOARD APPROVAL of evaluation, review and possible watch status placement of Earnest Partners, a PFRS Mid Cap Core Domestic Equity Investment Manager. |

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

4. **Subject:** **Investment Manager Overview – SPI Strategies, LLC**
 From: SPI Strategies, LLC

Recommendation: **ACCEPT** an informational report regarding the investment performance and managerial assessment of SPI Strategies, LLC, a PFRS U.S./Domestic Defensive Equity Investment Manager.
5. **Subject:** **Investment Manager Overview – SPI Strategies, LLC**
 From: Meketa Investment Group

Recommendation: **RECOMMEND BOARD APPROVAL** of evaluation, review and possible watch status placement of SPI Strategies, LLC, a PFRS U.S./Domestic Defensive Equity Investment Manager.
6. **Subject:** **Investment Market Overview**
 From: Meketa Investment Group

Recommendation: **ACCEPT** an informational report on the global investment markets through January 2020.
7. **Subject:** **\$13.85 million Drawdown for 1st Quarter 2020 Member Allowances**
 From: Staff of the PFRS Board & Meketa Investment Group

Recommendation: **RECOMMEND BOARD APPROVAL** of the Meketa recommendation of \$13.85 million drawdown, which includes an \$10.85 million contribution from the City of Oakland and a \$3.0 million contribution from the PFRS Investment Fund, to be used to pay for the January 2020 through March 2020 member Retirement Allowances.
8. **Subject:** **Investment Fund Performance for the Quarter Ending September 30, 2019**
 From: Meketa Investment Group

Recommendation: **RECOMMEND BOARD APPROVAL** of Investment Fund Performance for the Quarter Ending September 30, 2019.
9. **Subject:** **Preliminary Investment Fund Performance for the Quarter Ending December 31, 2019**
 From: Meketa Investment Group

Recommendation: **ACCEPT** an informational report of the Preliminary Investment Fund Performance for the Quarter Ending December 31, 2019.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

10. **Subject:** New PFRS Fixed Income Asset Class Portfolio Manager (VERBAL REPORT)
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** a status report on the hire of a new PFRS Fixed Income Asset Class Portfolio Manager.
11. **Subject:** Northern Trust Custodian Bank Stay Protocol Consent Amendment
From: Staff of the PFRS Board and Meketa Investment Group
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Meketa's recommendation regarding the Northern Trust Custodian Bank Stay Protocol Consent Amendment.
12. **Subject:** Select Investment Managers to invite to Interview for the Active Small Cap Domestic Equity Asset Class Investment Manager position
From: Meketa Investment Group
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Meketa's Recommendations Regarding Interviews for the Active Small Cap Domestic Equity Asset Class Investment Manager position.
13. **Subject:** Select Investment Managers to invite to Interview for the Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager position
From: Meketa Investment Group
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Meketa's Recommendations Regarding Interviews for the Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager position.
14. **Subject:** Organizational Changes at Parametric Portfolio Associates
From: Meketa Investment Group
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of evaluation, review and possible watch status placement of Parametric Portfolio Associates, a PFRS Covered Calls Asset Class Investment Manager.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

15. Subject: Informational Report regarding emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets

From: Staff of the PFRS Board

Recommendation: **ACCEPT** an informational report and **PROVIDE STAFF DIRECTION** regarding emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets.

16. Subject: Resolution No. 7080 – Resolution Authorizing One Year Extension of a Professional Services Agreement with Earnest Partners, LLC for Mid Cap Core Domestic Equity Asset Class Investment Manager Services

From: Staff of the PFRS Board

Recommendation: **RECOMMEND BOARD APPROVAL** of Resolution No. 7080 – Resolution Authorizing One Year Extension of a Professional Services Agreement with Earnest Partners, LLC for Mid Cap Core Domestic Equity Asset Class Investment Manager Services.

17. Schedule of Pending Investment Committee Meeting Agenda Items

18. OPEN FORUM

19. FUTURE SCHEDULING

AN INVESTMENT AND FINANCIAL MATTERS COMMITTEE MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held October 30, 2019 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present:

- Jaime T. Godfrey, Chairman
- R. Steven Wilkinson, Member
- Robert W. Nichelini, Member

Additional Attendees:

- David Jones, Plan Administrator
- Jennifer Logue, PFRS Legal Counsel
- David Low & Teir Jenkins, Staff Members
- David Sancewich, Meketa Investment Group

The meeting was called to order at 10:01 am.

1. **Approval of Investment Committee meeting minutes** – Member Nichelini made a motion approve the September 25, 2019 Investment Committee meeting minutes, second by Chairman Godfrey. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

2. **Investment Manager Performance Review – Parametric Portfolio Associates** – Dan Ryan and Chris Haskamp from Parametric Portfolio Associates presented a performance review of their firm's management of its PFRS Investment Portfolio to the Investment Committee. Their detailed review addressed how Parametric Portfolio Associates manages the PFRS investment funds.

MOTION: Member Nichelini made a motion to accept information report from Parametric Portfolio Associates, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

3. **Investment Manager Overview – Parametric Portfolio Associates** – David Sancewich from Meketa presented its review of Parametric Portfolio Associates. Mr. Sancewich said Meketa does not recommend any changes regarding Parametric at this time.

MOTION: Member Nichelini made a motion to accept the recommendation of no action to Parametric Portfolio Associates at this time by Meketa, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

4. **Investment Market Overview** – Mr. Sancewich provided an informational report on the global economic factors affecting the PFRS Fund.

MOTION: Member Wilkinson made a motion to accept the Investment Market Overview report, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

5. **Preliminary Performance Report for Quarter through September 30, 2019** – Mr. Sancewich reported the preliminary performance report of the PFRS fund for the calendar quarter from July 2019 through September 2019. He reported that the PFRS Fund outperformed each of its benchmark indices in the preliminary review.

MOTION: Member Wilkinson made a motion to accept the preliminary performance report of the PFRS fund for the calendar quarter from July 2019 through September 2019, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

6. **PFRS Fixed Income Asset Class Portfolio Review** – Mr. Sancewich presented a follow-up report regarding PFRS investments with Fixed Income investment instruments and presented Meketa's recommendations regarding how to utilize Fixed Income Asset Class investments for the PFRS investment fund. Following discussion, the Committee agreed to recommend the retention of the current fixed income managers for the PFRS investment fund (Reams and Ramirez Asset Management) and search for an additional fixed income investment manager to further diversify the fixed income investment portfolio of the PFRS investment fund.

MOTION: Member Nichelini made a motion to recommend Board approval of Meketa's recommendation to hire an additional fixed income investment manager for the PFRS investment fund, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

7. **Request for Proposals for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager** – Mr. Sancewich reported that the Request for Proposals for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager have yielded 55 investment managers. Mr. Sancewich said Meketa would pare down this list to the top qualified managers for the Board to consider for interview at an upcoming Investment Committee meeting.

MOTION: Member Nichelini made a motion to accept the informational report from Meketa regarding the RFP for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

8. **Request for Proposals for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments Portfolio and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio** – Mr. Sancewich reported on the status of the Request for Proposals for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio. He reported that this RFP had recently concluded and that Meketa will present its updated search report at the upcoming Investment Committee meeting.

MOTION: Member Wilkinson made a motion to accept the informational report from Meketa regarding the RFP for a new PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

9. **Resolution No. 7074 – Extension of Agreement with Parametric** – Member Nichelini made a motion to recommend Board approval of Resolution No. 7074 authorizing a one-year extension of the professional services agreement with Parametric Portfolio Associates, LLC for Covered Calls Asset Class Investment Manager services, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

10. **Resolution No. 7078 – Termination of Service agreement with Fisher Investments and transfer of managed assets to ETF** – David Jones, PFRS Plan Administrator, reported that the service agreement between PFRS and Fisher Investments was previously scheduled to be terminated when the hiring of Strategic Global Advisors (SGA) was completed. He reported that Resolution No. 7078 provided the PFRS Board with the option to terminate the service agreement between PFRS and Fisher Investments and move investment funds from Fisher Investments to an Exchange Traded Fund (ETF) while the service agreement with SGA is completed. The Committee and staff discussed whether PFRS funds should be transferred from Fisher Investment to an ETF until the Service Agreement with SGA is finalized. The Committee and staff discussed recent public reports about Fisher Investments and its possible effect on the PFRS investments portfolio managed by Fisher Investments.

MOTION: Member Wilkinson made a motion to recommend Board approval of Resolution No. 7078 - Consideration of (1) the Termination of Service Agreements with Fisher Investments, and (2) Transfer of PFRS assets managed by Fisher Investments to an Exchange Traded Fund, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

11. **Resolution No. 7079 – Termination of Service agreement with Hansberger Growth Investors and transfer of managed assets to ETF** – As with Fisher

Investments, Mr. Jones reported that the service agreement between PFRS and Hansberger Growth Investors was previously scheduled to be terminated when the hiring of Strategic Global Advisors (SGA) was completed. He reported that Resolution No. 7079 provided the PFRS Board with the option to terminate the service agreement between Hansberger and PFRS and move investment funds from Hansberger Growth Investors to an Exchange Traded Fund (ETF) while the service agreement with SGA is completed. The Committee and staff discussed whether PFRS funds should be transferred from Hansberger Growth Investors to an ETF.

MOTION: Member Nichelini made a motion to recommend Board approval of Resolution No. 7079 - Consideration of (1) the Termination of Service Agreements with Hansberger Growth Investors, and (2) Transfer of PFRS assets managed by Hansberger Growth Investors to an Exchange Traded Fund, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

12. **Schedule of Pending Agenda Items** – Staff reported the agenda items scheduled for the upcoming Investment Committee meeting, including introducing a discussion item regarding emergency investment-moving powers in the event of a time-sensitive investment emergency.
13. **Future Scheduling** – The next Investment Committee meeting was scheduled for November 20, 2019.
14. **Open Forum** – No Report.
15. **Adjournment of Meeting** – The meeting adjourned at 11:17 am.

JAIME T. GODFREY, COMMITTEE CHAIRMAN

DATE



EARNEST PARTNERS

1180 PEACHTREE STREET + SUITE 2300
ATLANTA + GA + 30309

INVEST@EARNESTPARTNERS.COM
WWW.EARNESTPARTNERS.COM

***Oakland Police and Fire Retirement Board
September 30, 2019***

Dan Miree
Product Management

Mr. Miree is a member of the product management team at EARNEST Partners. He holds a Bachelor of Arts from Harvard College with a concentration in Economics. Mr. Miree was a three year letterman on both Harvard's football and track and field teams where he started as a defensive-back and sprinter. Prior to joining EARNEST Partners, Mr. Miree worked as a Vice President at Goldman Sachs in New York where he served as head of the US corporate debt syndicate execution team. He also worked as an equity and options sales trader on the floor of the New York Stock Exchange after beginning his financial services career as a financial advisor with Legg Mason.



Guidelines and Investment Policy Audit

Oakland Police and Fire Retirement Board
September 30, 2019

	Yes	No
• Benchmark: Exceed Russell Midcap [®] Index over a full market cycle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Cash position is less than 10% of total portfolio value*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No industry sector weight greater than 25% of total portfolio	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No security held is greater than 5% of total portfolio value* or 8% at market	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Proxies voted in accordance with guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No prohibited securities held	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*EARNEST Partners believes that the attached information, along with other submissions, represents all the required reporting information.
Please notify us immediately if any required information is missing.*

**Threshold may be temporarily exceeded due to market conditions.*



Global equity markets were generally mixed in the third quarter of 2019. Domestic large-cap indices saw their third straight quarter of gains, while small-cap, international and emerging equities declined. The S&P 500® gained 1.7% and is up 20.6% year-to-date, its best performance through three quarters since 1997. The U.S. large cap market, as represented by the Russell 1000® Index gained 1.4%. The U.S. midcap market, as represented by the Russell Midcap® index gained 0.5%. The U.S. small cap market, as represented by the Russell 2000® Index, lost 2.4% on the quarter. International equity markets, as represented by the MSCI ACWI ex-U.S.® Index, lost 1.7%. Emerging Markets trailed developed markets as the MSCI Emerging Markets® Index lost 4.1% and the MSCI EAFE® Index lost 1.0% on the quarter.

As anticipated by the market, the U.S. Federal Reserve (Fed) made 0.25% cuts in the Federal Funds rate in both July and September to bring the rate to the range of 1.75% to 2.00%. Fed Chairman Jerome Powell explained that this action was taken as “insurance” rather than as a direct reaction to near-term threats to the economy. In the Fed’s statement, it noted that the overall economy remains strong with near record-low unemployment, and strong job growth, but cautioned that inflation has been running below the Fed’s 2% annual target and that business fixed investment and exports have “weakened”. The market is pricing in one additional rate cut by the end of the year, a reversal in posture from the end of last year when the Fed was projected to raise rates twice in 2019. Fed officials continued to maintain a generally optimistic stance on the U.S. economy, but cautioned that growth may be slowing, and noted that they expect U.S. GDP to expand by 2.1% this year, and 2.0% next year. Additionally, the Fed is calling for unemployment to be to 3.6% this year and expects it to be below 4.2% through 2022. Second-quarter 2019 GDP growth was revised down to 2.0% from 2.1%, and the unemployment rate ticked up to 3.7% in August from 3.6% in May, as the U.S. jobless rate continued to hold near a 50-year low. The U.S. 10-year treasury yield fell by about 0.3% to 1.70%, and briefly fell below the 2-year yield before recovering. The 30-year fell by 0.4%, as the inversion of the yield curve slowly deepened indicating that the market continues to expect low long-term inflation and a reduced pace of long-term growth. Overall demand for fixed-income instruments continued to be strong, as the Bloomberg Barclays Aggregate Index posted a 2.2% return over the course of the quarter. The spread between Treasuries and high yield debt changed little over the course of the quarter, indicating that the market remains confident that below investment-grade companies will continue to be able to service their debt as the economy slows.

International trade policy continued to be a major focus of equity markets as investors anticipated action in the ongoing trade dispute between the U.S. and China. Despite the volatile negotiations between the U.S. and China regarding tariffs, both are committed to a formal negotiation in October to try and settle the nearly 15-month conflict over trade. Last year, the U.S. imposed 25% tariffs on approximately \$50 billion of Chinese imports, and currently more than two thirds of consumer goods imported from China are subject to tariffs. In 2018, the U.S. imported about \$540 billion of goods from China while China imported about \$120 billion of goods from the U.S., highlighting concerns that the trade deficit with China will grow larger. Within the European Union, second quarter GDP growth increased by 1.4% but future GDP forecasts declined. The European Central Bank (ECB) dropped the interest rate on deposits from -0.4% to -0.5% and restarted monthly bond repurchases of EU20 Billion, after stopping quantitative easing measures at the end of last year. Uncertainty surrounding the U.K.’s exit from the European Union continued, as Prime Minister Theresa May resigned following the failure of her proposed Brexit deal and was replaced by Boris Johnson, increasing the likelihood of a no-deal scenario. The U.K. was originally supposed to exit the EU on March 29th, 2019, which was extended to May 22nd, and now October 31st, although there is a possibility of it being further extended to January 31st. Chinese economic growth continued to decelerate as the Chinese economy grew at an annual rate of 6.2% in the second quarter, versus the 6.4% rate in the first quarter. While this was lowest growth rate in 27 years, it remains one of the largest and fastest growing economies in the world. Of note, retail sales grew by over 8% year-over-year, while fixed-asset investment increased by 5.8%, demonstrating China’s progress in transitioning from an export-driven industrial economy towards a reliance on domestic consumption. The government continued to point towards trade relations with the U.S. as a major source of uncertainty, but emphasized that progress had been made. The MSCI China index declined 5.4% on the quarter as investors focused on these uncertainties in the world’s largest Emerging market.



EARNEST Partners

Mid Cap Core Portfolio Review

**Oakland Police and Fire Retirement
Board
September 30, 2019**

The U.S. mid cap equity market, as represented by the Russell Midcap® Index, continued its 2019 rally, rising nearly 0.5% in the third quarter of 2019. The EARNEST Partners Mid Cap Core strategy also posted a positive return in the period and was flat to the Index, net of fees. Volatility continued to be the theme of the quarter as domestic equity markets reacted broadly to interest rate changes and macroeconomic headlines. Traditionally considered defensive, sectors of the Index such as the Utilities and Real Estate were among the top performing sectors while the Energy and Health Care sectors of the Index were the worst performing in the period. Positive stock selection across a majority of sectors contributed to the strategy's performance, and was particularly strong in Communication Services, Health Care and Consumer Discretionary.

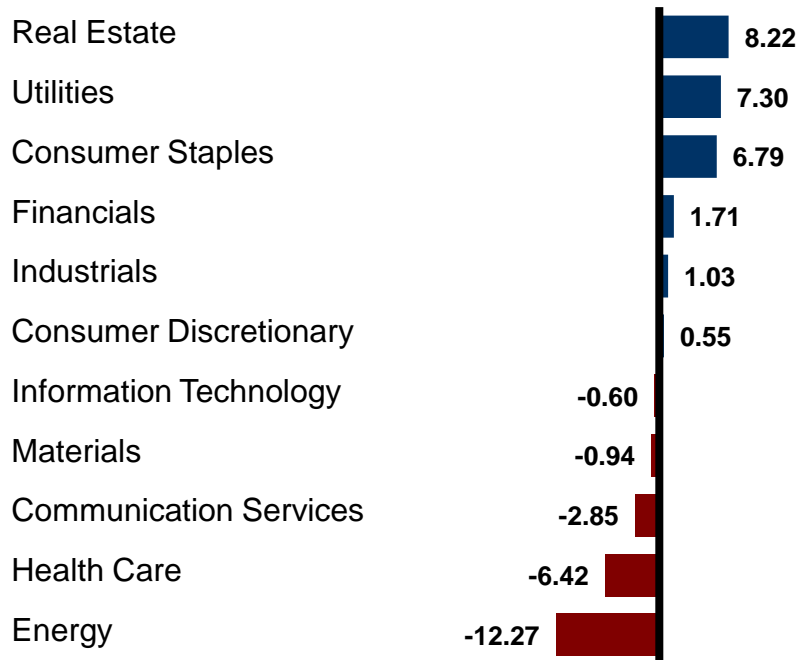
Contributing to performance, Intercontinental Exchange (ICE) is a leading global operator of regulated exchanges, clearing houses and listings venues. The company also works as a data services provider for financial and commodity markets. The company has benefited from consolidation in the industry through its acquisitions of the New York Board of Trade and the New York Stock Exchange. Investors rewarded ICE for exceeding expectations in the quarter with its revenue growth and continued margin expansion. The company continues its track record of strong earnings-per-share growth. In addition to returning over \$1 billion to shareholders via share buybacks and dividends in the first half of 2019 alone, the company also hiked its quarterly dividends by 15% compared to a year ago. Following these developments, shares rose over 7% during the quarter. ICE continues to benefit from a business platform that spans all major asset classes and operates across multiple jurisdictions. Through the company's range services and the ongoing use of alternative investments, we believe ICE is positioned continue to expand margins and operating cash flow moving forward.

The Scotts Miracle-Gro Company is one of the world's largest marketers of branded consumer lawn and garden products. The company's extensive portfolio includes brands such as Ortho and Roundup. Scotts manufactures and sells its products primarily to mass merchandisers and home centers such as Home Depot and Lowe's. The company continues to expand its patent portfolio and deliver growth in multiple channels of its business plan. For example, its Hawthorne Gardening business segment has seen steady sales growth of 12% over the last several years. Shares gained nearly 4% during the quarter as investors rewarded management's ability to follow through on their strategic initiatives. Scotts Miracle-Gro is well positioned to benefit from its strong brand portfolio, dominant market share in the lawn and garden space, and exposure to the high-growth hydroponic segment. With profit expected to grow by 12% in the upcoming year, outlook remains positive and the stock continues to be an attractive investment.

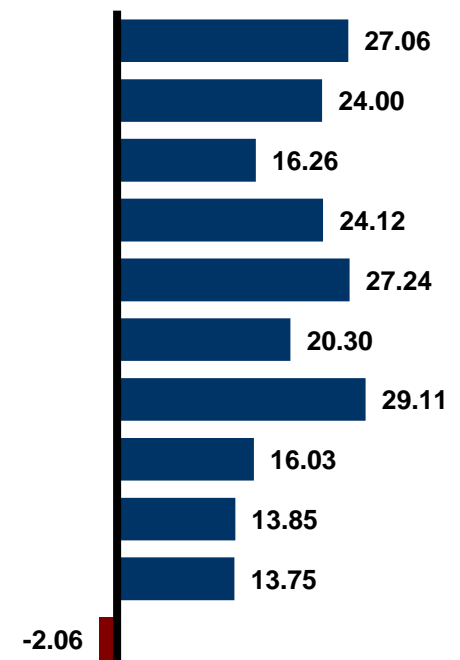
Detracting from performance, BorgWarner, Inc. is a global product leader in clean and efficient technology solutions for combustion, hybrid and electric vehicles (EVs). The company's technology solutions focus on improving fuel economy and reducing emissions while maintaining or improving overall performance. During the quarter, BorgWarner reported margin performance below expectations which it attributed to broader market concerns around the deceleration of automotive sales, particularly in China and Europe. Additionally, ongoing trade conflicts continue to cause weakness in the global auto market. As a result, the stock ended the quarter down. Despite recent market weakness, the company expects to benefit from the trend toward more EVs and hybrids. BorgWarner continues to hold an extensive portfolio of patented technologies that range from design to materials selection. Supplying to a variety of Original Equipment Manufacturers (OEMs) around the globe, the company remains well positioned in a market that's facing growing demand for fuel efficiency. Additionally, BorgWarner is expected to see its products more broadly adopted in the next generation of vehicles.

Equity Market Performance By Sector

Russell Midcap® Index
3rd Quarter 2019 Returns
Percent



Russell Midcap® Index
YTD Returns
Percent

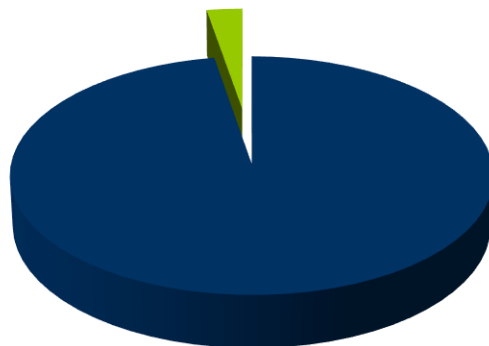




Fund Totals

Ending Portfolio Value	\$31,397,370
Estimated Annual Income	\$350,128
Yield on Equities	1.1%

Asset Distribution



Equities

Short-term Investments

Portfolio %

97.3%

2.7%



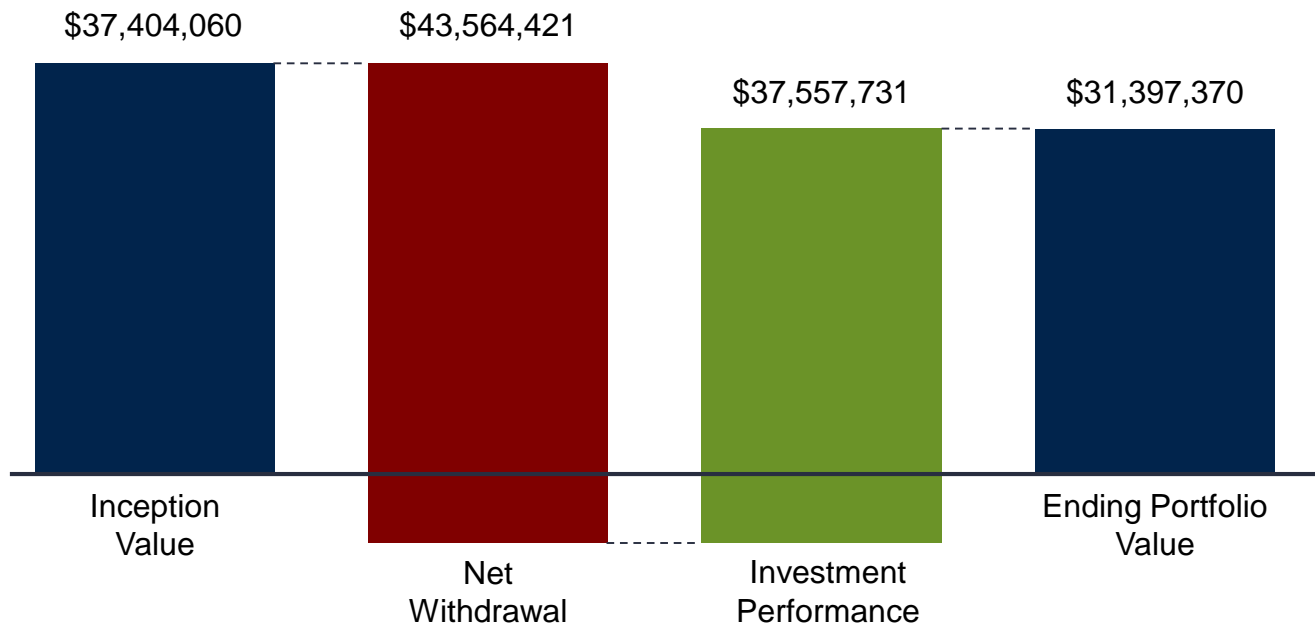
Performance (As of 10/31/2019)

	<u>Total Portfolio</u>	<u>Equities</u>	<u>Russell Midcap® Index</u>	<u>Excess Return (Basis Points)</u>
Year-to-Date	30.16%	31.02%	23.21%	695
1 Year	19.80	20.25	13.72	608
3 Years*	16.44	16.75	12.28	416
5 Years*	12.48	12.71	8.66	382

* Annualized. Performance Inception is 3/28/2006.



Asset Growth Since Inception



Intercontinental Exchange



- Intercontinental Exchange (ICE) is a leading global operator of regulated exchanges, clearing houses and listings venues. The company also works as a data services provider for financial and commodity markets. The company has benefited from consolidation in the industry through its acquisitions of the New York Board of Trade and the New York Stock Exchange.
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Scotts Miracle-Gro



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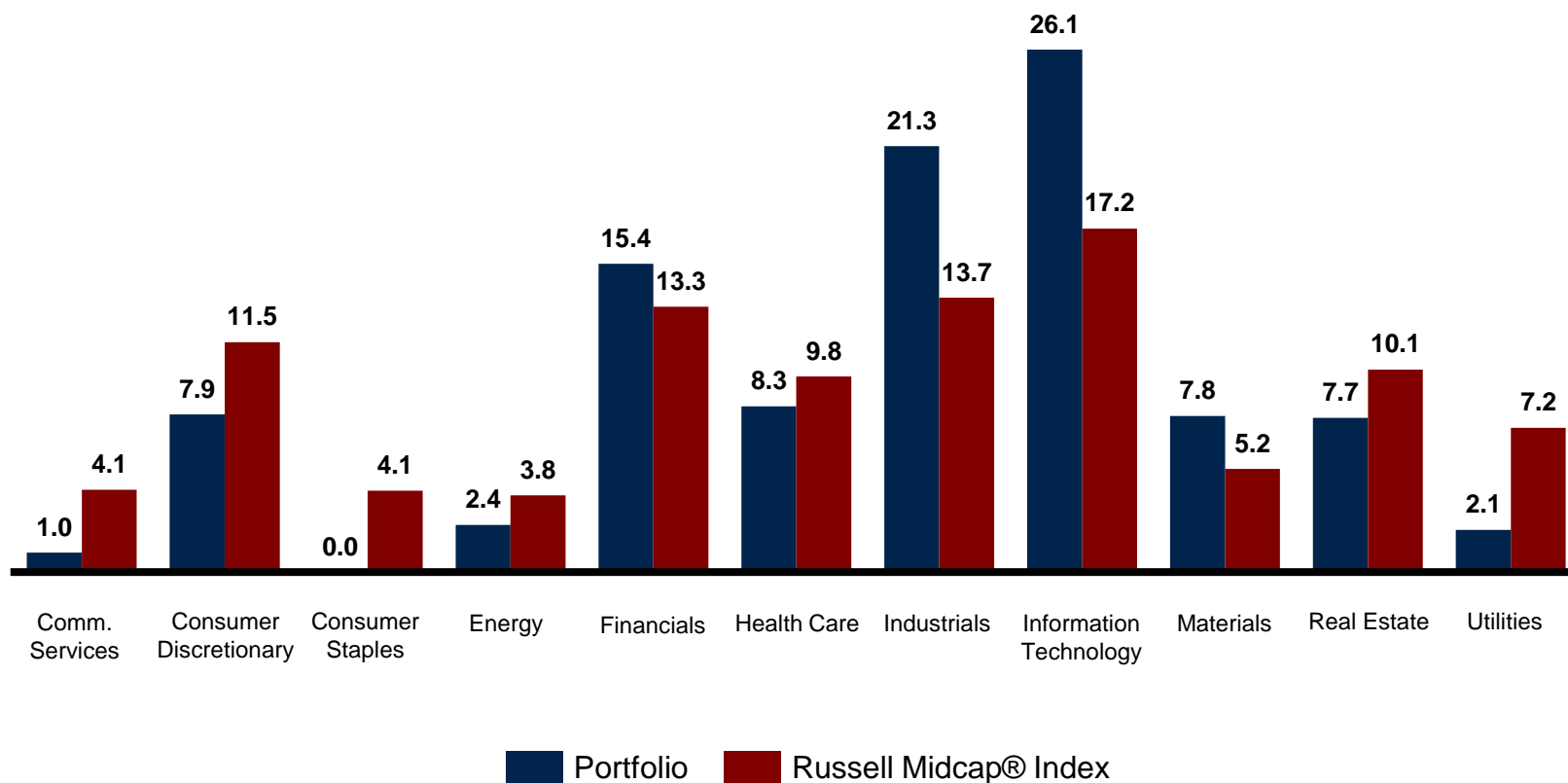
BorgWarner



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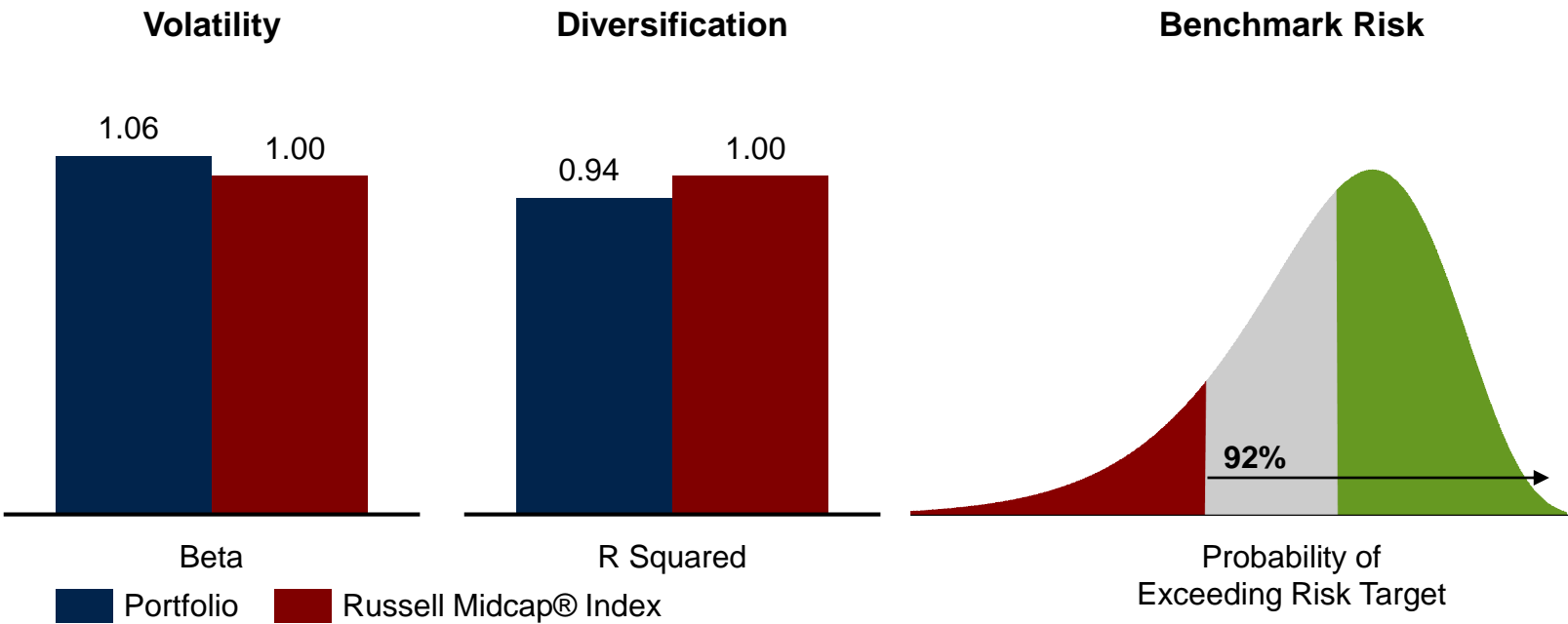


Percentage Held





Risk Profile

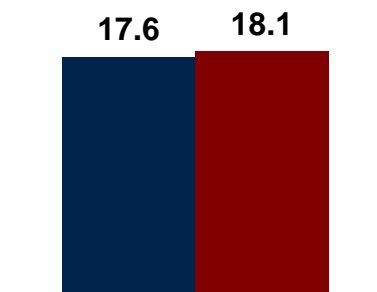




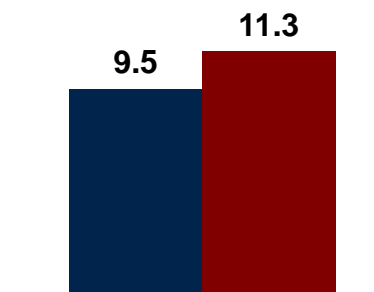
Equity Portfolio Characteristics

Oakland Police and Fire Retirement
Board
September 30, 2019

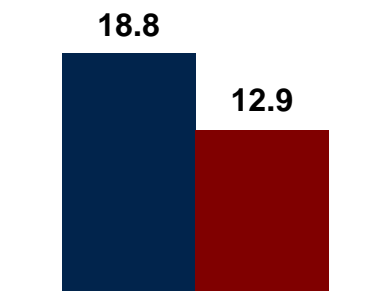
Price to Earnings



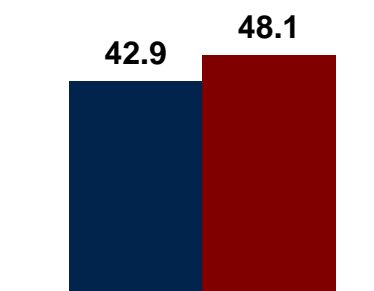
Earnings Growth



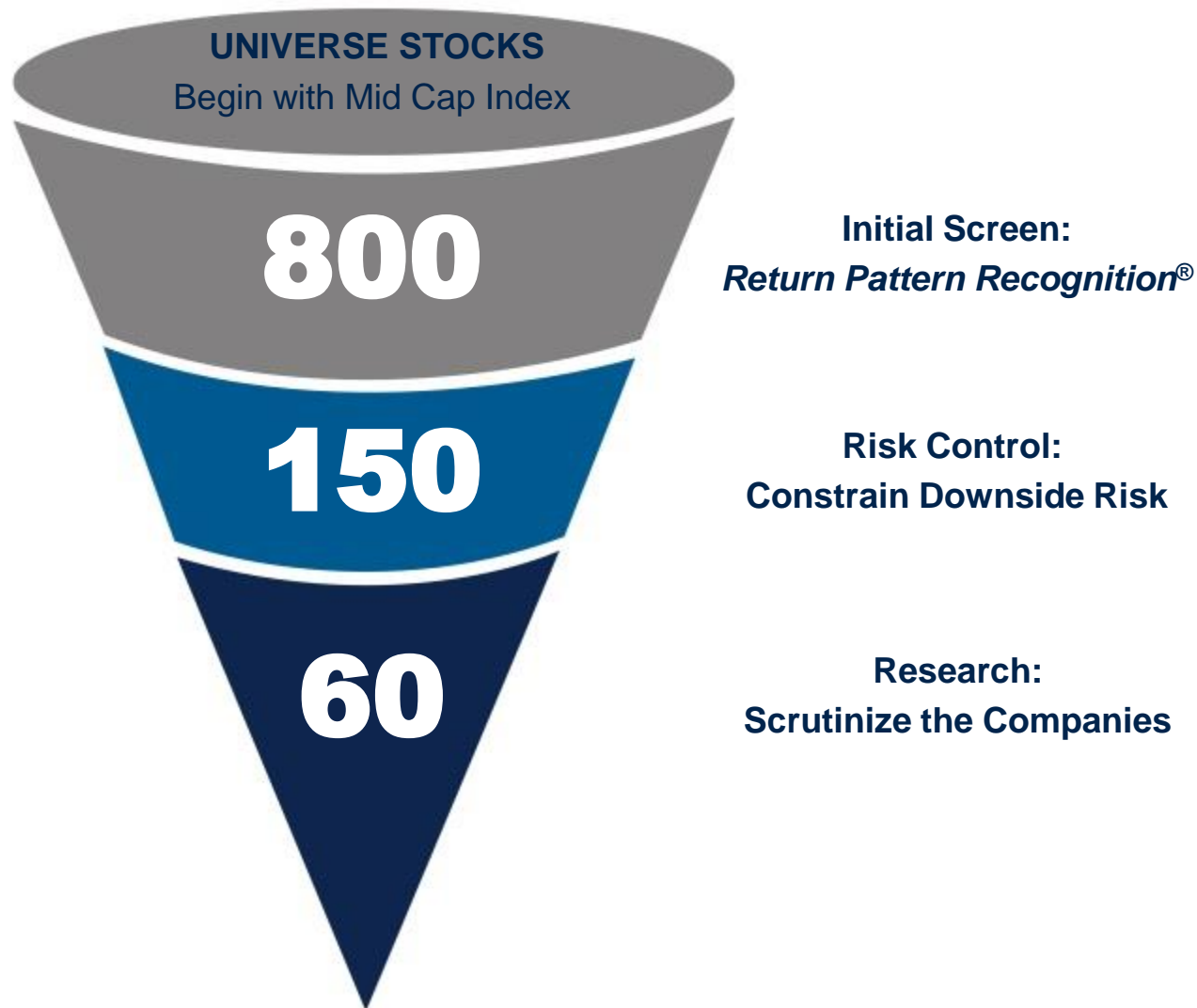
Return on Equity



Debt to Capitalization



Portfolio Russell Midcap® Index





For those clients on whose behalf the Firm votes proxies, clients can elect to have the Firm utilize (a) the client's own proxy voting policies and procedures ("P&P") or (b) the Firm's P&P.

Proxy Policy-Overview

- In general, the Firm will vote against actions which we believe would reduce the rights or options of shareholders, reduce shareholder influence over the board of directors and management, reduce the alignment of interests between management and shareholders, or reduce the value of shareholders' investments.
- A partial list of issues that may require special attention are as follows: classified boards, change of state of incorporation, poison pills, unequal voting rights plans, provisions requiring supermajority approval of a merger, executive severance agreements, and provisions limiting shareholder rights.

Proxy Procedures-Overview

The Firm has designated a Proxy Director. Proxy issues presented to the Proxy Director will be voted in accordance with the judgment of the Proxy Director, taking into account the general policies outlined above and the Firm's Proxy Voting Guidelines (currently ISS Taft-Hartley Advisory Services Proxy Voting Guidelines). Therefore, it is possible that actual votes may differ from the general policies and the Firm's Proxy Voting Guidelines. In the case where we believe we have a material conflict of interest with a Client, the Proxy Director will utilize the services of outside third party professionals (currently ISS Taft-Hartley Advisory Services) to assist in its analysis of voting issues and the actual voting of proxies to ensure that a decision to vote the proxies was based on the Client's best interest and was not the product of a conflict of interest. In general, ISS Taft-Hartley Advisory Services Proxy Voting Guidelines are based on a worker-owner view of long-term corporate value and conform to the AFL-CIO proxy voting policy. In the event the services of an outside third-party professional are not available in connection with a conflict of interest, we will seek the advice of the Client.

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
Common Stock						
Communication Services						
5,571	ACTIVISION BLIZZ	52.92	294,817.32	0.94	1,318.75	0.45
			294,817.32	0.94	1,318.75	0.45
Consumer Discretionary						
8,176	BORGWARNER INC	36.68	299,895.68	0.96	4,663.37	1.55
14,514	DR HORTON INC	52.71	765,032.94	2.44	9,454.19	1.24
4,652	DARDEN RESTAURAN	118.22	549,959.44	1.75	15,276.65	2.78
14,235	TJX COS INC	55.74	793,458.90	2.53	12,984.33	1.64
			2,408,346.96	7.67	42,378.53	1.76
Energy						
8,385	APERGY CORP	27.05	226,814.25	0.72	0.00	
10,188	CONTL RES INC/OK	30.79	313,688.52	1.00	0.00	
3,745	CIMAREX ENERGY C	47.94	179,535.30	0.57	1,138.55	0.63
			720,038.07	2.29	1,138.55	0.16
Financials						
7,827	EATON VANCE CORP	44.93	351,667.11	1.12	8,390.75	2.39
8,420	HOULIHAN LOKEY I	45.10	379,742.00	1.21	7,974.36	2.10
9,944	INTERCONTINENTAL	92.27	917,532.88	2.92	11,928.92	1.30
21,108	KEYCORP	17.84	376,566.72	1.20	9,222.04	2.45
9,269	PROGRESSIVE CORP	77.25	716,030.25	2.28	13,527.96	1.89
3,478	REINSURANCE GROU	159.88	556,062.64	1.77	8,338.02	1.50
6,850	RAYMOND JAMES FINANCIAL	82.46	564,851.00	1.80	7,487.25	1.33
2,512	RENAISSANCERE HOLDINGS	193.45	485,946.40	1.55	5,347.64	1.10
6,397	STIFEL FINANCIAL	57.38	367,059.86	1.17	3,332.49	0.91
			4,715,458.86	15.02	75,549.43	1.60
Health Care						
7,071	AGILENT TECH INC	76.63	541,850.73	1.73	5,269.10	0.97
4,245	AMERISOURCEBERGE	82.33	349,490.85	1.11	6,169.87	1.77
1,547	BIO-RAD LABS-A	332.74	514,748.78	1.64	0.00	
2,443	LABORATORY CP	168.00	410,424.00	1.31	0.00	

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
8,106	SYNEOS HEALTH INC	53.21	431,320.26	1.37	0.00	
5,350	DENTSPLY SIRONA	53.31	285,208.50	0.91	2,287.42	0.80
			2,533,043.12	8.07	13,726.39	0.54
Industrials						
9,734	AIR LEASE C	41.82	407,075.88	1.30	3,927.41	0.96
2,943	CUMMINS INC	162.67	478,737.81	1.52	15,521.97	3.24
7,350	CSX CORP	69.27	509,134.50	1.62	7,045.74	1.38
4,408	DOVER CORP	99.56	438,860.48	1.40	11,337.88	2.58
5,652	GATX CORP	77.53	438,199.56	1.40	11,164.32	2.55
2,454	GENERAL DYNAMICS	182.73	448,419.42	1.43	8,899.49	1.98
13,595	MASCO CORP	41.68	566,639.60	1.80	6,407.88	1.13
10,130	REPUBLIC SVCS	86.55	876,751.50	2.79	17,573.23	2.00
3,350	SNAP-ON INC	156.54	524,409.00	1.67	10,617.66	2.02
10,283	STERICYCLE INC	50.93	523,713.19	1.67	0.00	0.00
13,107	SENSATA TECHNOLO	50.06	656,136.42	2.09	0.00	0.00
6,001	WOODWARD INC	107.83	647,087.83	2.06	4,861.47	0.75
			6,515,165.19	20.75	97,357.05	1.49
Information Technology						
4,815	AUTODESK INC	147.70	711,175.50	2.27	0.00	
6,699	AKAMAI TECHNOLOG	91.38	612,154.62	1.95	0.00	
12,874	APPLIED MATERIAL	49.90	642,412.60	2.05	11,347.54	1.77
3,257	ANSYS INC	221.36	720,969.52	2.30	0.00	
4,455	ARROW ELECTRONIC	74.58	332,253.90	1.06	0.00	
8,653	BLACK KNIGHT	61.06	528,352.18	1.68	0.00	
9,251	GLOBAL PAYMENTS	159.00	1,470,909.00	4.68	534.92	0.04
2,116	INTUIT INC	265.94	562,729.04	1.79	4,302.80	0.76
9,293	KEYSIGHT TEC	97.25	903,744.25	2.88	0.00	
5,885	SYNOPSYS INC	137.25	807,716.25	2.57	0.00	
7,281	XILINX INC	95.90	698,247.90	2.22	15,438.00	2.21
			7,990,664.76	25.45	31,623.27	0.40
Materials						
4,652	ALBEMARLE CORP	69.52	323,407.04	1.03	4,627.99	1.43
15,980	ALLEGHENY TECH	20.25	323,595.00	1.03	0.00	

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
3,629	CABOT CORP	45.32	164,466.28	0.52	3,535.76	2.15
5,141	EASTMAN CHEMICAL	73.83	379,560.03	1.21	8,527.73	2.25
3,978	PACKAGING CORP	106.10	422,065.80	1.34	11,899.79	2.82
9,641	SEALED AIR CORP	41.51	400,197.91	1.27	6,036.45	1.51
3,652	SCOTTS MIRACLE-A	101.82	371,846.64	1.18	9,563.45	2.57
			2,385,138.70	7.60	44,191.16	1.85
Real Estate						
13,851	CBRE GROUP INC	53.01	734,241.51	2.34	0.00	
			734,241.51	2.34	0.00	0.00
Utilities						
6,746	WEC ENERGY GROUP	95.10	641,544.60	2.04	21,995.25	3.43
			641,544.60	2.04	21,995.25	3.43
			28,938,459.09	92.17	329,278.39	1.14
Real Estate Investment Trust						
Real Estate						
3,001	AMERICAN TOWER C	221.13	663,611.13	2.11	14,168.32	2.14
2,012	BOSTON PROPERTIE	129.66	260,875.92	0.83	6,681.63	2.56
18,829	AMERICOLD REALTY	37.07	697,991.03	2.22	0.00	
			1,622,478.08	5.17	20,849.95	1.29
			1,622,478.08	5.17	20,849.95	1.29
Cash and Equivalents						
810,474	U.S. DOLLARS	1.00	810,473.93	2.58	0.00	
25,960	USD - DIVIDENDSRECEIVABLE	1.00	25,959.51	0.08	0.00	
			836,433.44	2.66	0.00	0.00
			836,433.44	2.66	0.00	0.00
Total Portfolio			31,397,370.61	100.00	350,128.34	1.12

Statement Of Transactions

From 06-30-19 To 09-30-19

Quantity	Security	Sec Symbol	Unit Price	Total Amount
PURCHASES				
3,805.00	STERICYCLE INC	SRCL	45.75	174,089.56
13,777.00	SENSATA TECHNOLO	ST	46.88	645,817.47
				<hr/> 819,907.03
SALES				
282.00	ACTIVISION BLIZZ	ATVI	48.09	13,561.09
358.00	AGILENT TECH INC	A	69.68	24,946.71
493.00	AIR LEASE C	AL	42.52	20,964.38
339.00	AKAMAI TECHNOLOG	AKAM	83.97	28,466.93
236.00	ALBEMARLE CORP	ALB	73.54	17,356.26
808.00	ALLEGHENY TECH	ATI	22.35	18,062.46
152.00	AMERICAN TOWER C	AMT	208.79	31,735.42
962.00	AMERICOLD REALTY	COLD	33.68	32,404.29
215.00	AMERISOURCEBERGE	ABC	88.67	19,064.42
165.00	ANSYS INC	ANSS	207.92	34,307.25
433.00	APERGY CORP	APY	32.77	14,191.27
657.00	APPLIED MATERIAL	AMAT	50.99	33,503.01
225.00	ARROW ELECTRONIC	ARW	71.93	16,183.91
236.00	AUTODESK INC	ADSK	160.74	37,934.09
78.00	BIO-RAD LABS-A	BIO	318.60	24,850.67
438.00	BLACK KNIGHT	BKI	63.87	27,976.67
414.00	BORGWARNER INC	BWA	38.20	15,816.54
102.00	BOSTON PROPERTIE	BXP	132.87	13,552.96
183.00	CABOT CORP	CBT	45.49	8,325.40

Statement Of Transactions

From 06-30-19 To 09-30-19

Quantity	Security	Sec Symbol	Unit Price	Total Amount
701.00	CBRE GROUP INC	CBRE	52.98	37,139.19
190.00	CIMAREX ENERGY C	XEC	50.93	9,677.44
515.00	CONTL RES INC/OK	CLR	37.11	19,113.82
372.00	CSX CORP	CSX	70.11	26,082.23
149.00	CUMMINS INC	CMI	165.25	24,622.04
236.00	DARDEN RESTAURAN	DRI	124.26	29,325.01
271.00	DENTSPLY SIRONA	XRAY	56.70	15,366.52
223.00	DOVER CORP	DOV	97.50	21,743.15
734.00	DR HORTON INC	DHI	46.38	34,039.27
260.00	EASTMAN CHEMICAL	EMN	76.70	19,942.88
396.00	EATON VANCE CORP	EV	44.68	17,694.89
286.00	GATX CORP	GATX	77.95	22,293.80
124.00	GENERAL DYNAMICS	GD	188.57	23,382.81
321.00	GLOBAL PAYMENTS	GPN	167.55	53,783.61
426.00	HOULIHAN LOKEY I	HLI	45.59	19,423.06
503.00	INTERCONTINENTAL	ICE	87.88	44,205.23
828.00	INTUIT INC	INTU	281.70	233,249.85
1,068.00	KEYCORP	KEY	18.42	19,677.49
470.00	KEYSIGHT TEC	KEYS	91.11	42,820.76
123.00	LABORATORY CP	LH	170.15	20,928.01
688.00	MASCO CORP	MAS	41.40	28,486.52
201.00	PACKAGING CORP	PKG	103.14	20,731.72
469.00	PROGRESSIVE CORP	PGR	80.83	37,906.98
347.00	RAYMOND JAMES FINANCIAL	RJF	81.28	28,205.82
176.00	REINSURANCE GROU	RGA	154.44	27,180.99



Statement Of Transactions

From 06-30-19 To 09-30-19

Quantity	Security	Sec Symbol	Unit Price	Total Amount
128.00	RENAISSANCERE HOLDINGS	RNR	181.72	23,260.31
512.00	REPUBLIC SVCS	RSG	89.43	45,787.98
185.00	SCOTTS MIRACLE-A	SMG	103.30	19,110.34
488.00	SEALED AIR CORP	SEE	42.66	20,820.08
670.00	SENSATA TECHNOLO	ST	46.95	31,456.98
169.00	SNAP-ON INC	SNA	155.30	26,245.99
328.00	STERICYCLE INC	SRCL	46.90	15,384.52
323.00	STIFEL FINANCIAL	SF	60.36	19,497.03
415.00	SYNEOS HEALTH INC	SYNH	51.92	21,545.31
298.00	SYNOPSIS INC	SNPS	135.49	40,376.19
720.00	TJX COS INC	TJX	55.22	39,761.17
181.00	TOTAL SYS SERVS	TSS	135.11	24,454.58
341.00	WEC ENERGY GROUP	WEC	86.57	29,519.24
304.00	WOODWARD INC	WWD	114.31	34,751.53
368.00	XILINX INC	XLNX	119.25	43,884.93
				1,746,083.00



Historical Performance Measurement

Oakland Police and Fire Retirement
Board
September 30, 2019

Performance

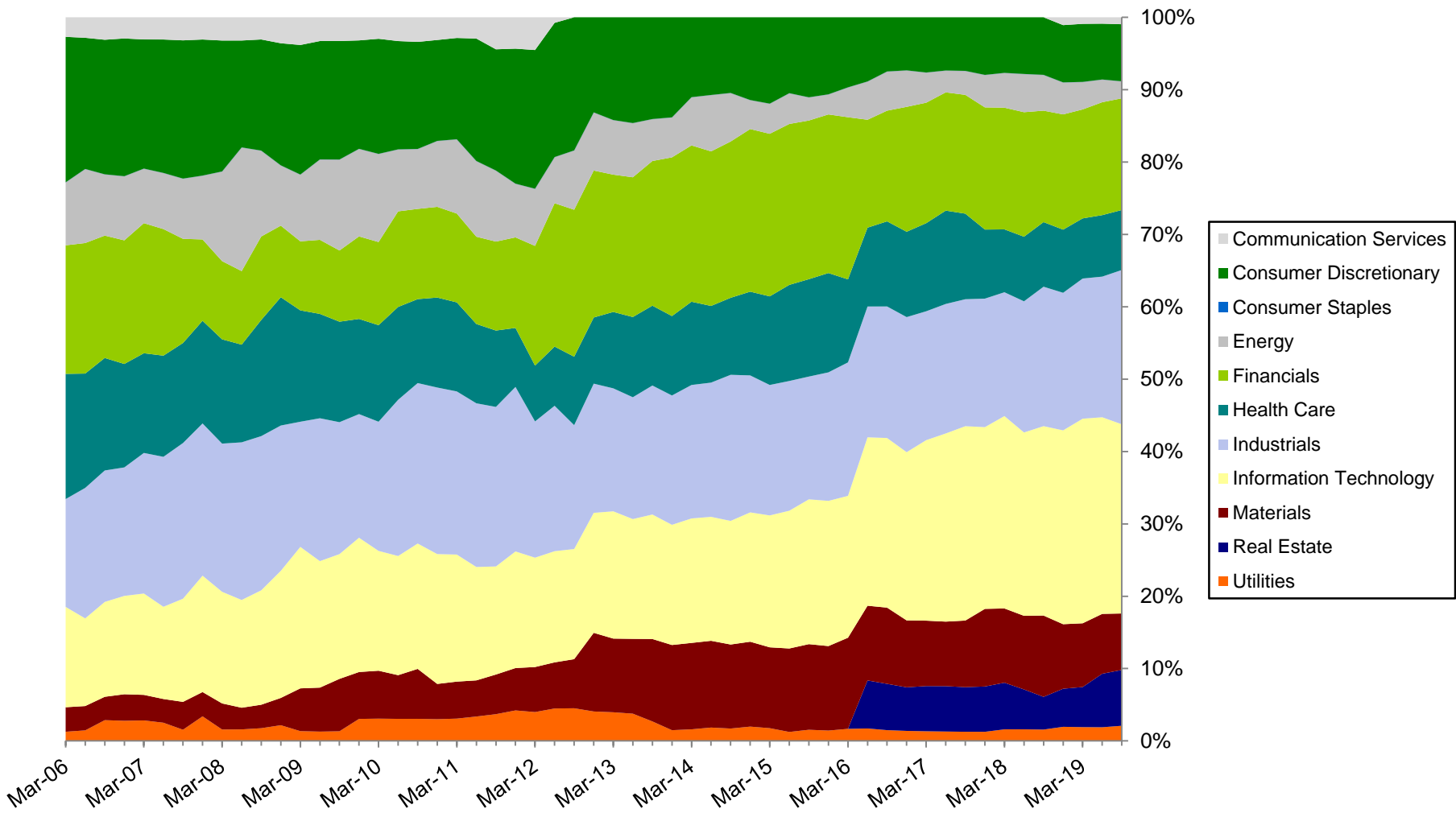
	Total Portfolio	Equities	Russell Midcap® Index
<i>Inception 3/28/2006</i>			
2006	3.56%	3.47%	7.92%
2007	8.78	8.99	5.60
2008	-37.51	-39.47	-41.46
2009	37.48	37.94	40.48
2010	27.22	28.53	25.47
2011	-0.79	-0.11	-1.56
2012	16.36	17.82	17.29
2013	31.25	32.42	34.78
2014	10.32	10.87	13.22
2015	1.40	1.33	-2.44
2016	16.55	16.85	13.80
2017	26.22	26.73	18.52
2018	-9.63	-9.94	-9.05

Performance (As of 10/31/2019)

	Total Portfolio	Equities	Russell Midcap® Index
3/31/2019	20.08%	20.51%	16.54%
6/30/2019	5.71	5.97	4.13
9/30/2019	1.25	1.28	0.48
Year-to-Date	30.16	31.02	23.21
Since Inception			
-Annualized	9.90	10.10	8.56
-Cumulative	261.11	270.13	205.45



EARNEST Partners MARKET Model Portfolio





Asset Growth

Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Investment Change	
				Period	Since Inception
3/28/2006	\$37,404,060				
2006	\$38,599,735	\$0	\$0	\$1,195,675	\$1,195,675
2007	51,982,630	3,500,000	14,238,849	2,644,046	3,839,721
2008	26,001,788	10,000,000	0	-15,980,842	-12,141,121
2009	32,406,299	3,000,000	0	9,404,511	-2,736,610
2010	31,053,473	8,500,000	0	7,147,174	4,410,564
2011	23,758,477	7,500,000	0	205,004	4,615,568
2012	27,646,027	0	0	3,887,550	8,503,118
2013	40,899,931	0	3,802,146	9,451,898	17,955,016
2014	31,527,407	13,001,627	0	3,629,103	21,584,119
2015	29,934,966	2,000,704	0	408,263	21,992,382

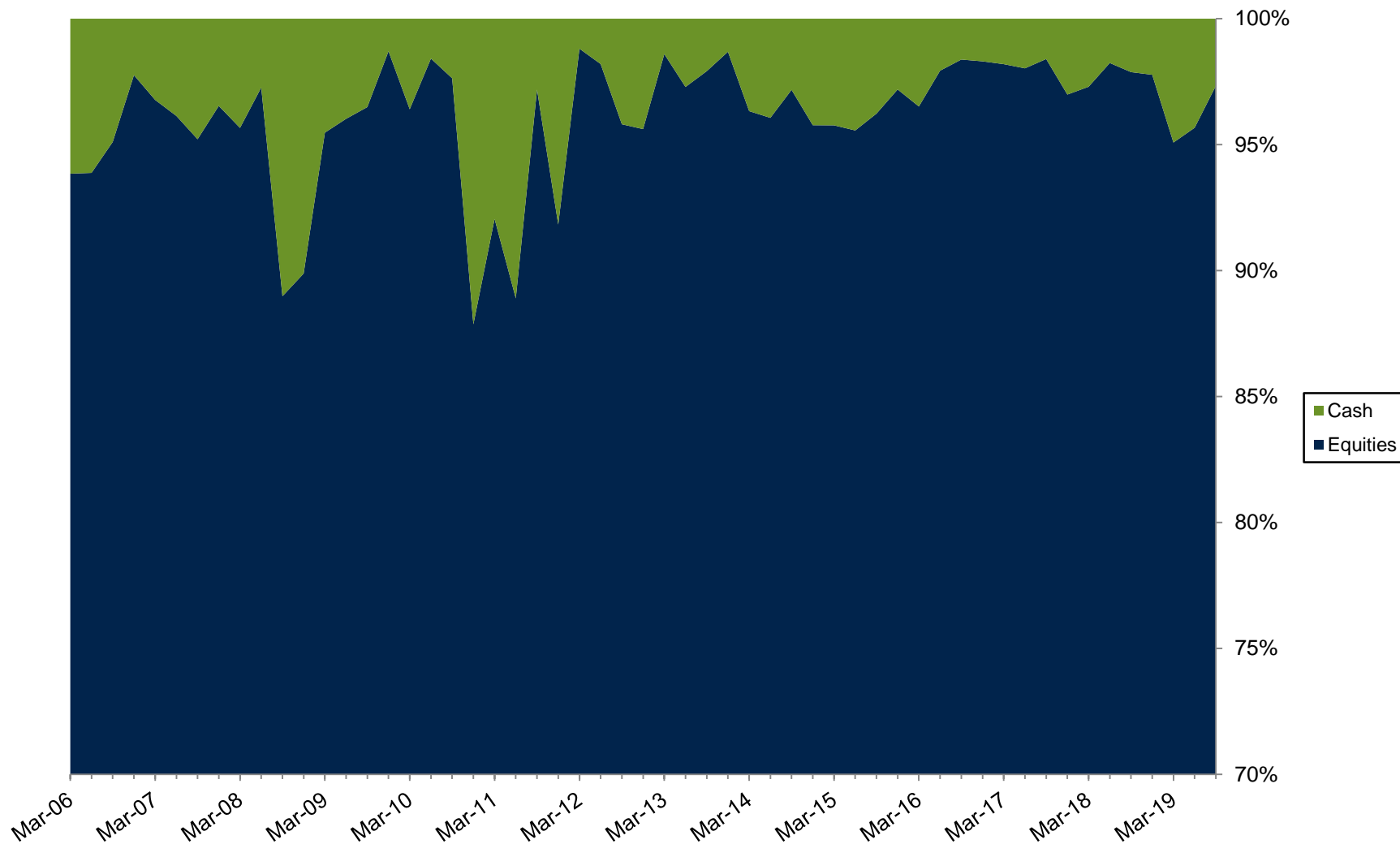
Asset Growth

Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Investment Change	
				Period	Since Inception
2016	\$27,890,394	\$6,500,289	\$0	\$4,455,717	\$26,448,099
2017	29,426,736	5,000,733	0	6,537,075	32,985,174
2018	25,674,345	1,000,929	0	-2,751,462	30,233,712
3/31/2019	30,829,012	0	0	5,154,887	35,388,599
6/30/2019	32,588,661	0	0	1,760,061	37,148,660
9/30/2019	31,397,370	1,600,355	0	409,064	37,557,724



Asset Allocation

Oakland Police and Fire Retirement Board
September 30, 2019





Russell Midcap® Index

The Russell Midcap® Index offers investors access to the mid-cap segment of the U.S. equity universe. It is constructed to provide a comprehensive and unbiased barometer for the mid-cap segment and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap opportunity set. The Russell Midcap® Index includes the smallest 800 securities in the Russell 1000® Index. The index is unmanaged and it is not possible to invest directly in an index.



Nothing presented herein is intended to constitute investment advice and no investment decision should be made based on any information provided herein. Investments cited may not represent current or future holdings of EARNEST Partners, LLC (“EP”) investment products and nothing presented should be construed as a recommendation to purchase or sell a particular type of security or follow any investment technique or strategy. Information provided reflects EP's views as of a particular time. Such views are subject to change at any point and EP shall not be obligated to provide any notice of such change. Any forward-looking statements or forecasts are based on assumptions and actual results are expected to vary from any such statements or forecasts. No reliance should be placed on any such statements or forecasts when making any investment decision. While EP has used reasonable efforts to obtain information from reliable sources, we make no representations or warranties as to the accuracy, reliability or completeness of third-party information presented herein. Performance assumes the reinvestment of dividends and capital gains. No guarantee of investment performance is being provided and no inference to the contrary should be made.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich, Sean Copus, Alina Yuan
Meketa Investment Group
DATE: January 29, 2020
RE: EARNEST Partners – Manager Update

Manager: EARNEST Partners

Inception Date: 04/2006 **OPFRS AUM (9/30/19):** \$31.40 Million (8.0%)

Management Fee: 79 bps (\$250,894)¹

Investment Strategy: Domestic Mid-Cap Equity

Benchmark: Russell Midcap Index **Firm-wide AUM (9/30/19):** \$391.2 billion

Summary & Recommendation

EARNEST Partners has managed the Midcap Core portfolio since the first quarter of 2006. Since inception, EARNEST has outperformed its benchmark. *Meketa does not have any major concerns with Earnest Partners and does not recommend any action be taken at this time.*

Discussion

In reviewing EARNEST, Meketa considered investment performance and recent organizational / personnel issues.

Annualized Investment Performance (as of 9/30/2019)

Manager	MKT Value (\$000)	Quarter	1 YR	3 YR	5 YR	Since Inception	Inception Date ²
Earnest Partners (Gross of Fees)	31,399	1.3	7.1	15.5	12.7	9.7	3/2006
Earnest Partners (Net of Fees)	31,399	1.1	6.2	14.6	11.8	8.7	--
<i>Russell Midcap Index</i>	--	<i>0.5</i>	<i>3.2</i>	<i>10.7</i>	<i>9.1</i>	<i>13.1</i>	--
Excess Return (Net of Fees)	--	+0.2	+0.9	+4.8	+3.6	+1.0	--

¹ Estimate based on AUM as of 9/30/19.

² Inception date reflects the first full month after portfolio received initial funding.

EARNEST has outperformed the Russell Midcap Index by 100 basis points since inception in 2006. EARNEST has been a part of the portfolio for over a decade and continues to deliver outperformance, even in recent years.

Organizational Issues

EARNEST Partners		Areas of Potential Impact			
	Level of Concern^	Investment process (client portfolio)	Investment Team	Performance Track Record	Team/ Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None - X		Watch Status	Termination	

Since the last Earnest update in June 2016, there have been no major changes to the portfolio management team. Within the strategy, the majority of turnover occurred in the Marketing and Client Services division, where EARNEST hired two professionals and four left. In addition, one trader was hired in 2018. There has been no turnover among Analysts or Portfolio Managers in 2018 or 2019.

Investment Philosophy & Process, per manager

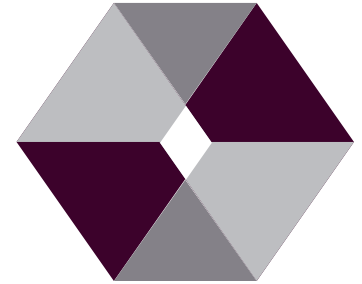
EARNEST Partners is a fundamental, bottom-up investment manager. The investment objective is to outperform the assigned benchmark while seeking to control volatility and risk. EARNEST implements this philosophy using an internally developed screen called Return Pattern Recognition® that seeks to identify the specific drivers of each stock rather than attempting to apply the same dogma to each stock. They believe that companies are unique and consider the specific characteristics of each company when selecting companies. They continue to search for mispriced and misunderstood opportunities within the market.

EARNEST Partners does not target sector or industry weights. Instead, the weightings are an outgrowth of the bottom-up, fundamental stock selection process. The process is designed to put the client in the individual securities that the firm believes have the most attractive expected returns; relative overweights and underweights are an outgrowth of where the team is finding those individual opportunities. The risk management process also influences the weights taken in any one sector. As a general rule, larger sectors will not represent more than 2x the benchmark weight. No individual holding generally exceeds 5.0% of the portfolio's value.

SC/DS/AY/pq

ELROI LONG ALPHA PLUS INSTITUTIONAL PORTFOLIO

PREPARED FOR OAKLAND PFRS



Portfolio Managers:
Steve Singleton
Omur Munoz

First Quarter 2020

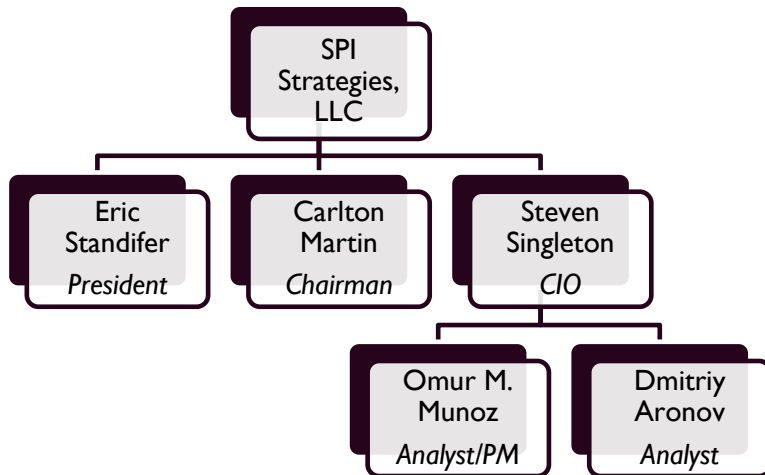
FOR INSTITUTIONAL INVESTOR USE ONLY



SPI STRATEGIES

FIRM OVERVIEW

Our Firm and Mission



- SPI Strategies is an Oakland based investment adviser that utilizes a unique process which quantifies traditional fundamental measures that define size and style themes.
- SPI Strategies was formed in 2004 through the union of Robert Van Securities' ELROI Research group and a former portfolio manager from one of its largest clients.
- Founding members average over 30 years in investment management.
- SPI Strategies operates with the single-minded focus of being a trusted financial advisor to institutional investors, creating active and alternative strategies through the blending of fundamental, technical and quantitative factors to address the various style/sector/size/directional components of the domestic US Equity market.

Investment Team

Carlton Martin, CFA
Chairman

Carlton brings over 30 years experience as both an institutional research analyst and portfolio manager specializing in fundamental research and management. Prior to joining BBV he was a Managing Director and Senior Portfolio Manager at TIAA-CREF from 1980-2004. He pioneered the TIAA-CREF family of Growth and Income Mutual Funds which had combined assets of over \$1 Bill. and co-managed the \$8.5 Bill. Global Equities Pension Fund. He earned a BA in Accounting from Howard University and an MBA in Finance from American University. Mr. Martin is a CFA Charterholder.

Steven Singleton
Chief Investment Officer

Mr. Singleton has over 29 years of experience in developing fundamental, technical, and quantitative models to understand the various factors that effect stock price and equity portfolio performance and is the creator of ELROI. Prior to joining Robert Van Securities in 1995, he spent 10 years in the financial information services business with Factset Research Systems, Interactive Data Corporation and Lotus One Source selling and supporting services that require the manipulation of fundamental, pricing and expectational data. He is a General Securities Principal, Registered Representative and Registered Research Analyst (FINRA Series 7, 24, 63, 65, 86 and 87). He is a Member of the CFA Institute and CFA Society of San Francisco. Mr. Singleton earned a B.A. in Mathematics/Economics from Claremont McKenna College (formerly Claremont Men's College).

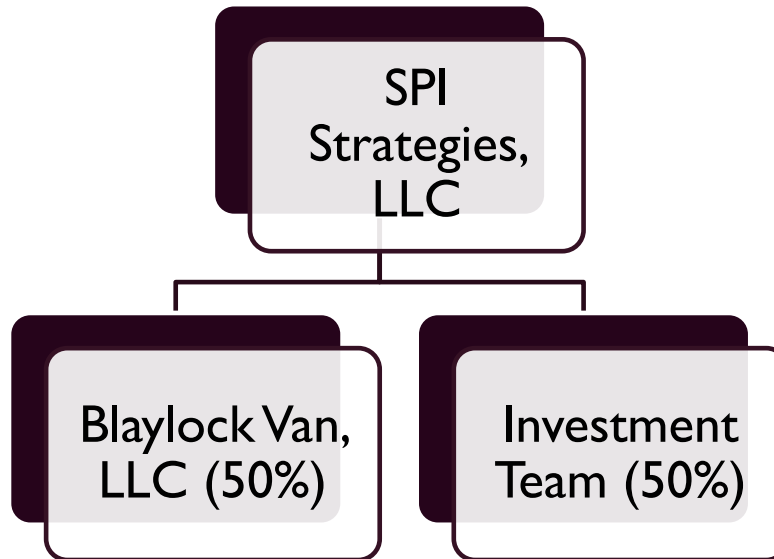
Omur Muhafiz Munoz
Portfolio Manager/Analyst

Mrs. Munoz graduated with an MBA from San Francisco State University in 2014. She worked as a Project Development Specialist at ODS Consultancy, an investment consulting firm in Turkey, prior to business school. Mrs. Munoz holds her Bachelor of Arts in Economics from Bilkent University (Ankara, Turkey) with extensive coursework in Econometrics. She is a Registered Representative and an Investment Adviser Representative (Series 7,66).

Dmitriy Aronov
Research/Market Analyst

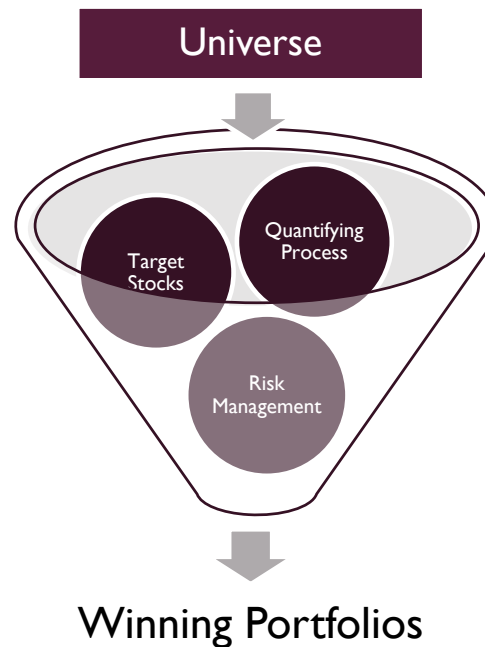
Mr. Aronov worked as a Research Analyst Intern at Kota Global Securities before joining the Blaylock Beal Van Team. He holds his Bachelor of Arts in Economics from City University of New York – City College. He is a Registered Representative (Series 7).

Ownership Structure



Investment Philosophy

- SPI Strategies' active equity portfolios are created within our proprietary quantitative product, **ELROI - Research Analytics**, an innovative platform that combines data and analytics to identify stocks and construct corresponding weights consistent with product theme.
- Active portfolio management is the triumph of successful stock and portfolio selection over comparable passive standards. It is our belief that this success can be achieved through modeling stock characteristics to identify those best suited to perform as expected over the next horizon, then constructing portfolios to mitigate selected and associated risks.
- We seek alpha. Correlated or uncorrelated. We achieve this by employing a wider view considering various long strategies and where appropriate incorporating short strategies.



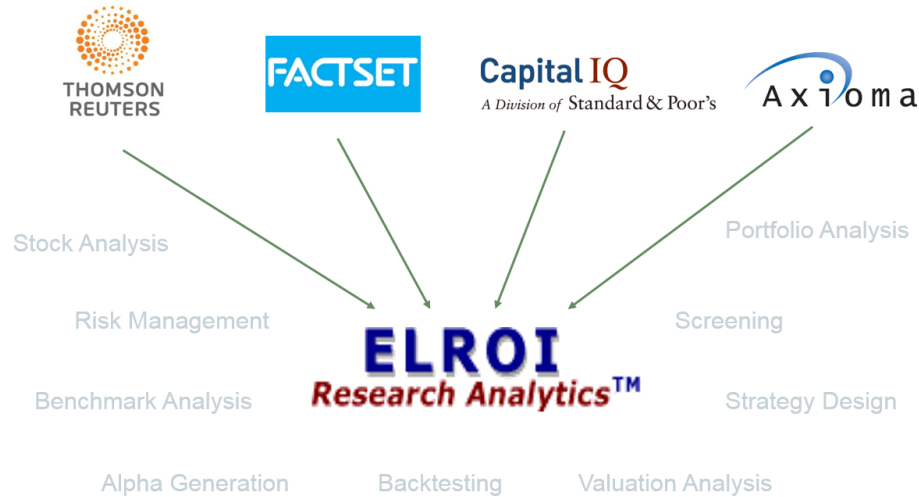


INVESTMENT PROCESS

WITH ELROI - RESEARCH ANALYTICS

ELROI and Advantages of Investing With Our Systematic Approach

- ELROI – Research Analytics is our proprietary platform for equity research and portfolio management.



Stock Selection

- Ability to monitor and screen 5000 domestic equity securities and ADRs
- Systematic approach eliminates the emotional aspect of portfolio management
- Facilitates customization of portfolios based on investor needs

Constrained Mean Variance Optimization

- Appropriates risk-adjusted stock weighting
- Avoids accidental sector and factor (style) bets
- Accommodates alpha realization

Investment Process With ELROI

- We use a quantitative approach to develop turnkey strategies to outperform associated benchmarks of all styles and sizes in the domestic U.S. equity space.

1. Screening

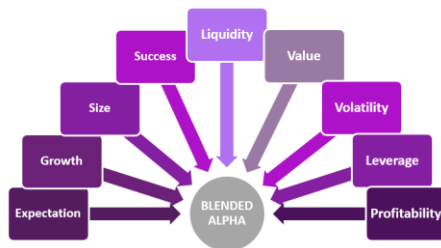
We select our screen according to the investment style and the associated benchmark that we seek to outperform.

All Styles, Sizes and Disciplines



2. Constructing Alpha Strategy

We construct an alpha strategy (Blended Alpha) by examining combinations of the factors shown below to explain stock price and portfolio performance in the selected investment style.



3. Stock Selection

We apply the blended alpha strategy (2) to our universe (1) and then rank the stocks from best to worst by their corresponding alpha scores. We select the top stocks to create concentrated or enhanced portfolios.

4. Risk Control and Portfolio Selection

Risk control is achieved through the *ELROI Mean/Variance optimizer* where stocks are weighted in order of potential reward to their known risk with respect to additional constraints such as size of holding or sector concentration.

We weight stocks in a risk-adjusted fashion choosing the blended alpha metrics (2) as appropriate tilts.



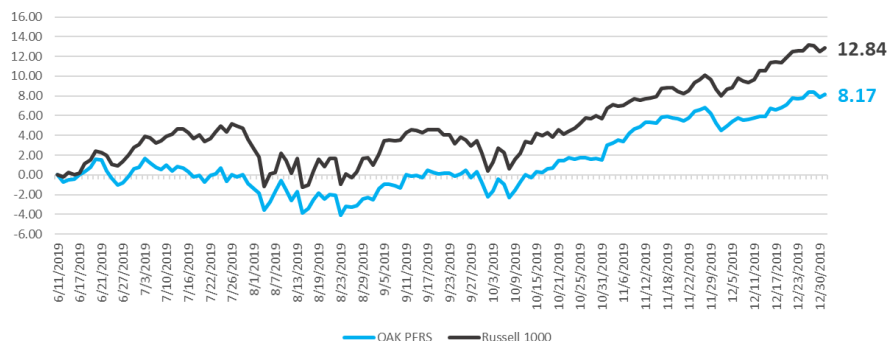


SPI STRATEGIES FLAGSHIP PORTFOLIO

ELROI LONG ALPHA PLUS

Performance Report (Net of fees)

OAK PFRS vs Russell 1000 (Total Returns through 6/12/19 - 12/31/19)



*based on daily returns

	OAK PFRS	Russell 1000
Period Return	8.17	12.84
Portfolio Risk (Period)	7.63	9.08
Portfolio Risk (Annualized)	10.22	12.17
Systematic Risk (Annualized)	9.09	
Residual Risk (Annualized)	4.67	
Active Risk (Annualized)	5.59	
Return/Risk	1.07	1.41
Alpha	-0.01	
Alpha (Period)	-1.23	
Beta	0.75	
R Squared	0.79	
Information Ratio	-0.23	
t-stat (Alpha)	-0.35	
t-stat (Beta)	22.99	
Upside Capture	72%	
Downside Capture	83%	

Active Factor Exposure (6/12/19 - 12/31/19)

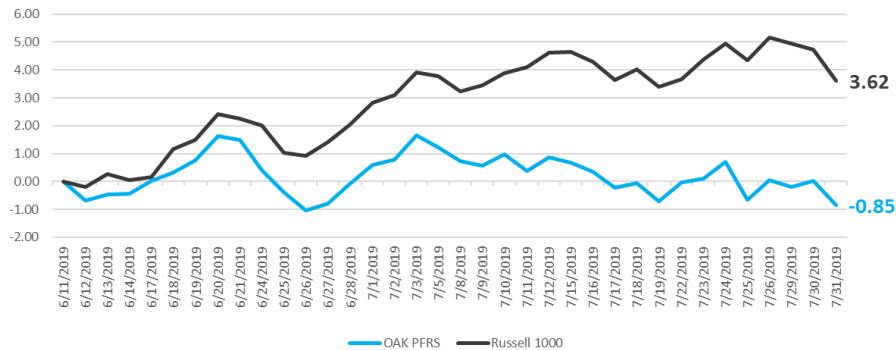


	OAK PFRS	Russell 1000
Jun-19	-0.10	2.03
Q2 2019	-0.10	2.03
Jul-19	-0.76	1.55
Aug-19	-1.46	-1.83
Sep-19	2.66	1.73
Q3 2019	0.40	1.42
Oct-19	1.18	2.12
Nov-19	4.67	3.78
Dec-19	1.83	2.89
Q4 2019	7.85	9.04
TOTAL	8.17	12.84

* Returns are not proxies guaranteed for future returns.

Portfolio Performance - A Tale of Two Periods

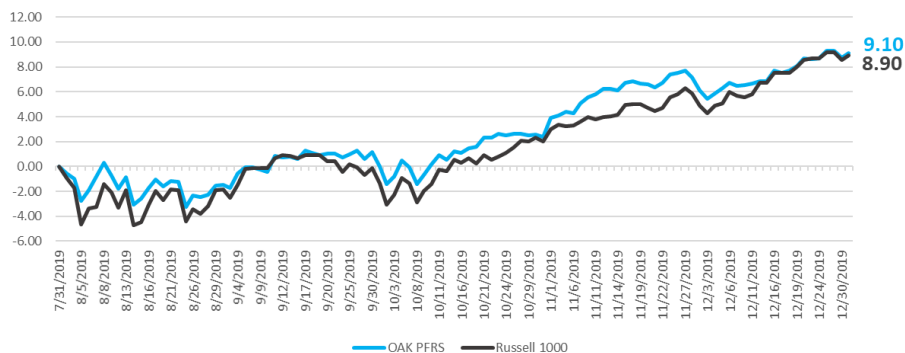
OAK PFRS vs Russell 1000 (Total Returns through 6/12/19 - 7/31/19)



**based on daily returns*

	OAK PFRS	Russell 1000
Period Return	-0.85	3.62
Portfolio Risk (Period)	3.49	3.13
Portfolio Risk (Annualized)	9.38	8.42
Systematic Risk (Annualized)	7.81	
Residual Risk (Annualized)	5.20	
Active Risk (Annualized)	5.23	
Return/Risk	-0.24	1.16
Alpha	-0.12	
Alpha (Period)	-4.14	
Beta	0.93	
R Squared	0.69	
Information Ratio	-1.33	
t-stat (Alpha)	-2.07	
t-stat (Beta)	8.63	
Upside Capture	73%	
Downside Capture	129%	

OAK PFRS vs Russell 1000 (Total Returns through 7/31/19 - 12/31/19)



**based on daily returns*

	OAK PFRS	Russell 1000
Period Return	9.10	8.90
Portfolio Risk (Period)	6.79	8.55
Portfolio Risk (Annualized)	10.49	13.21
Systematic Risk (Annualized)	9.57	
Residual Risk (Annualized)	4.30	
Active Risk (Annualized)	5.63	
Return/Risk	1.34	1.04
Alpha	0.02	
Alpha (Period)	2.50	
Beta	0.72	
R Squared	0.83	
Information Ratio	0.62	
t-stat (Alpha)	0.89	
t-stat (Beta)	22.69	
Upside Capture	74%	
Downside Capture	72%	

* Returns are not proxies guaranteed for future returns.

Portfolio Performance - A Tale of Two Periods(cont.)

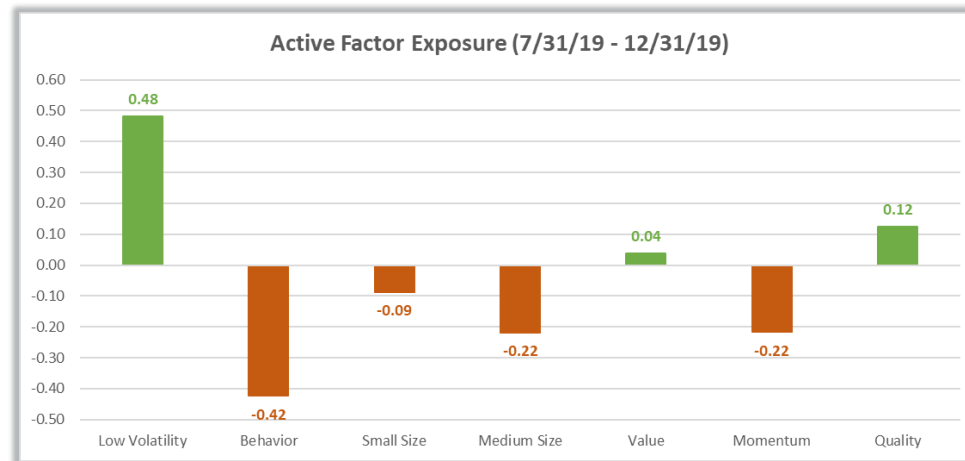
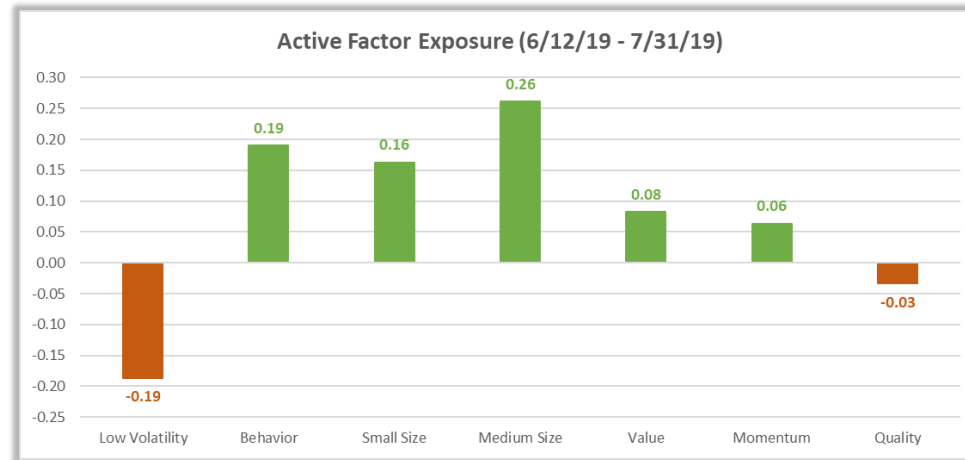
First six weeks:

- Initial portfolio adaptation of (then) current model
- Saw factors invert under stock specific pressure

Next 5 months:

- Portfolio moved (gradually) to re-adopt prior factor set.
- With factors aligning, portfolio resumed benchmark characteristics and behavior.
- Quality and size were key factors to reset.

Portfolio Performance - A Tale of Two Periods (cont.)



OAK PFRS PORTFOLIO APPRAISAL ON 12/31/19*								
Security Name	Ticker Symbol	Position	Shares/Par Value	Base Total Cost	Base Market Value	Unrealized Gain/Loss	Change in Total Value (%)	% of Total Assets
Consumer Discretionary								
PULTE GROUP INC	PHM	LONG	24,008	779,989.83	931,510.40	151,520.57	19.43	4.55
PVH CORP COM USD1	PVH	LONG	5,078	497,298.53	533,951.70	36,653.17	7.37	2.61
Consumer Discretionary Total				1,277,288.36	1,465,462.10	188,173.74	14.73	7.16
Consumer Staples								
KEURIG DR PEPPER INC COM	KDP	LONG	38,262	1,097,279.99	1,107,684.90	10,404.91	0.95	5.42
WALGREENS BOOTS ALLIANCE INC COM	WBA	LONG	11,256	610,078.12	663,653.76	53,575.64	8.78	3.24
MONSTER BEVERAGE CORP NEW COM	MNST	SHORT	821	(52,815.80)	(52,174.55)	641.25	1.21	0.26
Consumer Staples Total				1,654,542.31	1,719,164.11	64,621.80	3.60	8.92
Energy								
CHEVRON CORP COM	CVX	LONG	7,035	807,189.53	847,787.85	40,598.32	5.03	4.14
TRANSOCEAN LTD	RIG	SHORT	8,165	(52,924.43)	(56,175.20)	(3,250.77)	(6.14)	0.27
Energy Total				754,265.10	791,612.65	37,347.55	5.10	4.42
Financials								
CITIGROUP INC COM NEW COM NEW	C	LONG	14,046	986,797.57	1,122,134.94	135,337.37	13.71	5.49
HARTFORD FINL SVCS GROUP INC COM	HIG	LONG	20,237	1,110,559.85	1,229,802.49	119,242.64	10.74	6.01
SVB FINANCIAL GROUP COMMON STOCK	SIVB	SHORT	233	(49,886.59)	(58,492.32)	(8,605.73)	(17.25)	0.29
Financials Total				2,047,470.83	2,293,445.11	245,974.28	12.26	11.78
Health Care								
BIOMER INC COMMON STOCK	BIIB	LONG	1,569	442,069.39	465,569.37	23,499.98	5.32	2.28
UNITEDHEALTH GROUP INC COM	UNH	LONG	3,351	927,549.43	985,126.98	57,577.55	6.21	4.82
HEALTHCARE INC COM	HQY	SHORT	801	(51,746.08)	(59,330.07)	(7,583.99)	(14.66)	0.29
Health Care Total				1,317,872.74	1,391,366.28	73,493.54	6.24	7.38
Industrials								
CATERPILLAR INC COM	CAT	LONG	2,864	415,972.80	422,955.52	6,982.72	1.68	2.07
OWENS CORNING NEW COM STK	OC	LONG	9,452	555,667.59	615,514.24	59,846.65	10.77	3.01
STANLEY BLACK & DECKER INC COM	SWK	LONG	1,125	185,220.00	186,457.50	1,237.50	0.67	0.91
WABTEC CORP COM	WAB	LONG	8,261	575,768.17	642,705.80	66,937.63	11.63	3.14
UNITED RENTALS INC COM	URI	SHORT	395	(52,705.73)	(65,874.15)	(13,168.42)	(24.98)	0.32
Industrials Total				1,679,922.83	1,801,758.91	121,836.08	8.30	9.45
Information Technology								
APPLE INC COM STK	AAPL	LONG	2,941	723,956.32	863,624.65	139,668.33	19.29	4.22
LAM RESH CORP COM	LRGX	LONG	1,473	416,275.25	430,705.20	14,429.95	3.47	2.11
MICROSOFT CORP COM	MSFT	LONG	5,376	774,571.24	847,795.20	73,223.96	9.45	4.14
SKYWORKS SOLUTIONS INC COM	SWKS	LONG	9,247	755,577.91	1,117,777.36	362,199.45	47.94	5.46
VISA INC COM CL A STK	V	LONG	4,494	807,709.48	844,422.60	36,713.12	4.55	4.13
Information Technology Total				3,478,090.20	4,104,325.01	626,234.81	18.01	20.07
Materials								
AIR PROD & CHEM INC COM	APD	LONG	4,101	910,942.76	963,693.99	52,751.23	5.79	4.71
MOSAIC CO/THE	MOS	SHORT	2,093	(47,487.30)	(45,292.52)	2,194.78	4.62	0.22
Materials Total				863,455.46	918,401.47	54,946.01	5.27	4.93
Real Estate								
VEREIT INC COM USD0.001	VER	LONG	109,409	989,468.95	1,010,939.16	21,470.21	2.17	4.94
CBRE GROUP INC CL A CL A	CBRE	SHORT	1,022	(50,097.81)	(62,638.38)	(12,540.57)	(25.03)	0.31
Real Estate Total				939,371.14	948,300.78	8,929.64	3.27	5.25
Communication Services								
ALPHABET INC CAP STK USD0.001 CL C	GOOG	LONG	663	842,197.01	886,444.26	44,247.25	5.25	4.33
FACEBOOK INC COM USD0.000006 CL 'A'	FB	LONG	4,842	905,708.93	993,820.50	88,111.57	9.73	4.86
ELECTR ARTS COM	EA	SHORT	518	(52,472.26)	(55,690.18)	(3,217.92)	(6.13)	0.27
TAKE-TWO INTERACTIVE SOFTWARE INC COM ST	TTWO	SHORT	462	(50,673.23)	(56,562.66)	(5,889.43)	(11.62)	0.28
Communication Services Total				1,644,760.45	1,768,011.92	123,251.47	7.64	9.74
Utilities								
EVERSOURCE ENERGY COM	ES	LONG	8,082	645,088.80	687,535.74	42,446.94	6.58	3.36
NRG ENERGY INC COM NEW	NRG	SHORT	1,492	(51,409.52)	(59,307.00)	(7,897.48)	(15.36)	0.29
Utilities Total				593,679.28	628,228.74	34,549.46	7.23	3.65
EQUITY - LONG BUYS				16,762,937.45	18,401,614.11	1,638,676.66	9.78	89.97
EQUITY - SHORT SELLS				(512,218.75)	(571,537.03)	(59,318.28)	-11.58	2.79
CASH EQUIVALENT				1,480,580.76	1,480,580.76	-	-	7.24
TOTAL INVESTED SECURITIES*				17,851,813.41	19,310,657.84	1,579,358.38		92.76
REALIZED GAINS FROM SECURITIES CLOSED				(120,513.95)				
TOTAL GAINS				1,458,844.43				

*Securities, share quantities, costs and values procured from the OAK PFRS Account custodied at Northern Trust.

IMPORTANT NOTE ON BENCHMARK PERFORMANCE INFORMATION

SPI Strategies is a subsidiary of Blaylock Van, LLC ("Blaylock Van").

Performance shown for periods over one year is annualized.

Actual live total returns net of fees are used to represent the portfolio. For comparison to the live portfolio returns, total returns are used for the Russell 1000. Neither set of returns are guaranteed for future returns.

The indices included herein are unmanaged and have no fees or expenses. An investment cannot be made directly in an index. The portfolios consist of securities which vary significantly from those in the indices listed above. Accordingly, comparing results shown to those of such indices may be of limited use.

Russell US Indexes: Russell US Indexes are the leading US equity benchmarks for institutional investors. This broad range of US indexes allow investors to track current and historical market performance by specific size, investment style and other market characteristics. All Russell US Indexes are subsets of the Russell 3000® Index, which includes the well-known large cap Russell 1000® Index and small cap Russell 2000® Index. The Russell US Indexes are designed as the building blocks of a broad range of financial products, such as index tracking funds, derivatives and Exchange Traded Funds (ETFs), as well as being performance benchmarks.

ELROI US Factor Returns/Exposures: ELROI Factor Returns/Exposures are derived from the ELROI Active Factor Model and applied to both the Oakland PFRS portfolio and the Russell 1000 Total Return Index for the periods shown.

Past performance is not necessarily indicative of future results. No assurance can be given that SPI Strategies' objectives or targets will be achieved. Investing in any of the represented portfolios is intended for experienced and sophisticated investors only who are willing to bear the high economic risks of the investment. Investors should carefully review and consider potential risk before investing. This document is for informational use only and is not an offer to sell or a solicitation of an offer to buy interests in ELROI Portfolios or any SPI Strategies – or Blaylock Van managed investment vehicle. Please refer to Steven Singleton for details of investment terms and conditions. The foregoing information has not been provided in a fiduciary capacity, and it is not intended to be, and should not be considered as, impartial investment advice.

MEMORANDUM

TO: Teir Jenkins, David Jones
Oakland Police and Fire Retirement System (OPFRS)

FROM: David Sancewich, Sean Copus, Alina Yuan
Meketa Investment Group

DATE: January 29, 2020

RE: SPI Strategies – Manager Update

Manager: SPI Strategies
Inception Date: June 2019
Product Name: ELROY Long Alpha Plus
Investment Strategy: Defensive Equity

OPFRS AUM (08/31/19): \$19.3 million (4.7%)
Management Fee: 50 bps (\$96,500)¹
Benchmark: S&P 500

Summary & Recommendation

SPI has managed OPFR'S Defensive Equity portfolio since June of 2019. In the six months that SPI has managed OPFRS assets it has underperformed its benchmark by (2.6%). On an organizational basis, SPI's management team has remained stable and has not experienced any major turnover since they began managing OPFRS assets. Therefore, ***Meketa does not recommend any action be taken at this time in regards to SPI.***

Discussion

In reviewing SPI, Meketa considered investment performance and recent organizational / personnel issues.

Annualized Investment Performance (as of 12/31/2019)

Manager	Mkt Value (\$000)	Asset Class	Quarter	1	3 YR	5 YR	Since Inception	Inception Date ²
SPI (Gross of Fees)	19,311	Defensive Eq	7.9	---	---	---	8.3	7/2019
S&P 500	--	--	9.1	---	---	---	10.9	--
Excess Return	--	--	-1.2	---	---	---	-2.6	--

¹ Estimated based on AUM as of 12/31/19.

² Inception date reflects the first full month after portfolio received initial funding.

As OPFRS's Defensive Equity manager, SPI's allocation has underperformed its S&P 500 benchmark over the latest quarter and since inception six months ago. Although performance has trailed its benchmark by (2.6%) since SPI began managing OPFRS assets, it is not unexpected given SPI's defensive equity mandate. It should be noted that SPI's inclusion in the OPFRS portfolio is based on its ability to provide loss protection by outperforming the benchmark during down markets. With this in mind, Meketa believes SPI's underperformance during a period where the benchmark increased by double digits is understandable.

Organizational Issues

SPI		Areas of Potential Impact			
	Level of Concern^	Investment process (client portfolio)	Investment Team	Performance Track Record	Team/ Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None - X		Watch Status	Termination	

Since SPI began managing OPFRS assets in June 2019 there have been no changes to the ELROY Long Alpha Plus portfolio management team.

Investment Philosophy & Process, per manager

SPI's Long Alpha Plus Portfolio strategy looks to achieve long term capital appreciation through consistent annual absolute returns that "go along and extend" traditional benchmarks in up markets and continue appreciation in down markets by implementing a long/short portfolio structure. The strategy runs a sector diversified concentrated long portfolio that captures alpha by focusing on stocks with a favorable combination of identifiable economic moats; expected earnings catalysts, reasonable debt, behavioral attractiveness and positive sentiment. Additionally, the strategy runs a short portfolio that exploits the "flight" behavior associated with fear. The short portfolio is composed of diversified, volatile liquid stocks.

SC/DS/AY/hs



Capital Markets Outlook & Risk Metrics

As of December 31, 2019

M E K E T A I N V E S T M E N T G R O U P

100 LOWDER BROOK DRIVE SUITE 1100 WESTWOOD MA 02090

781 471 3500 fax 781 471 3411 www.meketagroup.com

Capital Markets Outlook

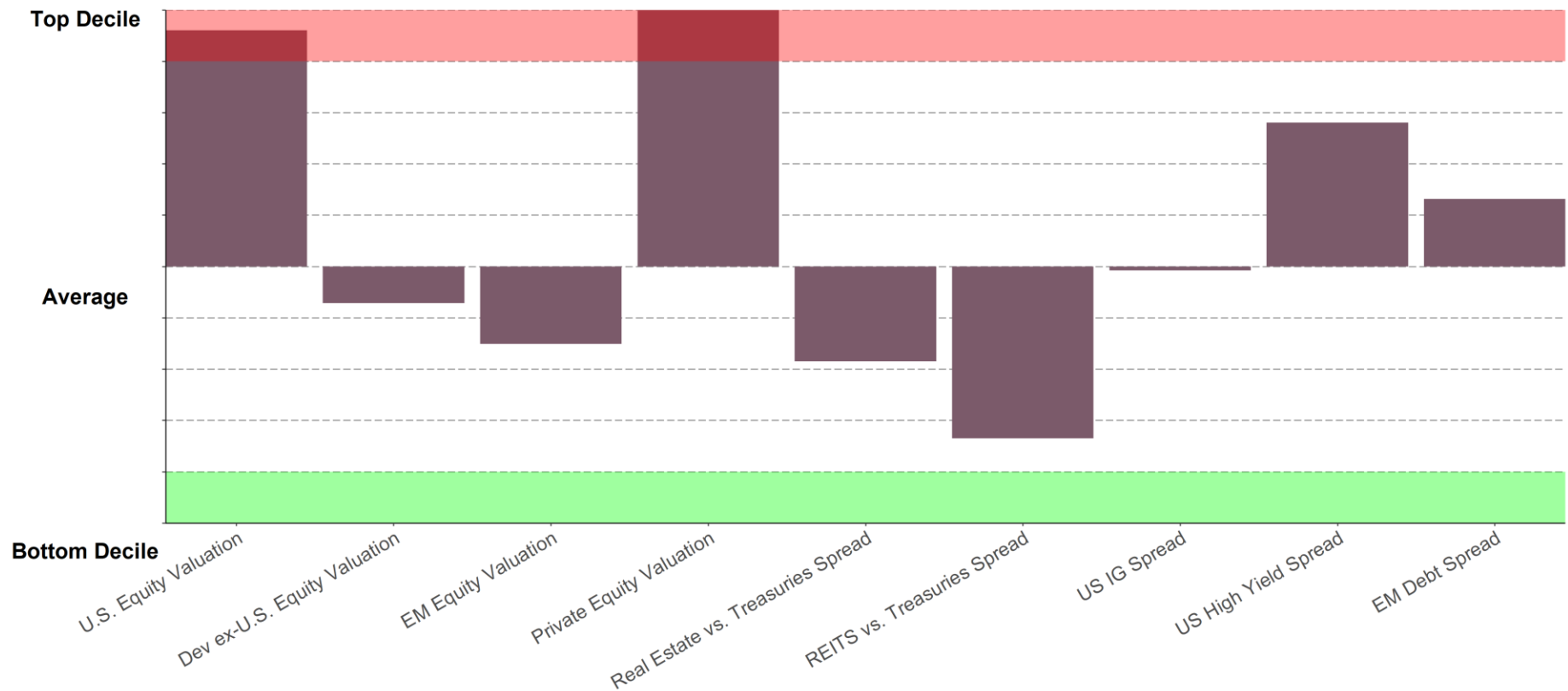
Takeaways

- December capped off a historically strong year for most risk-oriented markets. Global equity markets generally produced gains in the 2-4% range during the month, with full calendar year returns ending up approximately in the 18-32% range.
- With the exception of long-term interest rates (which ticked up during the month), the yield curve remained relatively stable in December. On a trailing one-year basis, however, interest rates declined by a material margin as the Federal Reserve lowered rates three times in 2019. From a performance perspective, broad investment grade bonds produced one-year returns in the high single-digits whereas long US Treasury bonds generated a return of nearly 15% for the year.
- Due in part to strong returns across nearly all asset classes in 2019, investors should anticipate that long-term, forward-looking returns will be lower as of early-2020 when compared to early-2019 capital market assumptions.
- US equity markets remain expensive whereas non-US equity markets remain reasonably valued relative to their histories. US credit and emerging markets debt spreads remain reasonably valued relative to their histories, although the richness of US high yield has recently increased (i.e., is now more expensive).
- Relative to their counterparts (growth and large cap), value and small cap equities continue to remain attractive from a valuation perspective.
- Implied equity market volatility¹ remained at relatively low levels throughout December, generally staying in the 12-16 range throughout the entire month (the historical average is ~19).
- The Market Sentiment Indicator² stayed **green** at month end.

¹ As measured by VIX Index.

² See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

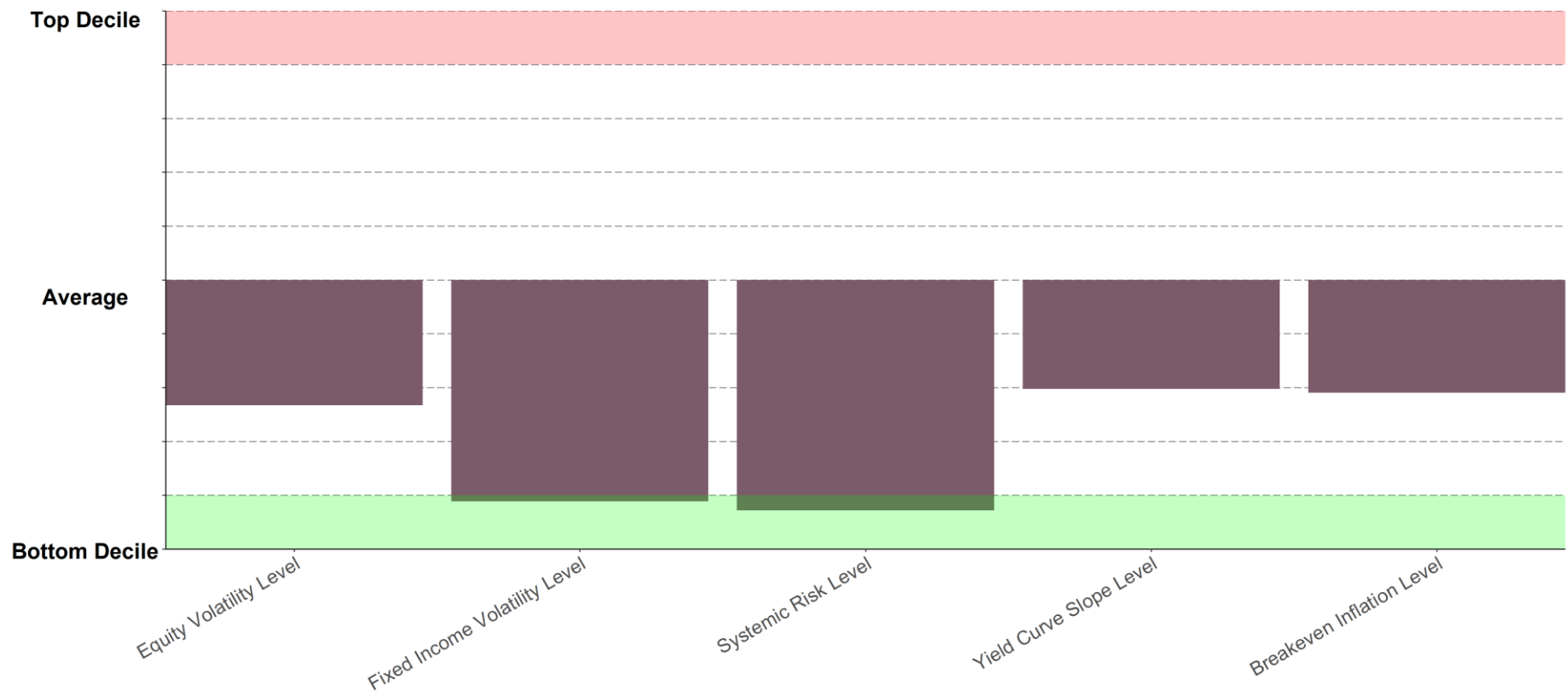
Risk Overview/Dashboard (1) (As of December 31, 2019)¹



- Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

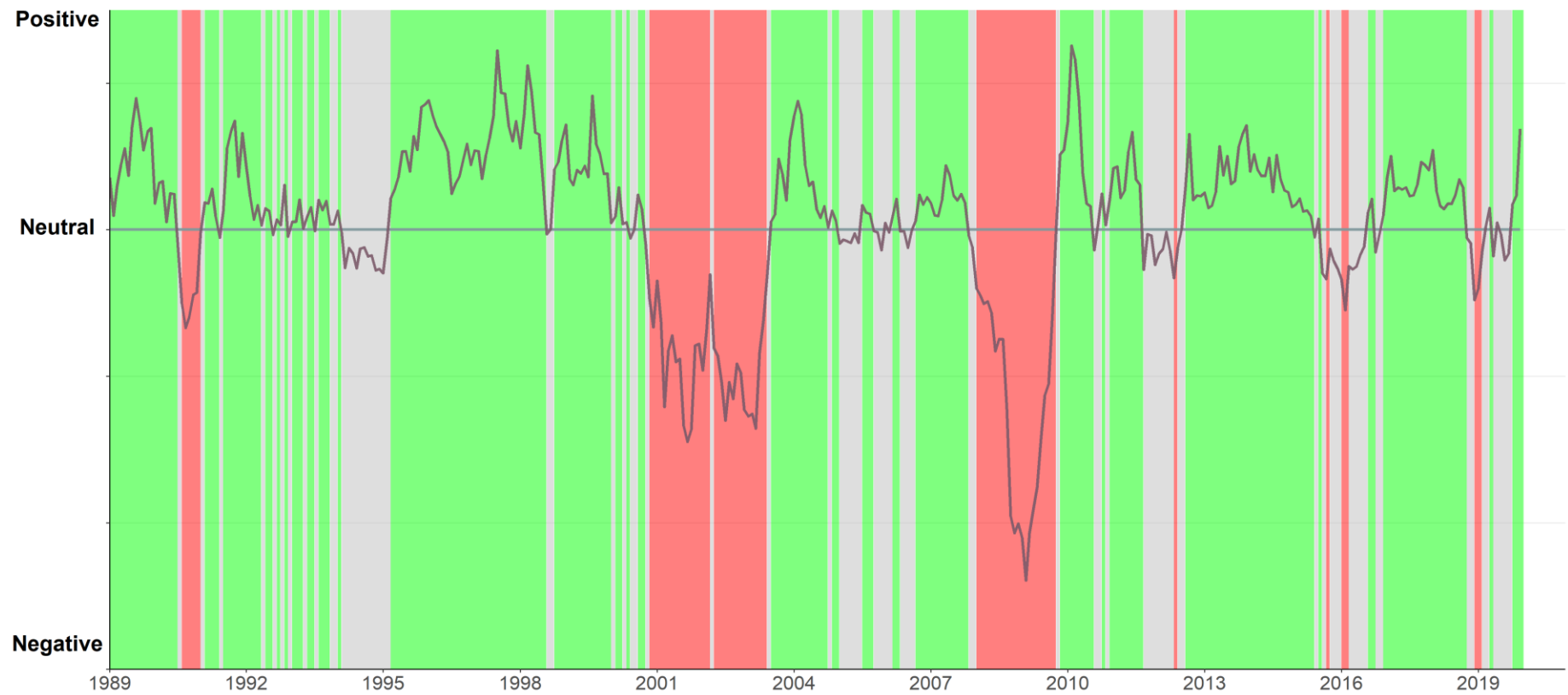
¹ With the exception of Private Equity Valuation, that is YTD as of November 30, 2019.

Risk Overview/Dashboard (2) (As of December 31, 2019)

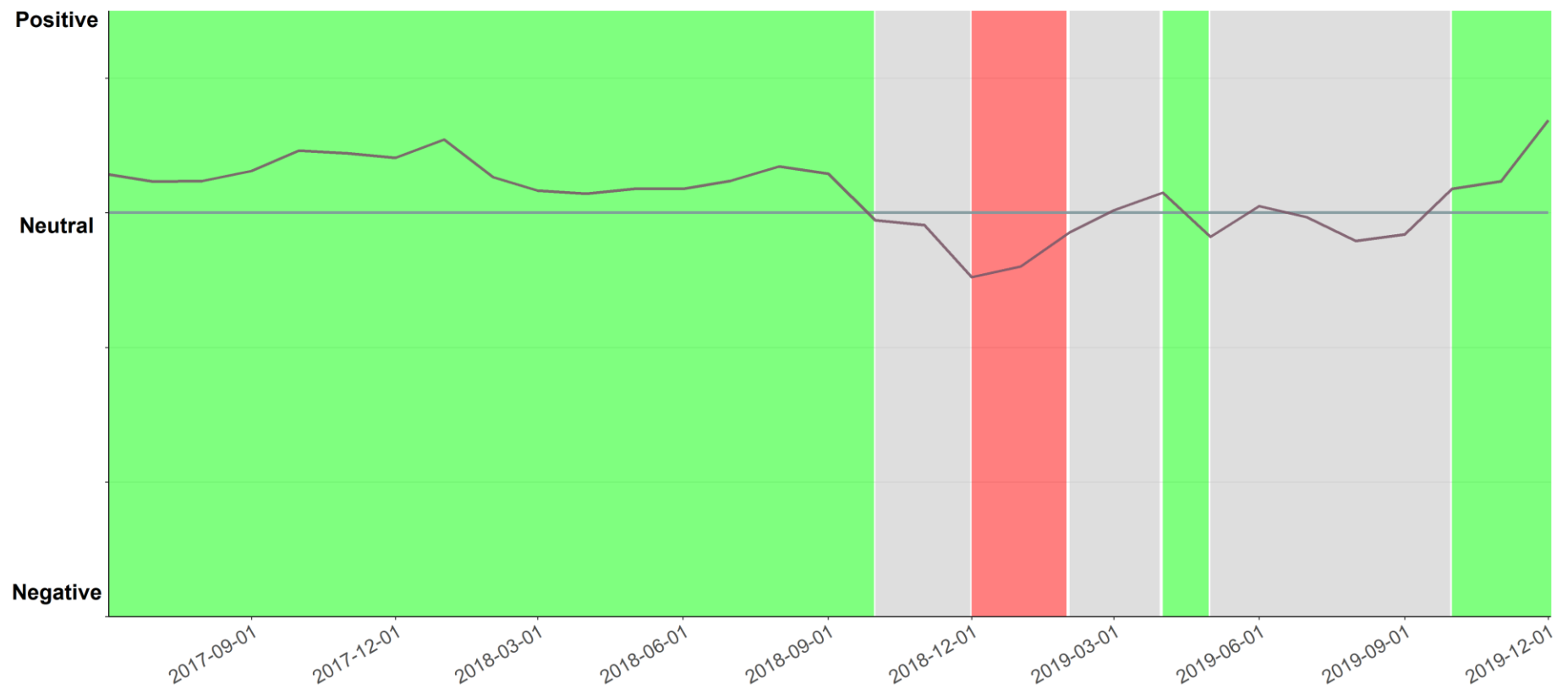


- Dashboard (2) shows how the current level of each indicator compares to its respective history.

Market Sentiment Indicator (All History) (As of December 31, 2019)



Market Sentiment Indicator (Last Three Years) (As of December 31, 2019)



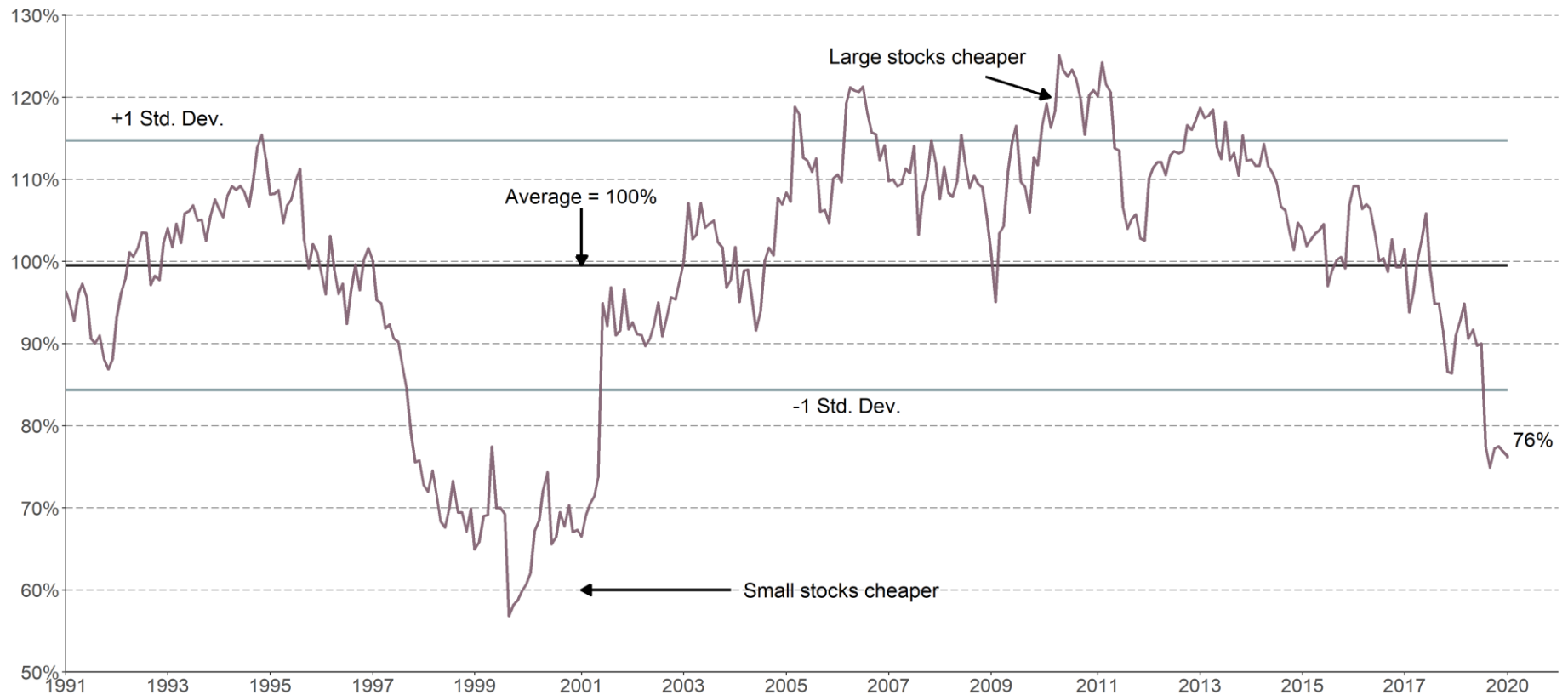
US Equity Cyclically Adjusted P/E¹ (As of December 31, 2019)



- This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller, Yale University and Meketa Investment Group.

Small Cap P/E vs. Large Cap P/E¹ (As of December 31, 2019)



- This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.

Growth P/E vs. Value P/E¹ (As of December 31, 2019)



- This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

¹ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E¹ (As of December 31, 2019)



- This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

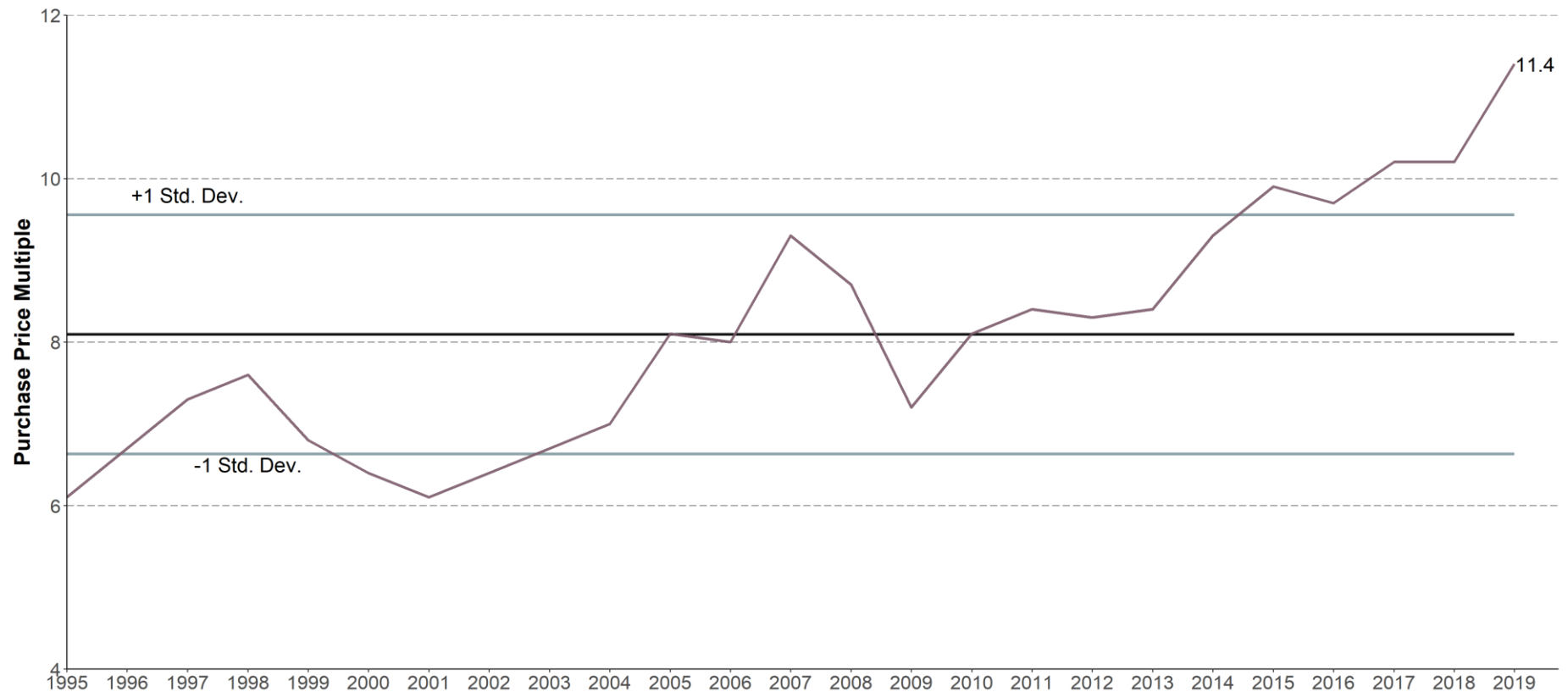
Emerging Market Equity Cyclically Adjusted P/E¹ (As of December 31, 2019)



- This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

Private Equity Multiples¹ (As of November 30, 2019)²

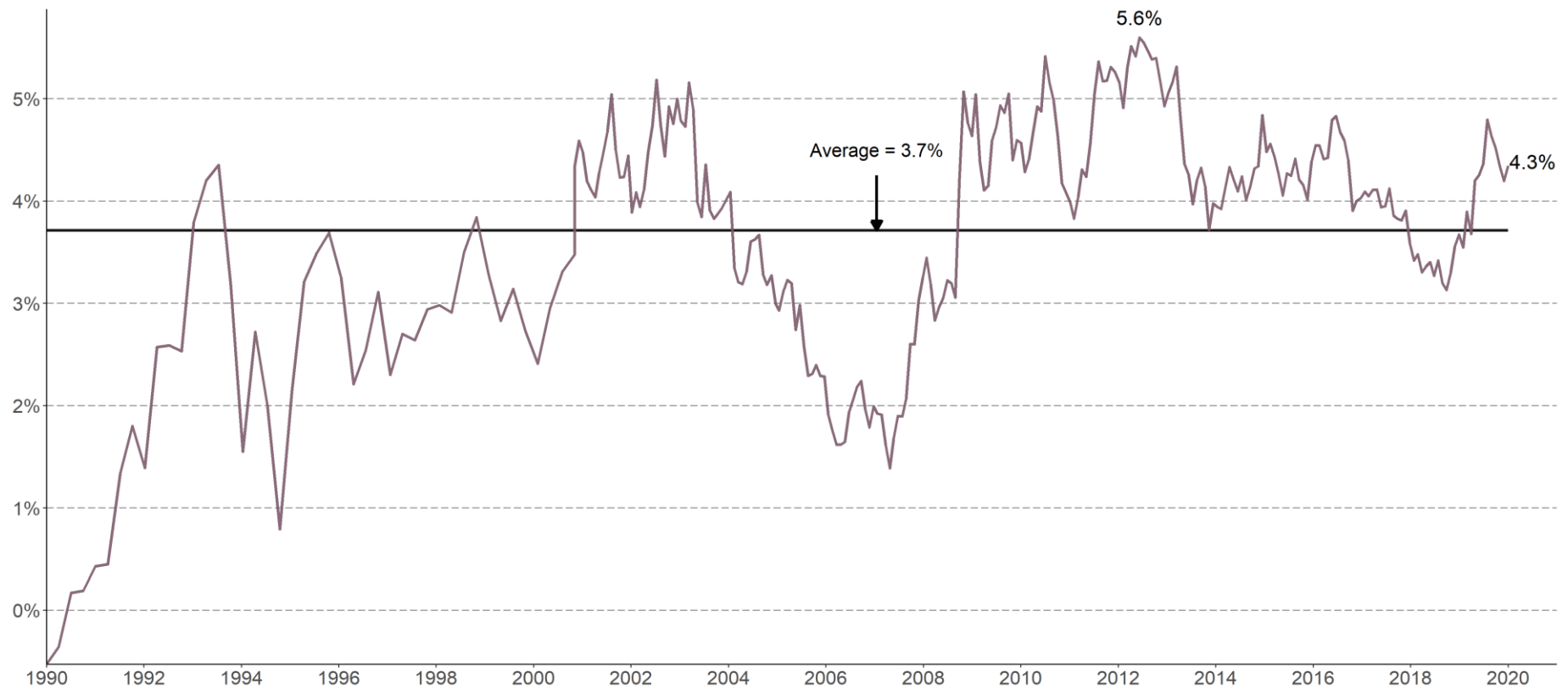


- This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

² Annual figures, except for 2019 (YTD).

Core Real Estate Spread vs. Ten-Year Treasury¹ (As of December 31, 2019)



- This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.

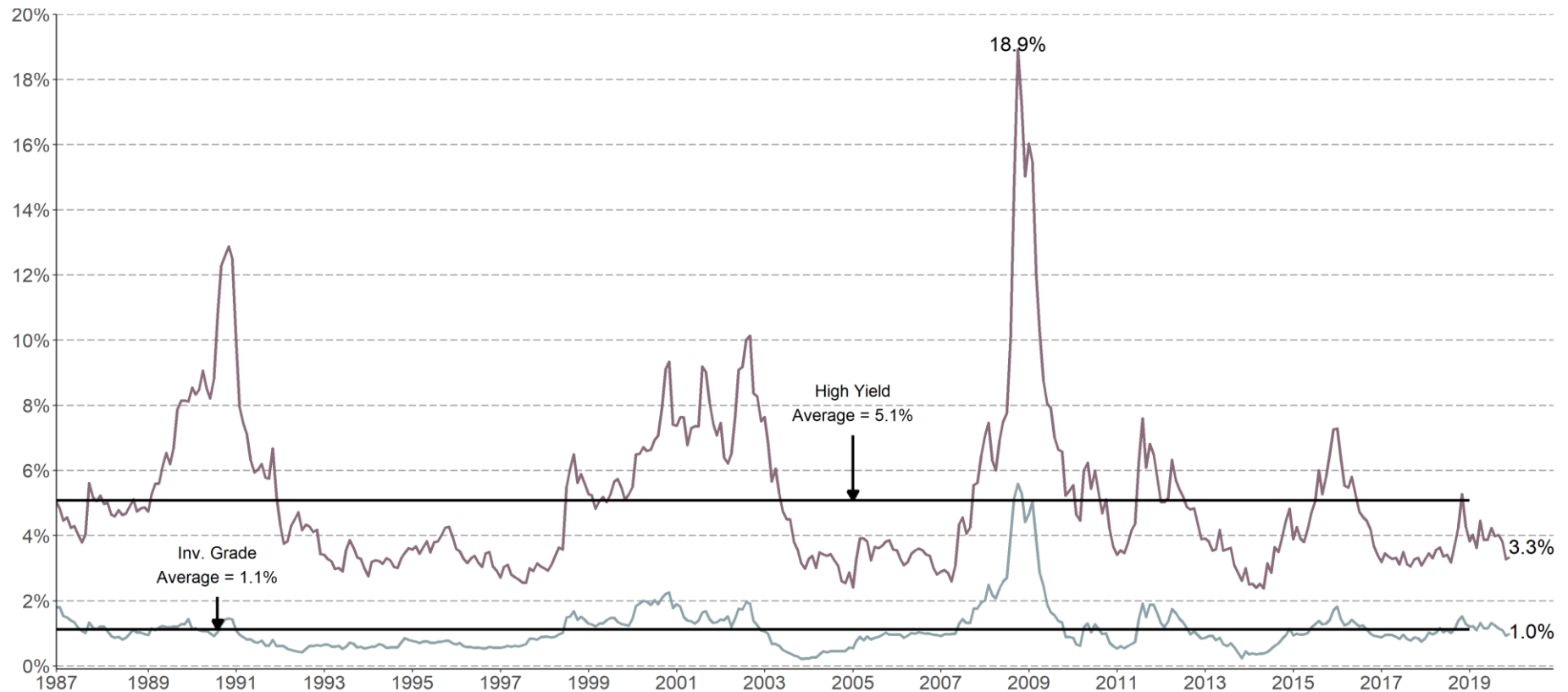
REITs Dividend Yield Spread vs. Ten-Year Treasury¹ (As of December 31, 2019)



- This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity index.

Credit Spreads¹ (As of December 31, 2019)



- This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade index.

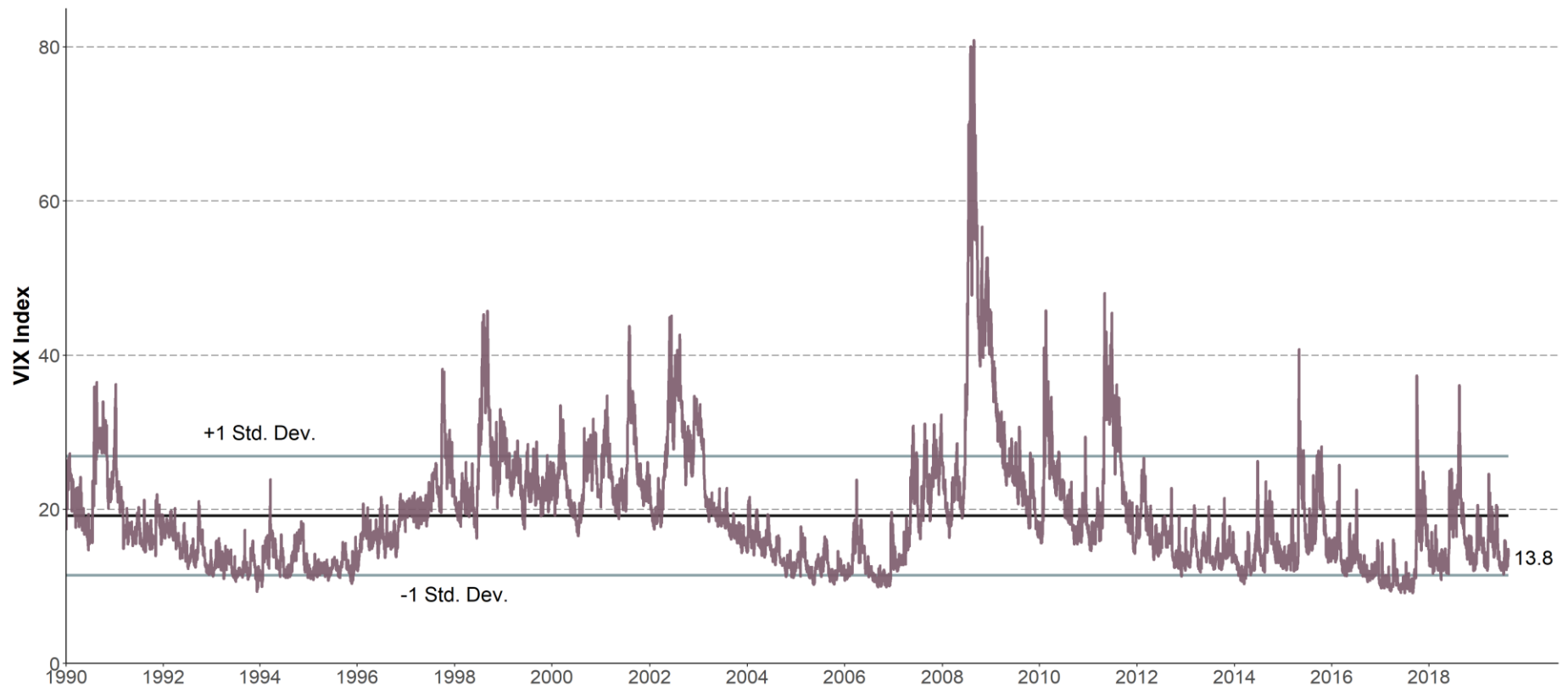
Emerging Market Debt Spreads¹ (As of December 31, 2019)



- This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.

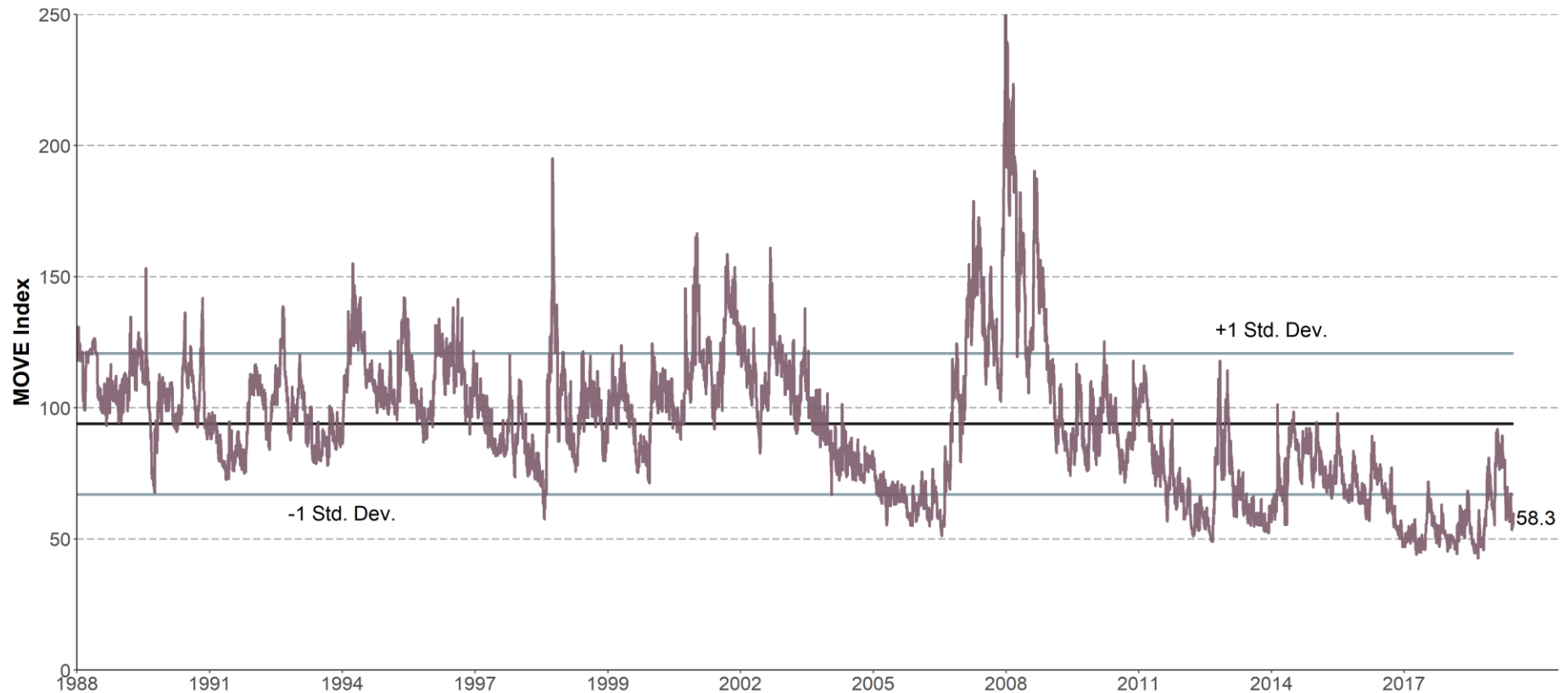
Equity Volatility ¹ (As of December 31, 2019)



- This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

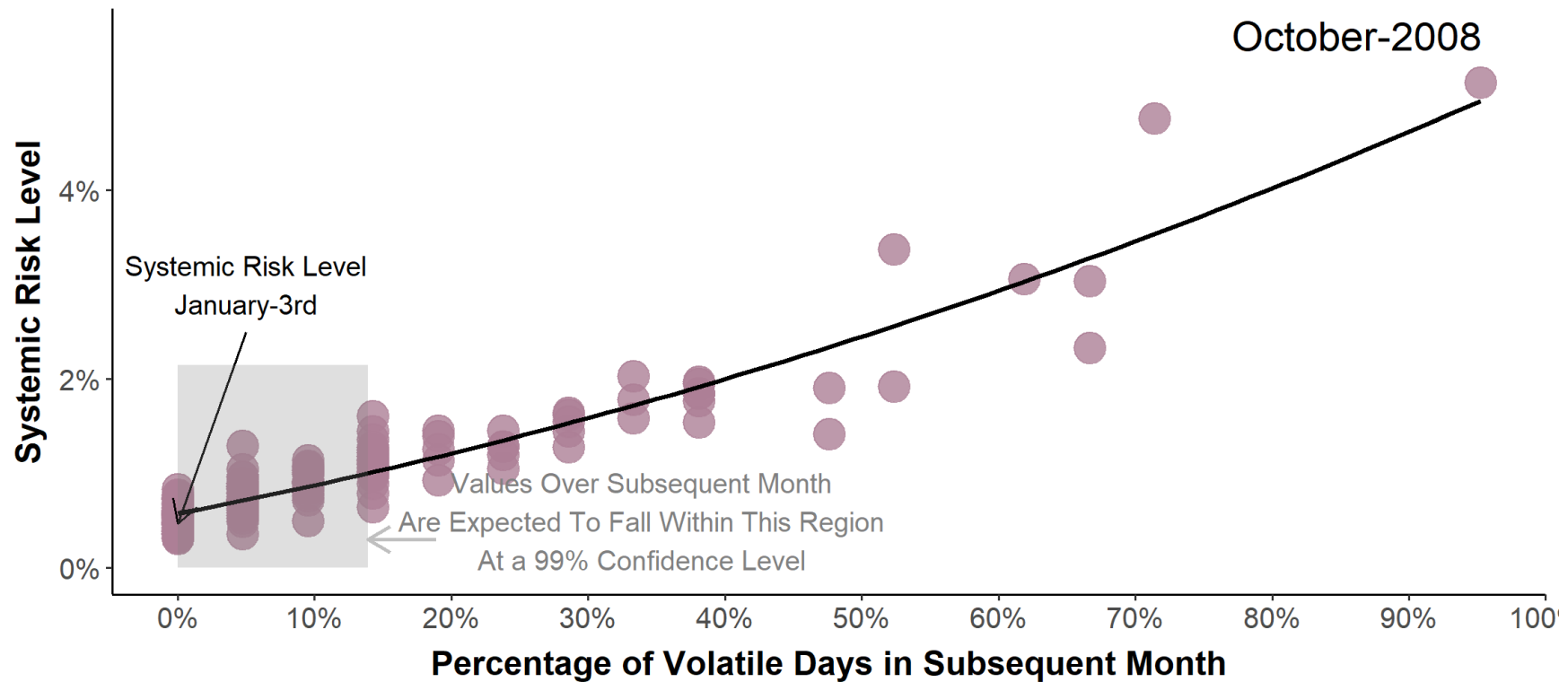
Fixed Income Volatility ¹ (As of December 31, 2019)



- This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

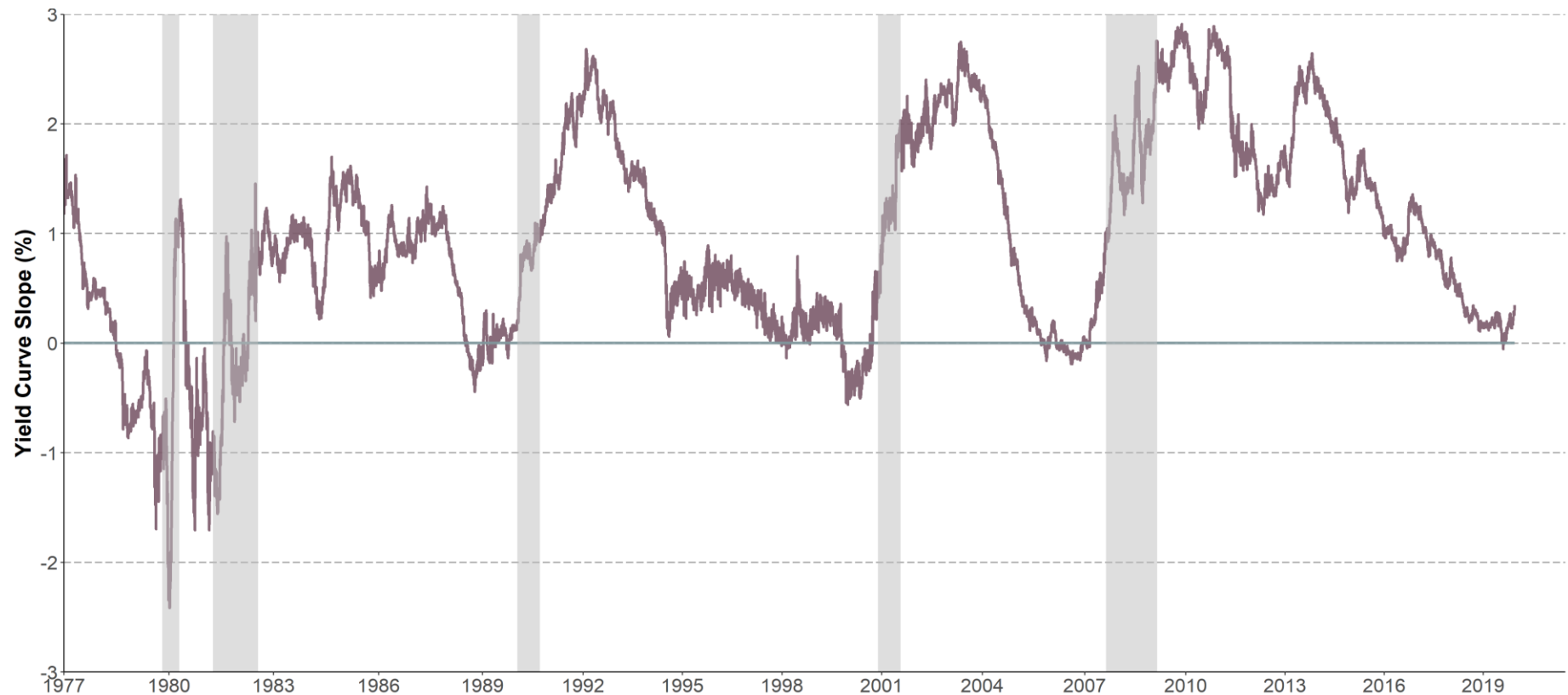
Systemic Risk and Volatile Market Days¹ (As of January 3, 2020)



- Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

¹ Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

Yield Curve Slope (Ten Minus Two)¹ (As of December 31, 2019)



- This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

¹ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

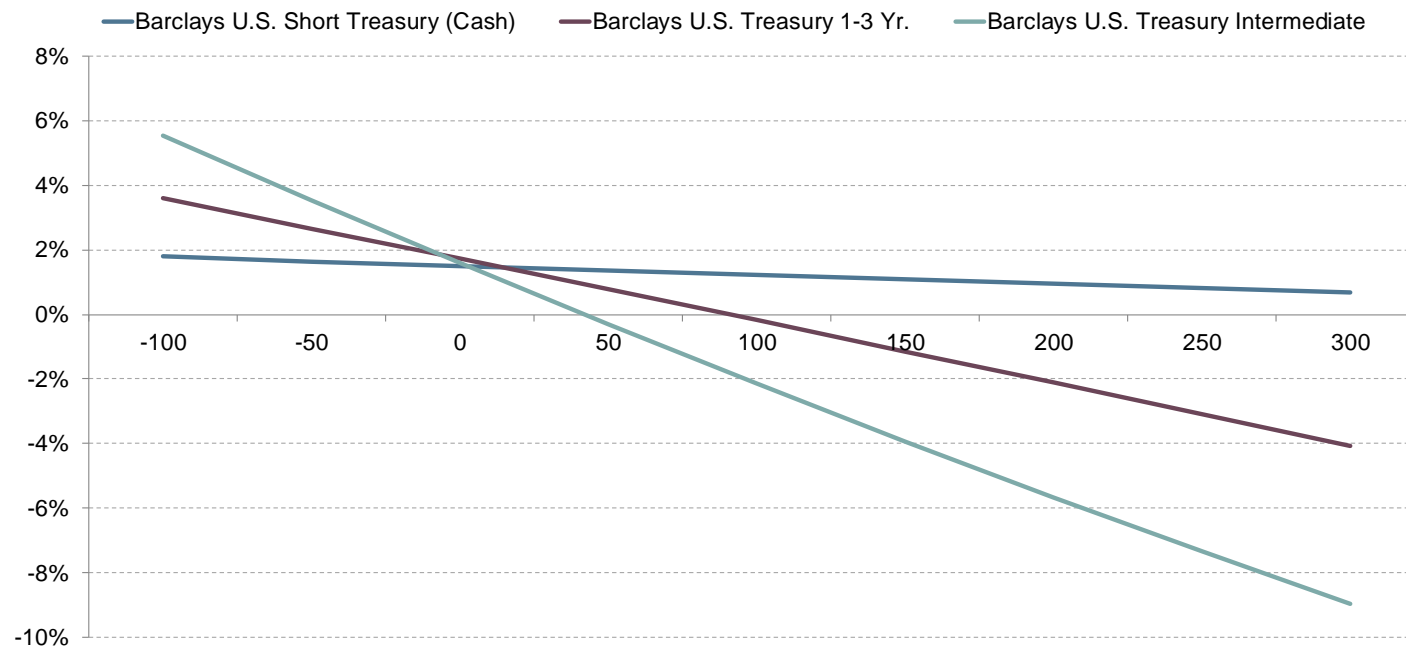
Ten-Year Breakeven Inflation¹ (As of December 31, 2019)



- This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

¹ Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

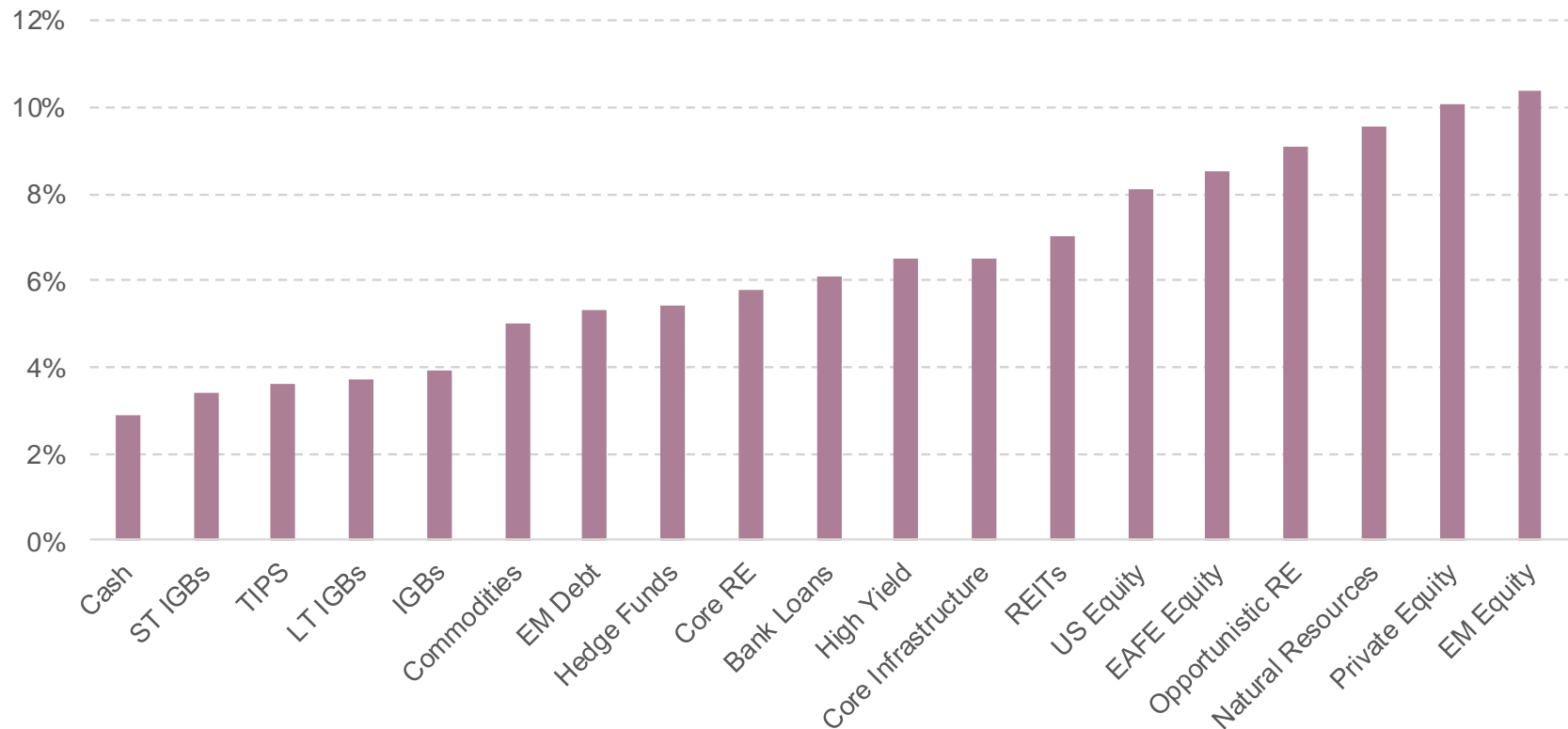
Total Return Given Changes in Interest Rates (bps)¹ (As of December 31, 2019)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	1.9%	1.8%	1.7%	1.5%	1.4%	1.2%	1.1%	1.0%	0.8%	0.7%	0.28
Barclays US Treasury 1-3 Yr.	4.5%	3.6%	2.7%	1.7%	0.8%	-0.2%	-1.1%	-2.1%	-3.1%	-4.1%	1.89
Barclays US Treasury Intermediate	7.6%	5.6%	3.6%	1.6%	-0.3%	-2.1%	-3.9%	-5.7%	-7.3%	-9.0%	3.85
Barclays US Treasury Long	34.1%	22.4%	11.8%	2.2%	-6.3%	-13.9%	-20.3%	-25.7%	-30.1%	-33.4%	18.15

¹ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns¹



- This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

¹ Source: Meketa Investment Group's 2019 Annual Asset Study.

Appendix

Data Sources and Explanations¹

- US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month “as reported” earnings.
- Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.
- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity index.
- Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade index.

¹ All Data as of December 31, 2019 unless otherwise noted.

Appendix

Data Sources and Explanations¹

- EM Debt Spreads – Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.
- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
- Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
 - Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.
- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.
- Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

¹ All Data as of December 31, 2019 unless otherwise noted.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

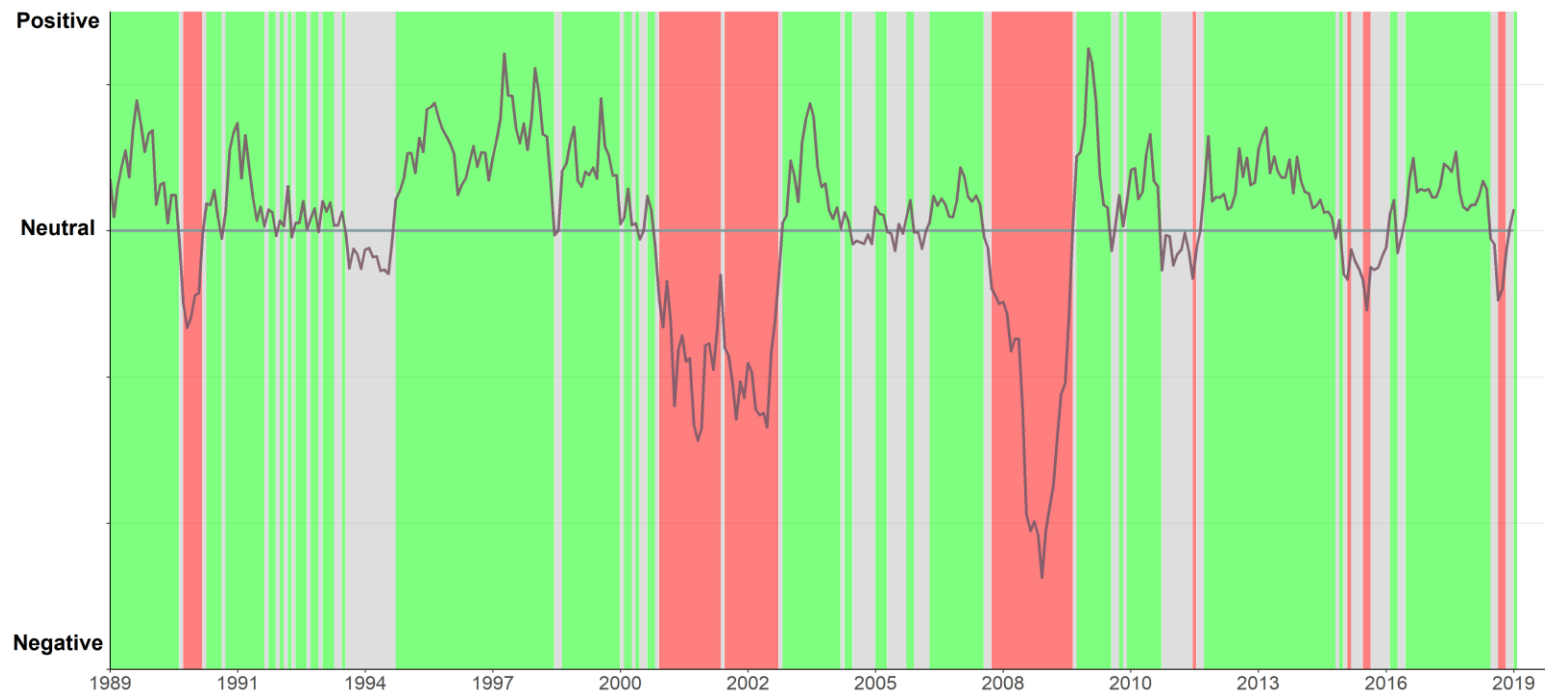
- Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market corrections take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

- The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
 - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
 - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
 - Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure.¹ The color reading on the graph is determined as follows:
 - If both stock return momentum and bond spread momentum are positive = GREEN (positive)
 - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
 - If both stock return momentum and bond spread momentum are negative = RED (negative)

¹ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.
“Time Series Momentum” Moskowitz, Ooi, Pedersen, August 2010. <http://pages.stern.nyu.edu/~lpedersen/papers/TimeSeriesMomentum.pdf>

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

- There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

City of Oakland Police and Fire Retirement System Cash Flow Recommendation Summary

Asset Class / Manager / Liquidity January - March 2020 Report		
		Tier
Domestic Equity	Northern Trust	1
Domestic Equity	SPI	3
Domestic Equity	EARNEST Partners	3
Domestic Equity	Vanguard Russell 2000 Value ETF	3
Domestic Equity	Rice Hall James	3
<i>Total Domestic Equity</i>		
International Equity	Vanguard Developed ETF	3
International Equity	iShares MSCI ACWI ex-US ETF	3
<i>Total International Equity</i>		
<i>Total Public Equity</i>		
Covered Calls	Parametric	2
<i>Total Covered Calls</i>		
Crisis Risk Offset	Long Duration ETF	3
Crisis Risk Offset	Parametric Risk Premia	3
<i>Total Crisis Risk Offset</i>		
Domestic Fixed Income	Reams	2
Credit	DDJ	2
Domestic Fixed Income	Ramirez	2
<i>Total Public Fixed</i>		
Cash	Cash	1
<i>Total Stable</i>		
<i>Total Portfolio</i>		

Description of Liquidity Tiers

<u>Tier</u>	<u>Description</u>	<u>Amount</u>	<u>in Months</u>
Tier 1	Public, Scheduled Withdrawal Allowances	\$96.6	16.1
Tier 2	Public, Accommodating of Withdrawals	140.6	23.4
Tier 3	Public, Must Plan Withdrawals	158.3	26.4
Tier 4	Closely Held	0.0	-
		\$395.6	

City of Oakland Police and Fire Retirement System Cash Flow Recommendation Summary

PFRS Asset Allocation (October 31st Market Values)*					Actual Cash Flows (For Oct - Dec Benefits) Payable the 1st of each month				Suggested Cash Flows (For Jan - Mar Benefits) Payable the 1st of each month			
	Market Value (\$mm)	Market Value (%)	Target (%)	\$ Variance (from basic target)	Inflow	(\$mm)	Outflow	(\$mm)	Inflow	\$mm	Outflow	(\$mm)
Northern Trust	89.8	22.7%	20.0%	10,699,800								(2.0)
SPI	18.1	4.6%	6.0%	(5,612,060)								
EARNEST Partners	31.8	8.0%	8.0%	154,920								
Vanguard Russell 2000 Value ETF	8.1	2.0%	3.0%	(3,809,530)								
Rice Hall James	11.3	2.8%	3.0%	(595,530)								
Total Domestic Equity	159.1	40.2%	40.0%	837,600								
Vanguard Developed ETF	14.3	3.6%	3.6%	51,164								
iShares MSCI ACWI ex-US ETF	34.3	8.7%	8.4%	1,119,716								
Total International Equity	48.6	12.3%	12.0%	1,170,880								
Total Public Equity	207.7	52.5%	52.0%	2,008,480								
Parametric	32.6	8.2%	5.0%	12,828,450			(2.00)					
Total Covered Calls	32.6	8.2%	5.0%	12,828,450								
Long Duration ETF	14.4	3.6%	3.3%	1,165,980							(1.0)	
Parametric Risk Premia	26.1	6.6%	6.7%	(293,803)								
Crisis Risk Offset	40.4	10.2%	10.0%	872,177								
Reams	25.0	6.3%	12.0%	(22,488,120)								
DDJ	7.7	2.0%	2.0%	(195,020)								
Ramirez	75.3	19.0%	19.0%	137,310			(1.0)					
Total Public Fixed	108.0	27.3%	33.0%	(22,545,830)								
Cash	6.8	1.7%	0.0%	6,837,000		10.85	(10.85)			10.85	(10.85)	
Total Stable	114.8	29.0%	33.0%	(15,708,830)								
Total Portfolio	395.6	100.0%	100.0%	---		10.85	(13.85)			10.85	(13.85)	

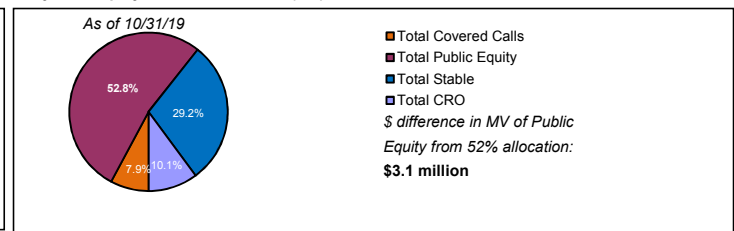
October 31st Market Values by Portfolio Segment

Portfolio Segment	MV (\$mm)
Total Domestic Equity	159.1
Total International Equity	48.6
Total Public Equity	207.7
Total Covered Calls	32.6
Total Crisis Risk Offset	40.4
Total Public Fixed	108.0
Total Stable	114.8
Total Portfolio	395.6

Suggested Cash Withdrawals

Manager	Amount
Cash in Treasury	\$10.85 million
Northern Trust	\$2.00 million
Long Duration ETF	\$1.00 million

Projected Equity to Fixed Allocation (MV)



* Estimated based on PFRS October 31, 2019 Northern Trust statement.

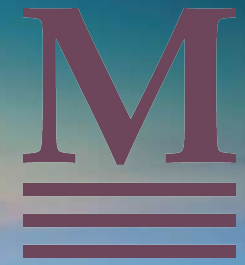
** Preliminary value as of October 31, 2019 per OPFRS staff.

City of Oakland Police and Fire Retirement System Cash Flow Recommendation Summary

Projected PFRS Asset Allocation (As of March 31st)					
	Est Mkt Value (\$mm)	Est Mkt Value (%)	Target (%)	Projected % Variance (from target)	Projected \$ Variance (from target)
Northern Trust	87.8	22.5%	20.0%	2.5%	9,899,800
SPI	18.1	4.7%	6.0%	-1.3%	(5,252,060)
EARNEST Partners	31.8	8.2%	8.0%	0.2%	634,920
Vanguard Russell 2000 Value ETF	8.1	2.1%	3.0%	-0.9%	(3,629,530)
Rice Hall James	11.3	2.9%	3.0%	-0.1%	(415,530)
Total Domestic Equity	157.1	40.3%	40.0%	0.3%	1,237,600
Vanguard Developed ETF	14.3	3.7%	3.6%	0.1%	267,164
iShares MSCI ACWI ex-US ETF	34.3	8.8%	8.4%	0.4%	1,623,716
Total International Equity	48.6	12.5%	12.0%	0.5%	1,890,880
Total Public Equity	205.7	52.8%	52.0%	0.8%	3,128,480
Parametric	30.6	7.9%	5.0%	2.9%	11,128,450
Total Covered Calls	30.6	7.9%	5.0%	2.9%	11,128,450
Long Duration ETF	13.4	3.4%	3.3%	0.1%	365,980
Parametric Risk Premia	26.1	6.7%	6.7%	0.0%	106,193
Total Crisis Risk Offset	39.4	10.1%	10.0%	0.1%	472,173
Reams	25.0	6.4%	12.0%	-5.6%	(21,768,120)
DDJ	7.7	2.0%	2.0%	0.0%	(75,020)
Ramirez	74.3	19.1%	19.0%	0.1%	277,310
Total Public Fixed	107.0	27.5%	33.0%	-5.5%	(21,565,830)
Cash	6.8	1.8%	0.0%	1.8%	6,837,000
Total Stable	113.8	29.2%	33.0%	-3.8%	(14,728,830)
Total Portfolio	389.6	100.0%	100.0%	---	---

Notes

- October 31st market values are those listed by Northern Trust.
- Report reflects change in asset allocation and beneficiary payments of rebalancing on a quarterly basis. (Estimated at \$13.85 million per OPFRS).
- Report reflects quarterly City of Oakland contributions of approximately \$10.85 million.
- Current City of Oakland quarterly contribution amount is based on FY 2019/2020 actuarial annual required contribution of \$43.4 million. (City of Oakland contribution was \$46.4 million for FY 2018/2019).
- As of October 31st, the projected public equity portfolio represents 52.8% of the portfolio (\$3.1 million more than the target allocation of 52.0%).



Q3 2019

Oakland Police and Fire Retirement System

Quarterly Report

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5	MANAGER MONITORING / PROBATION LIST
6	INDIVIDUAL MANAGER PERFORMANCE
7	Appendix

TOTAL PORTFOLIO SUMMARY

As of September 30, 2019, the City of Oakland Police and Fire Retirement System (OPFRS) portfolio had an aggregate value of \$391.2 million. This represents a \$6.2 million increase in investment value and (\$3.7) million in benefit payments over the quarter. During the previous one-year period, the OPFRS Total Portfolio decreased in value by (\$0.2) million and withdrew (\$13.9) million for benefit payments.

Asset Allocation Trends

The asset allocation targets (see table on page 21) reflect those as of September 30, 2019. Target weightings reflect the interim phase (CRO = 10%) of the Plan's previously approved asset allocation (effective 5/31/2017).

With respect to policy targets, the portfolio ended the latest quarter **on target International Equity, overweight Covered Calls, Cash, Crisis Risk Offset, and Domestic Equity, while underweight Fixed Income.**

Recent Investment Performance

During the most recent quarter, the OPFRS Total Portfolio generated an absolute return of 1.6%, gross of fees, outperforming its policy benchmark by 20 basis points. The portfolio outperformed its benchmark by 1.4% and 1.0% over the 1- and 3-year periods, respectively, and outperformed by 40 basis points over the 5-year period.

The Total Portfolio outperformed the Median fund's return over the most recent quarter. The Total Portfolio underperformed the Median fund over the 1-year period by (0.5%), but outperformed over the 3- and 5-year periods by 1.8% and 1.2% respectively. Performance differences with respect to the Median Fund continue to be attributed largely to differences in asset allocation.

	Quarter	Fiscal Year	1 Year	3 Year	5 Year
Total Portfolio ¹	1.6	1.6	3.8	9.8	7.6
Policy Benchmark ²	1.4	1.4	2.4	8.8	7.2
Excess Return	0.2	0.2	1.4	1.0	0.4
Reference: Median Fund ³	0.8	0.8	4.3	8.0	6.4
Reference: Total Net of Fees ⁴	1.5	1.5	3.4	9.4	7.3

¹ Gross of Fees. Performance since 2005 includes securities lending.

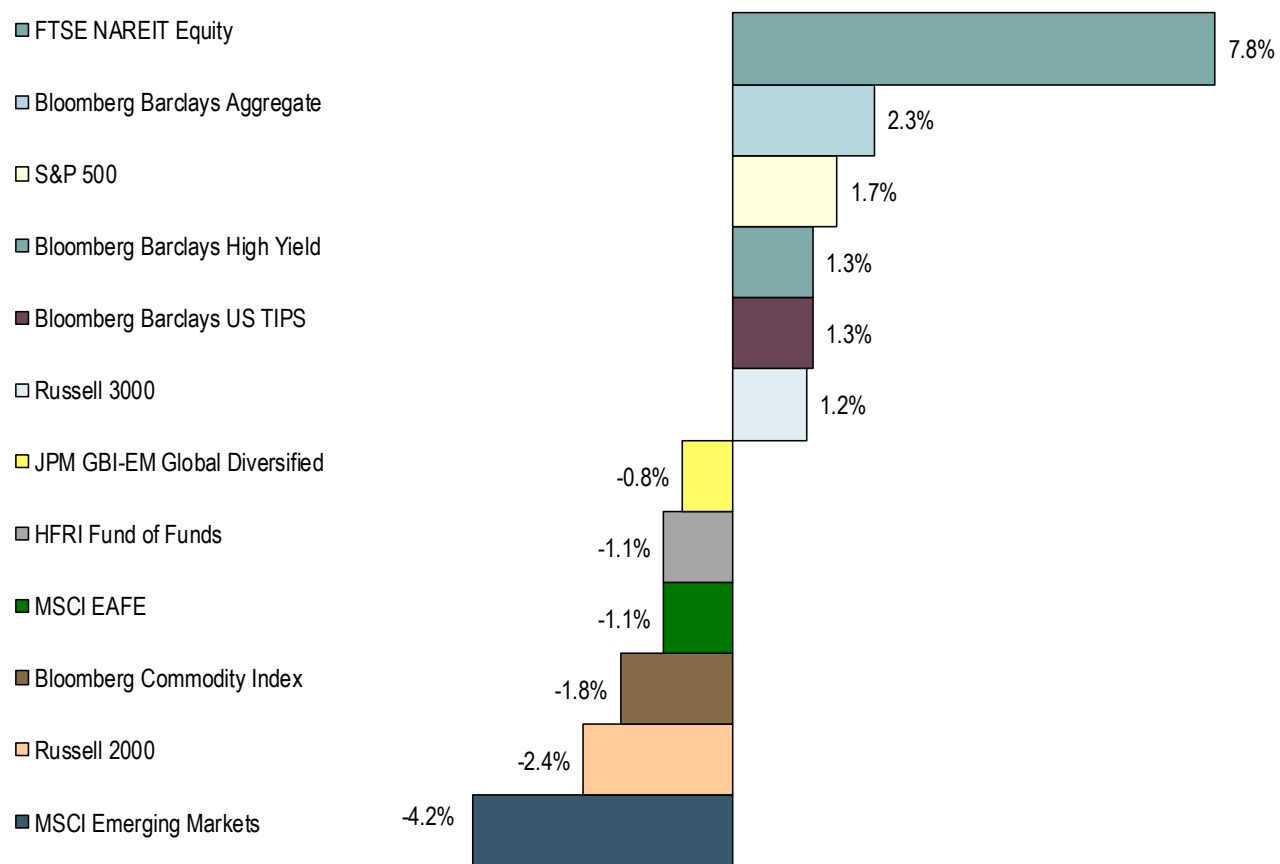
² Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bbg BC Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bbg BC Long Treasury

³ Investment Metrics < \$1 Billion Public Plan Universe.

⁴ Longer-term (>1 year) Net of fee returns are estimated based on OPFRS manager fee schedule (approximately 34 bps)

The World Markets Third Quarter of 2019

The World Markets¹ Third Quarter of 2019



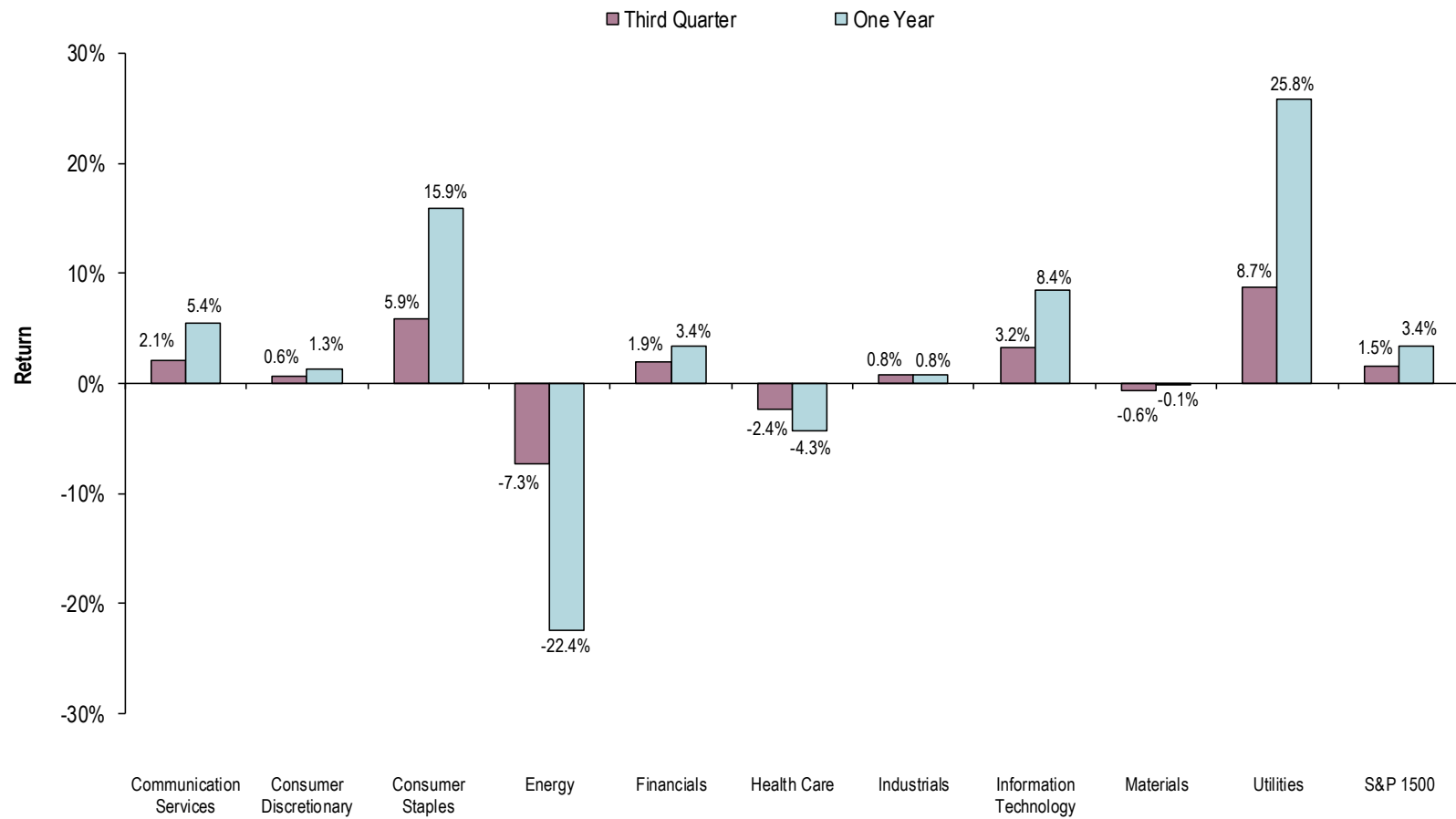
¹ Source: InvestorForce.

Index Returns¹

	3Q19 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity						
S&P 500	1.7	20.6	4.3	13.4	10.8	13.2
Russell 3000	1.2	20.1	2.9	12.8	10.4	13.1
Russell 1000	1.4	20.5	3.9	13.2	10.6	13.2
Russell 1000 Growth	1.5	23.3	3.7	16.9	13.4	14.9
Russell 1000 Value	1.4	17.8	4.0	9.4	7.8	11.5
Russell MidCap	0.5	21.9	3.2	10.7	9.1	13.1
Russell MidCap Growth	-0.7	25.2	5.2	14.5	11.1	14.1
Russell MidCap Value	1.2	19.5	1.6	7.8	7.6	12.3
Russell 2000	-2.4	14.2	-8.9	8.2	8.2	11.2
Russell 2000 Growth	-4.2	15.3	-9.6	9.8	9.1	12.2
Russell 2000 Value	-0.6	12.8	-8.2	6.5	7.2	10.1
Foreign Equity						
MSCI ACWI (ex. US)	-1.8	11.6	-1.2	6.3	2.9	4.5
MSCI EAFE	-1.1	12.8	-1.3	6.5	3.3	4.9
MSCI EAFE (Local Currency)	1.8	15.7	1.6	8.3	6.0	7.0
MSCI EAFE Small Cap	-0.4	12.1	-5.9	5.9	6.0	7.5
MSCI Emerging Markets	-4.2	5.9	-2.0	6.0	2.3	3.4
MSCI Emerging Markets (Local Currency)	-2.1	7.8	-0.2	7.6	5.5	5.9
Fixed Income						
Bloomberg Barclays Universal	2.1	8.8	10.1	3.2	3.6	4.1
Bloomberg Barclays Aggregate	2.3	8.5	10.3	2.9	3.4	3.7
Bloomberg Barclays US TIPS	1.3	7.6	7.1	2.2	2.4	3.5
Bloomberg Barclays High Yield	1.3	11.4	6.4	6.1	5.4	7.9
JPM GBI-EM Global Diversified	-0.8	7.9	10.1	3.1	0.6	2.4
Other						
FTSE NAREIT Equity	7.8	27.0	18.4	7.4	10.3	13.0
Bloomberg Commodity Index	-1.8	3.1	-6.6	-1.5	-7.2	-4.3
HFRI Fund of Funds	-1.1	5.0	-0.2	3.1	1.9	2.7

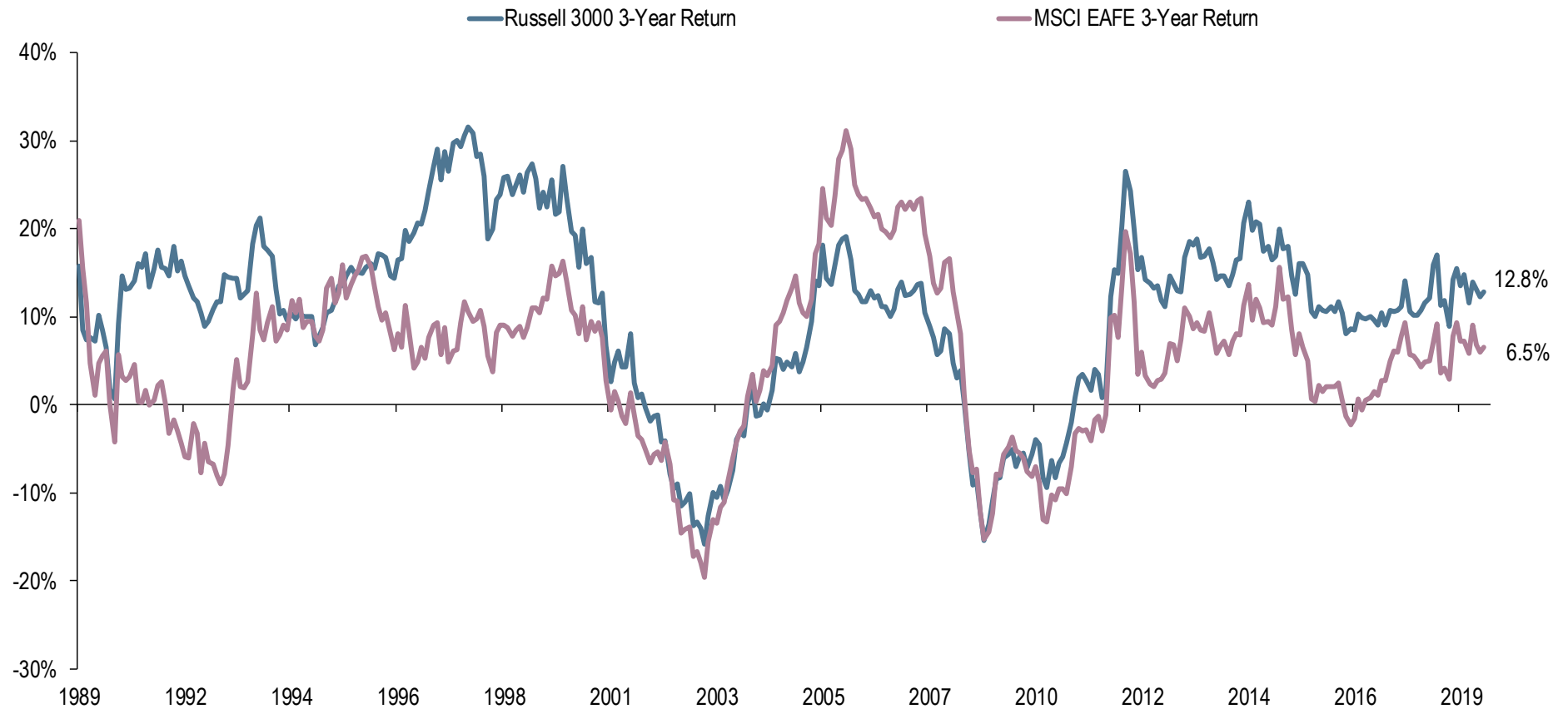
¹ Source: InvestorForce.

S&P Sector Returns¹



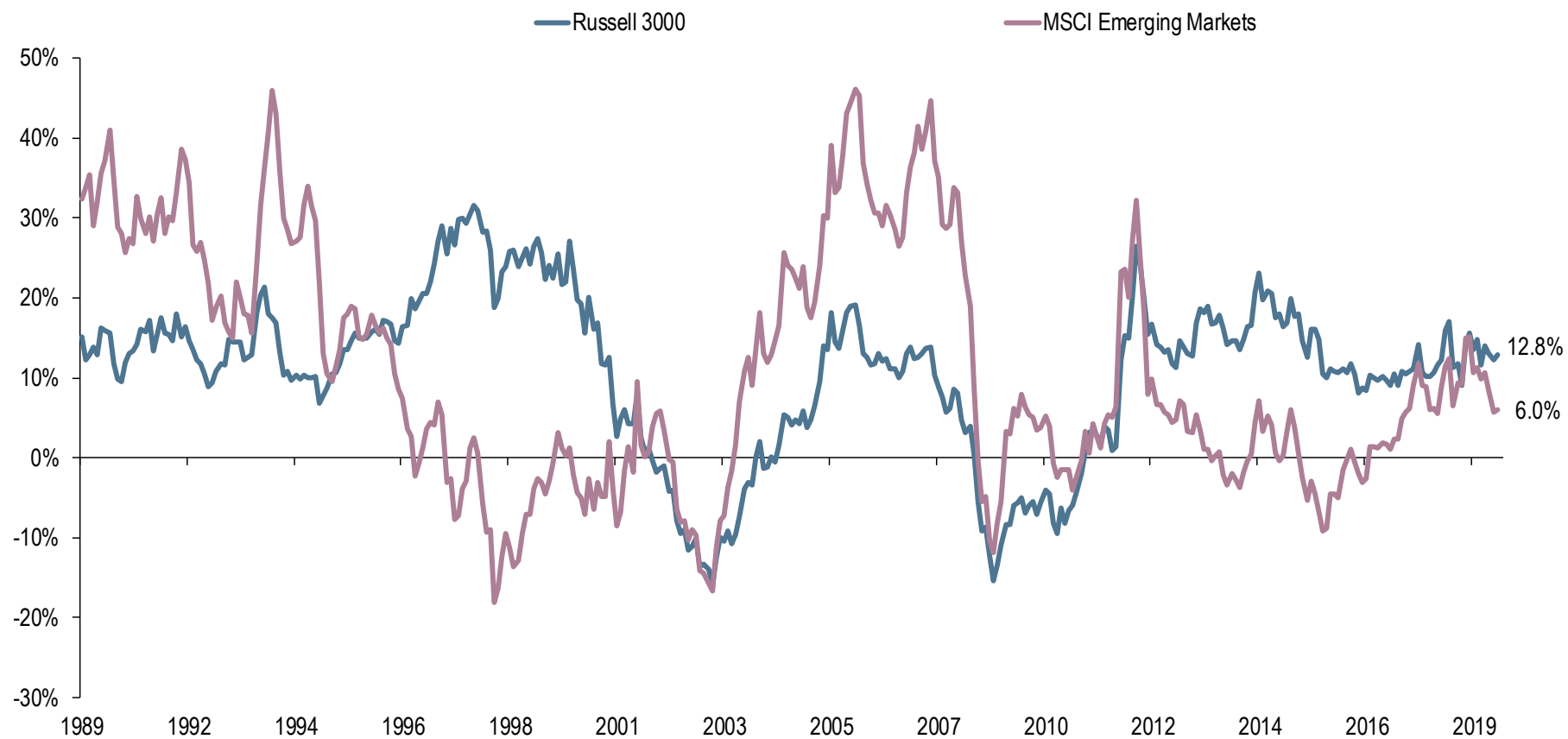
¹ Source: InvestorForce. Represents S&P 1500 (All Cap) data.

US and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

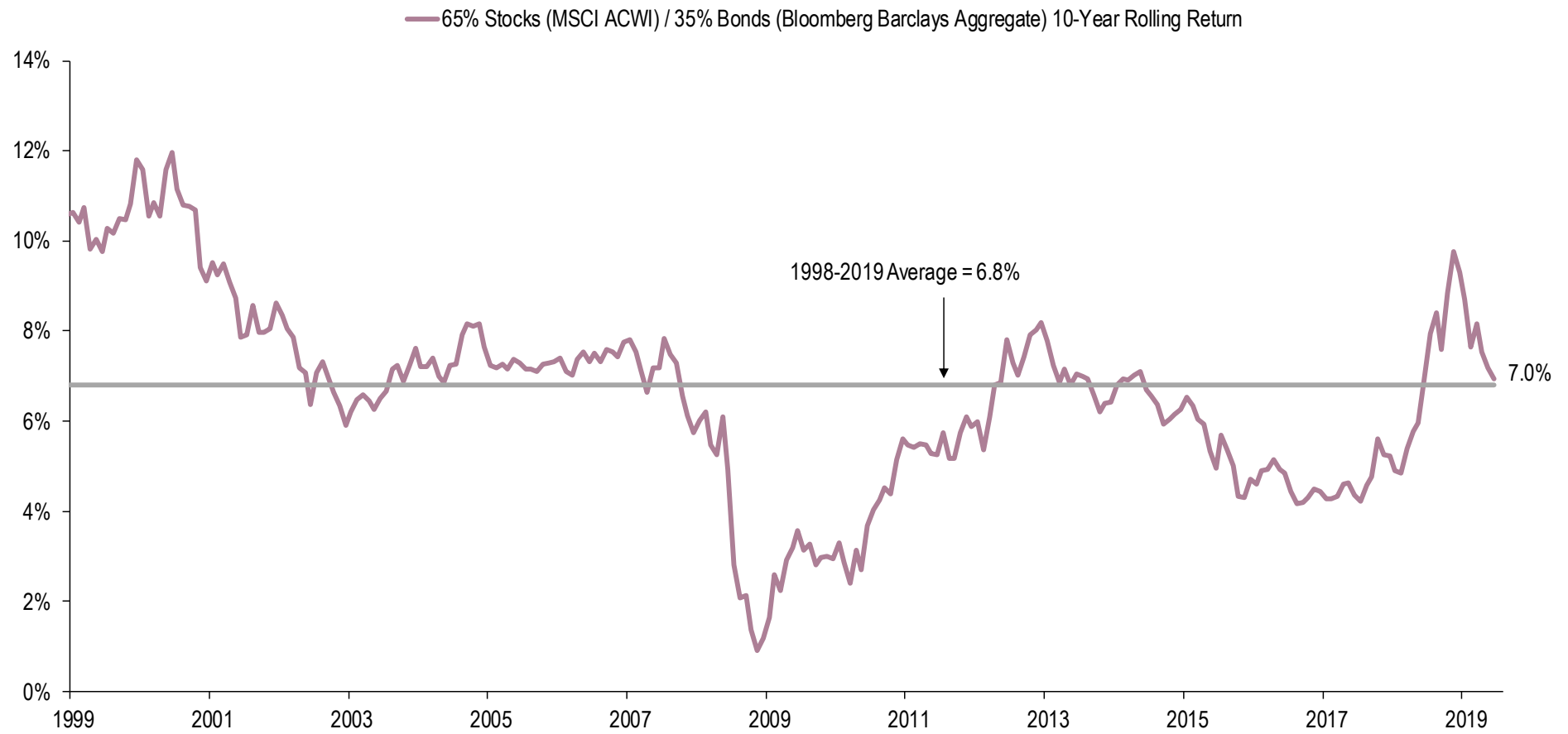
US and Emerging Market Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.



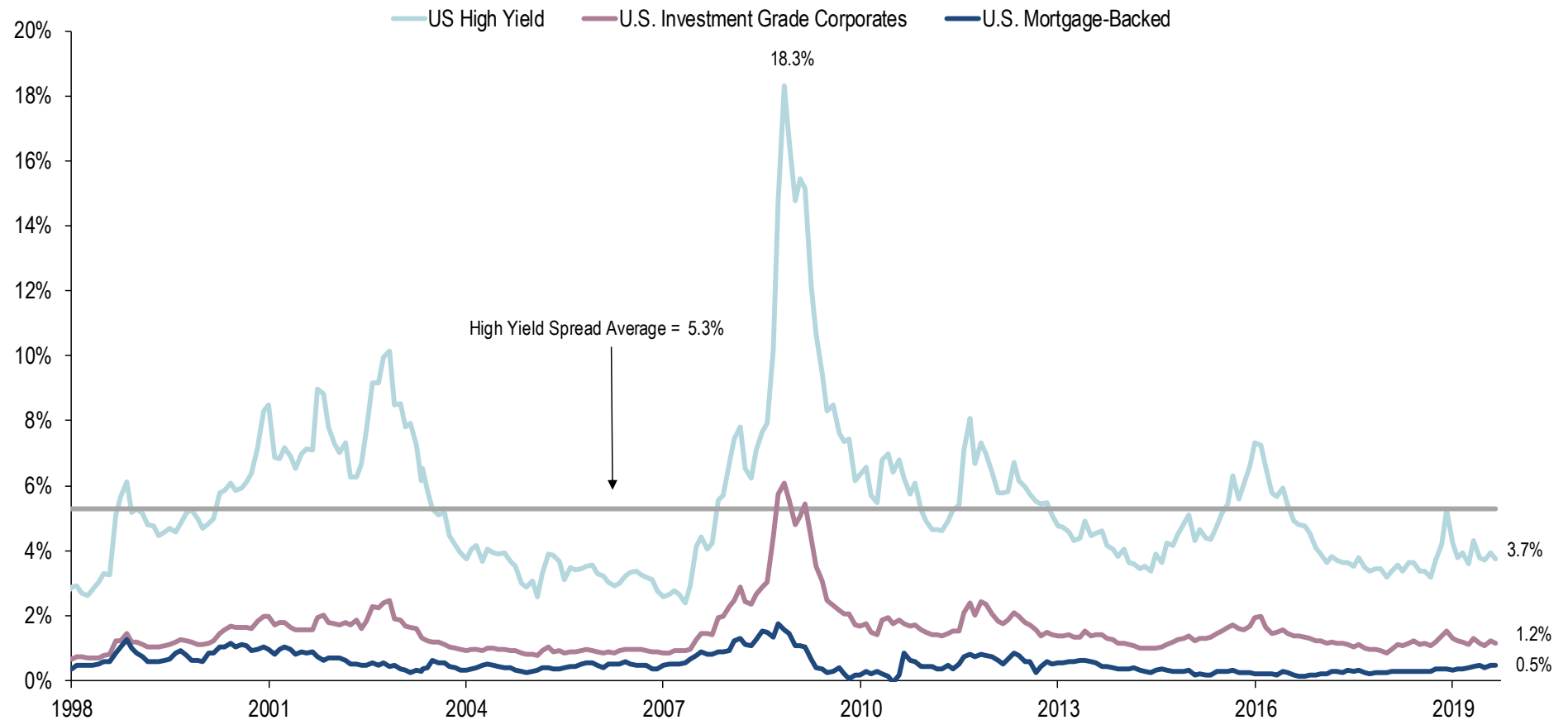
Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹



¹ Source: InvestorForce.



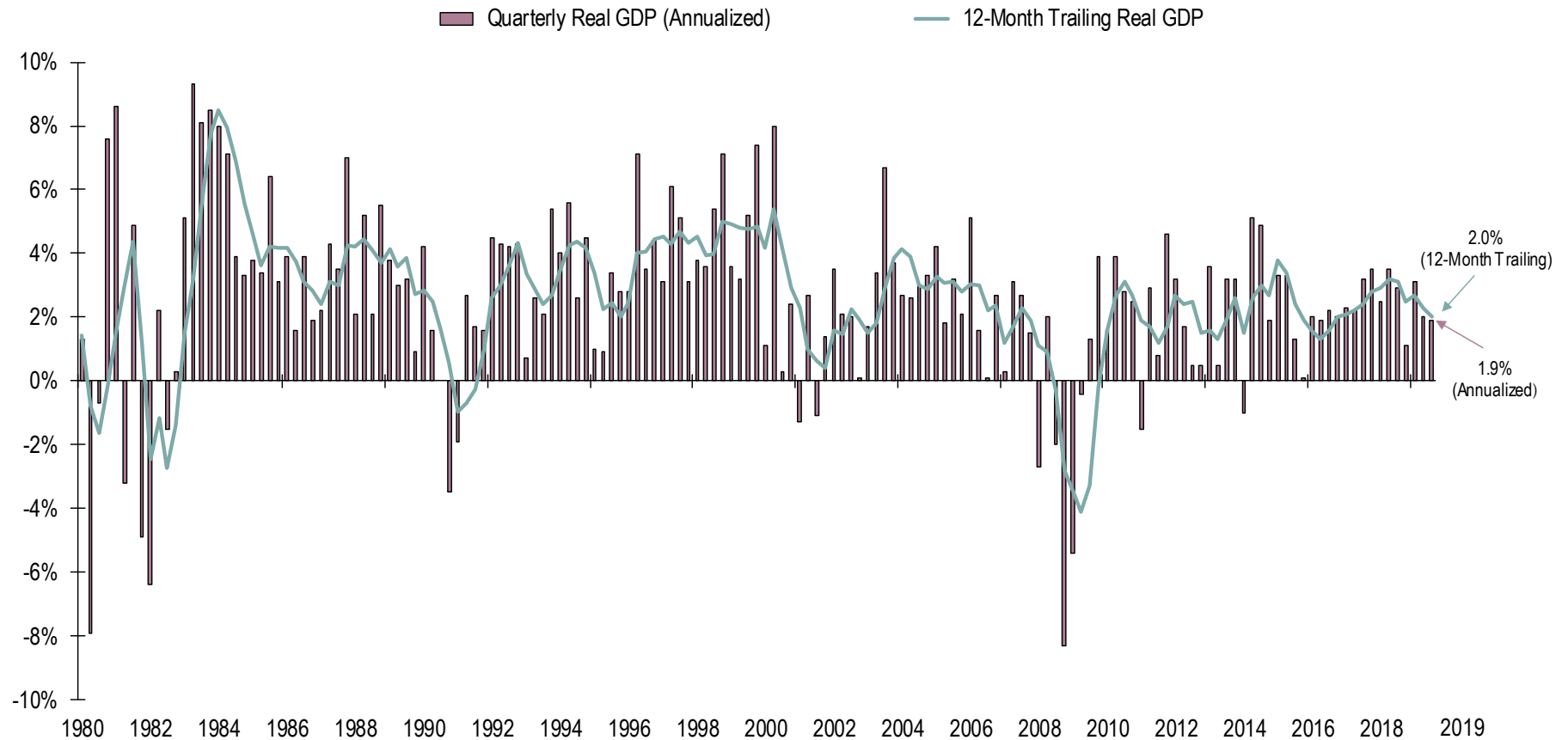
Credit Spreads vs. US Treasury Bonds^{1,2}



¹ Source: Barclays Live.

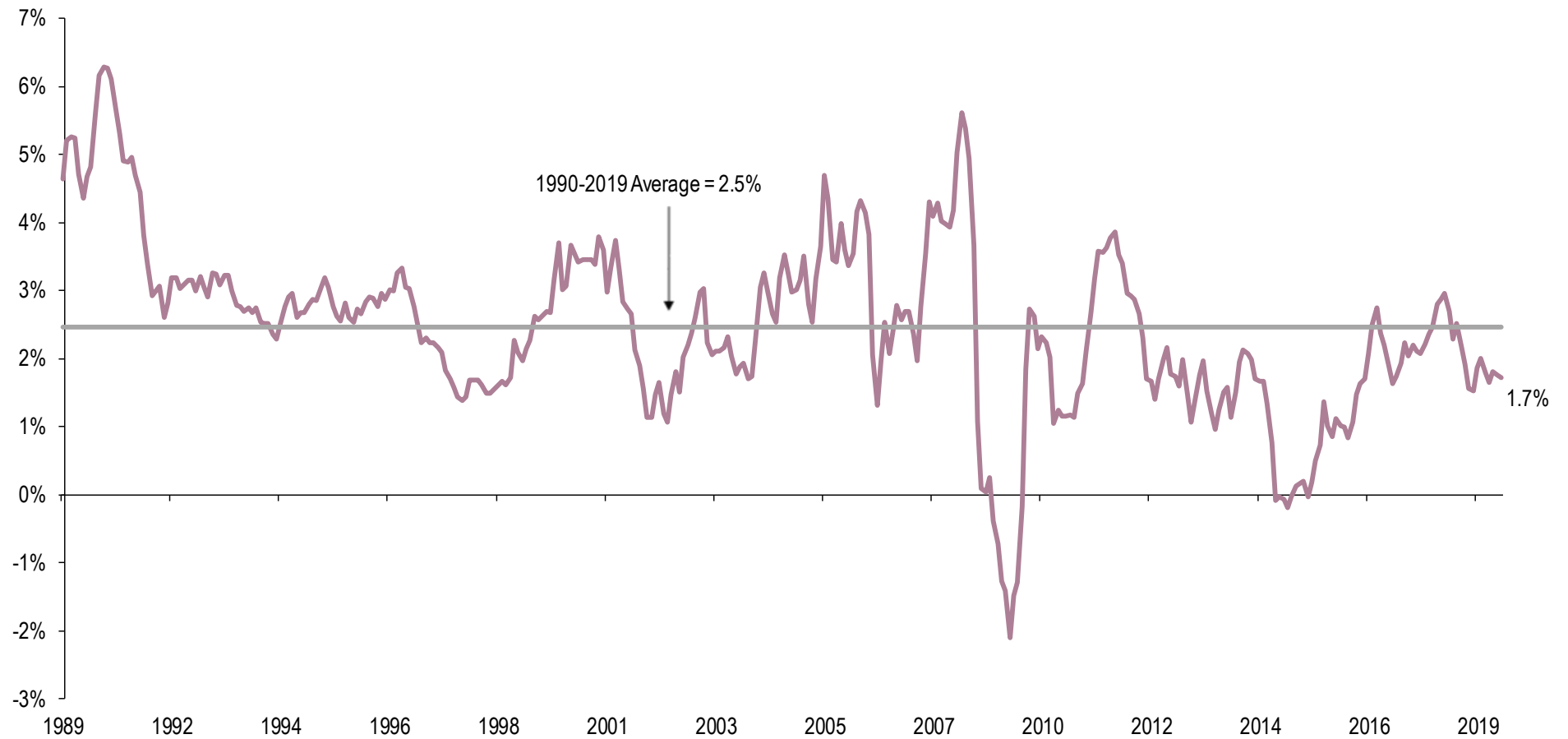
² The median high yield spread was 4.8% from 1997-2019.

US Real Gross Domestic Product (GDP) Growth¹



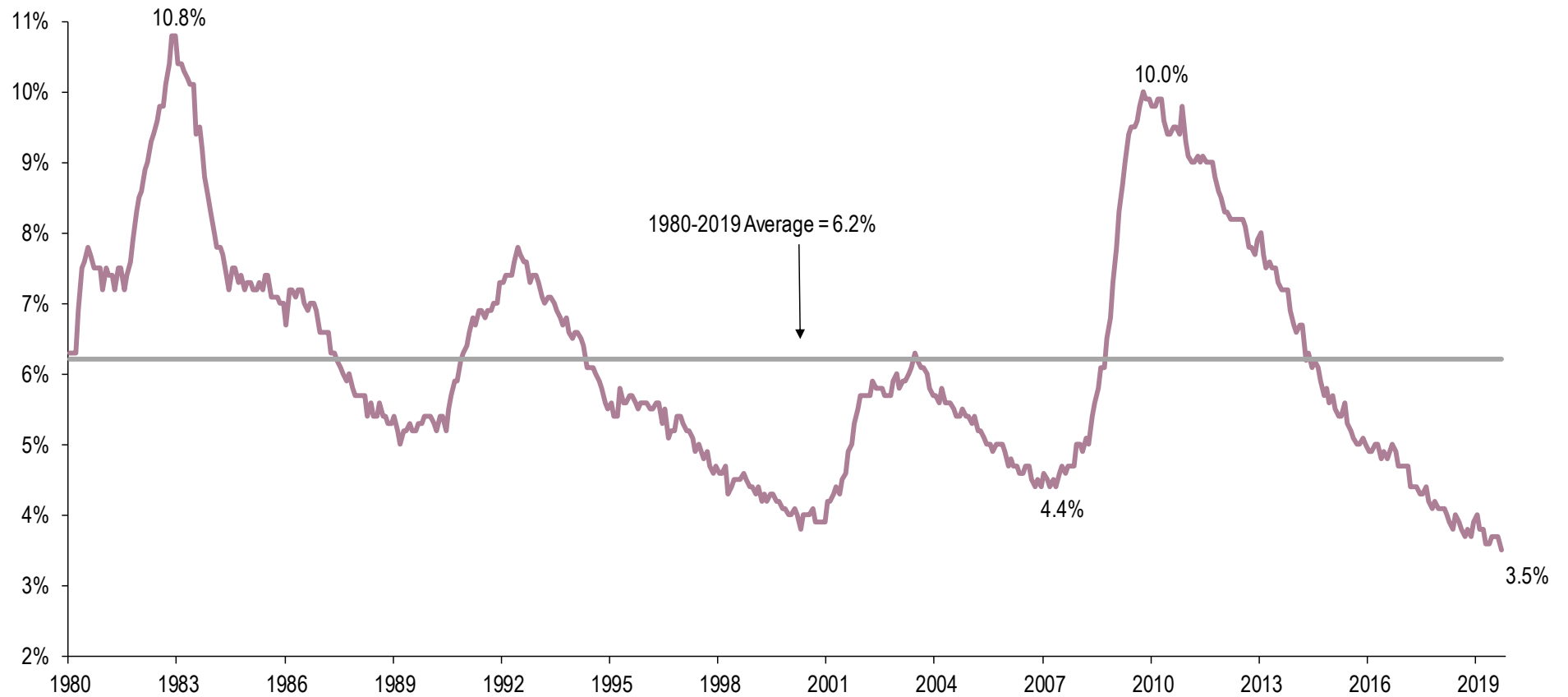
¹ Source: Bureau of Economic Analysis. Data is as of Q3 2019 and represents the first estimate.

US Inflation (CPI) Trailing Twelve Months¹



¹ Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of September 30, 2019.

US Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of September 30, 2019.

Capital Markets Outlook & Risk Metrics

As of September 30, 2019

Capital Markets Outlook

Takeaways

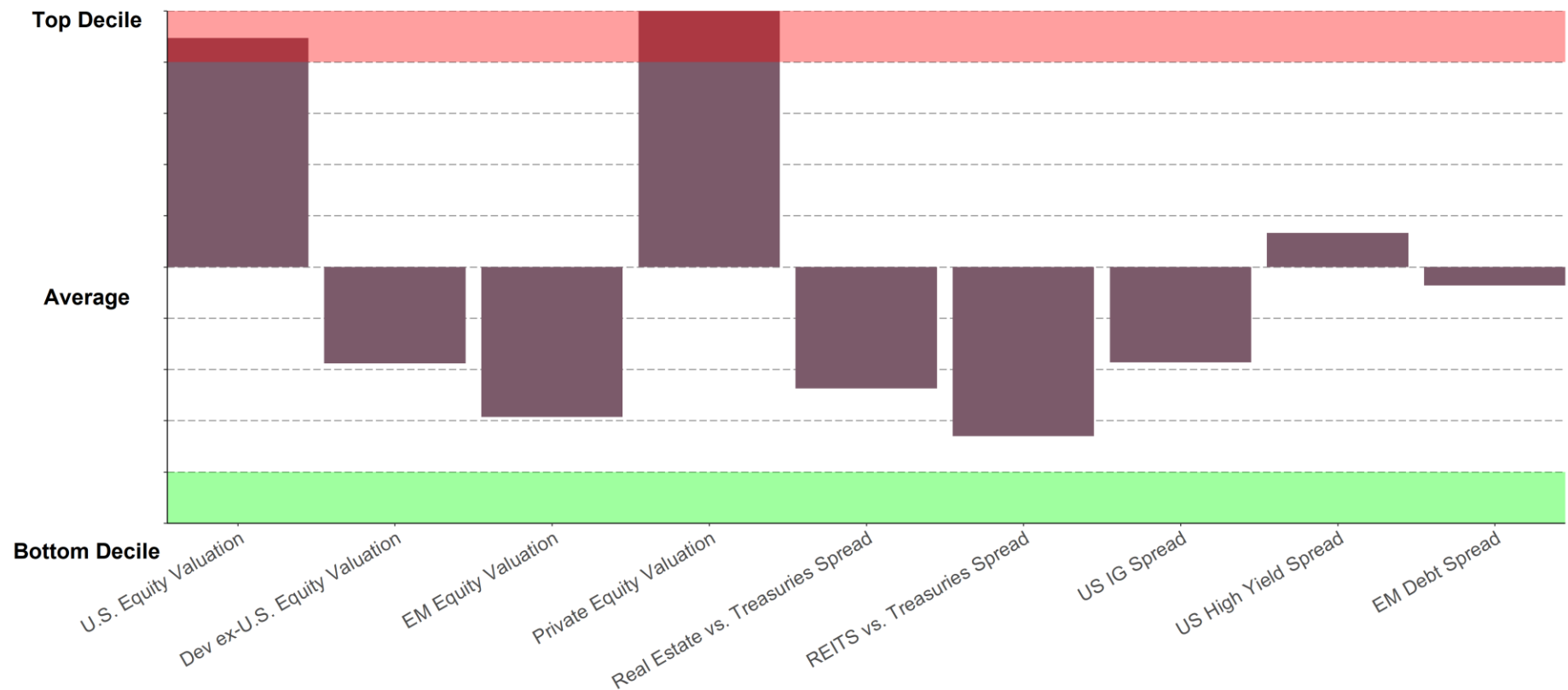
- From a market performance perspective, September was a relatively normal “risk-on” month as most Global Equity markets produced positive returns whereas most sovereign-oriented Fixed Income markets produced negative returns. On a year-to-date basis, however, most indices across Global Equity and Global Fixed Income markets have produced unusually high returns.
- Recent interest rate movements are historically consistent with oncoming recessions. However, economic data remains extremely mixed and shifting political rhetoric regarding global trade has added to short-term uncertainty. In the face of all this, Global Equity markets have continued to deliver positive returns.
- While there continues to be significant discussion regarding interest rates (e.g., yield curve inversions, central bank policy, etc.), the complexity of the current environment has increased what is always an immense challenge for forecasting.
- US Equity markets remain expensive whereas Non-US Equity markets remain reasonably valued relative to their history.
- Implied equity market volatility¹ remained lower than its historical average (≈ 19) throughout the entire month of September, although this metric did steadily rise from mid-month (≈ 13) to the end of the month (≈ 17).
- The Market Sentiment Indicator² stayed at **neutral** at month end.
- Market uncertainty, as measured by Systemic Risk, decreased during September. With that said, recent economic data suggests that the global economy is in a slowing, but not yet recessionary, phase. The potential for negative surprises exists as global economies navigate their respective “late-cycle” dynamics and geopolitical events continue to unfold, as evidenced by recent market movements.
- *New Addition: We incorporated a measure of Fixed Income Volatility to the Dashboard.*

¹ As measured by VIX Index.

² See Appendix for the rationale for selection and calculation methodology used for the risk metrics.



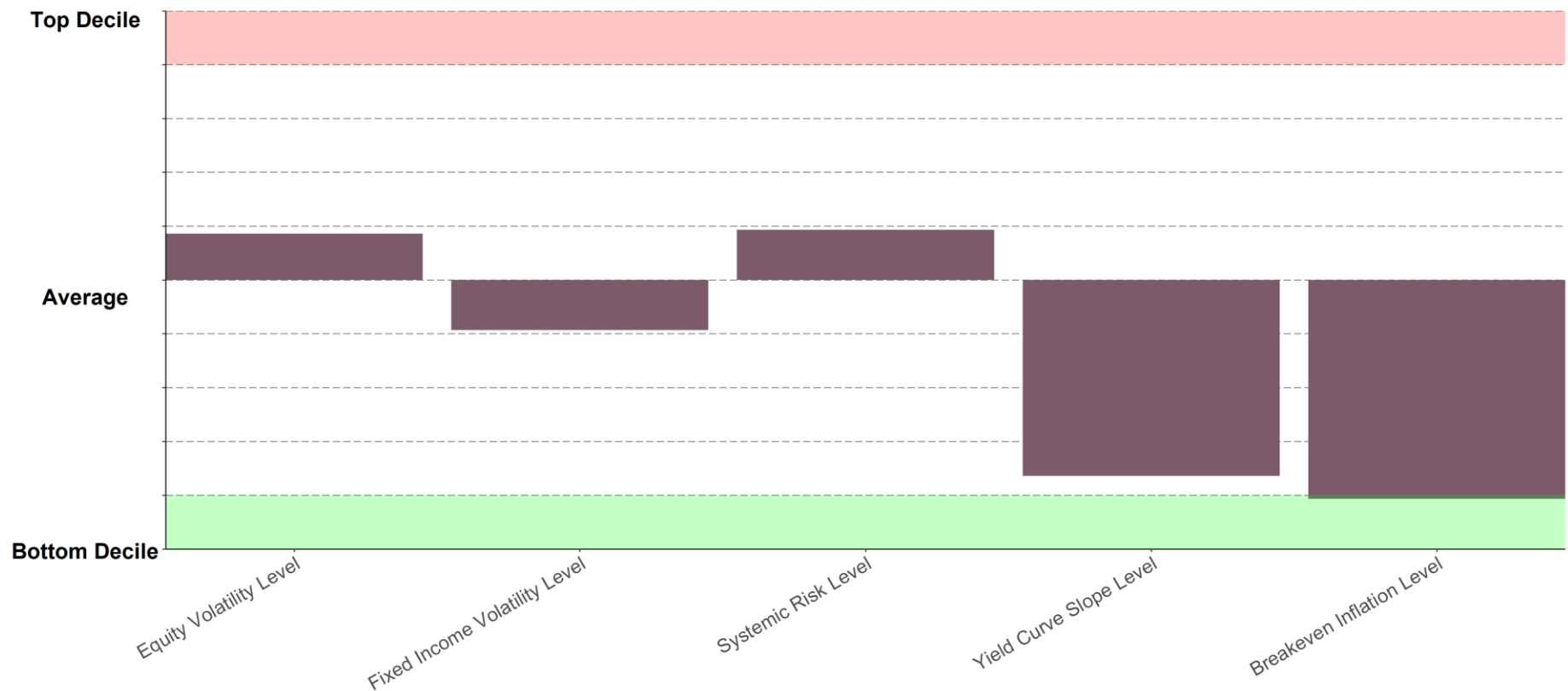
Risk Overview/Dashboard (1) (As of September 30, 2019)¹



- Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

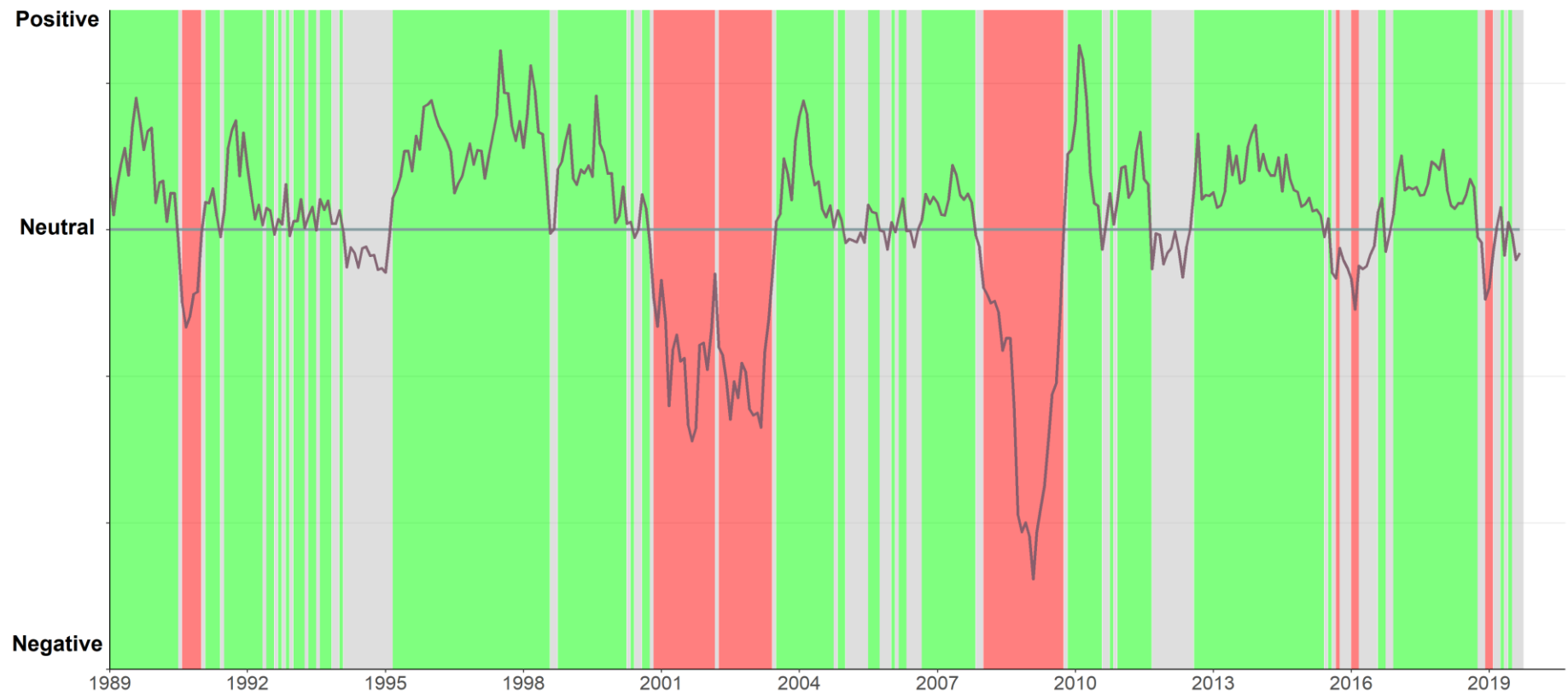
¹ With the exception of Private Equity Valuation that are available annually and data is as of December 31, 2018.

Risk Overview/Dashboard (2) (As of September 30, 2019)

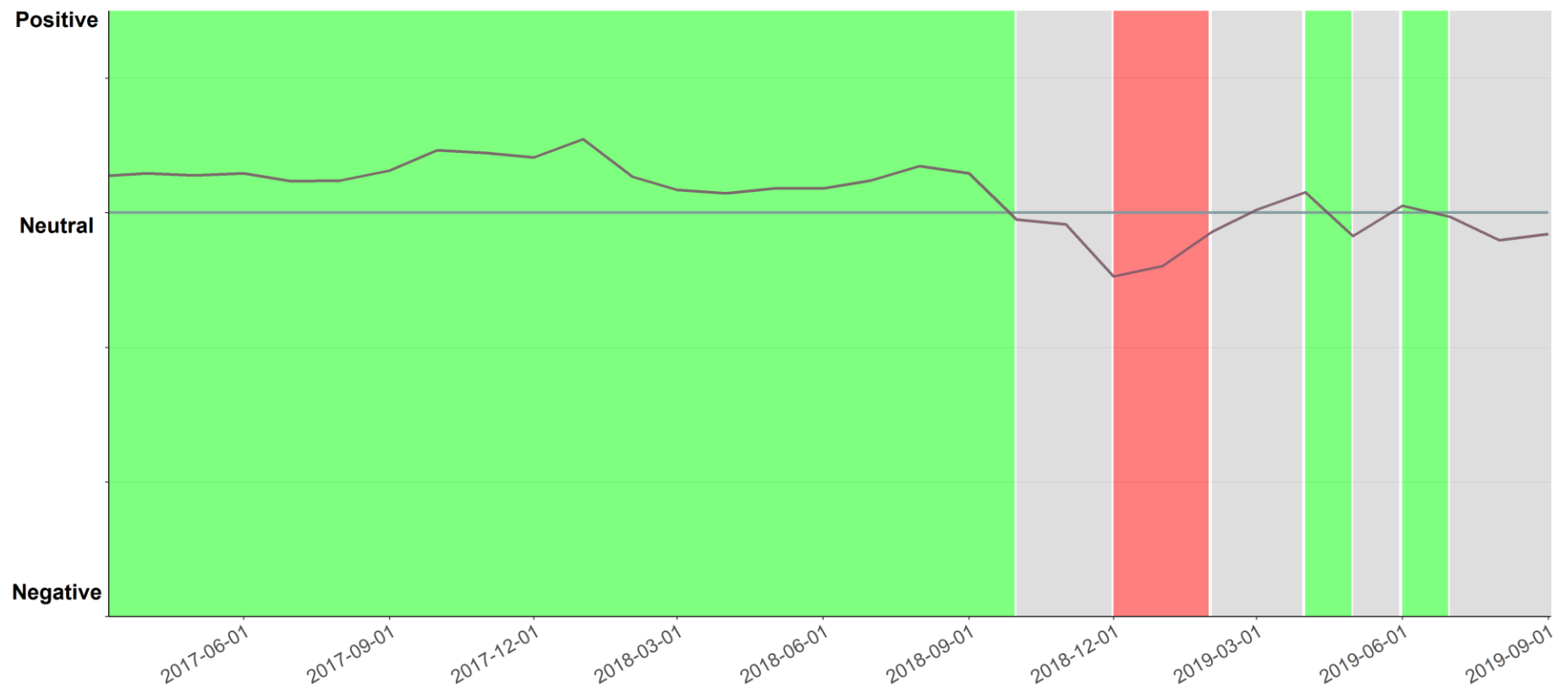


- Dashboard (2) shows how the current level of each indicator compares to its respective history.

Market Sentiment Indicator (All History) (As of September 30, 2019)



Market Sentiment Indicator (Last Three Years) (As of September 30, 2019)



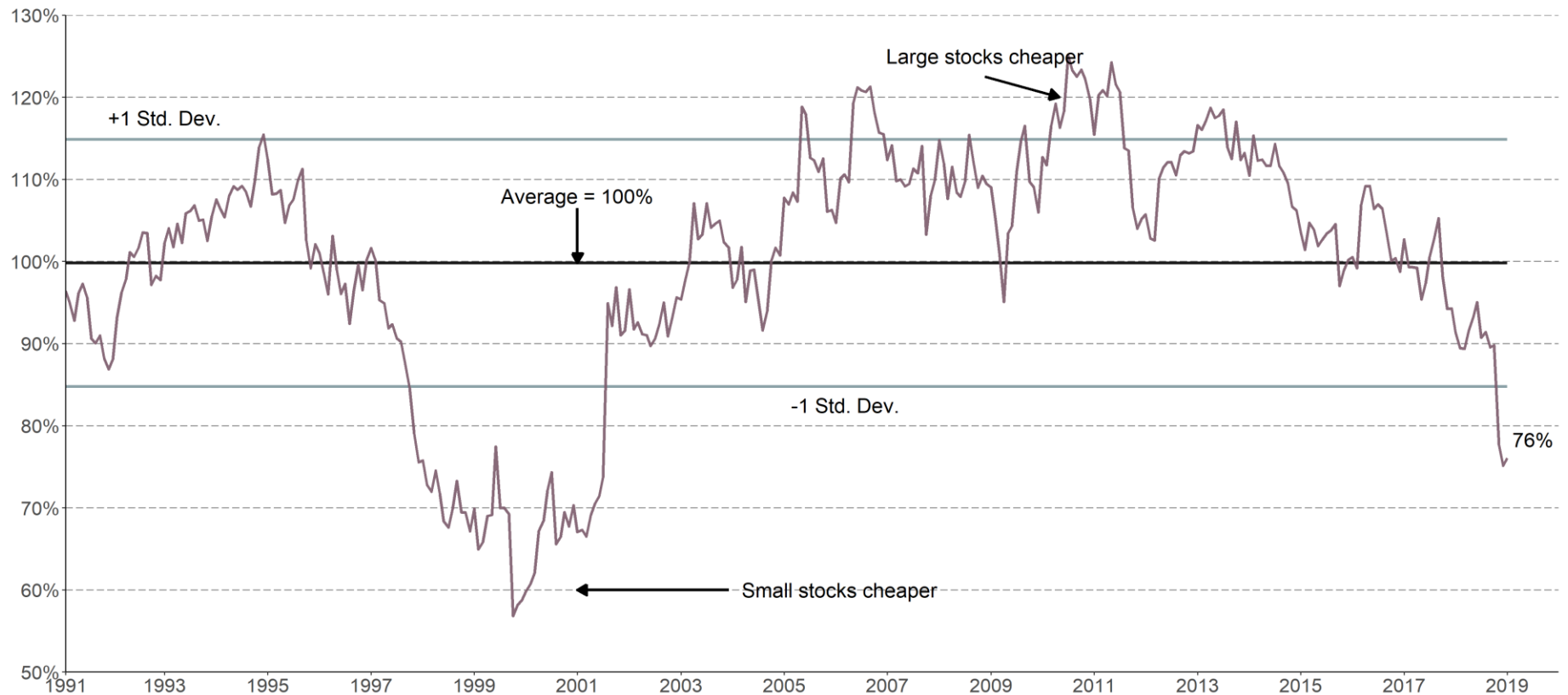
US Equity Cyclically Adjusted P/E¹ (As of September 30, 2019)



- This chart details one valuation metric for US Equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.

Small Cap P/E vs. Large Cap P/E¹ (As of September 30, 2019)



- This chart compares the relative attractiveness of Small Cap US Equities vs. Large Cap US Equities on a valuation basis. A higher (lower) figure indicates that Large Cap (Small Cap) is more attractive.

¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.

Growth P/E vs. Value P/E¹ (As of September 30, 2019)



- This chart compares the relative attractiveness of US Growth Equities vs. US Value Equities on a valuation basis. A higher (lower) figure indicates that Value (Growth) is more attractive.

¹ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E¹ (As of September 30, 2019)



- This chart details one valuation metric for Developed International Equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

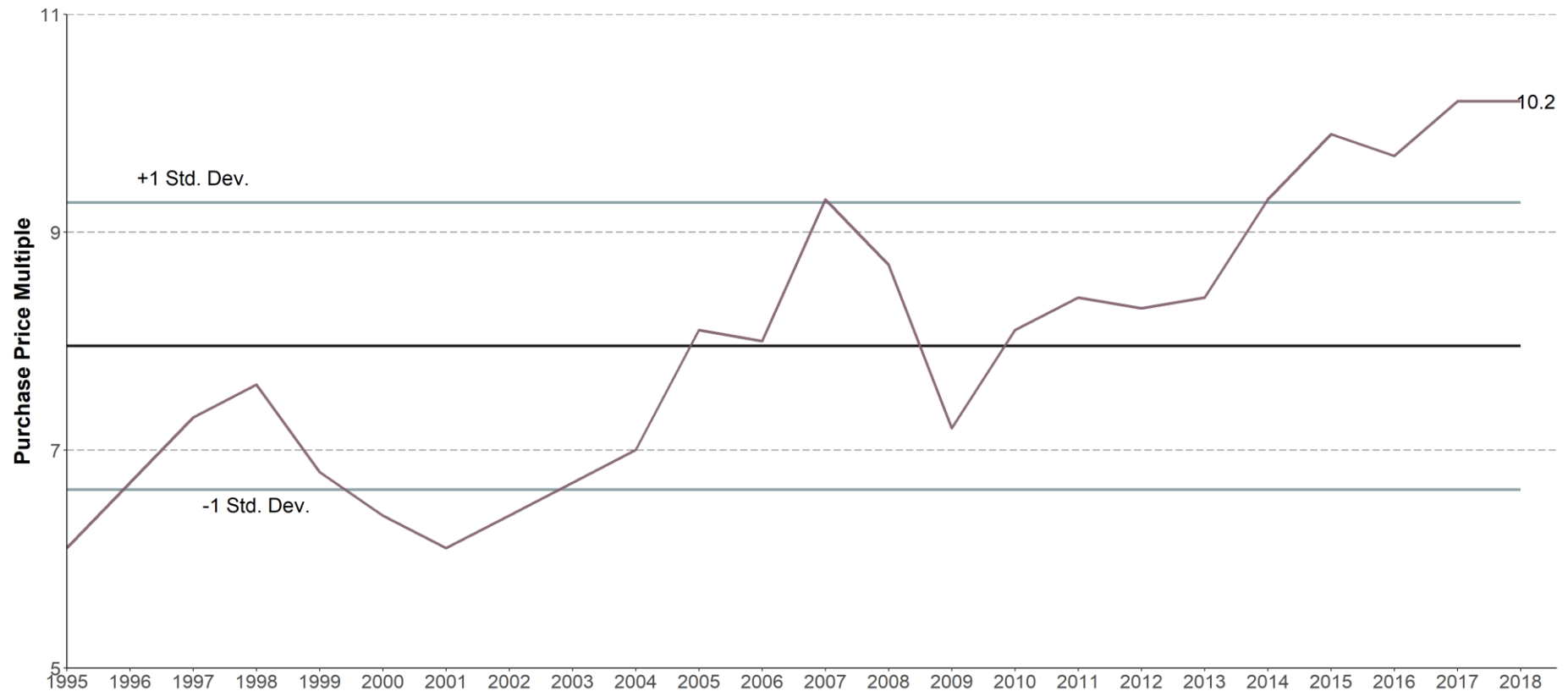
Emerging Market Equity Cyclically Adjusted P/E¹ (As of September 30, 2019)



- This chart details one valuation metric for Emerging Markets Equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

Private Equity Multiples¹ (As of December 31, 2018)²

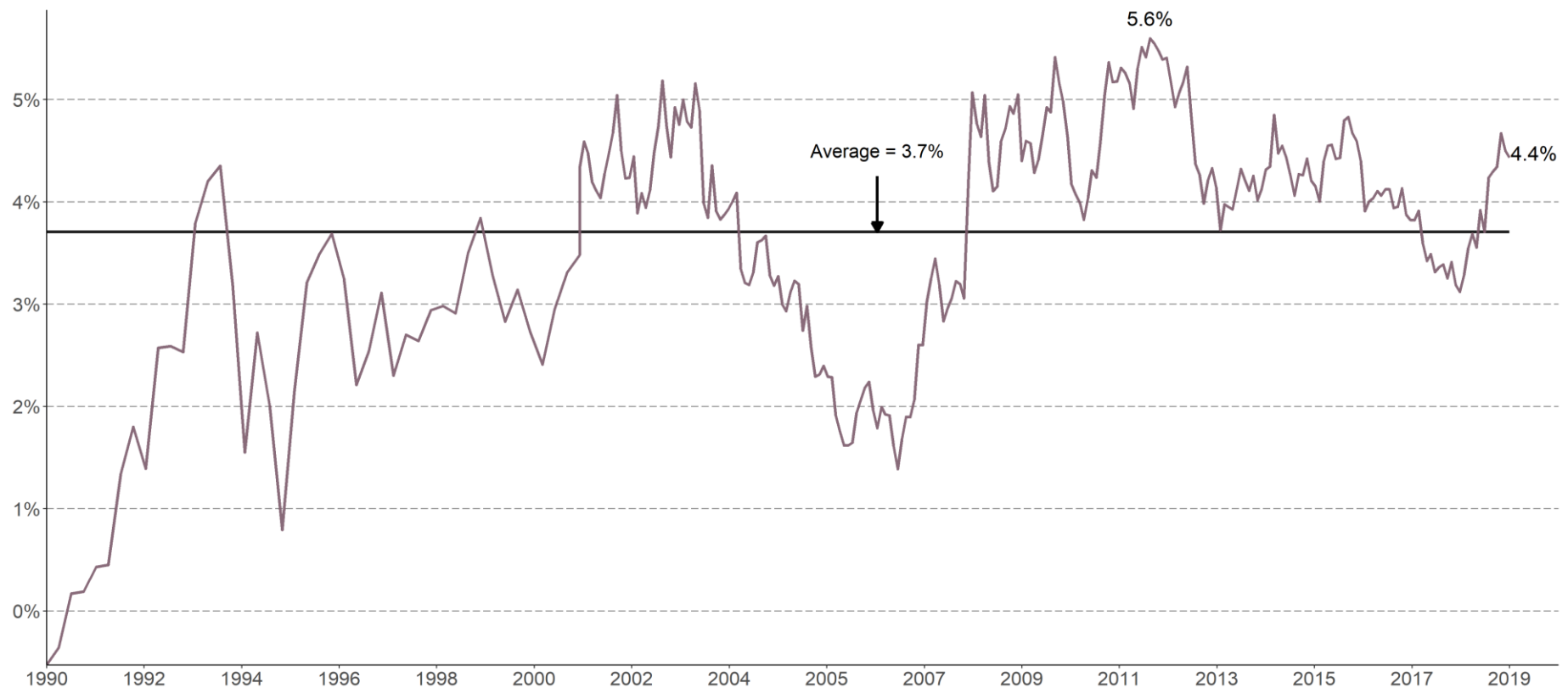


- This chart details one valuation metric for the Private Equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

² Only annual figures available.

Core Real Estate Spread vs. Ten-Year Treasury¹ (As of September 30, 2019)



- This chart details one valuation metric for the Private Core Real Estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.

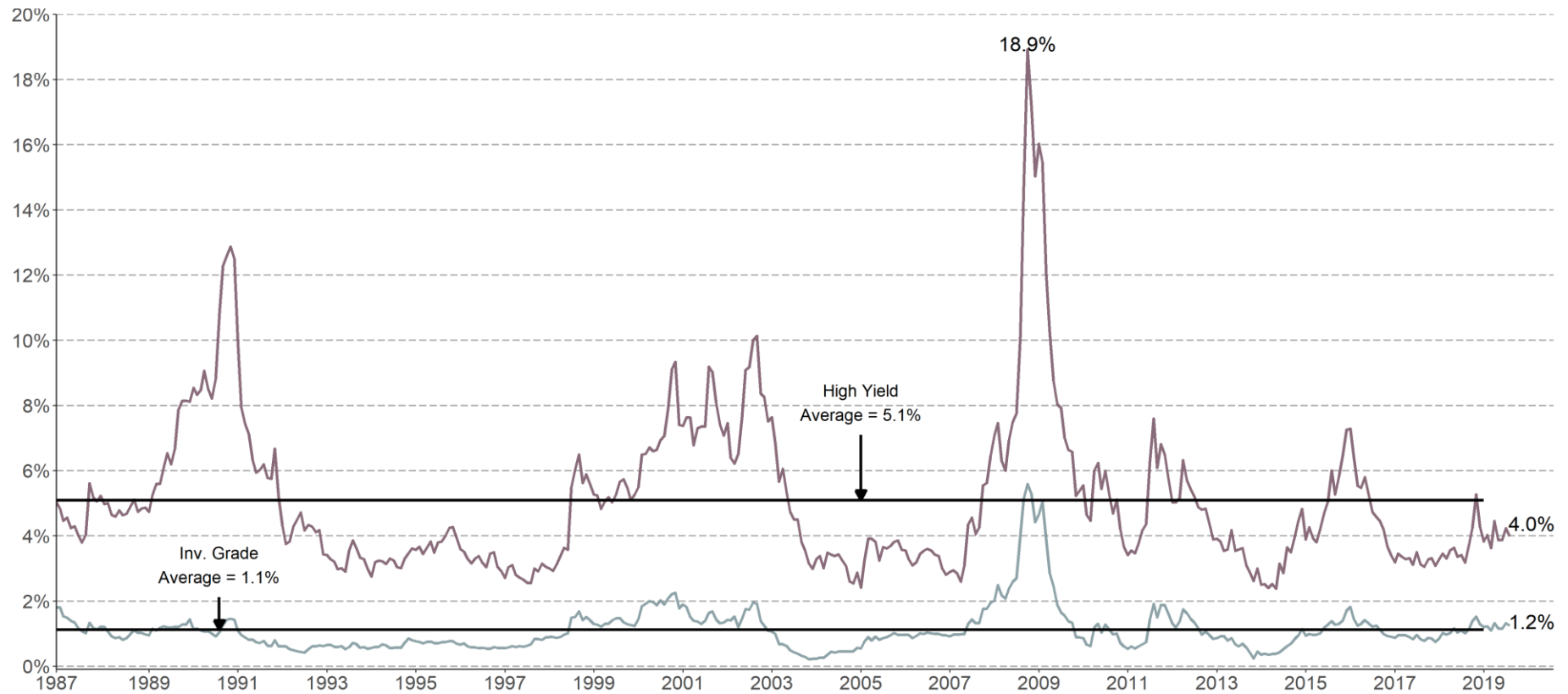
REITs Dividend Yield Spread vs. Ten-Year Treasury¹ (As of September 30, 2019)



- This chart details one valuation metric for the Public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity index.

Credit Spreads¹ (As of September 30, 2019)



- This chart details one valuation metric for the US Credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade index.

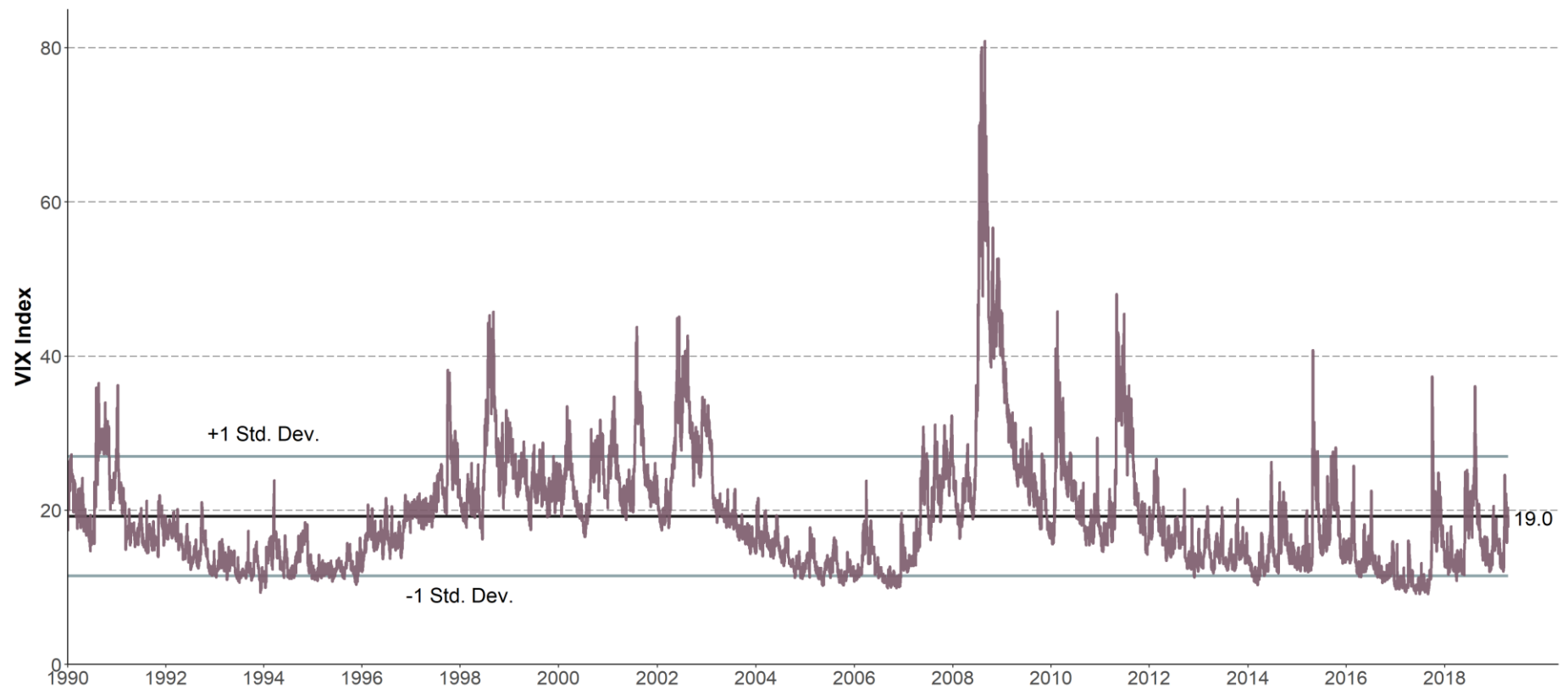
Emerging Market Debt Spreads¹ (As of September 30, 2019)



- This chart details one valuation metric for the EM Debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.

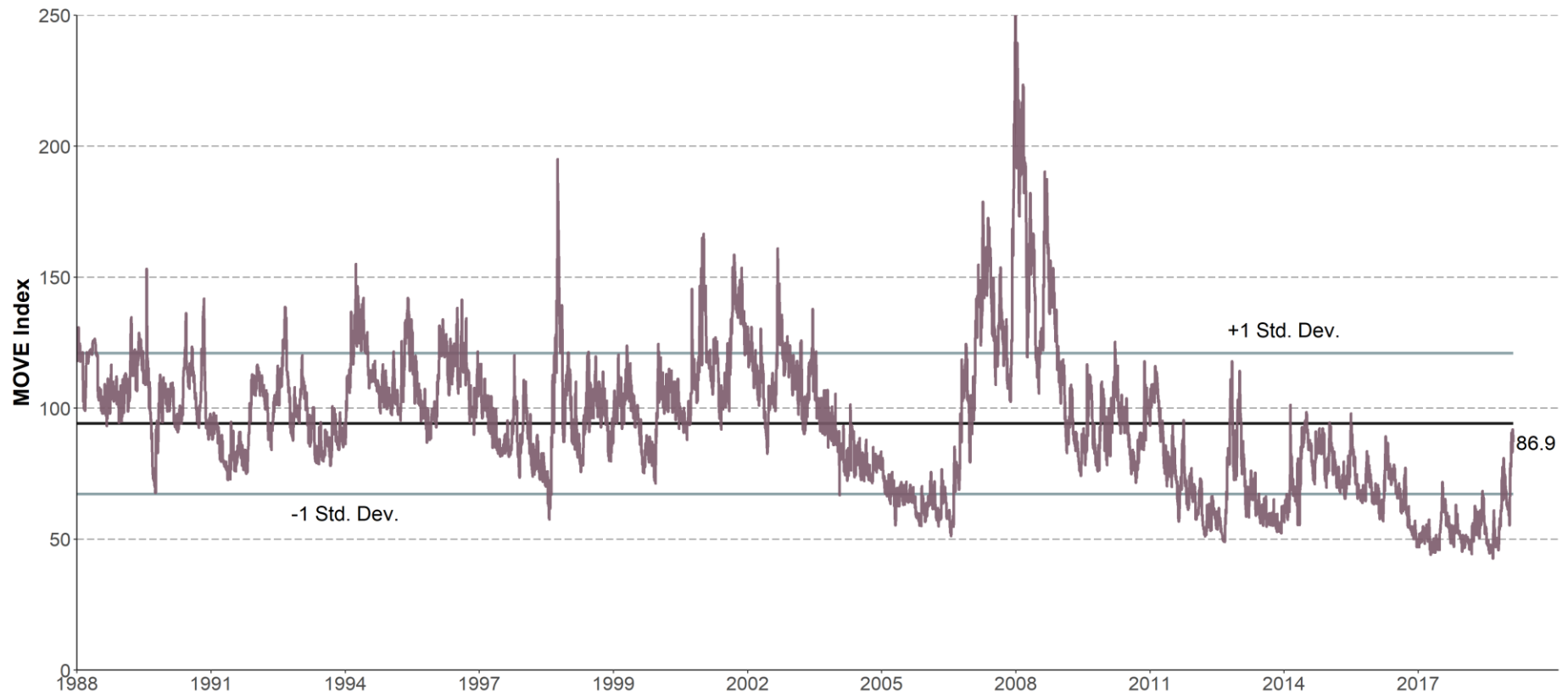
Equity Volatility ¹ (As of September 30, 2019)



- This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

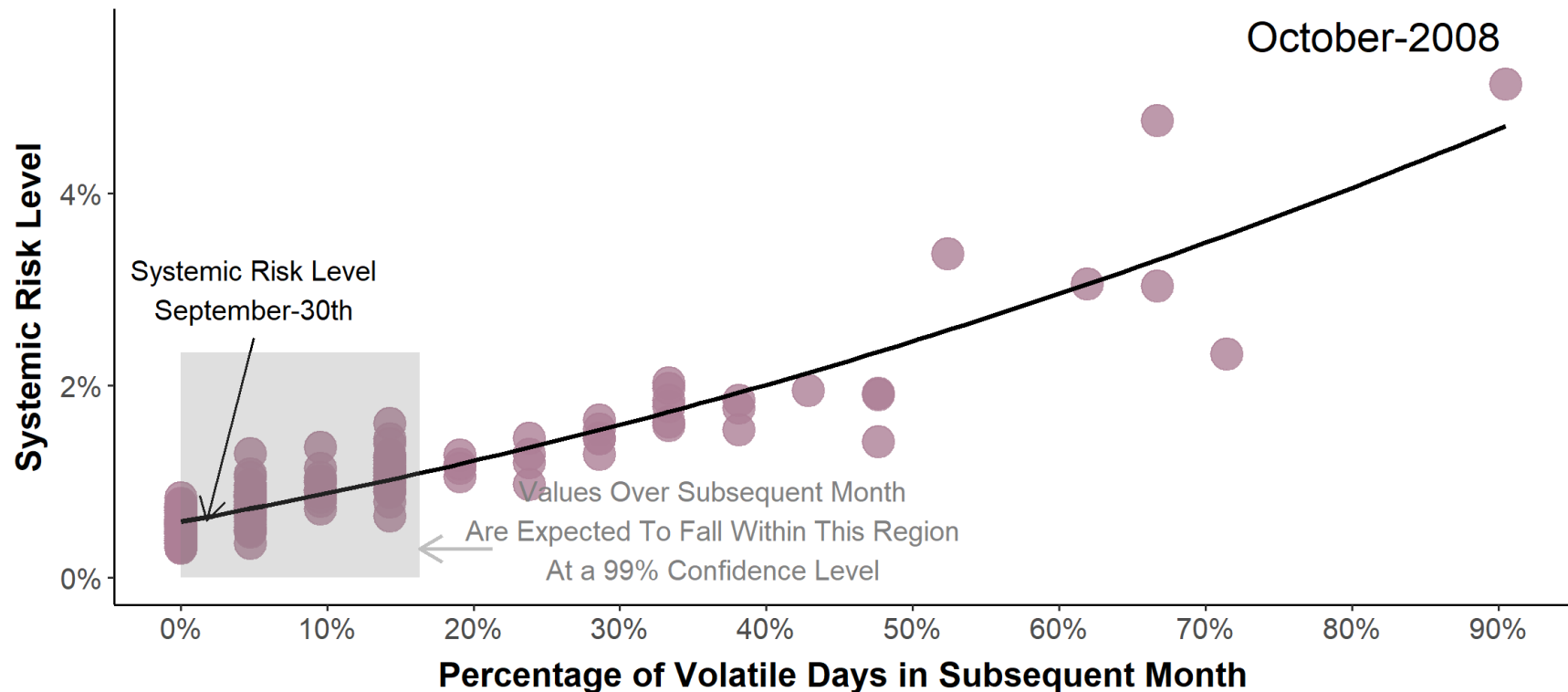
Fixed Income Volatility ¹ (As of September 30, 2019)



- This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

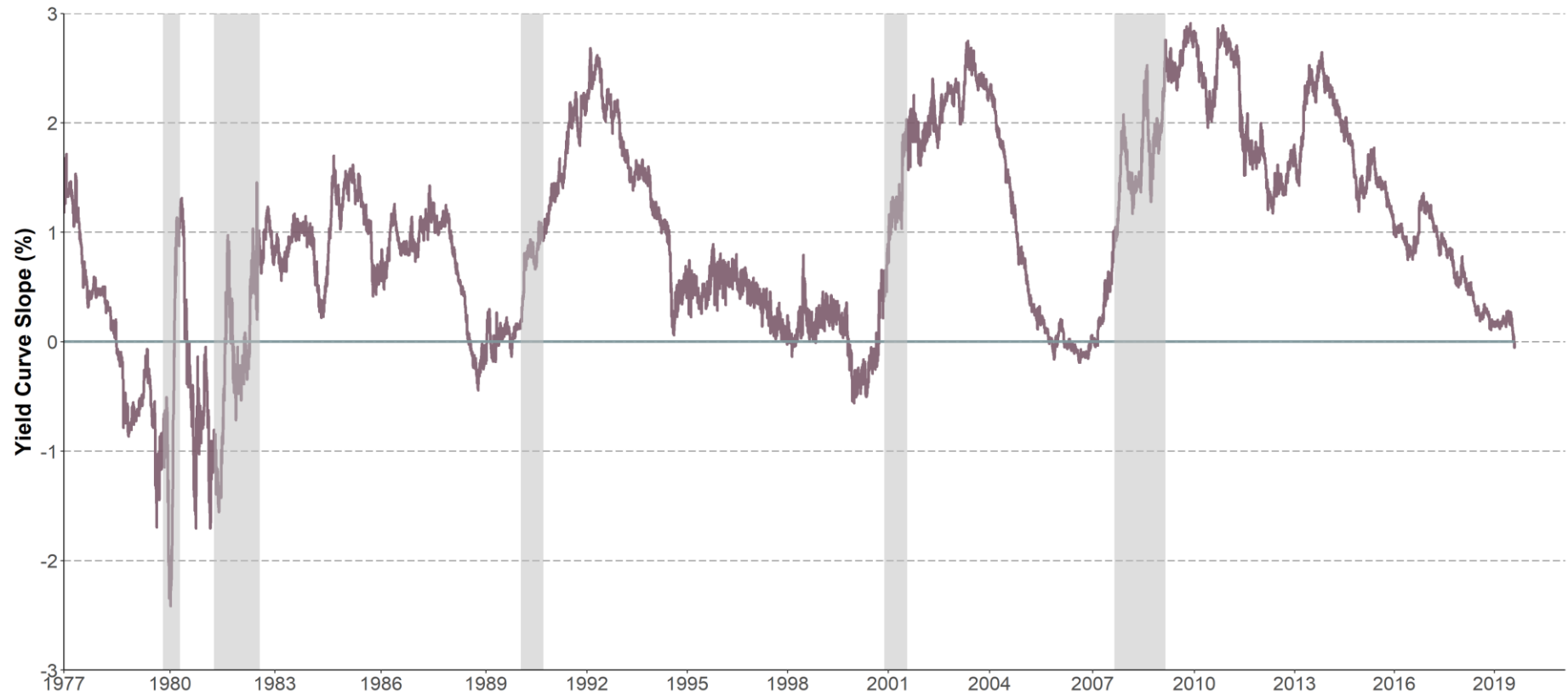
Systemic Risk and Volatile Market Days¹ (As of September 30, 2019)



- Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior. This measure declined materially during September.

¹ Source: Meketa Investment Group, as of September 30, 2019. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

Yield Curve Slope (Ten Minus Two)¹ (As of September 30, 2019)



- This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

¹ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

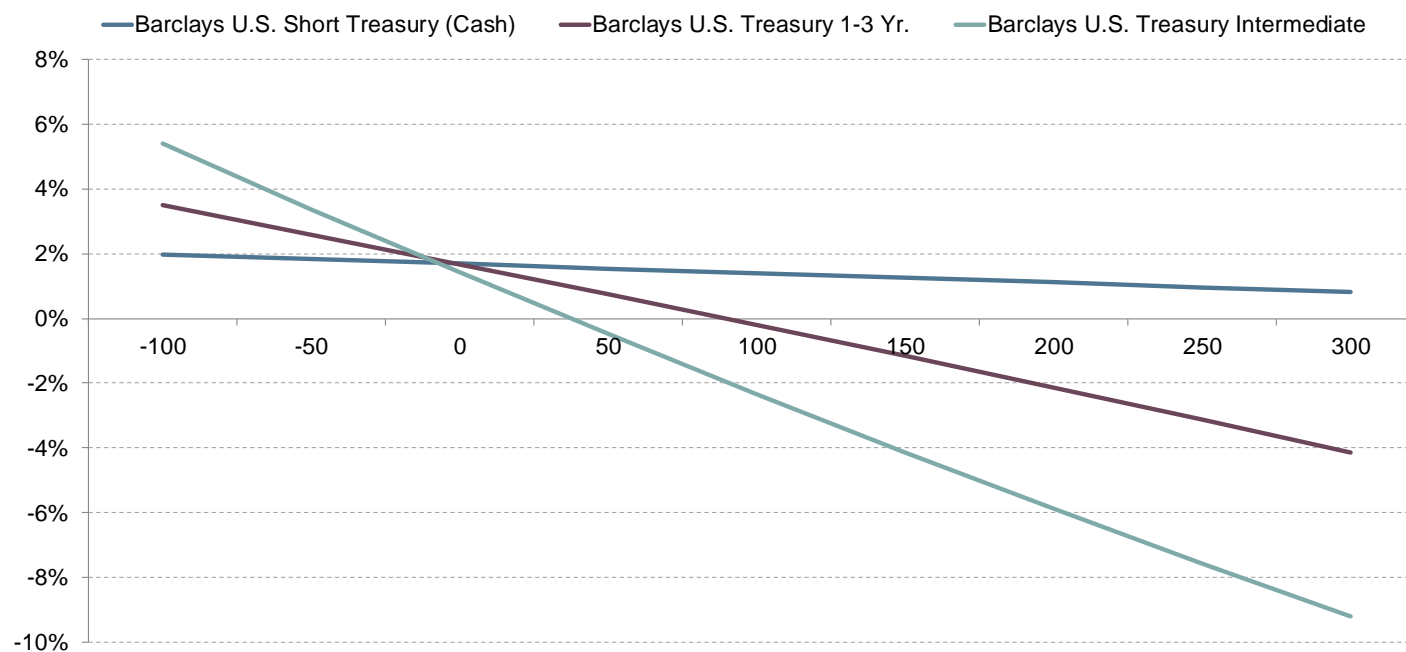
Ten-Year Breakeven Inflation¹ (As of September 30, 2019)



- This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

¹ Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Data is as of June 30, 2019 for TIPS and Treasuries. Inflation is measured by the Consumer Price Index (CPI-U NSA).

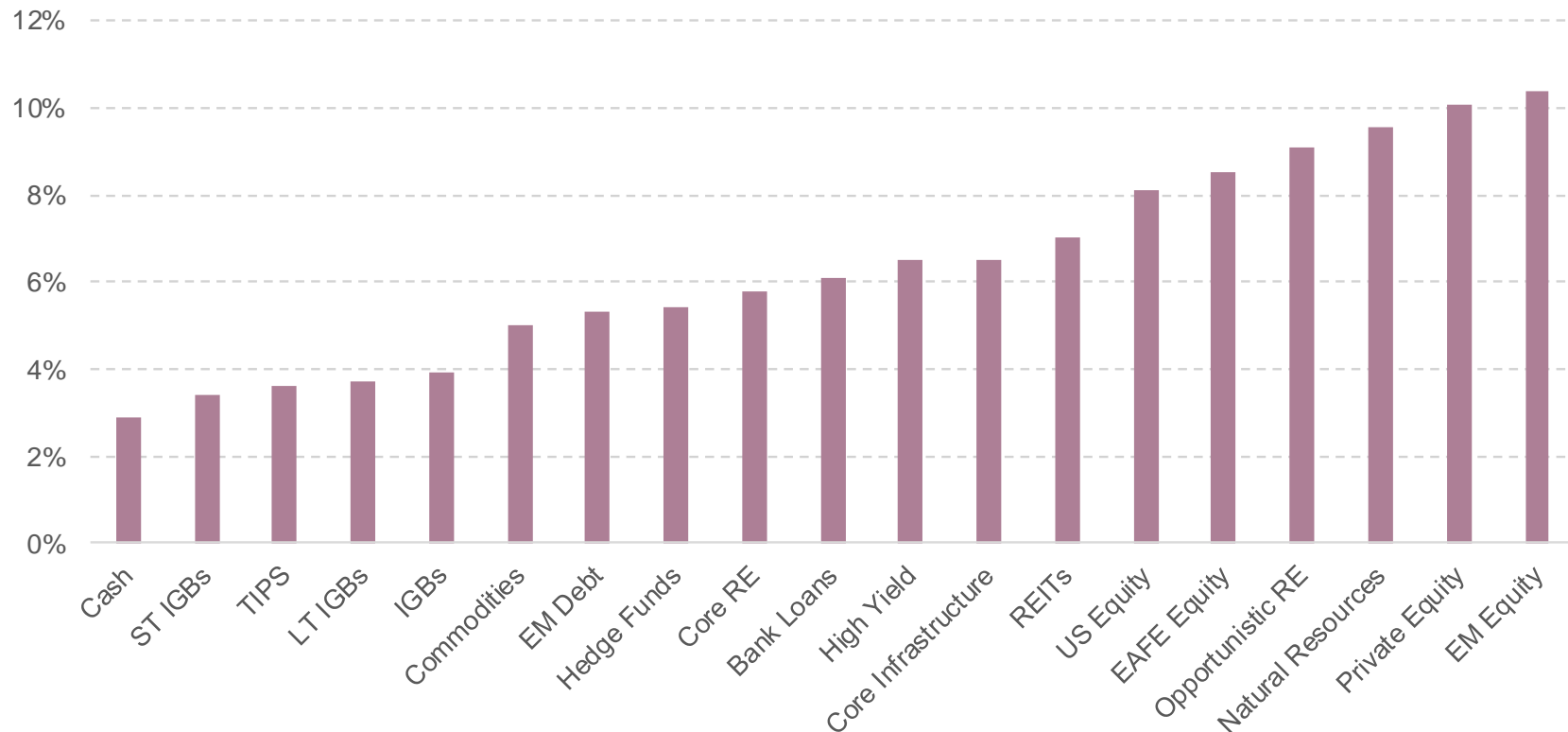
Total Return Given Changes in Interest Rates (bps)¹ (As of September 30, 2019)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	2.0%	1.8%	1.7%	1.5%	1.4%	1.3%	1.1%	1.0%	0.8%	0.29	1.69%
Barclays US Treasury 1-3 Yr.	3.5%	2.6%	1.7%	0.8%	-0.2%	-1.2%	-2.1%	-3.1%	-4.1%	1.84	1.68%
Barclays US Treasury Intermediate	5.4%	3.4%	1.4%	-0.5%	-2.3%	-4.1%	-5.9%	-7.6%	-9.2%	3.87	1.42%
Barclays US Treasury Long	22.5%	11.7%	2.0%	-6.7%	-14.3%	-20.8%	-26.3%	-30.7%	-34.0%	18.4	1.98%

¹ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Data is as of September 30, 2019 via Barclays, Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns¹



- This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

¹ Source: Meketa Investment Group's 2019 Annual Asset Study.

Appendix

Data Sources and Explanations¹

- US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month “as reported” earnings.
- Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.
- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity index.
- Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade index.

¹ All Data as of September 30, 2019 unless otherwise noted.

Appendix

Data Sources and Explanations¹

- EM Debt Spreads – Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.
- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
- Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
 - Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.
- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.
- Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

¹ All Data as of September 30, 2019 unless otherwise noted.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

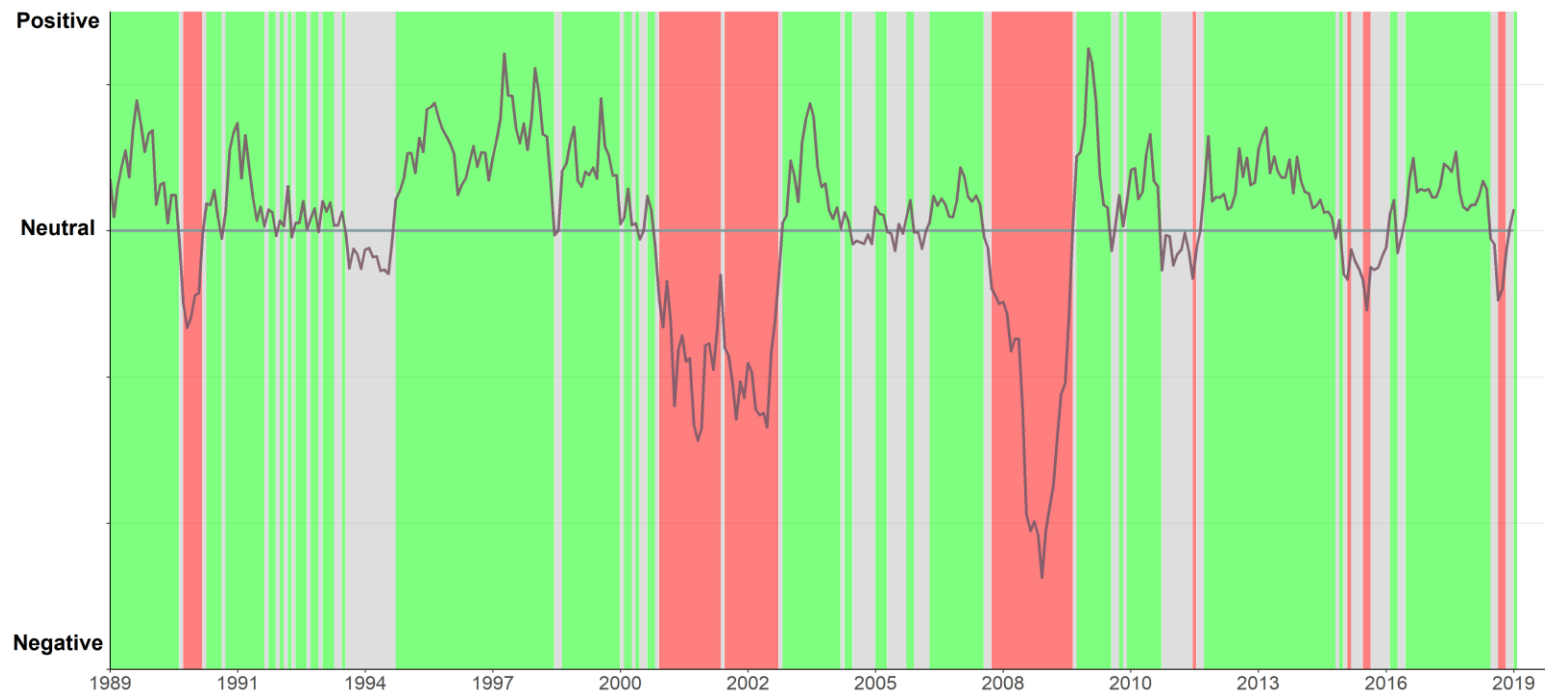
- Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market corrections take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

- The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
 - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
 - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
 - Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure.¹ The color reading on the graph is determined as follows:
 - If both stock return momentum and bond spread momentum are positive = GREEN (positive)
 - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
 - If both stock return momentum and bond spread momentum are negative = RED (negative)

¹ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.

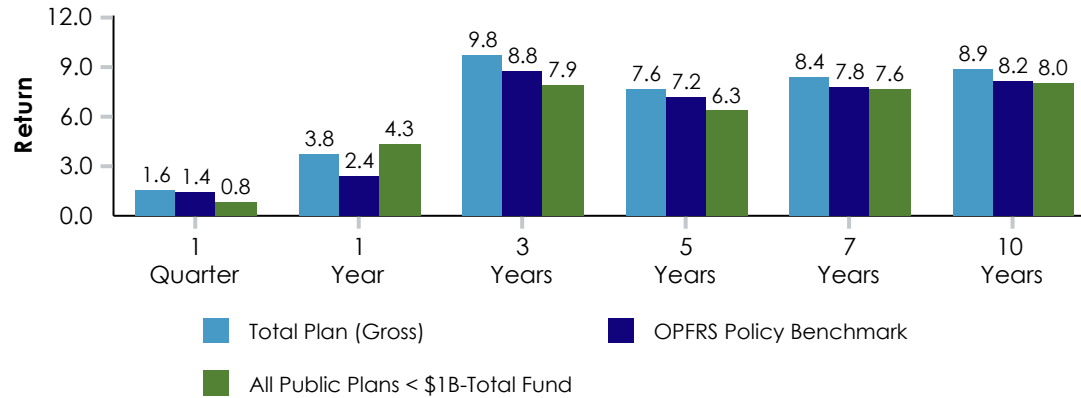
“Time Series Momentum” Moskowitz, Ooi, Pedersen, August 2010. <http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

- There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

Total Portfolio Performance & Market Value As of September 30, 2019

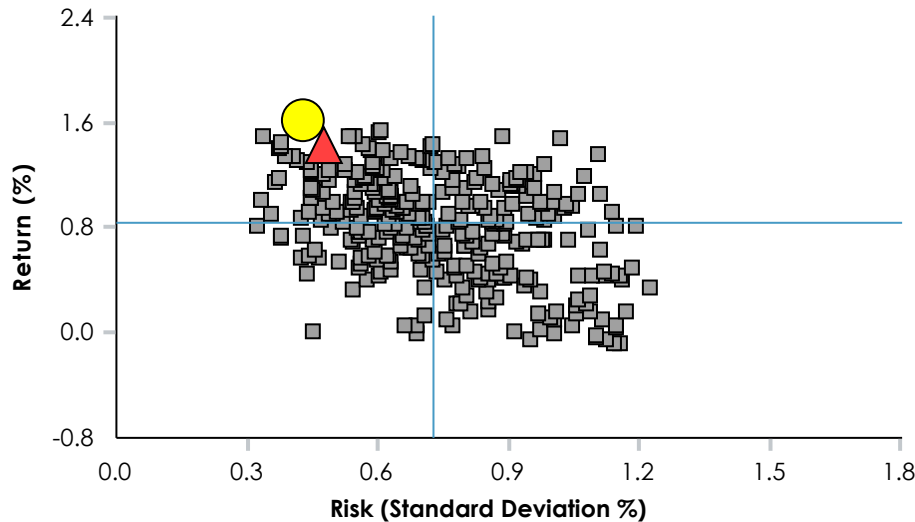
Investment Performance



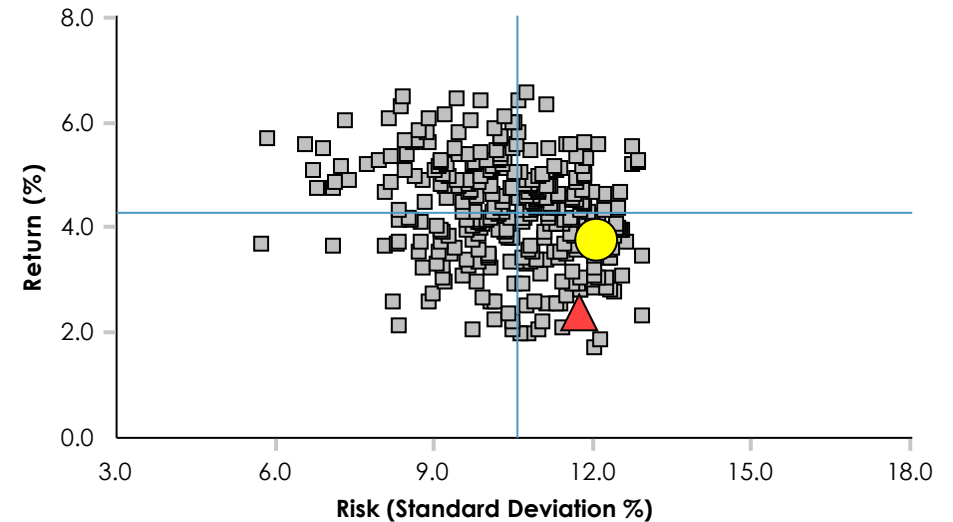
Portfolio Valuation (000's)

	1 Quarter	1 Year
OPFRS Total Plan		
Beginning Market Value	388,740	391,498
Net Contributions	-3,691	-13,862
Gain/Loss	6,195	13,608
Ending Market Value	391,244	391,244

Quarterly Risk/Return



1-Year Risk/Return



	Return	Standard Deviation
● OPFRS Total Plan	1.6	0.4
▲ OPFRS Policy Benchmark	1.4	0.5
— Median	0.8	0.7

	Return	Standard Deviation
● OPFRS Total Plan	3.8	12.1
▲ OPFRS Policy Benchmark	2.4	11.7
— Median	4.3	10.6

Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bbg BC Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bbg BC Long Treasury

Asset Class Performance As of September 30, 2019

Investment Performance

Asset Class Performance (gross of fees)

	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
OPFRS Total Plan	1.6	3.8	9.8	7.6	8.4	8.9
<i>OPFRS Policy Benchmark*</i>	1.4	2.4	8.8	7.2	7.8	8.2
Excess Return	0.2	1.4	1.0	0.4	0.6	0.7
Domestic Equity	0.7	1.4	12.8	10.4	13.0	13.3
<i>Russell 3000 (Blend)**</i>	1.2	2.9	12.8	10.4	13.0	13.1
Excess Return	-0.5	-1.5	0.0	0.0	0.0	0.2
International Equity	-0.8	0.9	8.1	5.3	6.9	5.8
<i>MSCI ACWI Ex US (Blend)^</i>	-1.7	-0.7	6.8	3.4	5.5	4.9
Excess Return	0.9	1.6	1.3	1.9	1.4	0.9
Fixed Income	2.1	10.0	3.9	4.1	3.3	4.4
<i>Bloomberg Barclays Universal (Blend)^^</i>	2.1	10.1	3.2	3.6	3.1	4.1
Excess Return	0.0	-0.1	0.7	0.5	0.2	0.3
Crisis Risk Offset	6.8	0.3	-	-	-	-
<i>SG Multi Alternative Risk Premia</i>	2.0	3.1	-	-	-	-
Excess Return	4.8	-2.8	-	-	-	-
Covered Calls	2.0	2.8	9.4	8.1	-	-
<i>CBOE BXM</i>	0.6	-1.1	7.0	5.9	-	-
Excess Return	1.4	3.9	2.4	2.2	-	-
Cash	0.7	2.6	1.7	1.1	0.8	-
<i>FTSE 3 Month T-Bill</i>	0.6	2.4	1.5	1.0	0.7	-
Excess Return	0.1	0.2	0.2	0.1	0.1	-

Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bbg BC Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bbg BC Long Treasury

** Domestic Equity Benchmark consists of S&P 500 thru 3/31/98, 10% R1000, 20% R1000V, 5% RMC from 4/1/98 - 12/31/04, and Russell 3000 from 1/1/05 to present

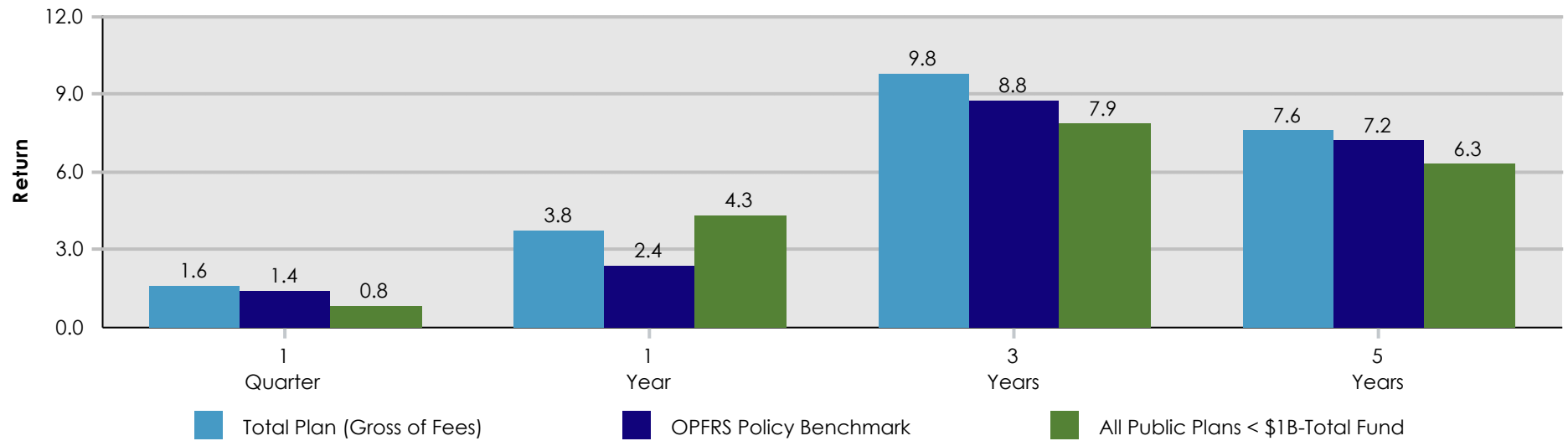
^ International Equity Benchmark consists of MSCI EAFE thru 12/31/04, and MSCI ACWI x US thereafter.

^^ Fixed Income Benchmark consists of Bbg BC Aggregate prior to 4/1/06, and Bbg BC Universal thereafter.

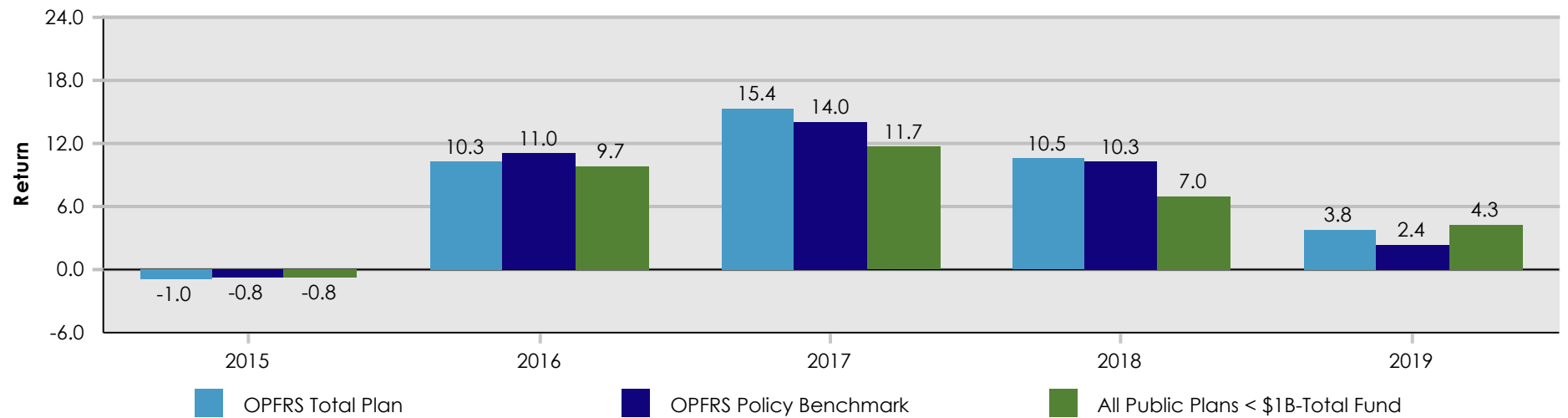
OPFRS Portfolio Relative Performance Results

As of September 30, 2019

Trailing Period Performance (annualized)



12-month Performance- As of September 30, 2019



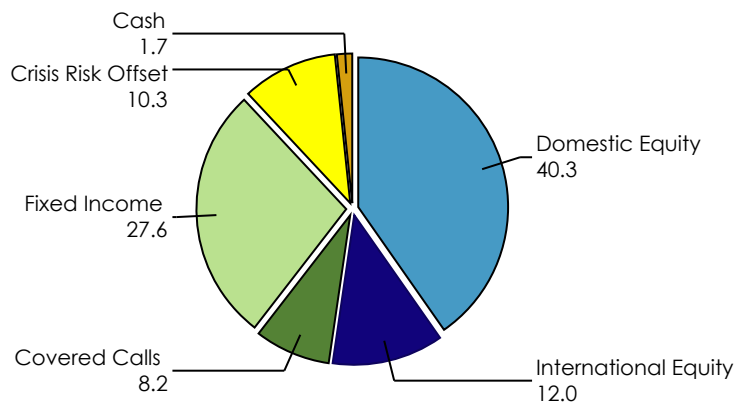
Actual vs. Target Allocation
As of September 30, 2019

	Asset Allocation (\$000)	Asset Allocation (%)	Target Allocation* (%)	Variance (%)
OPFRS Total Plan	391,244	100.0	100.0	0.0
Domestic Equity	157,679	40.3	40.0	0.3
International Equity	46,964	12.0	12.0	0.0
Total Fixed Income	107,891	27.6	33.0	-5.4
Covered Calls	31,961	8.2	5.0	3.2
Crisis Risk Offset	40,259	10.3	10.0	0.3
Cash	6,489	1.7	0.0	1.7

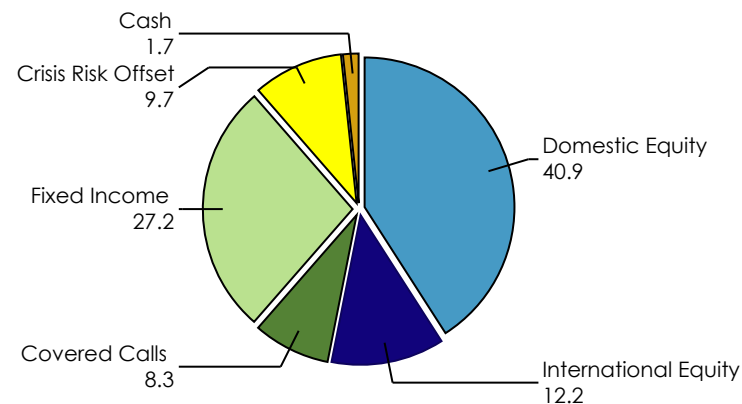
*Target weightings reflect the Plan's evolving asset allocation (effective 5/31/2017).

Actual Asset Allocation Comparison

September 30, 2019 : \$391,243,865



June 30, 2019 : \$388,739,954



Manager Performance - Gross of Fees

As of September 30, 2019

Domestic Equity

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception*	Inception Date
Large Cap Core							
Northern Trust Russell 1000 Index	87,947	1.4	3.9	13.2	10.6	13.6	06/2010
<i>Russell 1000 Index</i>		1.4	3.9	13.2	10.6	13.6	
Excess Return		0.0	0.0	0.0	0.0	0.0	
Mid Cap Core							
EARNEST Partners - Active	31,399	1.3 (14)	7.1 (9)	15.5 (12)	12.7 (12)	9.8 (18)	04/2006
<i>Russell Midcap Index</i>		0.5	3.2	10.7	9.1	8.5	
Excess Return		0.8	3.9	4.8	3.6	1.3	
Small Cap Value							
Vanguard Russell 2000 Value	9,463	---	---	---	---	-0.4 (32)	08/2019
<i>Russell 2000 Value Index</i>		---	---	---	---	-0.7	
Excess Return		---	---	---	---	0.3	
Small Cap Growth							
Rice Hall James - Active	10,964	-4.6 (58)	-15.7 (95)	---	---	6.1 (82)	07/2017
<i>Russell 2000 Growth Index</i>		-4.2	-9.6	---	---	6.9	
Excess Return		-0.4	-6.1	---	---	-0.8	
Defensive Equity							
SPI - Active	17,906	0.4 (87)	---	---	---	0.4 (87)	07/2019
<i>S&P 500 Index</i>		1.7	---	---	---	1.7	
Excess Return		-1.3	---	---	---	-1.3	

Over the latest three-month period ending September 30, 2019, one of OPFRS's three active Domestic Equity managers outperformed its respective benchmark.

OPFRS's passive Domestic Equity mandate performed in-line with its respective benchmark.

Northern Trust, the Plan's passive large cap core transition account, continues to perform in-line with its benchmark over all time periods measured. This performance is within expectations for a passive mandate.

Manager Performance - Gross of Fees

As of September 30, 2019

Domestic Equity

EARNEST Partners, the Plan's active mid cap core manager, outperformed its Russell Midcap benchmark by 0.8%, placing it in the 14th percentile of its peer group. The portfolio has also outperformed its benchmark over the 1-year period by 3.9% and continues to outperform over the 3- and 5-year periods by 4.8% and 3.6% respectively. The portfolio also ranks in the top quartile of its peer group over all time periods measured.

Vanguard Russell 2000 Value, the Plan's new passive small cap value manager, replaced NWQ in August and does not have a full quarter performance return.

Rice Hall James, the Plan's active small cap growth manager, underperformed its Russell 2000 Growth benchmark over the most recent quarter by (0.4%), placing the portfolio in the 58th percentile of its peer group. The portfolio has underperformed its benchmark over the 1-year period by (6.1%).

SPI, the Plan's new active Defensive Equity manager, underperformed the S&P 500 benchmark by (1.3%) over the recent quarter, placing the portfolio in the 87th percentile of its peer group.

Manager Performance - Gross of Fees

As of September 30, 2019

International Equity

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Active International							
Fisher Investments	16,550	-2.0 (74)	0.2 (24)	7.7 (28)	5.0 (25)	4.4 (74)	04/2011
MSCI AC World ex USA		-1.7	-0.7	6.8	3.4	3.6	
Excess Return		-0.3	0.9	0.9	1.6	0.8	
Hansberger	16,564	-1.3 (49)	1.3 (44)	9.1 (36)	6.7 (29)	4.6 (73)	02/2006
MSCI AC World ex USA		-1.7	-0.7	6.8	3.4	3.9	
Excess Return		0.4	2.0	2.3	3.3	0.7	
Passive International							
SSgA	---	---	---	---	---	---	08/2002
MSCI EAFE Index		-1.0	-0.8	7.0	3.8	7.0	
Excess Return		---	---	---	---	---	

Over the latest three-month period ending September 30, 2019, one of OPFRS's two active International Equity managers outperformed their respective benchmark.

The **SSgA** account has performed roughly in-line with its benchmark over all time periods measured. This performance is within expectations for a passive mandate. It should also be noted the SSgA was terminated as the Developed International portfolio manager during OPFRS's July meeting.

Hansberger, one of OPFRS' active international equity managers, outperformed the MSCI ACWI x US Index during the quarter by 0.4%, placing the fund in the 49th percentile of its peer group. Over the 12-month period, Hansberger outperformed its benchmark by 2.0% with an absolute return of 1.3%. Hansberger continues to outperform over the 3- and 5-year periods with excess returns of 2.3% and 3.3%, respectively.

Fisher, one of OPFRS' active international equity managers, underperformed the MSCI ACWI x US Index by (0.3%) during the quarter, ranking the fund in the 74th percentile of its peer group. Over the most recent 1- and 3-year periods, Fisher has outperformed its benchmark by 0.9% and 0.9%, respectively, and continues to outperform by 1.6% over the five year period.

Manager Performance - Gross of Fees

As of September 30, 2019

Fixed Income

Manager - Style	Mkt Value (\$'000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Core Fixed Income							
Ramirez	75,168	2.5 (15)	10.9 (26)	---	---	5.3 (10)	01/2017
<i>Blmbg. Barc. U.S. Aggregate Index</i>		2.3	10.3	---	---	4.3	
Excess Return		0.2	0.6	---	---	1.0	
Core-Plus Fixed Income							
Reams	24,922	2.4 (36)	11.1 (17)	3.4 (77)	3.8 (60)	5.7 (59)	02/1998
<i>Bbg Barclays Universal (Hybrid)</i>		2.1	10.1	3.2	3.6	5.1	
Excess Return		0.3	1.0	0.2	0.2	0.6	
High Yield / Bank Loans							
DDJ Capital	7,801	-2.0 (99)	-1.1 (98)	6.0 (51)	---	5.4 (67)	02/2015
<i>ICE BofAML High Yield Master II</i>		1.2	6.3	6.1	---	5.8	
Excess Return		-3.2	-7.4	-0.1	---	-0.4	

Over the latest three-month period, ending September 30, 2019, two of OPFRS's three active Fixed Income managers outperformed their respective benchmarks.

Ramirez, the Plan's core fixed income manager, returned 2.5% compared to the benchmark return of 2.3% during the quarter, ranking the portfolio in the 15th percentile of its peer group. Over the 1-year period, Ramirez has outperformed its benchmark by 0.6% and ranked in the 26th percentile of its peer group.

Reams, the Plan's core plus fixed income manager, outperformed its benchmark by 0.3% during the quarter and ranked in the 36th percentile of its peer group. Over the most recent 12-month period, Reams outperformed its benchmark by 1.0%, earning a 17th percentile ranking. Reams also outperformed its benchmark over the 3- and 5-year periods by 0.2% respectively.

DDJ, the Plan's High Yield & Bank Loan manager, returned -2.0% during the most recent quarter, underperforming the benchmark by (3.2%). A string of underperforming quarters has left DDJ trailing its benchmark by (7.4%) over the most recent 12-month period and (0.1%) over the 3-year period.

Manager Performance - Gross of Fees

As of September 30, 2019

Covered Calls

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Covered Calls Composite							
Covered Calls	31,961	2.0	2.8	9.4	8.1	8.1	04/2014
CBOE BXM		0.6	-1.1	7.0	5.9	6.1	
Excess Return		1.4	3.9	2.4	2.2	2.0	
CC - Passive Allocation							
Parametric BXM	15,423	1.6	1.5	7.6	6.8	6.9	04/2014
CBOE BXM		0.6	-1.1	7.0	5.9	6.1	
Excess Return		1.0	2.6	0.6	0.9	0.8	
CC - Active Allocation							
Parametric DeltaShift	16,538	2.3	4.0	11.2	9.6	9.9	04/2014
CBOE BXM		0.6	-1.1	7.0	5.9	6.1	
Excess Return		1.7	5.1	4.2	3.7	3.8	

During the latest three-month period ending September 30, 2019, OPFRS' aggregate Covered Calls portfolio outperformed its benchmark by 1.4%.

Parametric BXM Portfolio, the Plan's passive covered calls allocation outperformed its CBOE BXM index by 1.0% over the most recent quarter. Over the most recent 1-year period the portfolio has outperformed by 2.6% and has outperformed over both the 3- and 5-year periods by 0.6% and 0.9% respectively.

Parametric Delta Shift Portfolio, the Plan's active covered calls allocation has outperformed the CBOE BXM benchmark by 1.7% over the most recent quarter and has outperformed by 5.1% over the 1-year period. The portfolio outperformed over the 3-year period by 4.2% and has earned an annualized 9.6% over the most recent 5-year period, outperforming its benchmark by 3.7%.

Manager Performance - Gross of Fees

As of September 30, 2019

Crisis Risk Offset

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Crisis Risk Offset Composite							
Crisis Risk Offset	40,259	6.8	0.3	---	---	3.3	09/2018
<i>CRO Composite Benchmark</i>		2.0	3.1	---	---	3.1	
Excess Return		4.8	-2.8	---	---	0.2	
CRO - Risk Premia / Trend Following							
Parametric S.A.R.P.	25,751	6.1	0.5	---	---	3.4	09/2018
<i>SG Multi Alternative Risk Premia</i>		2.0	3.1	---	---	3.1	
Excess Return		4.1	-2.6	---	---	0.3	
CRO - Long Duration							
Vanguard Long-Term Treasury ETF	14,509	8.1	---	---	---	8.1	07/2019
<i>Bloomberg Barclays U.S. Gov Float Adjusted: Long</i>		7.8	---	---	---	7.8	
Excess Return		0.3	---	---	---	0.3	

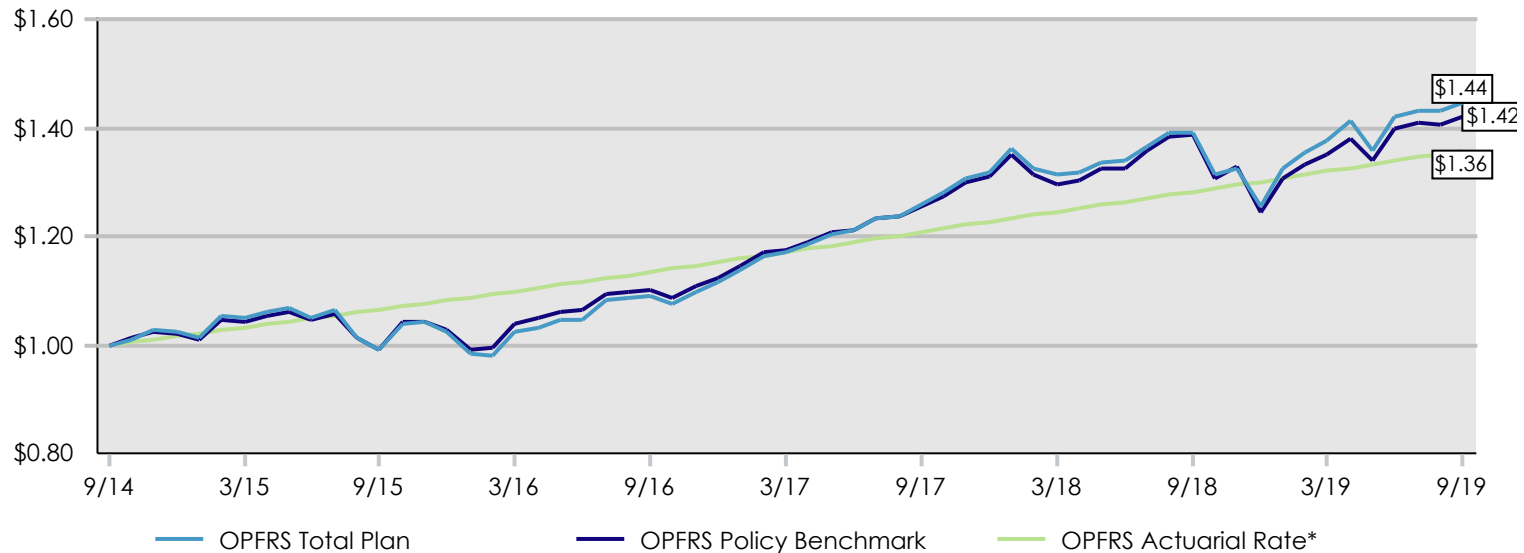
During the latest three-month period ending September 30, 2019, OPFRS's partially funded aggregate Crisis Risk Offset portfolio outperformed its benchmark by 4.8%.

Parametric Systematic Alternative Risk Premia, the Plan's Risk Premia / Trend Following manager outperformed its benchmark by 4.1% during the quarter. Due to a poor first few months after funding, the portfolio continues to trail its benchmark by (2.6%) since its funding in September 2018.

Temporary Long Duration ETF, the Plan's Long Duration allocation was funded in early June through the use of the Vanguard Long-Term Treasury ETF until a permanent manager can be selected. The portfolio outperformed it's benchmark by 0.3% over the most recent quarter.

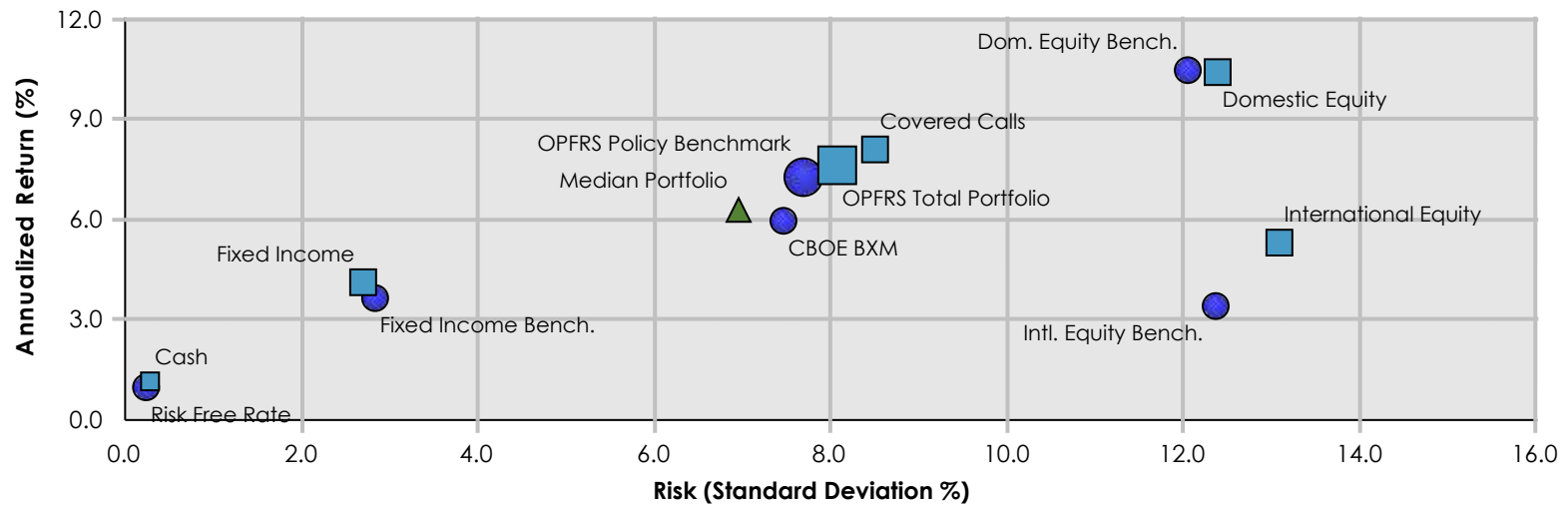
OPFRS Total Portfolio 5-Year Performance
As of September 30, 2019

Growth of \$1 (5-year)

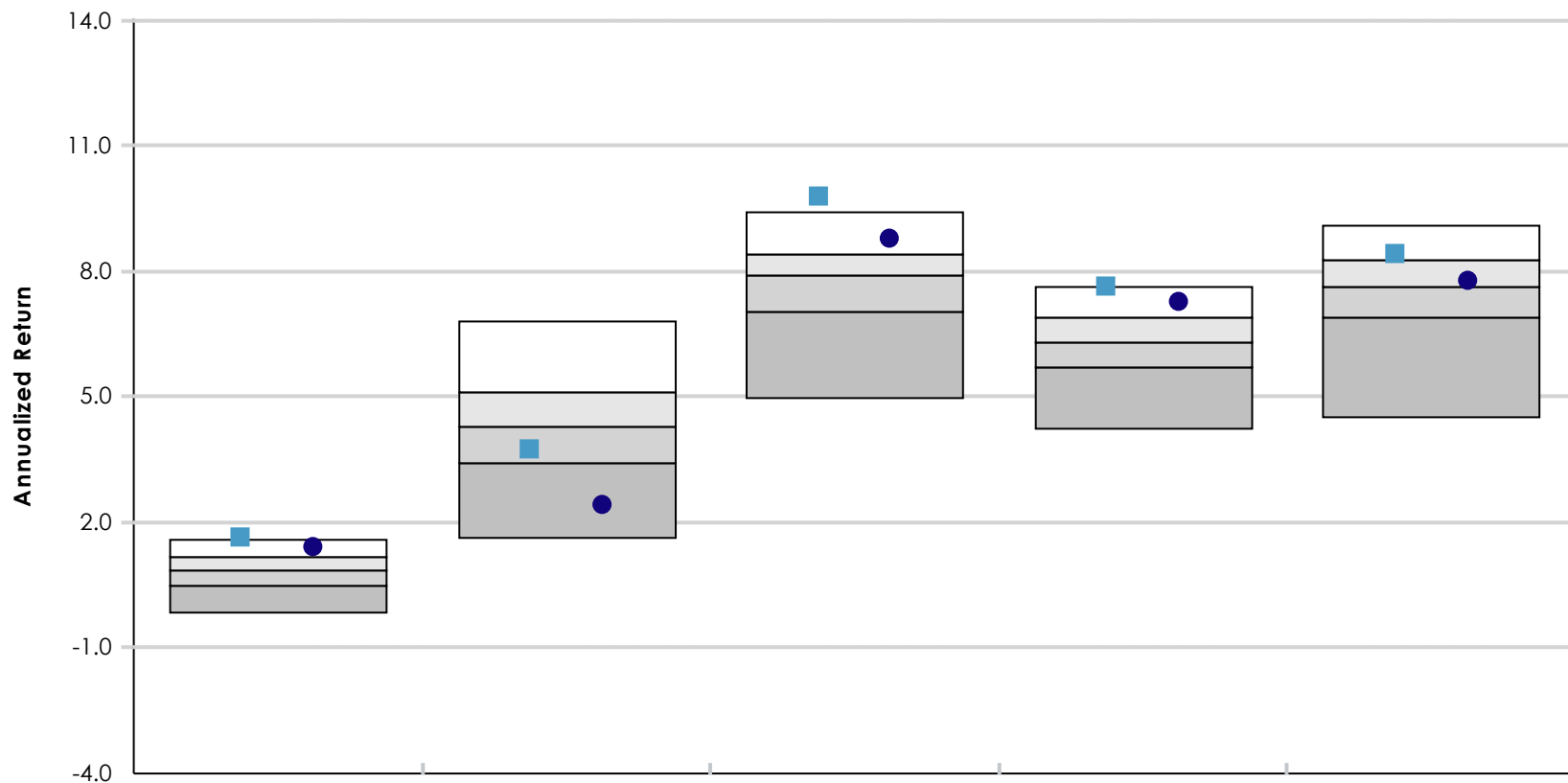


* The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, 6.5% through 12/31/2017 and 6.0% currently

Risk/Return Performance (5-year)



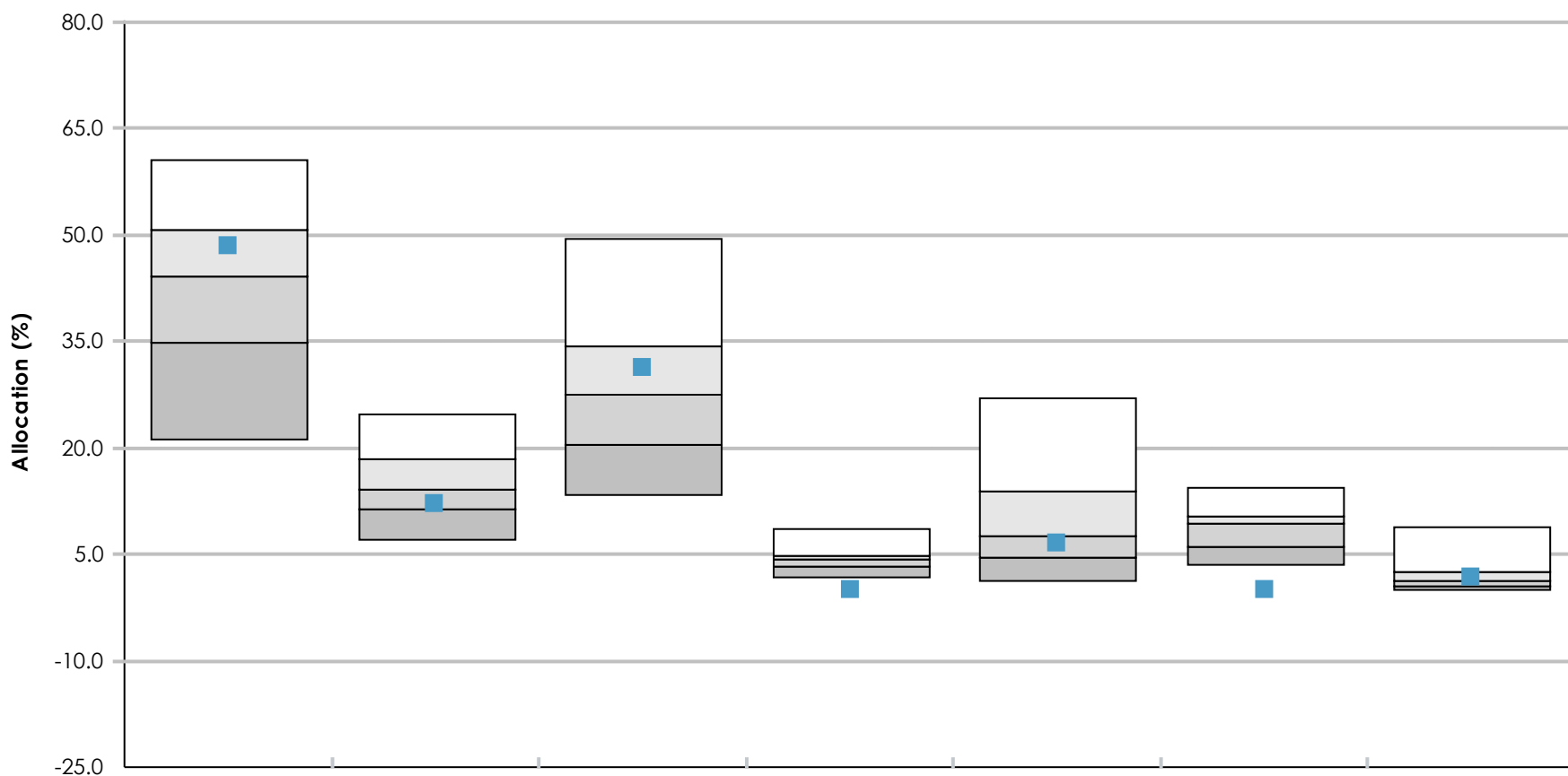
Plan Sponsor Peer Group Analysis
As of September 30, 2019



	1 Quarter	1 Year	3 Years	5 Years	7 Years
■ OPFRS Total Plan	1.6 (5)	3.8 (66)	9.8 (3)	7.6 (5)	8.4 (21)
● OPFRS Policy Benchmark	1.4 (9)	2.4 (90)	8.8 (14)	7.2 (12)	7.8 (45)
5th Percentile	1.6	6.8	9.4	7.6	9.1
1st Quartile	1.2	5.1	8.4	6.9	8.3
Median	0.8	4.3	7.9	6.3	7.6
3rd Quartile	0.5	3.4	7.0	5.7	6.9
95th Percentile	-0.1	1.7	5.0	4.3	4.5
Population	402	392	373	363	341

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor TF Asset Allocation
As of September 30, 2019



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
OPFRS Total Plan	48.5 (35)	12.0 (71)	31.3 (35)	0.0	6.6 (57)	0.0	1.7 (39)
5th Percentile	60.5	24.7	49.5	8.6	26.9	14.5	8.9
1st Quartile	50.6	18.4	34.3	4.9	14.0	10.4	2.5
Median	44.0	14.2	27.5	4.2	7.7	9.3	1.3
3rd Quartile	34.7	11.4	20.5	3.3	4.6	6.0	0.6
95th Percentile	21.1	7.1	13.5	1.7	1.3	3.5	0.1
Population	574	525	525	167	126	304	399

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Monitoring/Probation Status

As of September 30, 2019
Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern	Months Since Corrective Action	Performance [^] Since Corrective Action (Gross)	Peer Group Percentile Ranking	Date of Corrective Action*
Hansberger	On Watch	Organizational	19	1.0	62	11/30/2017
MSCI ACWI ex-USA	---	---	---	0.3		
NWQ	Terminated	Organizational	17	-5.4	84	1/31/2018
Russell 2000 Value	---	---	---	-1.7		
DDJ Capital	On Watch	Performance	1	0.1	100	5/29/2019
Ice BofAML US High Yield			---	2.5		
Rice Hall James	On Watch	Performance	1	6.6	74	5/29/2019
Russell 2000 Growth	---	---	---	7.7		

[^]. Annualized performance if over one year.

* Approximate date based on when Board voted to either monitor a manager at a heightened level or place it on probation.

Investment Performance Criteria
For Manager Monitoring/Probation Status

Asset Class	Short-term (rolling 12 mth periods)	Medium-term (rolling 36 mth periods)	Long-term (60 + months)
Active Domestic Equity	Fd return < bench return – 3.5%	Fd annlzd return < bench annlzd return – 1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Active International Equity	Fd return < bench return – 4.5%	Fd annlzd return < bench annlzd return – 2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive International Equity	Tracking Error > 0.50%	Tracking Error > 0.45% for 6 consecutive months	Fd annlzd return < bench annlzd return – 0.40% for 6 consecutive months
Fixed Income	Fd return < bench return – 1.5%	Fd annlzd return < bench annlzd return – 1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months

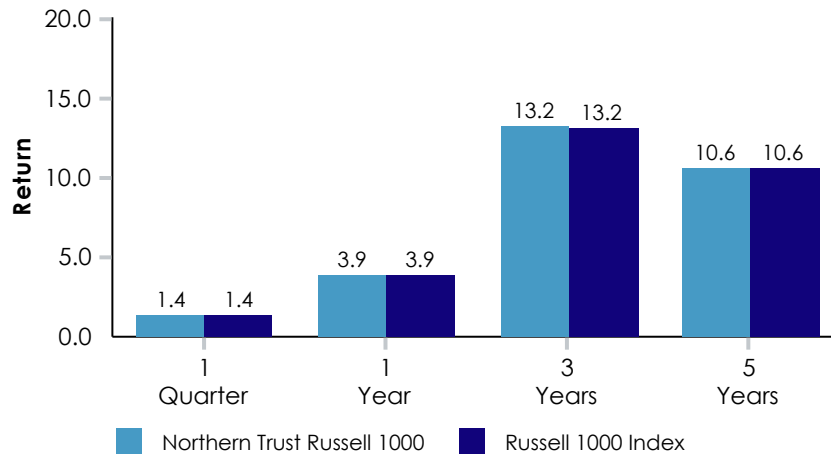
VRR – Value Relative Ratio – is calculated as: manager cumulative return / benchmark cumulative return.

Northern Trust Russell 1000 - gross of fees

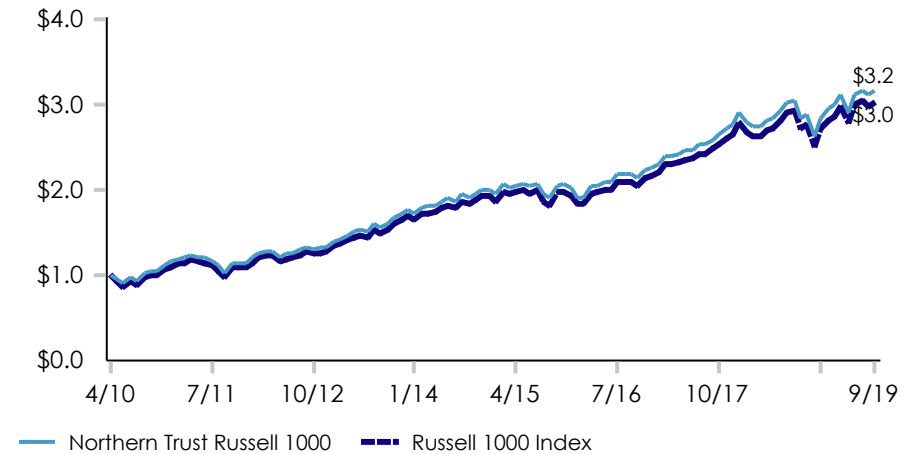
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Northern Trust Russell 1000	0.78	0.97	0.32	1.01	1.30	0.99	99.59	95.58	05/01/2010
Russell 1000 Index	0.00	1.00	-	0.95	0.00	1.00	100.00	100.00	05/01/2010

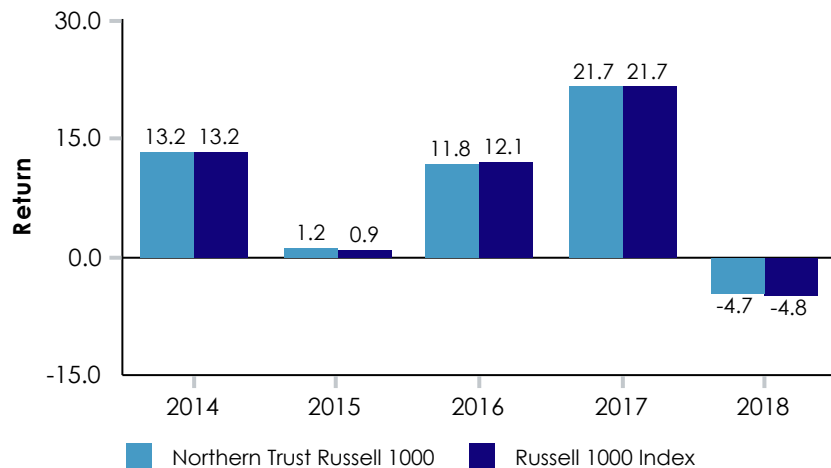
Trailing Period Performance



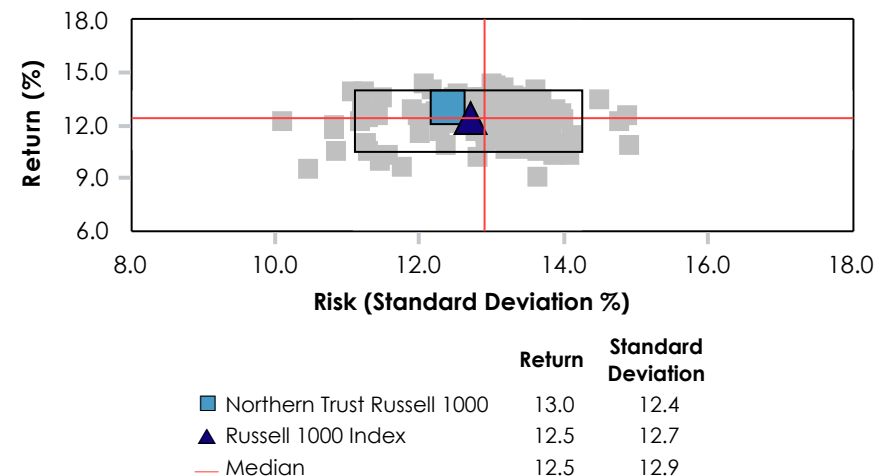
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

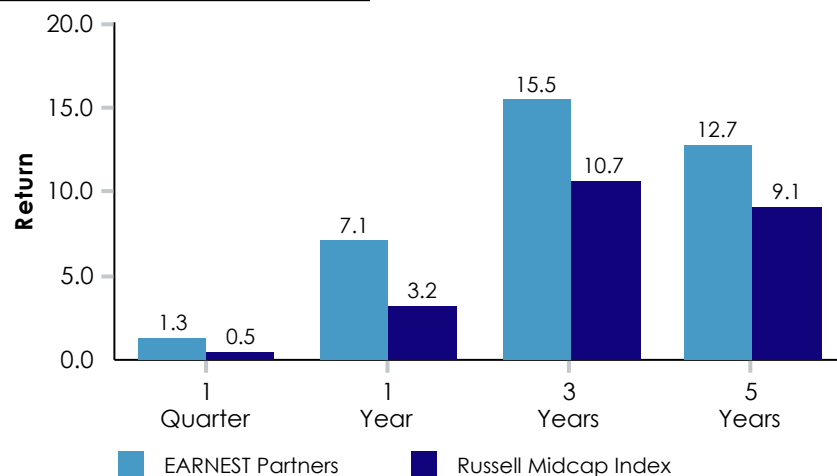


EARNEST Partners - gross of fees

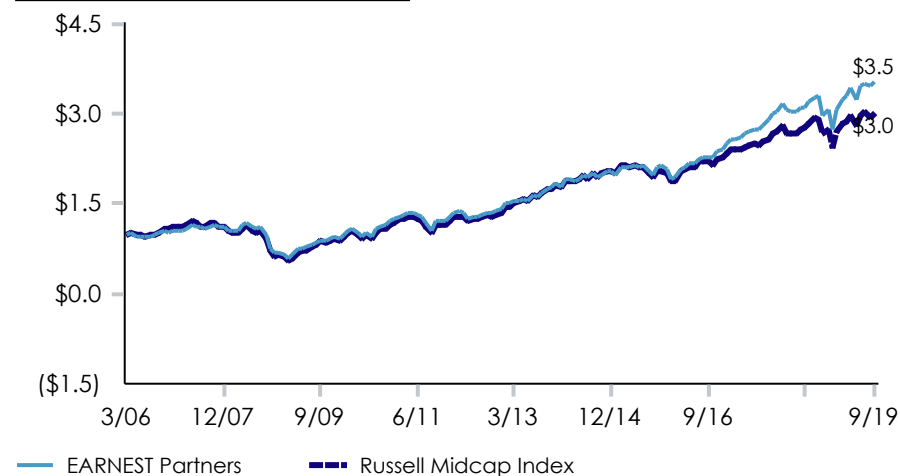
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
EARNEST Partners	1.26	1.00	0.39	0.57	3.29	0.96	101.44	94.74	04/01/2006
Russell Midcap Index	0.00	1.00	-	0.51	0.00	1.00	100.00	100.00	04/01/2006

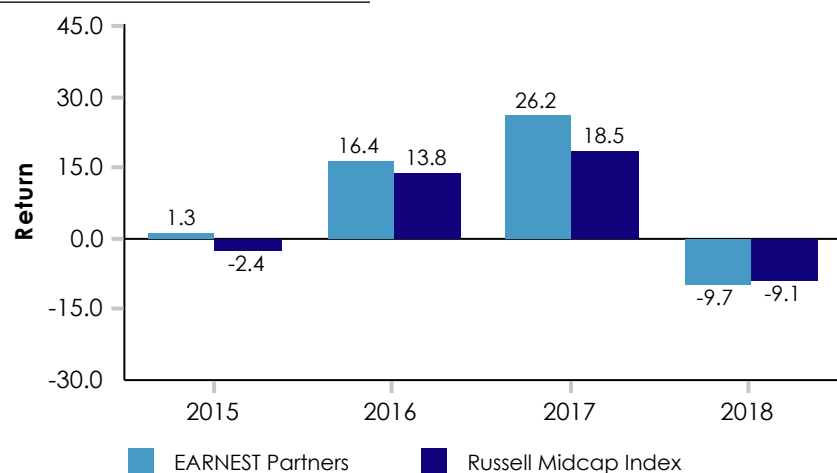
Trailing Period Performance



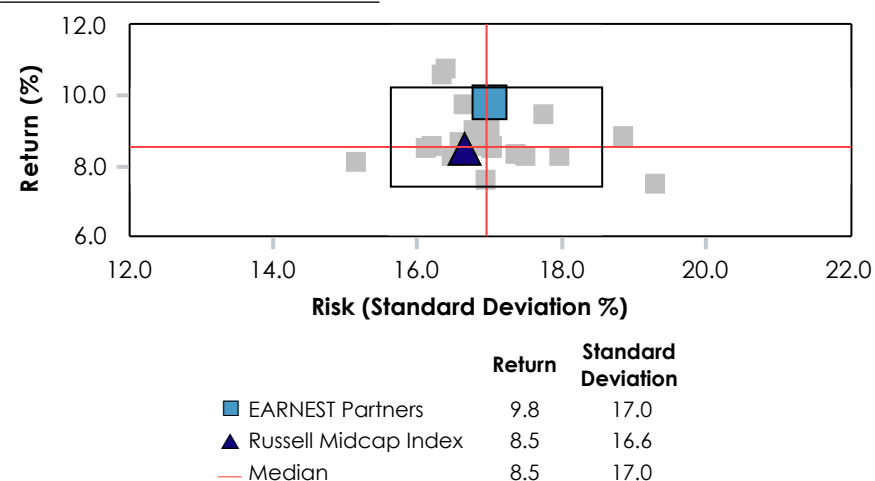
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

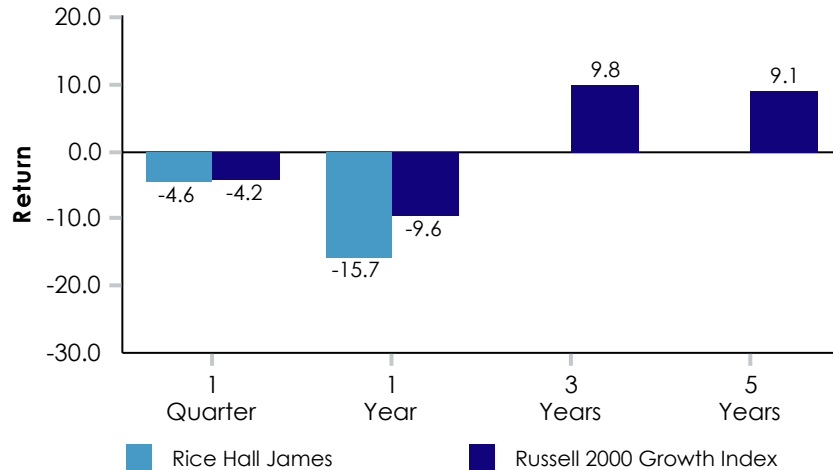


Rice Hall James - gross of fees

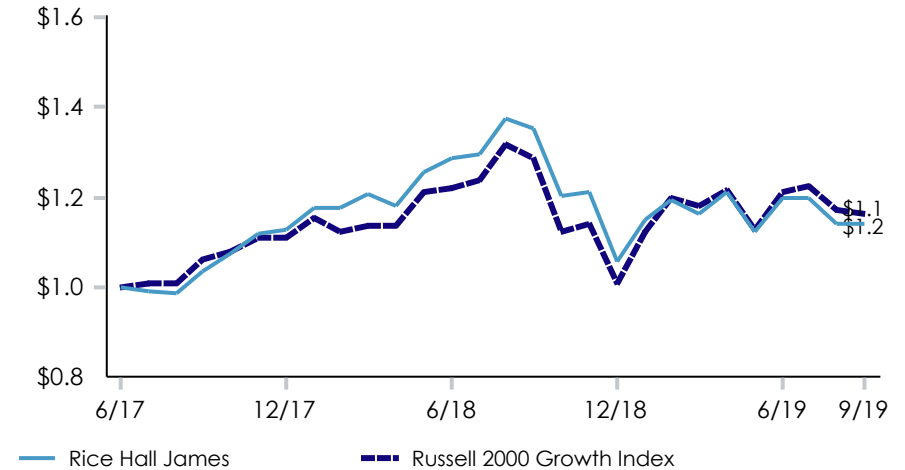
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Rice Hall James	-0.26	0.92	-0.19	0.32	4.87	0.93	91.88	93.20	07/01/2017
Russell 2000 Growth Index	0.00	1.00	-	0.36	0.00	1.00	100.00	100.00	07/01/2017

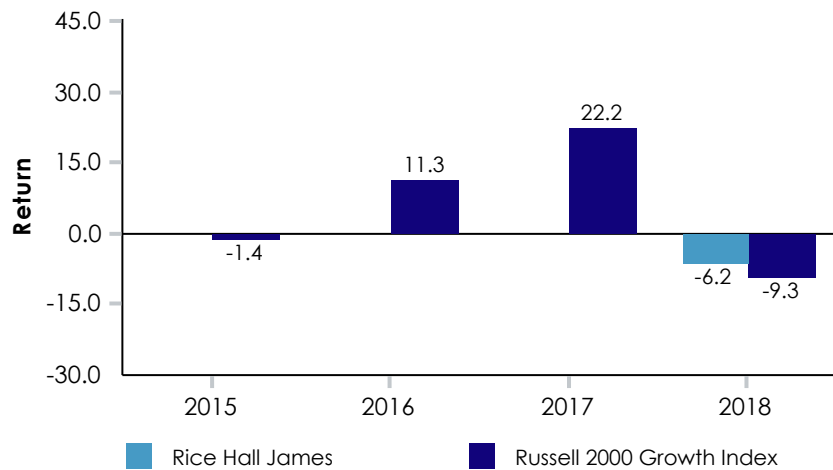
Trailing Period Performance



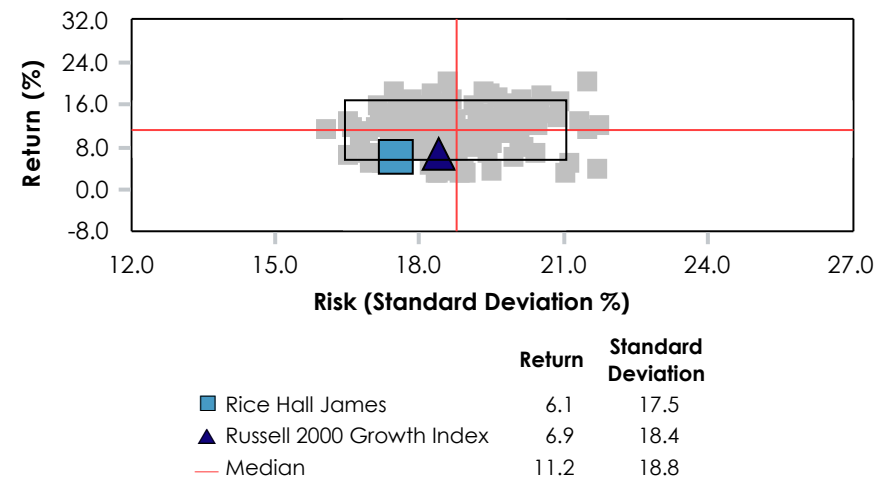
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

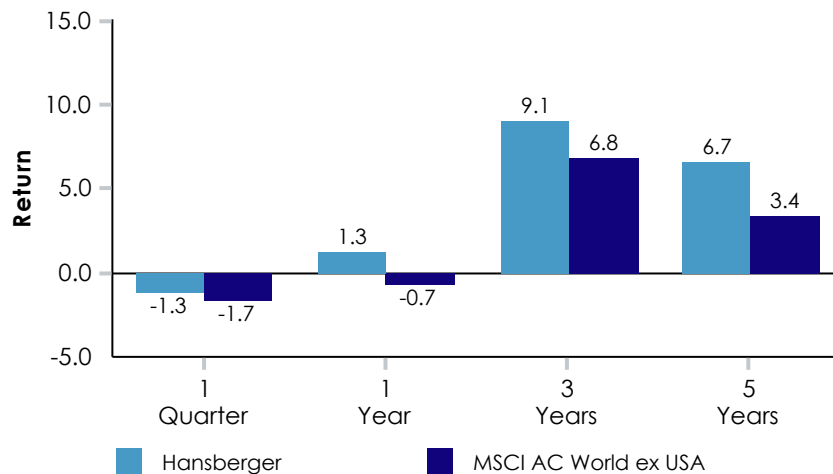


Hansberger - gross of fees

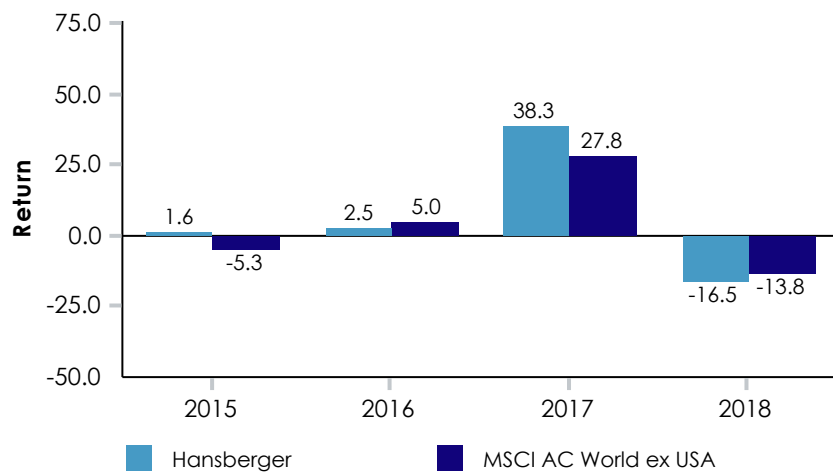
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Hansberger	0.53	1.09	0.25	0.27	3.99	0.96	108.00	105.05	02/01/2006
MSCI AC World ex USA	0.00	1.00	-	0.24	0.00	1.00	100.00	100.00	02/01/2006

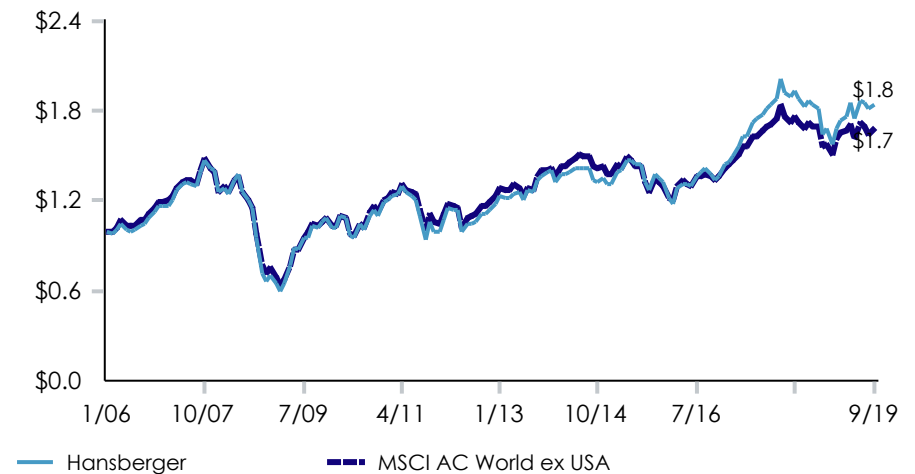
Trailing Period Performance



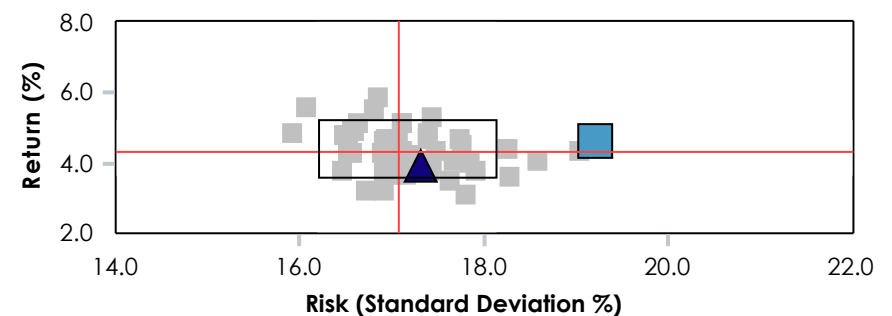
Calendar Year Performance



Growth of \$1 - Since Inception



Risk/Return - Since Inception



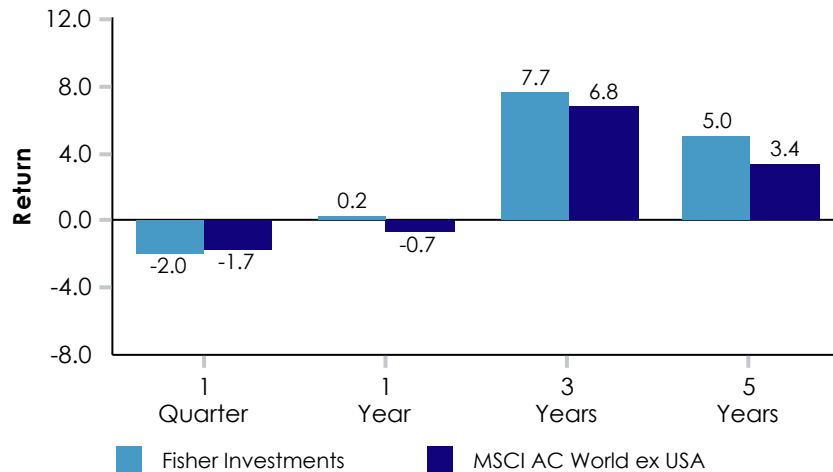
	Return	Standard Deviation
Hansberger	4.6	19.2
MSCI AC World ex USA	3.9	17.3
Median	4.3	17.1

Fisher Investments - gross of fees

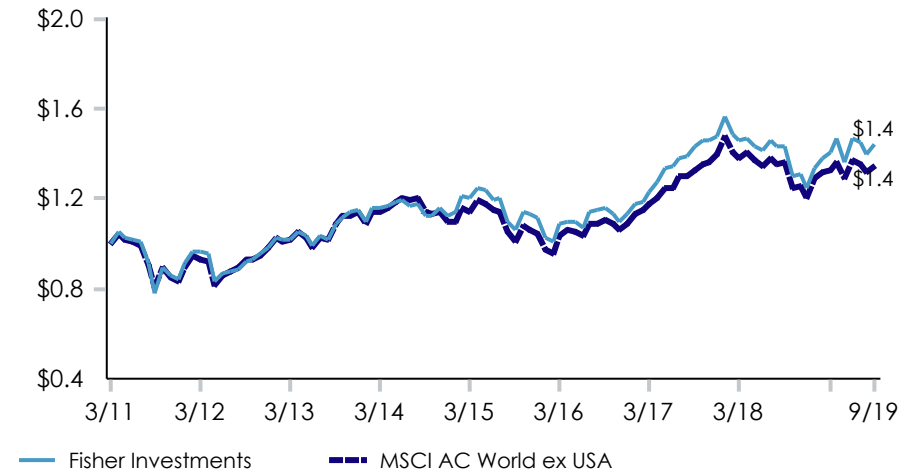
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Fisher Investments	0.59	1.10	0.29	0.32	3.56	0.96	108.64	104.75	04/01/2011
MSCI AC World ex USA	0.00	1.00	-	0.28	0.00	1.00	100.00	100.00	04/01/2011

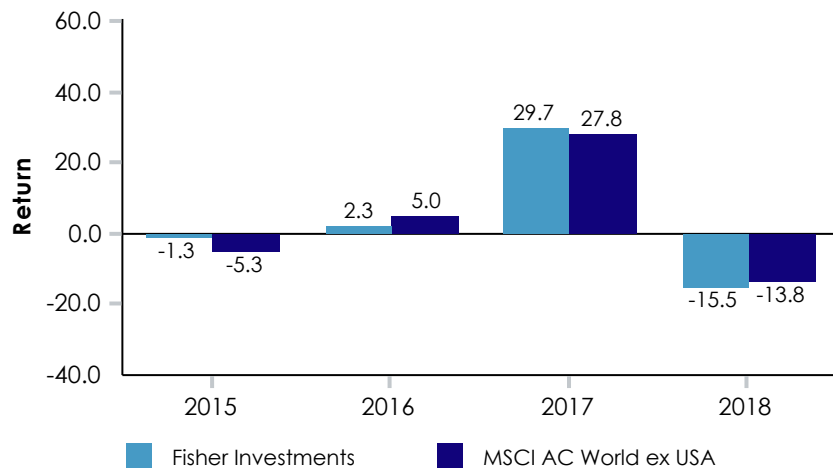
Trailing Period Performance



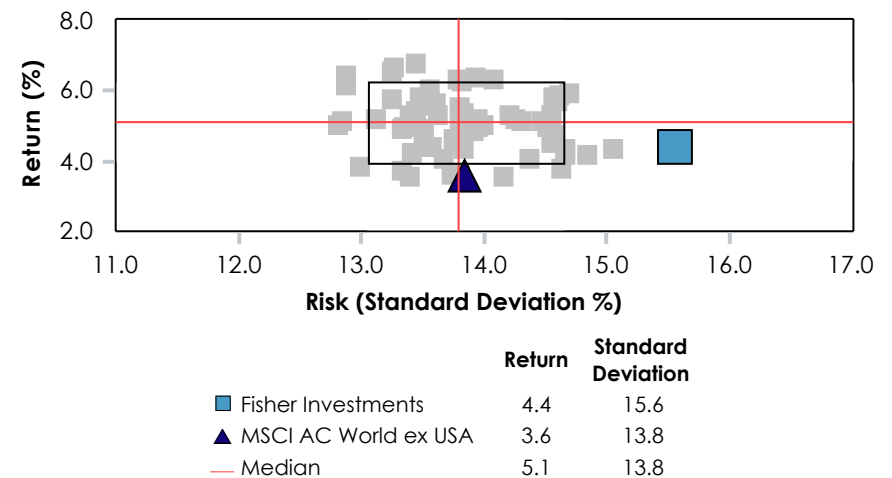
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

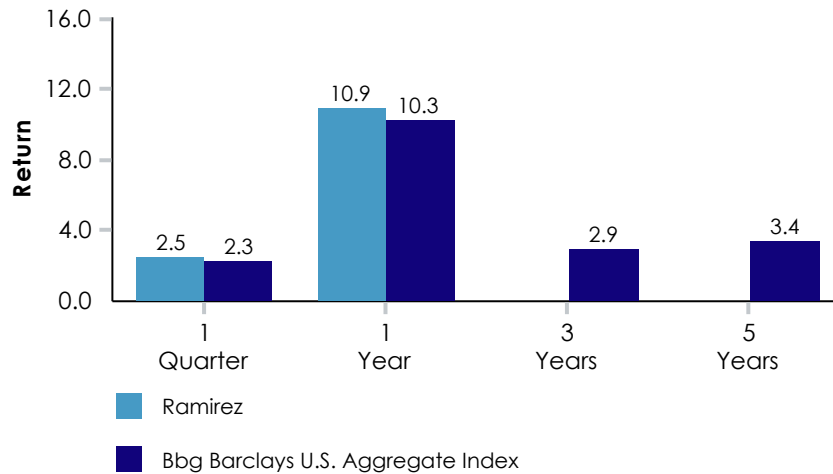


Ramirez - gross of fees

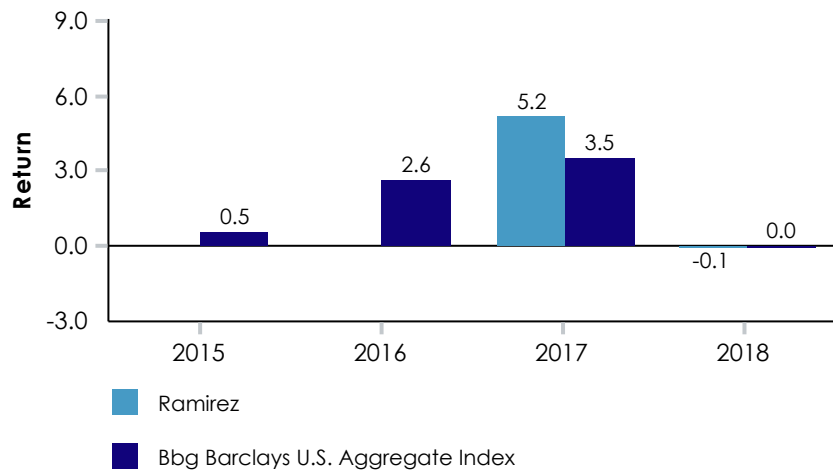
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Ramirez	1.15	0.95	1.53	1.27	0.61	0.96	107.34	77.76	01/01/2017
Bbg Barclays U.S. Aggregate Index	0.00	1.00	-	0.91	0.00	1.00	100.00	100.00	01/01/2017

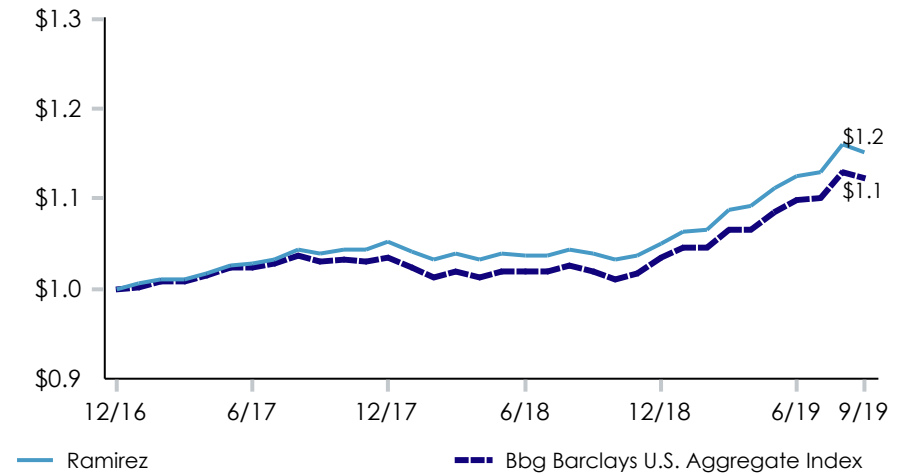
Trailing Period Performance



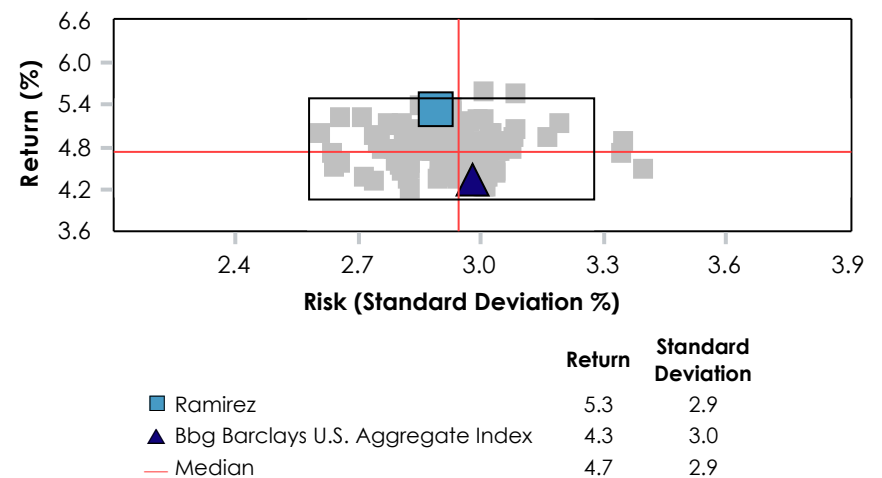
Calendar Year Performance



Growth of \$1 - Since Inception



Risk/Return - Since Inception

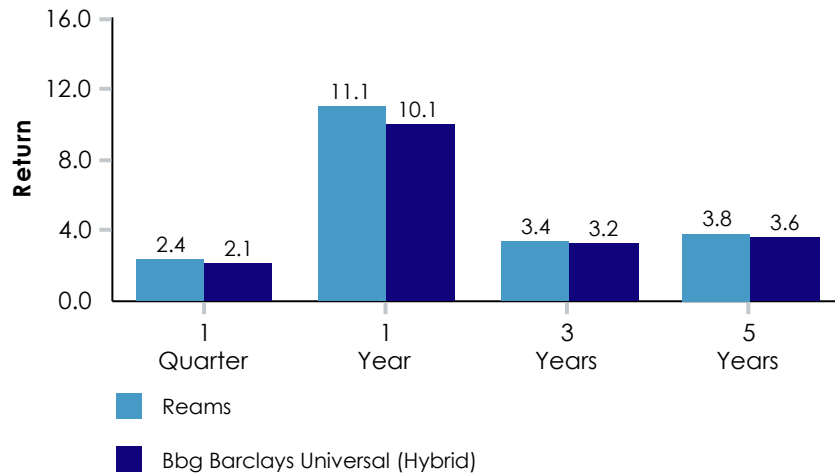


Reams - gross of fees

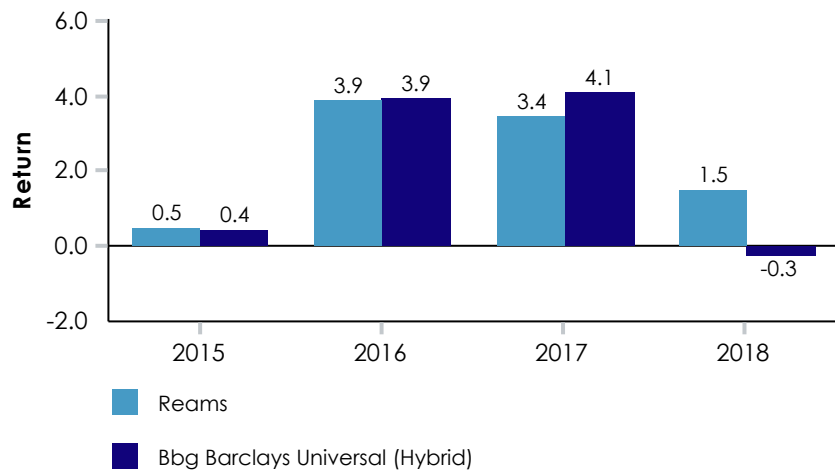
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Reams	0.32	1.06	0.16	0.70	3.93	0.45	109.68	103.42	02/01/1998
Bbg Barclays Universal (Hybrid)	0.00	1.00	-	0.91	0.00	1.00	100.00	100.00	02/01/1998

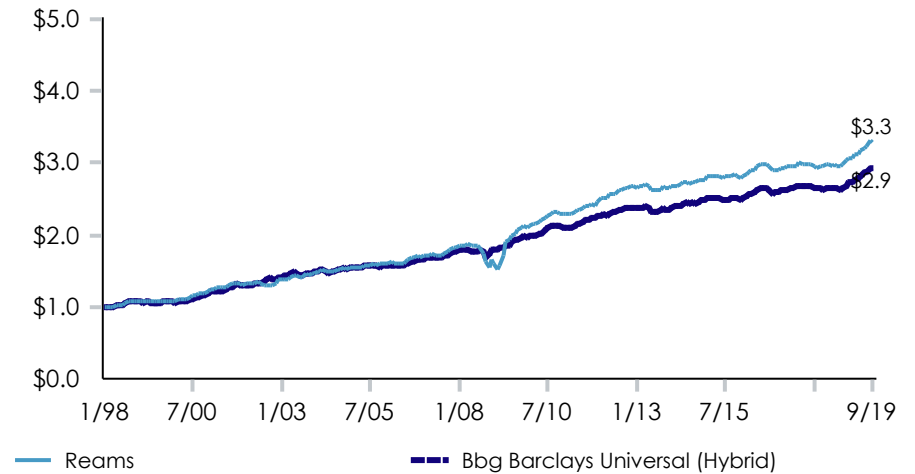
Trailing Period Performance



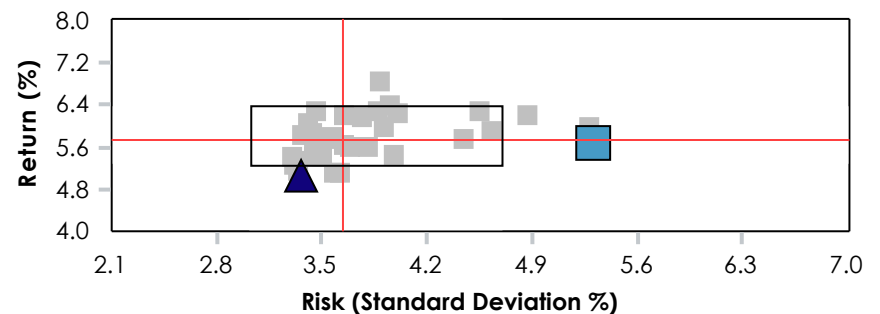
Calendar Year Performance



Growth of \$1 - Since Inception



Risk/Return - Since Inception



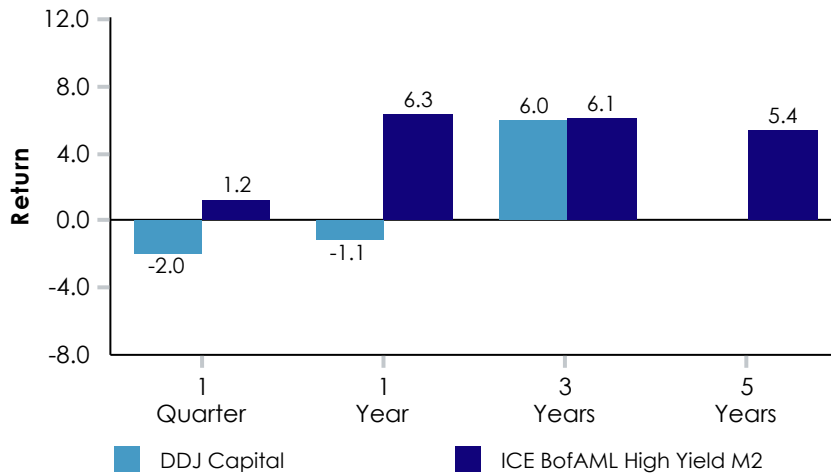
	Return	Standard Deviation
Reams	5.7	5.3
Bbg Barclays Universal (Hybrid)	5.1	3.4
Median	5.7	3.6

DDJ Capital - gross of fees

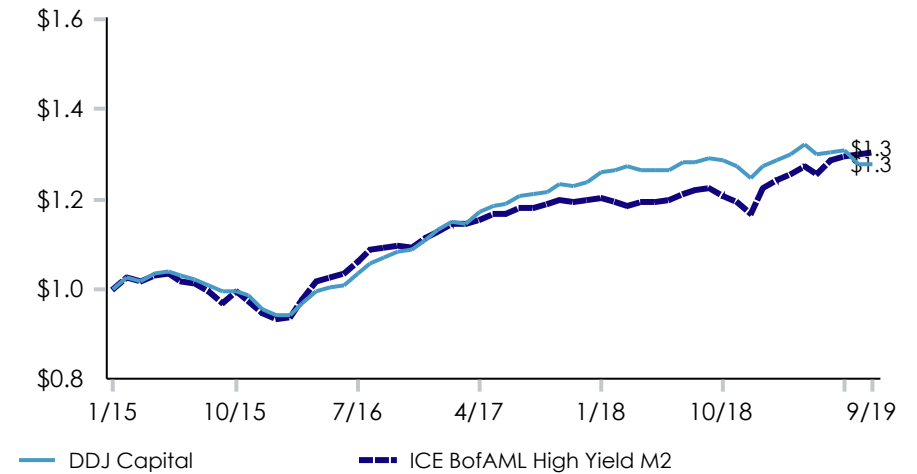
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
DDJ Capital	1.40	0.68	-0.15	0.93	3.28	0.64	81.40	68.77	02/01/2015
ICE BofAML High Yield M2	0.00	1.00	-	0.89	0.00	1.00	100.00	100.00	02/01/2015

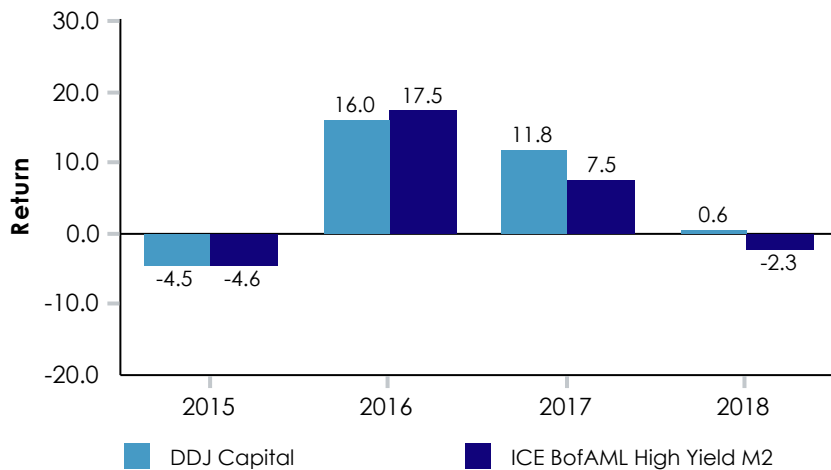
Trailing Period Performance



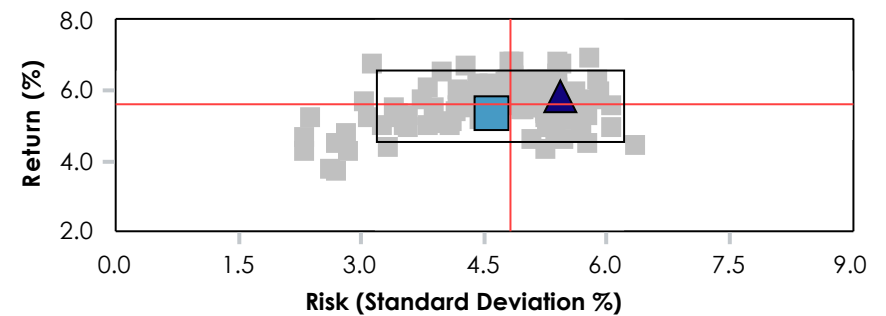
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception



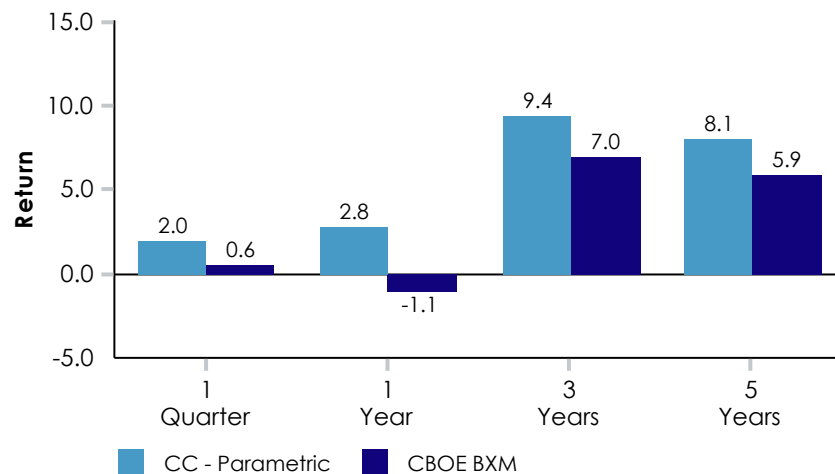
	Return	Standard Deviation
DDJ Capital	5.4	4.6
ICE BofAML High Yield M2	5.8	5.4
Median	5.6	4.8

CC - Parametric - gross of fees

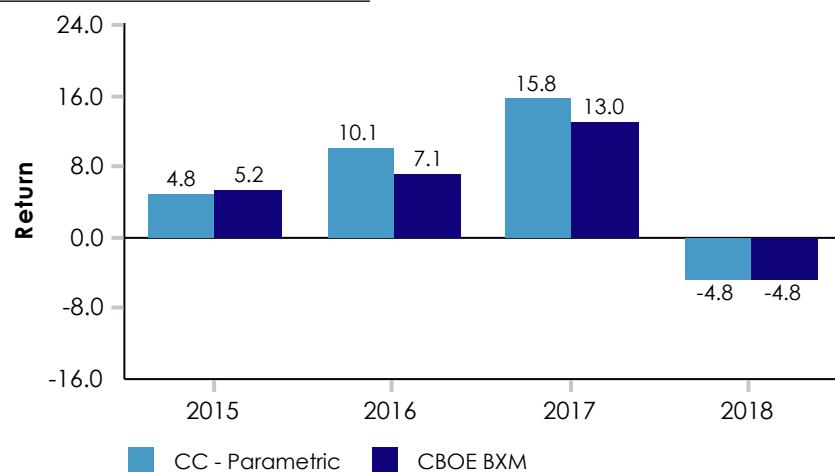
As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
CC - Parametric	1.41	1.09	0.85	0.89	2.32	0.93	120.18	109.08	04/01/2014
CBOE BXM	0.00	1.00	-	0.73	0.00	1.00	100.00	100.00	04/01/2014

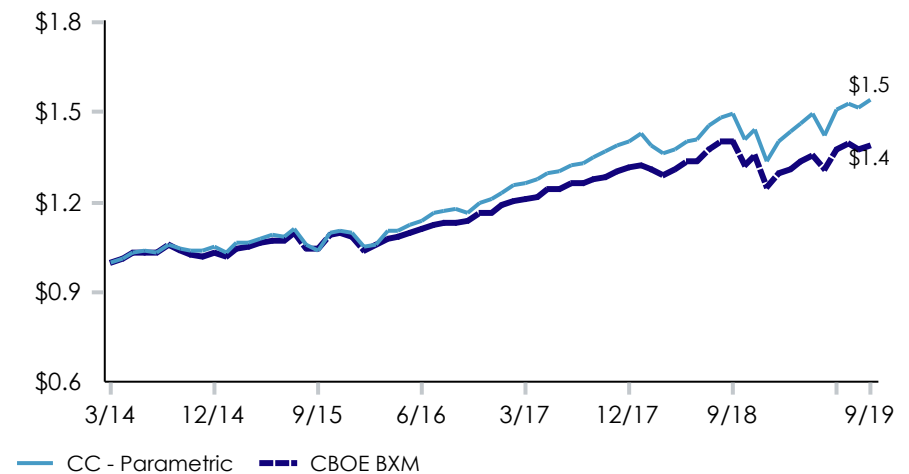
Trailing Period Performance



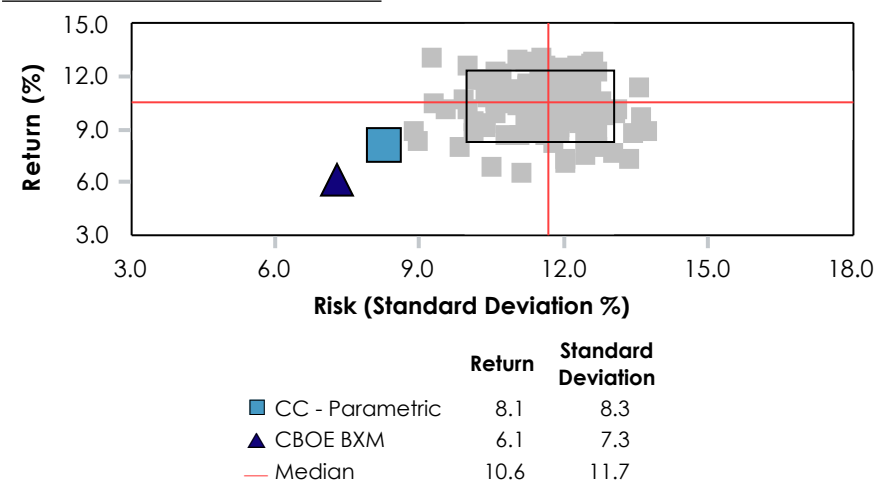
Calendar Year Performance



Growth of \$1 - Since Inception



Risk/Return - Since Inception

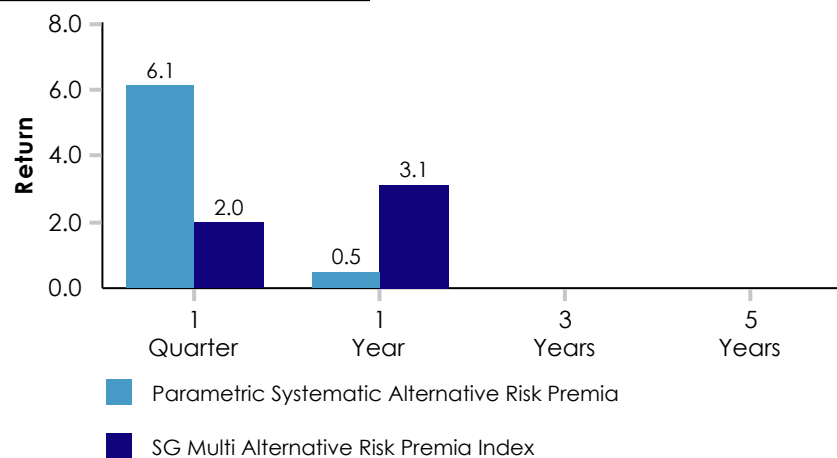


Parametric Systematic Alternative Risk Premia - gross of fees

As of September 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Parametric Systematic Alternative Risk Premia	-2.41	2.73	0.15	0.13	11.21	0.52	279.38	343.99	08/01/2018
SG Multi Alternative Risk Premia Index	0.00	1.00	-	0.03	0.00	1.00	100.00	100.00	08/01/2018

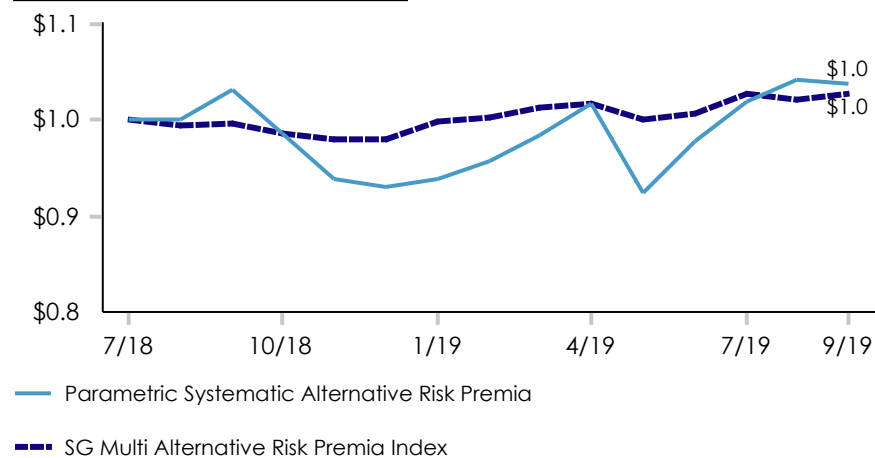
Trailing Period Performance



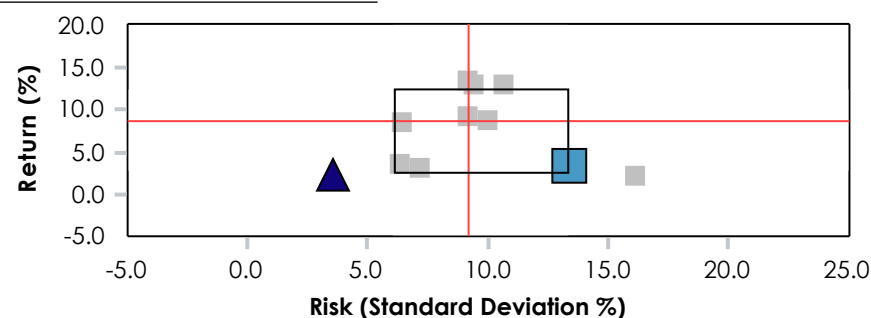
Calendar Year Performance

No data found.

Growth of \$1 - Since Inception



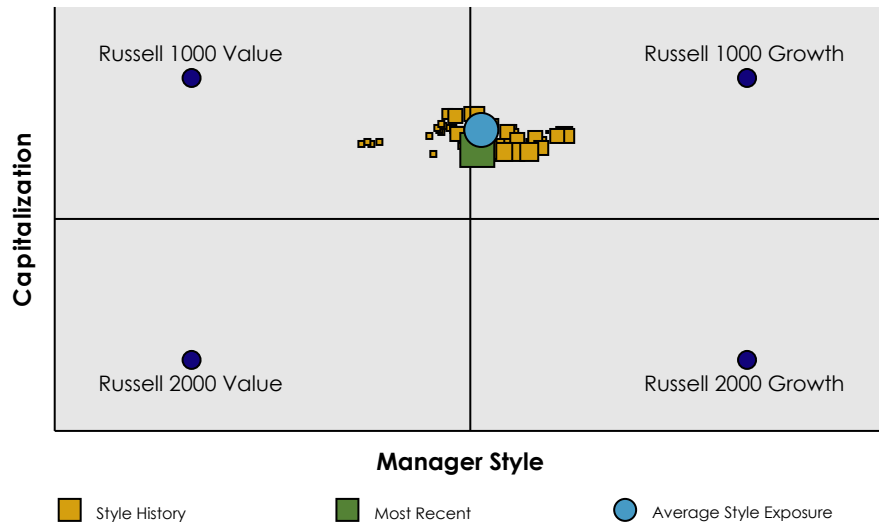
Risk/Return - Since Inception



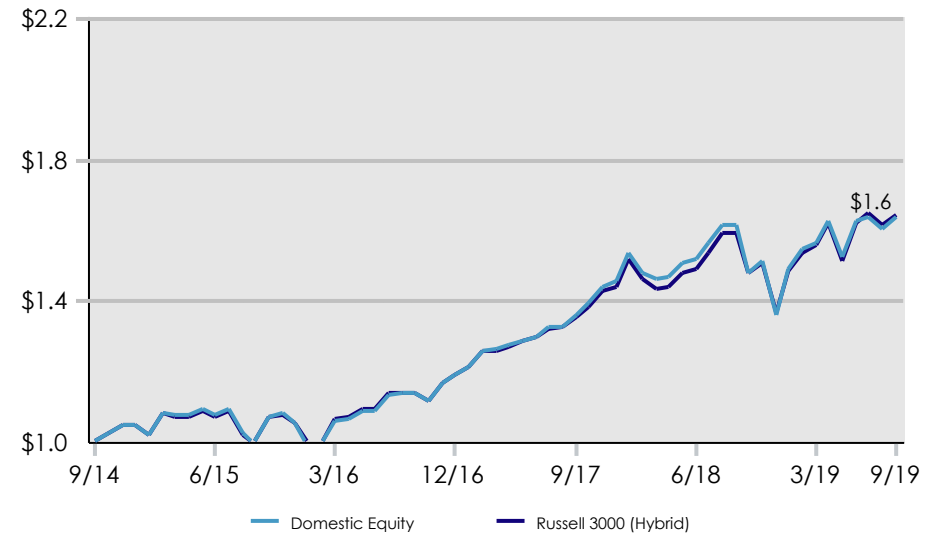
	Return	Standard Deviation
Parametric Systematic Alternative Risk Premia	3.2	13.5
SG Multi Alternative Risk Premia Index	2.3	3.5
Median	8.7	9.2

Domestic Equity Analysis As of September 30, 2019

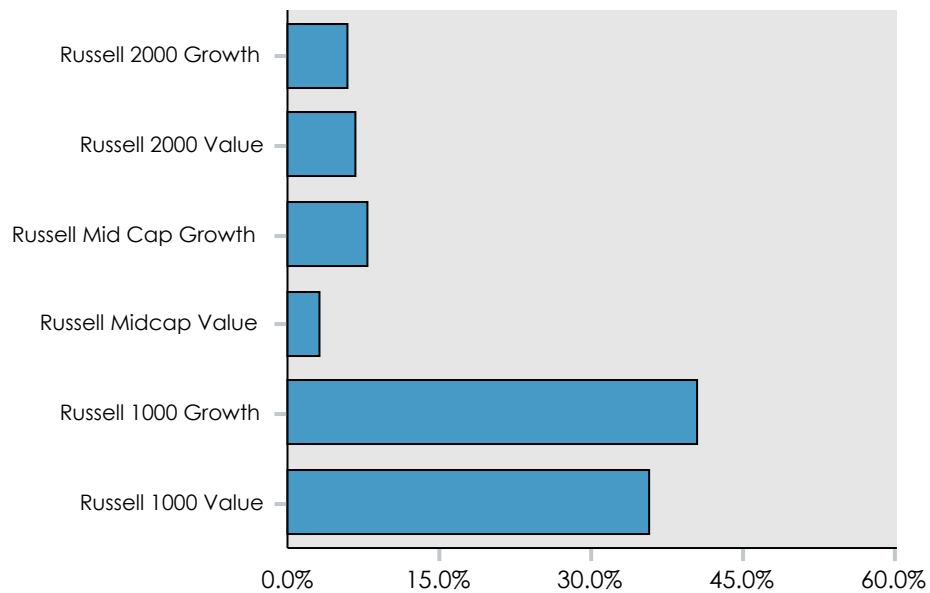
Style Map (5-Year)



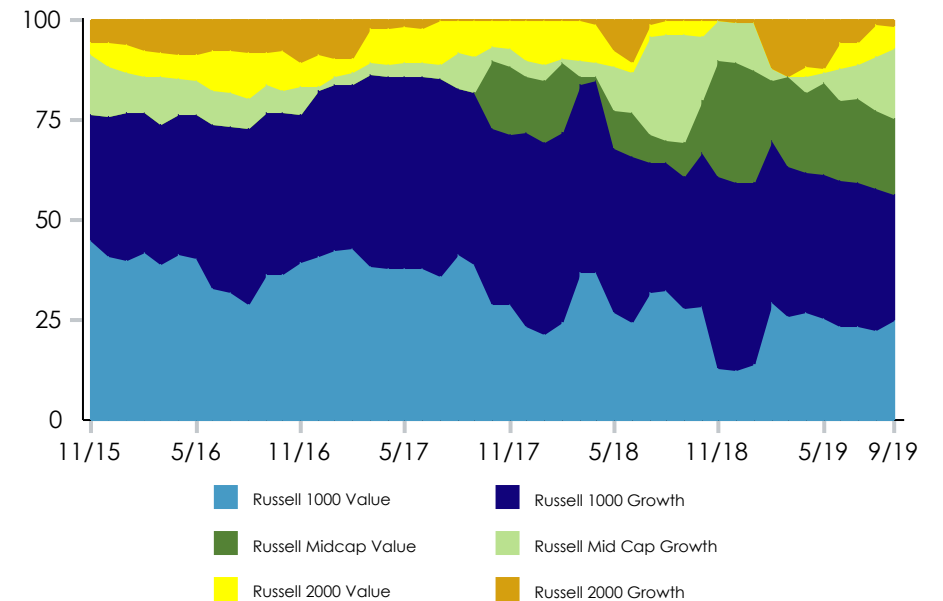
Growth of \$1 (5-Year)



Style Exposure

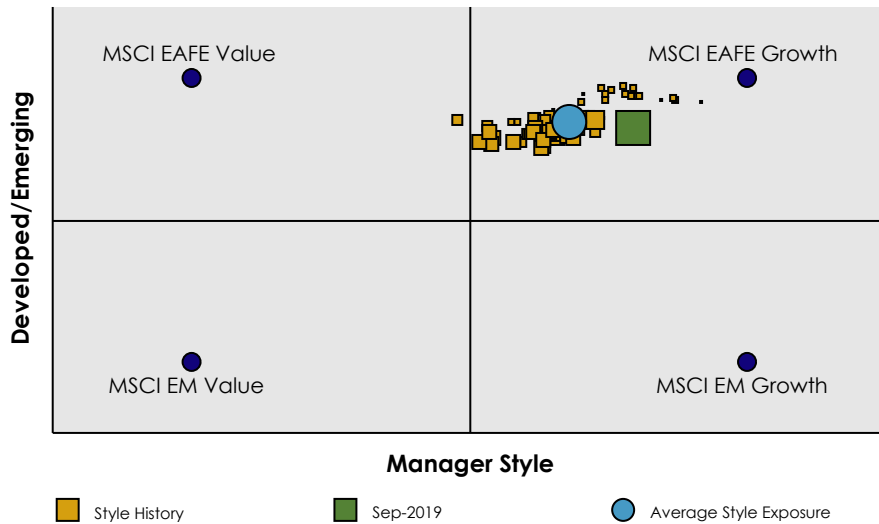


Style History (5-Year)

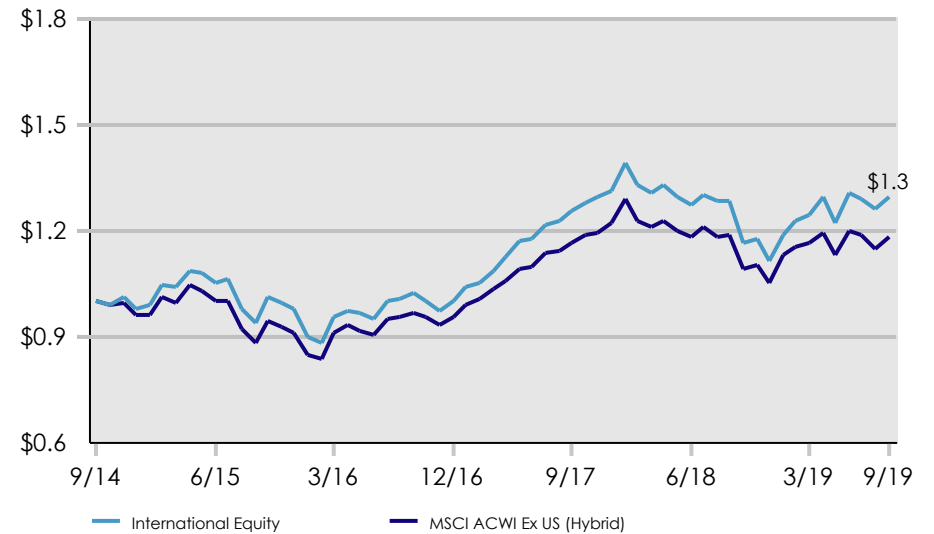


International Equity Analysis As of September 30, 2019

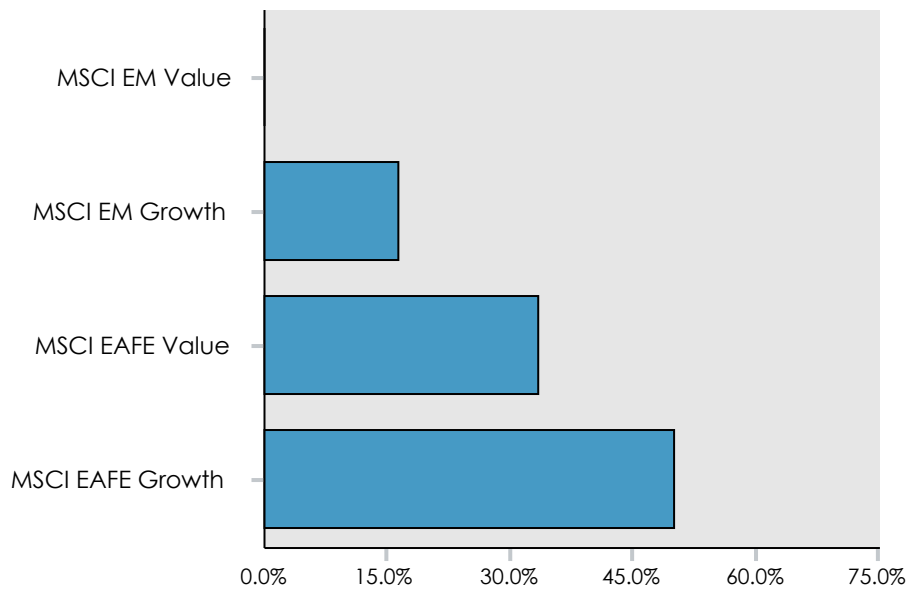
Style Map (5-Year)



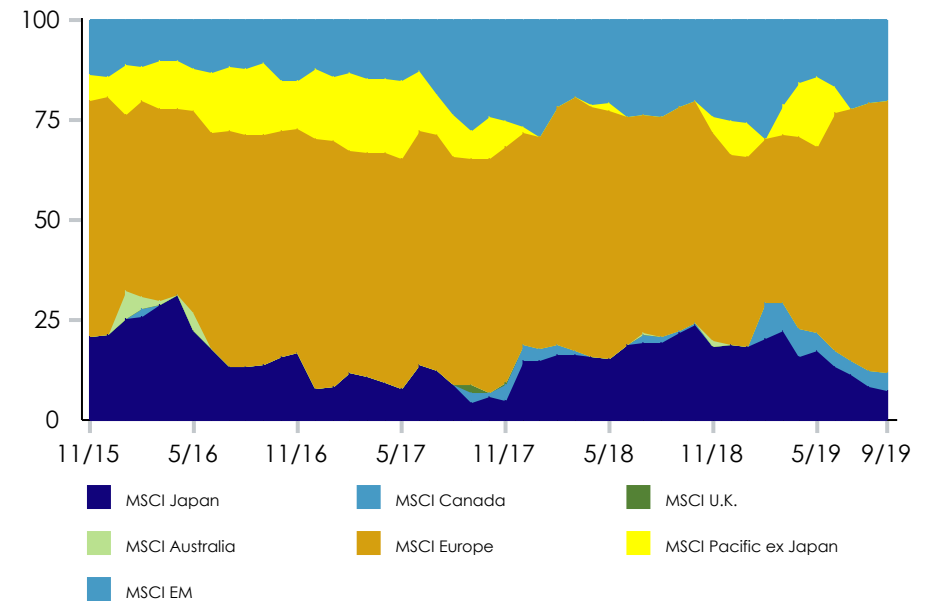
Growth of \$1 (5-Year)



Style Exposure

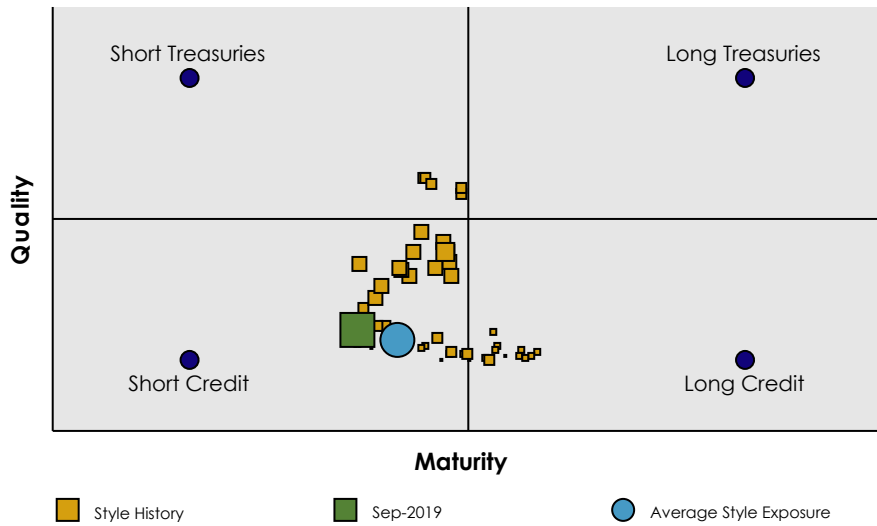


Style History (5-Year)

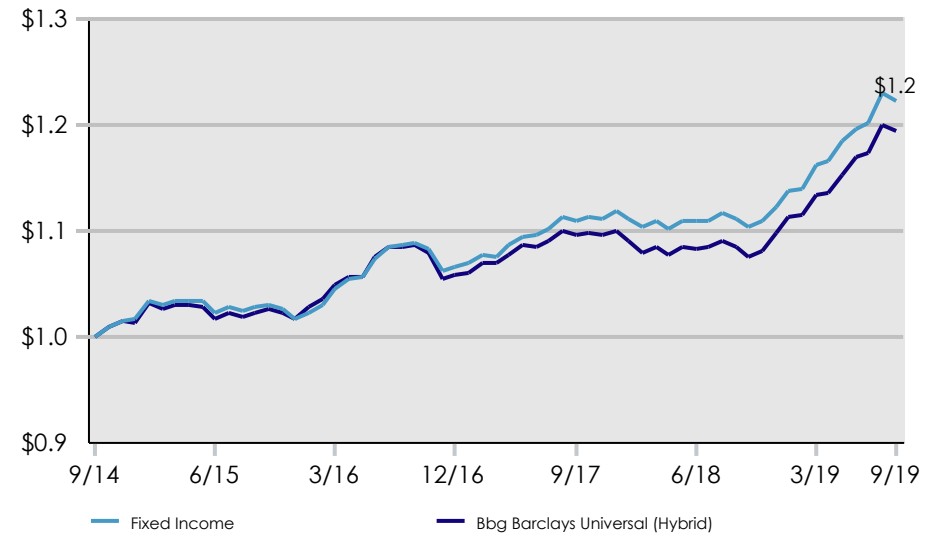


Fixed Income Analysis As of September 30, 2019

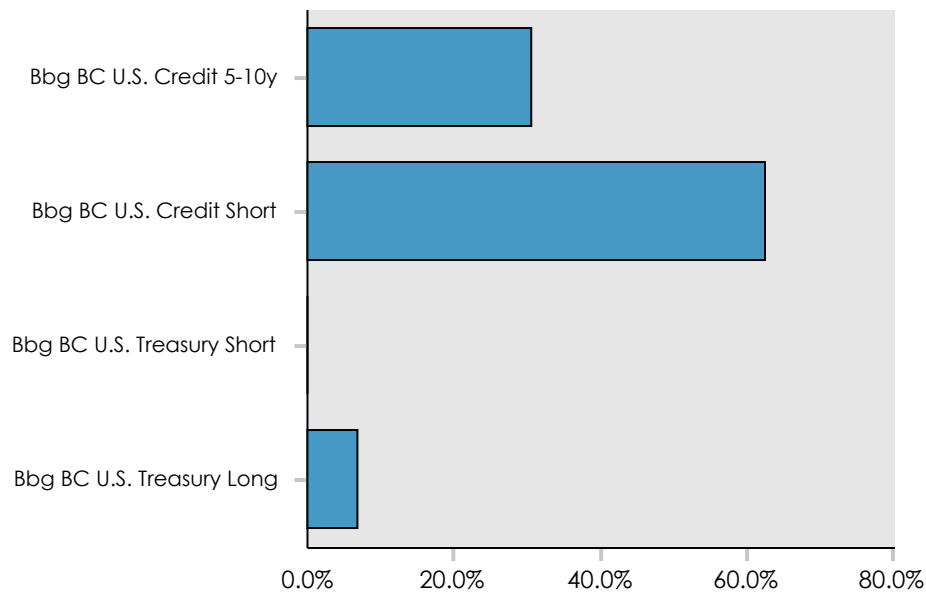
Style Map (5-Year)



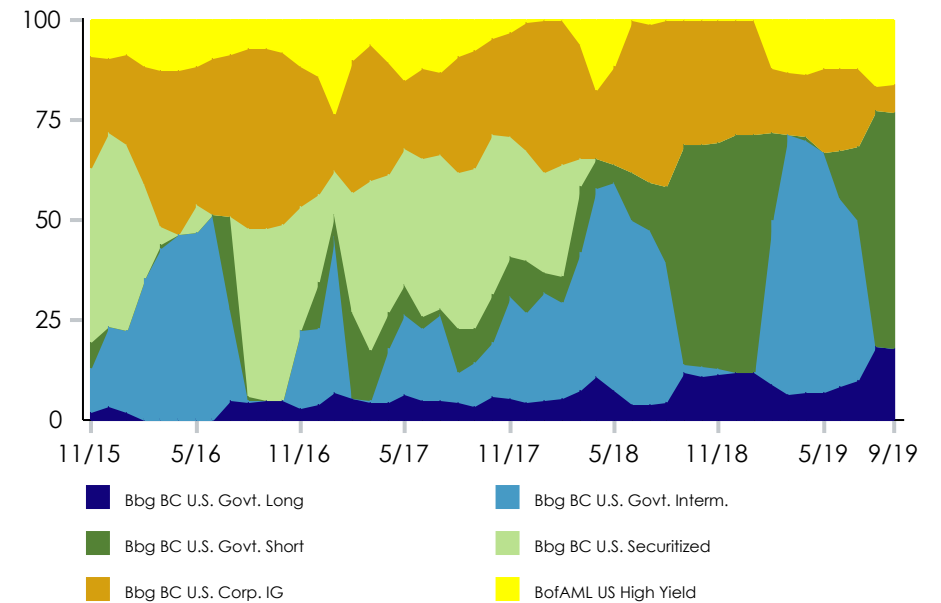
Growth of \$1 (5-Year)



Style Exposure



Style History (5-Year)



Glossary

Alpha

The premium an investment earns above a set standard. This is usually measured in terms of a common index (i.e., how the stock performs independent of the market). An Alpha is usually generated by regressing excess return on the S&P 500 excess return.

Annualized Performance

The annual rate of return that when compounded (t) times generates the same (t) period holding return as actually occurred from periods (1) to period (t).

Batting Average

Percentage of periods a portfolio outperforms a given index.

Beta

The measure of an asset's risk in relation to the Market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a security with a Beta of 1.5 will have moved, on average, 1.5 times the market return.

Bottom-up

A management style that de-emphasizes the significance of economic and market cycles, focusing instead on the analysis of individual stocks.

Dividend Discount Model

A method to value the common stock of a company that is based on the present value of the expected future dividends.

Growth Stock

Common stock of a company that has an opportunity to invest money and earn more than its opportunity cost of capital.

Information Ratio

The ratio of annualized expected residual return to residual risk. A central measurement for active management, value added is proportional to the square of the information ratio.

R - Squared

Square of the correlation coefficient. The proportion of the variability in one series that can be explained by the variability of one or more other series in a regression model. A measure of the quality of fit. 100% R-square means a perfect predictability.

Standard Deviation

The square root of the variance. A measure of dispersion of a set of data from its mean

Sharpe Ratio

A measure of a portfolio's excess return relative to the total variability of the portfolio.

Style Analysis

A returns-based analysis using a multi-factor attribution model. The model calculates a product's average exposure to particular investment styles over time (i.e., the products normal style benchmark).

Top-Down

Investment style that begins with an assessment of the overall economic environment and makes a general asset allocation decision regarding various sectors of the financial markets and various industries.

Tracking Error

The standard deviation of the difference between the returns of a portfolio and an appropriate benchmark.

Turnover

For mutual funds, a measure of trading activity during the previous year, expressed as a percentage of the average total assets of the fund. A turnover rate of 25% means that the value of trades represented (1/4) of the assets of the fund.

Value Stock

Stocks with low price/book ratios or price/earnings ratios. Historically, value stocks have enjoyed higher average returns than growth stocks (stocks with high price/book or price/earnings ratios) in a variety of countries.

Benchmark Definitions

Bloomberg Barclays Capital Universal: includes market coverage by the Aggregate Bond Index fixed rate debt issues, which are rated investment grade or higher by Moody's, S&P, or Fitch, in that order with all issues having at least one year to maturity and an outstanding par value of at least \$100 million and includes exposures to high yield CMBS securities. All returns are market value weighted inclusive of accrued interest.

MSCI ACWI x US: MSCI ACWI (All Country World Index) Free excluding US (gross dividends): is a free-floating adjusted market capitalization index designed to measure equity performance in the global developed and emerging markets. As of April 2002, the index consisted of 49 developed and emerging market country indices.

MSCI EAFE (Europe, Australasia, Far East): is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada.

Russell 1000: measures the performance of the 1,000 largest securities in the Russell 3000 Index. Russell 1000 is highly correlated with the S&P 500 Index and capitalization-weighted.

Russell 1000 Growth: measures the performance of those Russell 1000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

Russell 1000 Value: measures the performance of those Russell 1000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than the Growth universe.

Russell Mid-Cap: measures the performance of the smallest 800 companies in the Russell 1000 Index, as ranked by total market capitalization.

Russell 2000: measures the performance of the 2,000 smallest securities in the Russell 3000 Index. Russell 2000 is market capitalization-weighted.

Russell 2000 Growth: measures the performance of those Russell 2000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-to-earnings ratios.

Russell 2000 Value: measures the performance of those Russell 2000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-to-earnings ratios.

CBOE BXM: measures the performance of a hypothetical buy-write strategy on the S&P 500 Index.

ICE BofA ML U.S. High Yield Master II: Tracks the performance of US dollar denominated below investment grade rated corporate debt publicly issued in the US domestic market. All securities in index must have a below investment grade rating and an investment grade rated country of risk (based on foreign currency long term sovereign debt ratings). Each securities have > 1 year remaining maturity, fixed coupon schedule, and a minimum amount outstanding of \$100 million.

Societe Generale (SG) Multi-Alternative Risk Premia: Represents risk premia managers with programs diversified across multiple asset classes utilizing multiple risk premia factors. These managers trade multiple asset classes such as equities, fixed income, currencies, and in many cases commodities, and aim to capture a diversity of discrete risk premia, including most prevalently value, carry, and momentum. These multi-asset, multi-risk premia strategies are typically systematic. Single asset class and risk premia programs are excluded. The SG Multi Alternative Risk Premia Index is an equally weighed, non-investable index of funds



RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

US Equity Markets:

Metric: $P/E \text{ ratio} = \text{Price} / \text{"Normalized" earnings for the S\&P 500 Index}$

To represent the price of US equity markets, we have chosen the S&P 500 index. This index has the longest published history of price, is well known, and also has reliable, long-term, published quarterly earnings. The price= P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the S&P 500 index). Equity markets are very volatile. Prices fluctuate significantly during normal times and extremely during periods of market stress or euphoria. Therefore, developing a measure of earnings power (E) which is stable is vitally important, if the measure is to provide insight. While equity prices can and do double, or get cut in half, real earnings power does not change nearly as much. Therefore, we have selected a well known measure of real, stable earnings power developed by Yale Professor Robert Shiller known as the Shiller E-10. The calculation of E-10 is simply the average real annual earnings over the past 10 years. Over 10 years, the earnings shenanigans and boom and bust levels of earnings tend to even out (and often times get restated). Therefore, this earnings statistic gives a reasonably stable, slow-to-change estimate of average real earnings power for the index. Professor Shiller's data and calculation of the E-10 are available on his website at <http://www.econ.yale.edu/~shiller/data.htm>. We have used his data as the base for our calculations. Details of the theoretical justification behind the measure can be found in his book *Irrational Exuberance* [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005].

Developed Equity Markets Excluding the US:

Metric: $P/E \text{ ratio} = \text{Price} / \text{"Normalized" earnings for the MSCI EAFE Index}$

To represent the price of non-US developed equity markets, we have chosen the MSCI EAFE index. This index has the longest published history of price for non-US developed equities. The price= P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the MSCI EAFE index). The price level of this index is available starting in December 1969. Again, for the reasons described above, we elected to use the Shiller E-10 as our measure of earnings (E). Since 12/1972, a monthly price earnings ratio is available from MSCI. Using this quoted ratio, we have backed out the implied trailing-twelve month earnings of the EAFE index for each month from 12/1972 to the present. These annualized earnings are then inflation adjusted using CPI-U to represent real earnings in US dollar terms for each time period. The Shiller E-10 for the EAFE index (10 year average real earnings) is calculated in the same manner as detailed above.

However, we do not believe that the pricing and earnings history of the EAFE markets are long enough to be a reliable representation of pricing history for developed market equities outside of the US. Therefore, in constructing the Long-Term Average Historical P/E for developed ex-US equities for comparison purposes, we have elected to use the US equity market as a developed market proxy, from 1881 to 1982. This lowers the Long-Term Average Historical P/E considerably. We believe this methodology provides a more realistic historical comparison for a market with a relatively short history.

Emerging Market Equity Markets

Metric: $\text{Ratio of Emerging Market } P/E \text{ Ratio to Developed Market } P/E \text{ Ratio}$

To represent the Emerging Markets P/E Ratio, we have chosen the MSCI Emerging Market Free Index, which has P/E data back to January 1995 on Bloomberg. To represent the Developed Markets P/E Ratio, we have chosen the MSCI World Index, which also has data back to January 1995 on Bloomberg. Although there are issues with published, single time period P/E ratios, in which the denominator effect can cause large movements, we feel that the information contained in such movements will alert investors to market activity that they will want to interpret.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

US Private Equity Markets:

Metrics: S&P LCD Average EBITDA Multiples Paid in LBOs and US Quarterly Deal Volume

The Average Purchase Price to EBITDA multiples paid in LBOs is published quarterly by S&P in their LCD study. This is the total price paid (both equity and debt) over the trailing-twelve month EBITDA (earnings before interest, taxes, depreciation and amortization) as calculated by S&P LCD. This is the relevant, high-level pricing metric that private equity managers use in assessing deals. Data is published monthly.

US quarterly deal volume for private equity is the total deal volume in \$ billions (both equity and debt) reported in the quarter by Thomson Reuters Buyouts. This metric gives a measure of the level of activity in the market. Data is published quarterly.

U.S Private Real Estate Markets:

Metrics: US Cap rates and Annual US Real Estate Deal Volume

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The date is published by NCREIF. We chose to use current value cap rate. These are capitalization rates from properties that were revalued during the quarter. While this data does rely on estimates of value and therefore tends to be lagging, (estimated prices are slower to rise and slow to fall than transaction prices), the data series goes back to 1979, providing a long data series for valuation comparison. Data is published quarterly.

Annual US real estate deal volume is the total deal transaction volume in \$ billions (both equity and debt) reported by Real Capital Analytics during the trailing-twelve months. This metric gives the level of activity in the market. Data is published monthly.

Measure of Equity Market Fear / Uncertainty

Metric: VIX – Measure of implied option volatility for U.S. equity markets

The VIX is a key measure of near-term volatility conveyed by implied volatility of S&P 500 index option prices. VIX increases with uncertainty and fear. Stocks and the VIX are negatively correlated. Volatility tends to spike when equity markets fall.

Measure of Monetary Policy

Metric: Yield Curve Slope

We calculate the yield curve slope as the 10 year treasury yield minus the 1 year treasury yield. When the yield curve slope is zero or negative, this is a signal to pay attention. A negative yield curve slope signals lower rates in the future, caused by a contraction in economic activity. Recessions are typically preceded by an inverted (negatively sloped) yield curve. A very steep yield curve (2 or greater) indicates a large difference between shorter-term interest rates (the 1 year rate) and longer-term rates (the 10 year rate). This can signal expansion in economic activity in the future, or merely higher future interest rates.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

Definition of “extreme” metric readings

A metric reading is defined as “extreme” if the metric reading is in the top or bottom decile of its historical readings. These “extreme” reading should cause the reader to pay attention. These metrics have reverted toward their mean values in the past.

Credit Markets US Fixed Income:

Metric: Spreads

The absolute level of spreads over treasuries and spread trends (widening / narrowing) are good indicators of credit risk in the fixed income markets. Spreads incorporate estimates of future default, but can also be driven by technical dislocations in the fixed income markets. Abnormally narrow spreads (relative to historical levels) indicate higher levels of valuation risk, wide spreads indicate lower levels of valuation risk and / or elevated default fears. Investment grade bond spreads are represented by the Barclays Capital US Corporate Investment Grade Index Intermediate Component. The high yield corporate bond spreads are represented by the Barclays Capital US Corporate High Yield Index.

Measures of US Inflation Expectations

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

Inflation is a very important indicator impacting all assets and financial instruments. Breakeven inflation is calculated as the 10 year nominal treasury yield minus the 10 year real yield on US TIPS (treasury inflation protected securities). Abnormally low long-term inflation expectations are indicative of deflationary fears. A rapid rise in breakeven inflation indicates acceleration in inflationary expectations as market participants sell nominal treasuries and buy TIPS. If breakeven inflation continues to rise quarter over quarter, this is a signal of inflationary worries rising, which may cause Fed action and / or dollar decline.

Commodity price movement (above the rate of inflation) is an indication of anticipated inflation caused by real global economic activity putting pressure on resource prices. We calculate this metric by adjusted in the Dow Jones UBS Commodity Index (formerly Dow Jones AIG Commodity Index) by US CPI-U. While rising commodity prices will not necessarily translate to higher US inflation, higher US inflation will likely show up in higher commodity prices, particularly if world economic activity is robust.

These two measures of anticipated inflation can, and often are, conflicting.

Measures of US Treasury Bond Interest Rate Risk

Metrics: 10-Year Treasury Forward-Looking Real Yield and 10-Year Treasury Duration

The expected annualized real yield of the 10 year US Treasury Bond is a measure of valuation risk for US Treasuries. A low real yield means investors will accept a low rate of expected return for the certainty of receiving their nominal cash flows. MIG estimates the expected annualized real yield by subtracting an estimate of expected 10 year inflation (produced by the Survey of Professional Forecasters as collected by the Federal Reserve Bank of Philadelphia), from the 10 year Treasury constant maturity interest rate.

Duration for the 10-Year Treasury Bond is calculated based on the current yield and a price of 100. This is a measure of expected percentage movements in the price of the bond based on small movements in percentage yield. We make no attempt to account for convexity.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

What is the MIG Market Sentiment Indicator (PMSI)?

The PMSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The PMSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the MIG Market Sentiment Indicator (PMSI) graph?

Simply put, the PMSI is a color coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the PMSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the PMSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.

How is the MIG Market Sentiment Indicator (PMSI) Constructed?

The PMSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

1. Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
2. Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration U.S. Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight). The scale of this measure is adjusted to match that of the stock return momentum measure.

The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure. The color reading on the graph is determined as follows:

1. If both stock return momentum and bond spread momentum are positive = GREEN (positive)
2. If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
3. If both stock return momentum and bond spread momentum are negative = RED (negative)

What does the MIG Market Sentiment Indicator (PMSI) mean? Why might it be useful?

There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12 month period. The PMSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

Momentum is defined as the persistence of relative performance. There is a significant amount of academic evidence indicating that positive momentum (e.g., strong performing stocks over the recent past continue to post strong performance into the near future) exists over near-to-intermediate holding periods. See, for example, "Understanding Momentum," *Financial Analysts Journal*, Scowcroft, Sefton, March, 2005.

DISCLAIMER:

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

City of Oakland Police and Fire Retirement System Preliminary 4Q 2019 Performance As of 12/31/2019, gross of fees

Segment	Manager	Style	4Q 2019	1-year	3-year	5-year	Since Inception ⁸	Inception Date ⁹
Benchmark								
Total Plan (Gross of Fees)			5.3	21.2	10.9	8.3	---	---
Total Plan (Net of Fees) ¹⁰			5.2	20.8	10.6	7.9	---	---
Policy Benchmark ¹			4.9	19.6	9.9	7.8	---	---
Public Equity			8.9	29.9	13.7	10.3	---	---
Public Equity Benchmark ⁴			9.1	28.9	13.5	10.1	---	---
Domestic Equity			8.6	30.6	14.3	11.1	---	---
Russell 3000 (blend) ⁵			9.1	31.0	14.6	11.2	---	---
Large Cap			9.0	31.9	15.4	11.7	---	---
Northern Trust	Large Cap Core		9.0	31.4	15.1	11.5	14.3	5/2010
Russell 1000	Large Cap Core		9.0	31.4	15.1	11.5	14.3	---
Midcap			7.7	38.4	16.4	13.2	---	---
Earnest Partners	Mid Cap Core		7.7	38.4	16.4	13.2	10.2	3/2006
Russell Mid Cap	Mid Cap Core		7.1	30.5	12.1	9.3	8.9	---
Small Cap			9.2	21.5	8.7	6.8	---	---
Vanguard R2000 Value	Small Cap Value		8.4	---	---	---	8.0	8/2019
Russell 2000 Value	Small Cap Value		8.5	---	---	---	7.7	---
Rice Hall James	Small Cap Growth		9.8	18.7	---	---	10.2	7/2017
Russell 2000 Growth	Small Cap Growth		11.4	28.5	---	---	10.9	---
Defensive Equity			7.9	---	---	---	---	---
SPI	Long/Short Large Cap Core		7.9	---	---	---	8.3	6/2019
S&P 500	Long/Short Large Cap Core		9.1	---	---	---	10.9	---
International Equity			9.7	27.4	12.4	7.7	---	---
MSCI ACWI Ex US (blend) ⁶			9.0	22.1	10.4	6.0	---	---
iShares MSCI ACWI ex US	International		---	---	---	---	---	12/2019
MSCI ACWI Ex US	ACWI ex US		---	---	---	---	---	---
Vanguard Developed Markets	International		8.3	---	---	---	11.7	9/2019
MSCI EAFE	Developed Markets		8.2	---	---	---	11.4	---
Fixed Income			0.3	9.2	4.8	3.8	---	---
BC Universal (blend) ⁷			0.5	9.3	4.3	3.4	---	---
Reams	Core Plus		-0.1	8.3	4.4	3.5	5.6	1/1998
Bbg BC Universal (blend) ⁷	Core Plus		0.5	9.3	4.3	3.4	5.0	---
Ramirez	Core		0.1	9.9	4.9	---	4.9	1/2017
Bbg BC Aggregate	Core		0.2	8.7	4.0	---	4.0	---
DDJ	High Yield/Bank Loans		2.8	5.3	5.8	---	5.7	1/2015
ICE BofAML US High Yield	High Yield/Bank Loans		2.6	14.4	6.3	---	6.1	---
Crisis Risk Offset			1.0	12.5	---	---	---	---
Parametric	Risk Premia/Trend Following		3.9	16.0	---	---	3.5	9/2018
SG Multi Alt Risk Premia	Risk Premia/Trend Following		-0.9	3.8	---	---	1.8	---
Vanguard LT Treasury	Long Duration		-4.3	---	---	---	3.4	6/2019
Bbg BC US Govt FA	Long Duration		-4.1	---	---	---	3.5	---
Covered Calls			6.1	22.5	10.5	9.3	8.9	3/2014
CBOE BXM			5.1	16.6	7.9	7.2	6.8	---
Parametric BXM	Passive Covered Calls		4.6	16.7	8.3	7.9	7.4	3/2014
Parametric DeltaShift	Active Covered Calls		7.5	28.4	12.6	10.2	10.9	3/2014

Source of Blended Benchmarks: Meketa Performance Group

1. Starting on 10/1/2018, Policy Benchmark = 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% BbgBC Universal, 5% CBOE BXM, 6.7% SG Multi-Asset Risk Premia, 3.3% BbgBC US Long Treasury

4. Public Equity Benchmark consists of 76% Russell 3000 and 24% MSCI ACWI ex U.S.

5. Domestic Equity Benchmark consists of S&P 500 thru 3/31/98, 10% R1000, 20% R1000V, 5% RMC from 4/1/98 - 12/31/04, and Russell 3000 from 1/1/05 to the present.

6. International Equity Benchmark consists of MSCI EAFE thru 12/31/04, and MSCI ACWI ex US thereafter.

7. Fixed Income Benchmark consists of BbgBC Aggregate prior to 4/1/06, and BbgBC Universal thereafter.

8. Performance is calculated based on the first full month of performance after initial funding.

9. Inception date reflects the month when portfolio received initial funding.

10. Annual 5-year investment manager fees estimated at 34 basis points

City of Oakland Police and Fire Retirement System
Preliminary Market Value Summary
As of 12/31/2019

Manager	Style	Market Value \$(000)	Target	Actual ¹	Difference
Total Plan		\$408,245	100.0%	100.0%	0.0%
Public Equity		\$220,887	52.0%	54.1%	2.1%
Domestic Equity		\$169,559	40.0%	41.5%	1.5%
Large Cap Equity					
Northern Trust	Large Cap Core	95,888	20.0%	23.5%	3.5%
Mid Cap Equity					
Earnest Partners	Mid Cap Core	33,801	8.0%	8.3%	0.3%
Small Cap Equity					
Vanguard R2000 Value	Small Cap Value	8,524	3.0%	2.1%	-0.9%
Rice Hall James	Small Cap Growth	12,035	3.0%	2.9%	-0.1%
Defensive Equity					
SPI	Long/Short Equity	19,311	6.0%	4.7%	-1.3%
International Equity		\$51,328	12.0%	12.6%	0.6%
Vanguard Developed Markets	International	14,995	3.6%	3.7%	0.1%
iShares MSCI ACWI ex US	International	35,567	8.4%	8.7%	0.3%
Manager Transition Account	International	766	0.0%	0.2%	0.2%
Fixed Income		\$99,166	31.0%	24.3%	-6.7%
Reams	Core Plus	24,910	12.0%	6.1%	-5.9%
Ramirez	Core	74,256	19.0%	18.2%	-0.8%
Credit		\$8,019	2.0%	2.0%	0.0%
DDJ	High Yield/Bank Loans	8,019	---	2.0%	---
Covered Calls		\$32,891	5.0%	8.1%	3.1%
Parametric	Active/Replication	32,891	---	8.1%	---
Crisis Risk Offset		\$40,623	10.0%	10.0%	0.0%
Vanguard	Long Duration	13,885	3.3%	3.4%	0.1%
Parametric	Trend/Risk Premia	26,738	6.7%	6.5%	-0.1%
Total Cash²		\$6,659	0.0%	1.6%	1.6%

1. In aggregate, asset class allocations equal to 100% of total investment portfolio.

2. Preliminary estimated balance Includes cash balance with City Treasury and Custodian Cash account as of 12/31/2019.



Securities Lending - Required Adherence to Resolution Stay

CONSENT AMENDMENT

Reference is made to the Securities Lending Authorization Agreement (the “**SLAA**”) between you and The Northern Trust Company (“**Agent**”), which, among other things, outlines the terms and conditions under which Agent may lend securities on your behalf to certain approved borrowers (“**Borrowers**”) and reinvest collateral received in respect of securities loans. Reference is also made to the accompanying [Frequently Asked Questions \(attached as Exhibit A\)](#), which provide background information for this Consent.

You agree that, in each case solely for the purpose of complying with the [Resolution Regulations \(defined in Exhibit B\)](#), Agent may, on your behalf:

1. agree to amend any master securities borrowing agreement and any other agreement entered into by Agent on your behalf pursuant to the SLAA (the “**Covered Agreements**”) including, but not limited to, agreeing to contractually acknowledge the applicability and validity of stays and overrides of default rights that would be applicable under special resolution regimes (“**SRRs**”) ([as defined in Exhibit B](#)) and the potential applicability and validity of a bail-in of liabilities under such SRRs;
2. adhere to any protocols published by the International Swaps and Derivatives Association, Inc. on your behalf, including the [ISDA Resolution Stay Jurisdictional Modular Protocol and any Jurisdictional Modules](#) thereto, with respect to the Covered Agreements; and
3. take any other action on your behalf that Agent, in its sole discretion, deems to be necessary to comply with the Resolution Regulations.

You acknowledge and agree that this Consent Amendment constitutes a valid and binding amendment to the SLAA as if such SLAA were executed in writing for the following legal entity(ies):

- City of Oakland Police and Fire Retirement System

In the event of any conflict between the terms of the SLAA and this Consent, the terms of this Consent shall prevail.

This Consent will be governed by, and construed in accordance with laws governing the SLAA.

Sincerely,

Oakland Police and Fire Retirement System

By: _____

Name: **David Jones**

Title: **Plan Administrator**

RESOLUTION STAY FREQUENTLY ASKED QUESTIONS (FAQ)

Exhibit A

1. What are Special Resolution Regimes?

Following the financial crisis, regulators were given new powers to assist large failing financial institutions by implementing a more orderly resolution strategy, known as Special Resolution Regimes. The intention is to resolve the entity in a manner that mitigates systemic risks to the wider financial system.

One key feature of these Special Resolution Regimes is the temporary suspension or nullification of a counterparty's termination and default rights with respect to the institution in resolution. For example, a Special Resolution Regime could prevent a securities lender and its agent from terminating loans or exercising rights against collateral with a borrower that has entered resolution proceedings until the expiration of the temporary suspension/stay period. From the perspective of lawmakers, resolution authorities and regulators, such a stay increases the likelihood of an orderly resolution and the potential to resolve a large financial institution through a reorganization of the parent company without affecting the operating subsidiaries.

2. What are Resolution Stay Rules?

Resolution Stay Rules are related to the application of SRRs. Regulators are seeking to eliminate uncertainty about the ability to enforce their resolution powers across jurisdictions globally under these new SRRs by enacting rules that require parties to certain transactions to include in their contracts explicit acknowledgments of these special resolution powers. As such, amendments to the terms of the securities lending borrower agreements are required. The amendments will acknowledge the cross-border applicability of certain resolution powers, including stays. The acknowledgements reduce the risk that counterparties (in this case, lenders) seek to enforce contractual rights that interfere with the orderly resolution of an institution.

3. What are Cross-Default Rights?

Cross-default rights pertain to the ability of a counterparty to call an entity into default based on the entry into a receivership, insolvency, liquidation, resolution or similar proceeding of an affiliate.

The Resolution Stay Rules require that such cross-default rights be eliminated, based on the concept that a failure of one part of an institution should not necessarily lead to defaults and close-outs of activities with another, if that affiliated entity continues to perform on its obligations.

Cross-default rights are generally not standard industry practice with securities lending borrowers. However, there are circumstances when Northern Trust has negotiated this additional right with US borrowers. For borrowers covered by SRRs, there will be one less option, and therefore slightly less flexibility, in the events that can be used to declare a borrower in default.

4. Which jurisdictions are covered by Special Resolution Regions and Resolution Stay Rules?

The US, France, Germany, Japan, Switzerland, and the UK have adopted comparable rules. Other countries are anticipated to follow suit with similar stay regulations.

5. Are the Special Resolution Regions and Resolution Stay Rules the same across all jurisdictions?

No. Both SRRs and Resolution Stay Rules are specific to individual jurisdictions. In each jurisdiction or region, the relevant financial regulator, acting as the resolution authority, has specified requirements so that it can implement an effective resolution strategy for a failing local entity.

The approaches can vary across jurisdictions based on to their scope of application and effective dates. The US Resolution Stay Rules, for example, apply to institutions designated as Global Systemically Important Banks (“GSIB”), while the UK rules apply to a broader universe of financial institutions.

6. How are institutions determined to be GSIBs?

The Financial Stability Board (“FSB”) developed a methodology to identify institutions considered to be “too big to fail” in response to the vulnerability of the banking sector during the financial crisis.

The first official version of the G-SIB list was published by the FSB in November 2011. The list is updated annually. [Read information on the 29 banks on the 2018 G-SIB list.](#)

GSIBs are subject to stricter regulatory requirements and policy measures to mitigate the systemic and moral hazard risks associated with their failure.

7. How will Northern Trust facilitate adherence to the Resolution Stay requirements if I electronically acknowledge the Consent Amendment?

Northern Trust expects to adhere by either using the ISDA 2018 US Resolution

Stay Protocol (through the capability of agent on behalf of clients) or by making contractual bilateral amendments to borrower agreements that are substantially the same as those contained in the ISDA 2018 US Resolution Stay Protocol.

8. Please provide more information on ISDA.

In order to facilitate the implementation of these amendments, the International Swaps and Derivatives Association, Inc. (“ISDA”) has published a protocol, intended to serve as a framework for industry-wide compliance. ISDA publishes jurisdictional modules to facilitate compliance with each jurisdiction’s specific regulations as those requirements are finalized.

Parties may sign up for the protocol on the ISDA website. Detailed information about the [ISDA can be here.](#)

Specific information about the agent on behalf of client capability is covered on pages 5-7 (Paragraph 3 (g)) in the [ISDA document](#).

9. Will the adherence on my behalf through the ISDA Protocol be publicly available information?

A list of Adhering Parties will be published on ISDA's website. The list will contain Northern Trust as agent but will not contain the client names themselves. Northern Trust may need to disclose your information to all borrowers covered by the rules and using the ISDA protocol for adherence.

10. Do I need to sign the Consent Amendment if I have already adhered directly to the ISDA Stay Protocol for other purposes or jurisdictions?

Yes. You are still required to electronically acknowledge the Consent Amendment, as it also allows for Northern Trust to make the necessary modifications to borrower agreements. Also, the ISDA US Stay Protocol ("US Protocol"), required for US GSIBs, is different from the ISDA 2015 Universal Stay protocol and other jurisdictional modules offered by ISDA.

11. What are the consequences of not electronically acknowledging the Consent Amendment?

Borrowers covered by the resolution stay rules may no longer be able to borrow securities from lenders who do not fully comply and therefore you could be restricted from lending to them.

12. Should I be concerned about the changes to my securities lending program as a result of resolution stays?

It is important to keep in mind that borrower insolvencies are extremely rare events given the credit worthiness of the borrowers in the securities lending program and Northern Trust's robust risk management framework. Borrower approval at Northern Trust follows stringent corporate-level approval procedures and borrowers must meet certain standards. The Credit Risk Team maintains a global team of credit analysts that rigorously review each borrowing entity at the outset of inclusion in the securities lending program and undertakes an additional review at least annually and more frequently during times of stress. Northern Trust would take proactive measures to reduce exposures to a given borrower experiencing financial difficulties, well in advance of any foreseeable failure. These measures can include reducing credit limits, recalling some or all of their loans, or requiring higher collateralization levels and more frequent mark to market of positions. Any concerns about the viability of the borrower and the possibility of a stay would only further accelerate such actions.

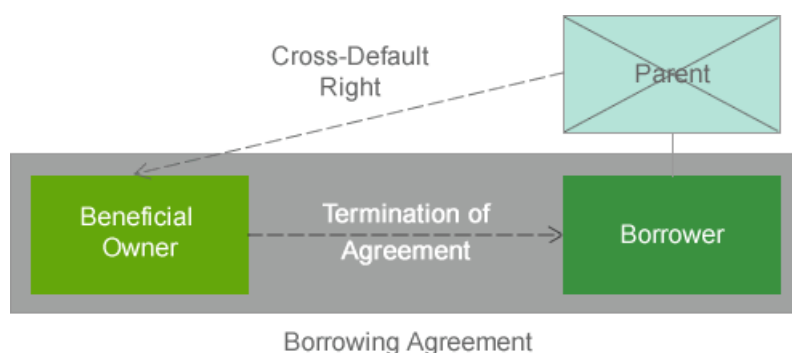
13. Can you provide some examples for how the Resolution Stay Rules might apply to my securities lending transactions?

Example 1: Stays on Termination and Default Rights



Current laws in force in many major jurisdictions typically provide for stays on termination and default rights in the event of an insolvency of, or initiation of resolution proceedings with respect to, a borrower that is a large financial institution. That is, in order to afford resolution authorities an interval for orderly resolution, a lender (and its agent) may not terminate any loans or exercise rights against any collateral based solely on the insolvency of the borrower or the initiation of such resolution proceedings until the expiration of the stay period imposed under the SRR in the relevant jurisdiction. The stay period will last for one or two business days; the precise timing will depend upon the jurisdiction. Further, as noted above, to the extent the loan transaction is transferred by the resolution authority to a bridge or successor institution, the circumstances that triggered the event of default may no longer exist, effectively nullifying any termination or default rights triggered by such event of default.

Example 2: Nullification of Cross-Default Rights



Another common resolution power is the ability to nullify cross-default rights – rights that may be exercised if the borrower's parent or affiliate enters into resolution proceedings. Even if the borrower itself continues to be solvent and perform its obligations under a loan agreement, cross-default rights may give a lender and its agent the ability to terminate transactions with the borrower based on its parent company's insolvency or entry into resolution proceedings. In order to prevent the failure of a parent company from causing a mass termination of contracts across legal entities within a holding company, many SRRs specify that a borrower's counterparties may not exercise termination or default rights that are triggered by the parent's entry into insolvency or by the initiation of special resolution proceedings.

Exhibit B

SPECIAL RESOLUTION REGIMES AND NON-EXCLUSIVE LIST OF RESOLUTION REGULATIONS

In response to the financial crisis of 2007-2009, lawmakers around the world have enacted, or are in the process of enacting, statutory regimes aimed at enhancing the orderly resolution of large financial institutions. These statutory regimes are commonly referred to as “special resolution regimes” (“**SRRs**”). SRRs may provide resolution authorities with various powers, including, but not limited to, the ability to temporarily stay or permanently override certain contractual rights, including termination rights based on the insolvency or resolution of the financial institution, and the ability to bail-in certain liabilities (including writing down the value of certain liabilities and/or converting such liabilities into equity) (collectively, “**Resolution Powers**”).

In order to ensure the cross-border applicability of these Resolution Powers, certain Borrowers have been, or will be required by laws, regulations or other binding guidance (“**Resolution Regulations**”) to amend agreements with certain counterparties to affirm that the exercise of these Resolution Powers will be effective notwithstanding, among other things, the governing law of the agreements. A nonexclusive list of Resolution Regulations is listed below:

Germany

Gesetz zur Sanierung und Abwicklung von Instituten und Finanzgruppen, Sanierungs- und Abwicklungsgesetz [German Act on the Reorganisation and Liquidation of Credit Institutions], December 10, 2014, § 60a, as amended by Gesetz zur Anpassung des nationalen Bankenabwicklungsrechts an den Einheitlichen Abwicklungsmechanismus und die europäischen Vorgaben zur Bankenabgabe, November 2, 2015, Artikel 1(17).

Japan

Section III-11 of Comprehensive Guidelines for Supervision of Major Banks, etc.

Switzerland

Verordnung über die Banken und Sparkassen (Bankenverordnung, BankV) [Banking Ordinance of 30 April 2014], SR 952.02, art. 12 paragraph 2bis.

Verordnung der Eidgenössischen Finanzmarktaufsicht über die Insolvenz von Banken und Effektenhändlern (Bankeninsolvenzverordnung-FINMA, BIV-FINMA) [Banking Insolvency Ordinance of August 30, 2012], SR 952.05, arts. 56, 61a.

Erläuterungsbericht zur Verordnung über die Finanzmarktinfrastrukturen und das Marktverhalten im Effekten- und Derivatehandel (Nov. 25, 2015) (providing commentary).

United States

12 C.F.R. pt. 47 (Office of the Comptroller of the Currency).

12 C.F.R. pt. 252, subpt. I (Board of Governors of the Federal Reserve System).

12 C.F.R. pt. 382 (Federal Deposit Insurance Corporation).

United Kingdom

PRA Rulebook: CRR Firms and Non-Authorised Persons: Stay in Resolution Instrument 2015.

Policy Statement PS 25/15, Contractual stays in financial contracts governed by third-country law.

European Union

Article 55 of the EU Bank Recovery and Resolution Act (Directive 2014/59/EU) as implemented in each member jurisdiction.

Other Resolution Regulations

This list shall automatically be deemed to include any laws or regulations in respect of which the International Swaps and Derivatives Association, Inc. has published a Jurisdictional Module to the ISDA Resolution Stay Jurisdictional Modular Protocol.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich - Meketa Investment Group
DATE: January 29, 2020
RE: U.S. Small Cap Value Search Finalists

This memo provides OPFRS with a summary of the Small Cap Value Manager Request-For-Proposal (RFP) process and provides a recommended list of finalist managers for further consideration.

Recommendation

Meketa recommends that the OPFRS board select three of the following Small Cap Value Equity managers as finalists to be interviewed by OPFRS Investment Committee, based on our review of the managers' RFP responses.

Recommended Finalists¹

1. Alliance Bernstein
 - U.S. Small Cap Value Equity
2. Brown Advisory
 - Small Cap Fundamental Value
3. Systematic
 - Small Cap Value Free Cash Flow
4. Vaughn Nelson
 - Small Cap Value

Upon completion of the search process, Meketa recommends that the Investment Committee select one manager. The new Small Cap Value equity manager will be allocated a total of approximately \$10 million.

¹ Alphabetical

Summary

In the third quarter of 2019, an RFP was issued on behalf of OPFRS. As a result of the RFP, Meketa Investment Group received a total of 56 responses from 55 firms for the Small Cap Value mandate. Meketa Investment Group evaluated the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms. Based on both qualitative and quantitative analysis, Meketa Investment Group narrowed the field to a shortlist of eight managers for further consideration. Upon further analysis, Meketa narrowed the short list down to four finalists for consideration by OPFRS.

Manager Search Process

Meketa Investment Group received responses from the 55 firms listed in the table below.

OPFRS Small Cap Value Manager Search Respondents		
Advisory Research	Huber Capital Management	RBC Global Asset Management
AllianceBernstein	Keeley Teton Advisors	Sasco Capital
Alpha Architect	Kennedy Capital Management	Segall Bryant & Hamill
American Century Investments	Legion Partners Asset Management	Skyline Asset Management
Ariel Investments	Macquarie Investment Management	Snow Capital Management
BMO Asset Management Corp.	Mellon Investments	SouthernSun Asset Management
Boston Partners Global Investors	Monarch Partners	Snyder Capital Management.
Brown Advisory	Mondrian Investment Partners	Systematic Financial Management
Channing Capital Management	NewSouth Capital Management	Teton Advisors, Inc.
Chicago Equity Partners	Northern Trust Investments	The London Company of Virginia
CornerCap Investment Counsel	Nuveen Asset Management	Vaughan Nelson
Cramer Rosenthal McGlynn	Pacific Ridge Capital Partners	Victory Capital
Davenport Asset Management	Paradigm Capital Management	Wasatch Global Investors
Denali Advisors, LLC	Peregrine Capital Management	Wellington Trust Company
DePrince, Race & Zollo, Inc.	Perkins Investment Management	Wells Fargo Asset Management
DGHM & Co.	Phocas Financial	William Blair
Driehaus Capital Management	Port Capital	Ziegler Capital Management
GAMCO Investors	PPM America	
Hotchkis & Wiley	Pzena Investment Management	

To narrow the list to the eight managers in the table below, respondents were removed for the following reasons:

- Consistency with scope of manager search
- Material personnel turnover
- Organizational risk
- Level of conviction in manager strategy/process.
- Track record and consistency of risk-adjusted returns

Manager Candidates As of September 30, 2019

	AllianceBernstein	Brown Advisory	Nuveen	Phocas	Segall Bryant & Hamill
Firm Location	New York, NY	Baltimore, MD	Minneapolis, MN	Alameda, CA	St. Louis, MO
Firm Inception	1971	1993	1989	2005	1994
Ownership Structure	65.3% owned by Axa Equitable Holdings (NYSE:EGH), 26.4% publicly held (NYSE:AB), 8.3% employee-owned	95% employee-owned, 30% held by members of Brown Advisory's board and a small group of clients and investors	95% owned by TIAA-CREF, 5% owned by employees	100% employee-owned	53% employee-owned, 47% owned by Thomas Bravo
% of Firm Owned by Minority or Women Employees	Undisclosed	11.5%	Undisclosed	66%	2.5%
Strategy Name	US Small Cap Value	Small Cap Fundamental Value	Small Cap Value	Small Cap Value Equity	Small Cap Value
Strategy Inception	January 1991	January 2009	July 1997	May 2006	January 2008
AUM (Firm)	\$592.4 billion	\$34.7 billion	\$202.1 billion	\$1 billion	\$20.1 billion
AUM (Strategy)	\$2.6 billion	\$1.6 billion	\$2.3 billion	\$862 million	\$701 million

Manager Candidates (continued)
As of September 30, 2019

	Systematic	Vaughan Nelson	Victory
Firm Location	Teaneck, NJ	Houston, TX	Rocky River, OH
Firm Inception	1982	1970	1894
Ownership Structure	100% owned by Affiliated Managers Group (NYSE: AMG)	100% owned by Natixis Investment Managers	28% employee-owned, 16% publicly held (NASDAQ: VCTR), 44% owned by Crestview Partners, 12% owned by Reverence Capital Partners
% of Firm Owned by Minority or Women Employees	Undisclosed	Undisclosed	Undisclosed
Strategy Name	Small Cap Value Free Cash Flow	Small Cap Value	Integrity Small Cap Value Equity
Strategy Inception	January 1993	April 1997	May 1999
AUM (Firm)	\$2.6 billion	\$12.3 billion	\$145.8 billion
AUM (Strategy)	\$2.1 billion	\$3.2 billion	\$3.7 billion

The remaining 8 firms were then analyzed on a quantitative and qualitative basis to determine a recommended list of finalists. The table below is sorted in order of the firms who scored the highest in Meketa's overall rank. The major areas of focus for each considered manager were:

Organization: Focuses on the capacity of the firm to provide the required services. Also includes consideration of issues that may impact a firm's operational stability, such as litigation brought against firm.

Investment Professionals: Explores the experience, capacity, and depth of firm's professionals, particularly with respect to the mandate under consideration.

Investment Strategy: Review of investment philosophy, approach, strategy, and risk management to ensure they are consistent with the considered mandate.

Client Base/Services: Seeks to identify whether the manager has experience servicing mandates similar in size and type to the one considered by OPFRS.

Quantitative Analysis of Historical Performance and Characteristics: An analysis of actual representative portfolio performance and characteristics to determine whether actual management of the portfolio has been consistent with results expected under the considered mandate.

Fees: The costs of implementing the mandate deserve separate consideration and can vary substantially across a subset of candidates. Fees were computed based on an assumed mandate size of \$10 million.

All four of the recommended finalists were identified as possessing the abilities to provide OPFRS with the appropriate services.

Finalist Manager Candidates:

	AllianceBernstein	Brown Advisory	Systematic	Vaughan Nelson
Firm Location	New York, NY	Baltimore, MD	Teaneck, NJ	Houston, TX
Firm Inception	1971	1993	1982	1970
Ownership Structure	65.3% owned by Axa Equitable Holdings (ticker: EQH) / 26.4% publicly traded / 8.3% employee-owned	70% employee-owned / 30% owned by Brown Advisory board members and a small group of clients and investors	100% owned by Affiliated Managers Group	100% owned by Natixi
Strategy Name	US Small Cap Value Equity	Small Cap Fundamental Value	Small Cap Value Free Cash Flow	Small Cap Value
Strategy Inception	January 1991	January 2009	January 1993	April 1997
Assets Under Management (Strategy)	\$2.7 billion	\$1.7 billion	\$2.4 billion	\$32 billion
Asset Under Management (Firm)	\$623 billion	\$81.3 billion	\$29 billion	\$131 billion

Finalist Manager Candidates Performance (Net of Fees), as of September 30, 2019:

	AllianceBernstein	Brown	Systematic	Vaughan Nelson	Russell 2000 Value
Trailing Period Returns (%):					
YTD	22.6	24.3	24.6	24.9	22.4
1 Year	22.6	24.3	24.6	24.9	22.4
3 Year	3.7	6.7	9.6	4.6	4.8
5 Year	7.3	7.0	10.5	6.6	7.0
7 Year	11.9	11.2	13.5	11.1	10.1
10 Year	12.6	12.8	13.1	11.2	10.6
Calendar Year Returns (%):					
2019	22.6	24.3	24.6	24.9	22.4
2018	-16.4	-13.1	-14.8	-14.3	-12.9
2017	8.8	12.3	23.9	6.9	7.8
2016	29.9	22.4	22.9	20.3	31.7
2015	-1.8	-5.4	1.7	0.1	-7.5
2014	9.3	6.3	5.2	9.2	4.2
2013	41.1	40.9	40.4	39.2	34.5
2012	22.1	22.0	15.9	15.3	18.1
2011	-7.9	2.0	-6.5	-3.4	-5.5
2010	32.5	27.2	30.7	24.2	24.5
2009	45.6	24.6	37.7	29.3	20.6

Finalist Manager Candidates: Fees and Terms

	AllianceBernstein	Brown	Systematic	Vaughan Nelson
Investment Vehicle Type	Mutual fund	Separate account / mutual fund	Separate account	Separate account
Liquidity	Daily	Daily	Daily	Daily
All-in-Fee	1.00%	0.85% (separate account) 1.15% (mutual fund)	0.85%	0.85%
Peer Group Percentile Rank	47 th	25 th (separate account) 73 rd (mutual fund)	25 th	25 th

DS/hs

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich – MIG, Sean Copus, CFA – MIG
Meketa Investment Group (MIG)
DATE: January 29, 2020
RE: Passive International and Long Treasury Manager Search –Finalist Update

Meketa Investment Group issued a Request for Proposal (“RFP”) for this search and received responses from two index Managers. Each of the responses was evaluated in detail to determine the most appropriate fit for OPFRS. The results of our review are listed on the following pages. The recommended manager was selected based on manager-specific attributes, both qualitative and quantitative.

Recommendation

Meketa Investment Group recommends BlackRock as the finalists to be considered by OPFRS Investment Committee, based on our review of the managers’ RFP responses.

Recommended Manager

Manager	Headquarters	Strategy
BlackRock	New York, NY	MSCI EAFE and LT Government

Background

In October 2019, an RFP was issued on behalf of OPFRS. As a result of the RFP, Meketa Investment Group received a total of two responses for the Passive International and Long Duration mandates. Meketa Investment Group evaluated both of the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms.

Manager Search Process

Meketa Investment Group received responses from the two firms listed in the table below.

OPFRS Passive Manager Search Respondents
BlackRock
Northern Trust

To narrow the list to the eight managers in the table below, respondents were removed for the following reasons:

- Consistency with scope of manager search
- Material personnel turnover
- Organizational risk
- Level of conviction in manager strategy/process.
- Track record and consistency of risk-adjusted returns

Manager Candidates As of September 30, 2019

	BlackRock	Northern Trust
Firm Location	New York, NY	Chicago, IL
Firm Inception	1988	1889
Ownership Structure	22.4% owned by PNC Financial Holdings, 77.6% publicly held	100% publicly traded (ticker: NTRS)
% of Firm Owned by Minority or Women Employees	Undisclosed	Undisclosed
Strategy Name	International Developed Equities, Long Government	MSCI EAFE, Long-term Government Bond Index
Strategy Inception	July 1996, December 1989	April 1987, December 1993
AUM (Firm)	\$6.8 Trillion	\$34.7 billion
AUM (Strategy)	\$159 billion and \$5.9 billion	\$41.4 billion and \$5.6 billion

MSCI EAFE Fees

	BlackRock	Northern Trust*
MSCI EAFE - Lending	Mgt Fee: 4.0 bps, Admin Exp:1.26	Mgt Fee: 2.0 bps, Admin Exp:2.0
MSCI - Non Lending	Mgt Fee: 5.0 bps, Admin Exp:1.09	Mgt Fee: 3.0 bps, Admin Exp:1.50

*\$100 Million SA minimum

BB Long Duration Fees

	BlackRock	Northern Trust*
Long Treasury - Lending	Mgt Fee: 3.0 bps, Admin Exp:0.33	Mgt Fee: 2.5 bps, Admin Exp:1.25
Long Treasury - Non Lending	Mgt Fee: 5.0 bps, Admin Exp:0.30	Mgt Fee: 3.5 bps, Admin Exp: 0.80

*\$100 Million SA minimum

MSCI EAFE – Manager Performance
As of September 30, 2019

	QTR	Annualized as of 9/30/2019				Calendar Years Ending 12/31		
		1 Year	3 Year	5 Year	10 Year	2016	2017	2018
BlackRock	-1.01	-0.99	6.91	3.67	5.28	1.47	25.54	-13.45
Northern Trust	-0.98	-0.94	6.83	3.61	5.25	1.36	25.10	-13.24
<i>MSCI EAFE</i>	<i>-1.07</i>	<i>-1.34</i>	<i>6.48</i>	<i>3.27</i>	<i>4.90</i>	<i>1.00</i>	<i>25.03</i>	<i>-13.79</i>

Long Duration Treasury- Manager Performance, Gross of Fees
As of September 30, 2019

	QTR	Annualized as of 9/30/2019				Calendar Years Ending 12/31		
		1 Year	3 Year	5 Year	10 Year	2016	2017	2018
BlackRock	7.85	24.73	4.32	6.96	7.04	1.68	8.80	-1.60
Northern Trust	7.82	24.58	4.13	6.73	6.83	1.44	8.54	-1.76
<i>MSCI EAFE</i>	<i>7.83</i>	<i>24.58</i>	<i>4.11</i>	<i>6.73</i>	<i>6.83</i>	<i>1.43</i>	<i>8.53</i>	<i>-1.79</i>

DS/SC/hs

MEMORANDUM

TO: Teir Jenkins, David Jones
Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich, Sean Copus, Alina Yuan
Meketa Investment Group
DATE: January 29, 2020
RE: Parametric Portfolio Associates – Organizational Update

Summary & Recommendation

In December 2019, Parametric announced that its Chief Technology Officer, Orison “Kip” Chafee, and COO, Christine Smith, will be leaving the firm at the end of 2019 and February 2020, respectively. Parametric also announced that Ranjit Kapila has joined the firm as the new Chief Technology Officer and Head of Operations. Mr. Kapila’s hiring and the related organizational changes were originally announced in July 2019.

Parametric currently manages the Credit Risk Offset and Covered Calls portfolios for Oakland PFRS. The announced leadership changes at Parametric do not affect the direct management teams responsible for Oakland PFRS’s portfolios and Meketa does not believe these organizational changes will have a material effect on the management of Oakland PFRS’s assets. *Therefore, Meketa does not recommend any action be taken in response to the announced organizational changes at Parametric.*



December 10, 2019

Dear Valued Client,

I am writing to let you know about a few leadership changes at Parametric.

As announced in July, we officially welcomed Ranjit Kapila as Chief Technology Officer and Head of Operations, reporting to Brian Langstraat, CEO of Parametric. Ranjit brings over two decades of expertise leading strategy and development for portfolio management applications across equity, fixed income, and multi-asset portfolios. Most recently he served as Managing Director and Global Head of Portfolio Management Investment Systems at BlackRock.

Ranjit's appointment is a key step in our effort to combine and enhance the technology and operating platforms supporting our clients. With Ranjit assuming leadership of the firm's technology and operations functions, Christine Smith, Chief Operating Officer, will be leaving the firm at the end of this year, and Orison "Kip" Chaffee, Managing Principal and Head of Technology and Operations of Parametric's Minneapolis office, has retired and will remain in an advisory role through February 2020.

We are grateful to Christine and Kip for their invaluable leadership and many achievements over the years. I am available to answer any questions you may have.

800 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98104
P 206 694 5500
F 206 694 5581

parametricportfolio.com



A G E N D A R E P O R T

TO: Oakland Police and Fire Retirement Board

FROM: David Jones

SUBJECT: Emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets

DATE: January 21, 2020

SUMMARY

At the October 30, 2019 PFRS Board Meeting, Plan Administrator David Jones recommended the PFRS board discuss considerations regarding the establishment of emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets. **ATTACHMENT 1** shows excerpts of language regarding emergency investment procedures used by other pension systems.

RECOMMENDATION

Staff requests Board direction regarding emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets.

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

Attachments (1):

- *Excerpts of language regarding emergency investment procedures used by other pension systems*

PFRS Board Meeting
January 29, 2020

ATTACHMENT 1

**EXCERPTS OF LANGUAGE REGARDING
EMERGENCY MANAGER TERMINATION
USED BY OTHER PENSION SYSTEMS**

San Diego City Employees' Retirement System

Occasionally, it may become necessary to terminate an investment manager and/or limit/freeze an investment manager's trading discretion on an expeditious basis in order to protect the assets of the Fund. In circumstances where it is deemed prudent to terminate an investment manager on an expeditious basis (prior to when such action can be brought forward at an Investment Committee meeting), the Chief Investment Officer (CIO) shall have the discretion, with the approval of the Chief Executive Officer (CEO), to initiate such action as is necessary to protect the interests of SDCERS and its assets. Any action taken in this regard shall be reported to the Investment Committee at its meeting subsequent to when such action is taken, with detailed information on the rationale for termination or limiting/freezing a manager's trading discretion. (*SDCERS IPS, 2019, p.4*)

Alameda County Employees Retirement Association

In the event of an emergency or crisis, such as an imminent, foreseeable threat to a Managed Account within the Fund, the following procedure shall be followed to protect the portfolio (with the advice and assistance of the appropriate ACERA consultant(s):

- (a) Staff shall make a concerted attempt to arrange a special meeting (in person and/or by telephone) of the Board to consider and to resolve the matter.
- (b) If (a) is not practicable within the time necessary to protect the portfolio, the Board delegates temporary authority to the Board Chair (and/or Vice Chair) and the Committee Chair (and/or Vice Chair) to consider and to resolve the matter.

The temporary authority delegated under subsection (b) shall be strictly limited to the matter itself and any related actions that may be necessary and appropriate. Under subsection (b), at least two (2) persons of the four persons identified would be required to consider and resolve the matter. The temporary delegated authority shall be as full and complete as the Board's authority which means that Managed Accounts and funds may be terminated and/or redeemed.

Staff and the consultants shall prepare and submit a full report on any and all actions taken under this section for presentation at the next scheduled Investment Committee meeting. (*ACERA IPS, 2019, p.22*)

Contra Costa County Employees Retirement Association

An emergency will be deemed to exist when an investment strategy suffers the resignation or other loss of its portfolio manager(s) and no appropriate replacement is available; when an investment management firm dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business; when an investment management firm is actually or effectively shut down by a regulatory agency of a state or the Federal government or is accused of theft or fraud by a regulatory agency or other government body; when the Plan's investment is in jeopardy of material loss; or when such other developments with the investment management firm give concern to the CIO that the investment is no longer prudent for the Investment Program. Staff

shall take action to transfer management of the affected investment strategy as soon as possible after CCCERA learns of the emergency. In the case of an emergency, the CEO, or in the CEO's absence, the Deputy CEO or the CIO will attempt to notify the Chair and Vice Chair of the Board immediately; notify the Custodian Bank that the Investment Manager's Managed Account is to be frozen and, except for those trades which are pending, no further trading is authorized; and may call a special meeting of the Board to take further action. (*CCCERA IPS, 2019, p.7*)

San Francisco Employees Retirement System

If Staff and the General Consultant believe that immediate action is necessary due to evidence of a manager engaging in illegal or unethical practices, or for other extraordinary reasons that cause Staff and the General Consultant to believe that continued management is contrary to fiduciary standards of prudence, Staff is authorized by the Board to notify the manager in writing that trading on the account must cease immediately. Notice of such action and the termination recommendation will be presented to the Retirement Board for ratification at its next monthly meeting. Staff and/or the General Consultant may recommend termination of a manager for other reasons than failure to meet Under Review criteria, e.g., after determining that the firm's investment style is no longer relevant to the System's desired portfolio structure. (*SFERS IPS – fixed income, 2012, p. 3*)

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: Meketa Investment Group (MIG)
CC: David Sancewich – Meketa
Sean Copus, CFA – Meketa
Teir Jenkins – OPFRS
David Jones – OPFRS
DATE: January 29, 2020
RE: EARNEST Partners – Contract Renewal

Manager: EARNEST Partners

Inception Date:	3/01/2006	OPFRS AUM:	\$33.8 million (8.3%)
Product Name:	Mid-Cap Core	Management Fee:	78 bps (\$265,000)*
Investment Strategy:	Domestic Mid-Cap Equity	Firm-wide AUM (9/30/19):	\$22.8 billion
Benchmark:	Russell Mid-Cap Index	Strategy AUM (9/30/19):	\$1.07 billion

*Estimated based on manager account AUM as of 12/31/2019

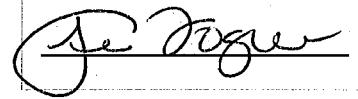
Summary and Recommendation

Meketa recommends that OPFRS renew its contract with EARNEST Partners before the current contract date of expiration. OPFRS contracts reserve the right for the Board to terminate the agreement, with or without cause, at any time upon 30 calendar days' prior written notice. In making this recommendation, Meketa considered investment performance and recent organizational / personnel issues. Since the last contract renewal, EARNEST Partners has exhibited strong performance and organizational stability, therefore Meketa believes that there are no issues that should prevent a contract extension for this manager.

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7080

Approved to Form
and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

**RESOLUTION AUTHORIZING THE ONE YEAR EXTENSION OF A
PROFESSIONAL SERVICES AGREEMENT WITH EARNEST
PARTNERS, LLC FOR MID-CAP CORE DOMESTIC EQUITY ASSET
CLASS INVESTMENT MANAGER SERVICES**

WHEREAS, Oakland City Charter section 2601(e) states that the Board of the Oakland Police and Fire Retirement System ("PFRS Board") shall possess power to make all necessary rules and regulation for its guidance and shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, on March 16, 2006, the PFRS Board passed a motion to enter into an agreement ("The Agreement") with Earnest Partners, LLC ("Investment Counsel"), to provide advice and counsel regarding investments of the assets of the Police and Fire Retirement Fund ("Fund"); and

WHEREAS, Section XXVII of the Agreement allows for modification of the Agreement by written agreement of all parties; and

WHEREAS, Section IV(B) of the Agreement gave the PFRS Board the option to extend the initial term of the Agreement for three additional one-year terms by giving Investment Counsel written notice of its intent to exercise its option not less than sixty days prior to the expiration of the term or extended term of the agreement; and

WHEREAS, on March 29, 2017, the PFRS Board passed Resolution No. 6957 authorizing amendment of Section IV(B) of the Agreement to provide the Board with unlimited one-year extension options, and

WHEREAS, The Board wishes to extend the current agreement with Investment Counsel for another one-year term, effective March 24, 2020; now, therefore, be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLVED: That the Board hereby authorizes a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Earnest Partners, LLC for the mid-cap core domestic equity asset class investment manager services commencing March 24, 2020 and ending March 23, 2021.

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, NICHELINI, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON**

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich, Sean Copus, CFA – Meketa Inv. Group
DATE: January 29, 2020
RE: 2020 Ongoing Strategic Investment Agenda

On an ongoing (monthly) basis, Meketa develops a list of projects that we expect to work closely with OPFRS to complete over throughout the calendar year (see table below). In an attempt to coordinate the scheduling of these tasks, this memo details a Preliminary Investment Project Agenda by calendaring and prioritizing the expected tasks and deliverables that would be required to fulfill the Agenda. Meketa welcomes any suggestions and/or modifications to the proposed timeline.

2020 Preliminary Investment Project Agenda

Expected Completion Date	Task
February 2020	<ul style="list-style-type: none">Quarterly Performance Report (4Q 2019)Small Cap Value InterviewsActive Fixed Income RFP respondents
March 2020	<ul style="list-style-type: none">Cash Flow Report (2Q 2020)Active Fixed Income Semi -Finalists MemoWatch Update Memo: DDJManager Update: Northern Trust RI000
April 2020	<ul style="list-style-type: none">Flash Performance (1Q2020)Active Fixed Income Finalists
May 2020	<ul style="list-style-type: none">Quarterly Performance Report (1Q 2020)Fixed Income Manager Interviews
June 2020	<ul style="list-style-type: none">Cash Flow Report (3Q 2020)Educational Item: TBDWatch Update Memo: Rice Hall & JamesManager Update: Rice Hall & James

Expected Completion Date	Task
July 2020	<ul style="list-style-type: none"> Flash Performance (2Q2020) Manager Update: Ramirez
August 2020	<ul style="list-style-type: none"> Quarterly Performance Report (2Q 2020)
September 2020	<ul style="list-style-type: none"> Cash Flow Report (4Q 2020) Educational Item: TBD Thermal Coal List Update: 2020
October 2020	<ul style="list-style-type: none"> Flash Performance (3Q2020)
November 2020	<ul style="list-style-type: none"> Quarterly Performance Report (3Q 2020)
December 2020	<ul style="list-style-type: none"> Cash Flow Report (1Q 2021)

Bold are priority strategic items.

This agenda includes only major strategic items. Meketa also expects to work with the Staff and Board to complete more routine tasks and projects, as expected.

DS/SC/hs

All persons wishing to address the Board must complete a speaker's card, stating their name and the agenda item (including "Open Forum") they wish to address. The Board may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

Oakland Police and Fire Retirement Board meetings are held in wheelchair accessible facilities. Contact the Retirement Unit, 150 Frank Ogawa Plaza, Suite 3349 or call (510) 238-7295 for additional information.



Retirement Unit
150 Frank H. Ogawa Plaza
Oakland, California 94612

AGENDA

RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr.
President

Jaime T. Godfrey
Vice President

Adam Benson
Member

Robert W. Nichelini
Member

Vacant
Member

John C. Speakman
Member

Steven Wilkinson
Member

REGULAR MEETING of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, January 29, 2020 – 1:00 pm
One Frank H. Ogawa Plaza, Hearing Room 1
Oakland, California 94612

- - - ORDER OF BUSINESS - - -

- A. Subject: PFRS Board Meeting Minutes**
From: Staff of the PFRS Board
-
- Recommendation: APPROVE** October 30, 2019 PFRS Board meeting minutes.
- B. Subject: Resolution No. 7081 – Resolution ratifying the October 30, 2019 motion to approve and adopt hearing Rules and Procedures for the Oakland Police and Fire Retirement System**
From: Staff of the PFRS Board
-
- Recommendation: APPROVE** Resolution No. 7081 – Resolution ratifying the October 30, 2019 motion to approve and adopt hearing Rules and Procedures for the Oakland Police and Fire Retirement System.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

C. **Subject:** Resolution No. 7082 – Resolution authorizing settlement of dispute regarding holiday pay calculations for police members of the Oakland Police and Fire Retirement System classified at the rank of Captain and Deputy Chief

From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7082 – Resolution authorizing settlement of dispute regarding holiday pay calculations for police members of the Oakland Police and Fire Retirement System classified at the rank of Captain and Deputy Chief.

D. **AUDIT AND OPERATIONS COMMITTEE AGENDA – JANUARY 29, 2020**

D1. **Subject:** Report of the Audit of the Financial Statements of the Oakland PFRS as of, and for, the year ended June 30, 2019

From: Macias, Gini and O'Connell, LLP

Recommendation: **APPROVE** the Report of the Audit of the Financial Statements of the Oakland PFRS as of, and for, the year ended June 30, 2019.

D2. **Subject:** Administrative Expenses Report

From: Staff of the PFRS Board

Recommendation: **ACCEPT** an informational report regarding PFRS administrative expenses from July 1, 2019 through November 30, 2019.

D3. **Subject:** Annual Report for Fiscal Year ending June 30, 2019

From: Staff of the PFRS Board

Recommendation: **APPROVE** printing and publication of the Annual Report of the Oakland Police and Fire Retirement System for the Fiscal Year ending June 30, 2019.

ORDER OF BUSINESS, continued

- D4. **Subject:** Resolution No. 7084 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to Attend the Markets Group’s California institutional Forum on December 4, 2019 in Santa Rosa, California and Authorizing Reimbursement of the Cost for Attendance in the Amount of Sixty-five Dollars (\$65.00)
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7084 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to Attend the Markets Group’s California institutional Forum on December 4, 2019 in Santa Rosa, California and Authorizing Reimbursement of the Cost for Attendance in the Amount of Sixty-five Dollars (\$65.00).
- D5. **Subject:** Resolution No. 7085 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to attend the 2019 OPAL Alternative Investing Summit from December 4, 2019 through December 6, 2019 in Dana Point, California and Authorizing Reimbursement of the Costs for Attendance in the Amount of Three Hundred Thirty-two Dollars (\$332.00)
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7085 – Resolution Ratifying the Board President’s Approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson’s Request to attend the 2019 OPAL Alternative Investing Summit from December 4, 2019 through December 6, 2019 in Dana Point, California and Authorizing Reimbursement of the Costs for Attendance in the Amount of Three Hundred Thirty-two Dollars (\$332.00).

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

- D6. **Subject:** Resolution No. 7086 – Resolution Approving Request of Oakland Police and Fire Retirement System Plan Administrator David Jones to Attend the 2020 California Association of Public Retirement Systems Administrators' Roundtable on February 7, 2020 in Costa Mesa, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Seven Hundred Dollars (\$700.00)
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7086 – Resolution Approving Request of Oakland Police and Fire Retirement System Plan Administrator David Jones to Attend the 2020 California Association of Public Retirement Systems Administrators' Roundtable on February 7, 2020 in Costa Mesa, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Seven Hundred Dollars (\$700.00).
- D7. **Subject:** Resolution No. 7087 – Resolution Approving Request of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson to Attend the 2020 California Association of Public Retirement Systems General Assembly from March 7, 2020 to March 10, 2020 in Rancho Mirage, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Two Thousand Dollars (\$2000.00)
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7086 – Resolution Approving Request of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson to Attend the 2020 California Association of Public Retirement Systems General Assembly from March 7, 2020 to March 10, 2020 in Rancho Mirage, California and for Reimbursement of Registration Fees and Travel-Related Expenses in an Amount not to Exceed Two Thousand Dollars (\$2000.00).

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

**E. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA –
JANUARY 29, 2020**

- | | | |
|-------|---------------------------------|--|
| E1. | Subject:
From: | Investment Manager Overview – Earnest Partners
Earnest Partners |
| | Recommendation: | ACCEPT an informational report regarding the investment performance and managerial assessment of Earnest Partners, a PFRS Mid Cap Core Domestic Equity Investment Manager. |
| <hr/> | | |
| E2. | Subject:
From: | Investment Manager Overview – Earnest Partners
Meketa Investment Group |
| | Recommendation: | APPROVE the evaluation, review and possible watch status placement of Earnest Partners, a PFRS Mid Cap Core Domestic Equity Investment Manager. |
| <hr/> | | |
| E3. | Subject:
From: | Investment Manager Overview – SPI Strategies, LLC
SPI Strategies, LLC |
| | Recommendation: | ACCEPT an informational report regarding the investment performance and managerial assessment of SPI Strategies, LLC, a PFRS U.S./Domestic Defensive Equity Investment Manager. |
| <hr/> | | |
| E4. | Subject:
From: | Investment Manager Overview – SPI Strategies, LLC
Meketa Investment Group |
| | Recommendation: | APPROVE the evaluation, review and possible watch status placement of SPI Strategies, LLC, a PFRS U.S./Domestic Defensive Equity Investment Manager. |
| <hr/> | | |
| E5. | Subject:
From: | Investment Market Overview
Meketa Investment Group |
| | Recommendation: | ACCEPT an informational report on the global investment markets through January 2020. |

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

- E6. **Subject:** **\$13.85 million Drawdown for 1st Quarter 2020 Member Allowances**
From: Staff of the PFRS Board & Meketa Investment Group
-
- Recommendation:** **APPROVE** Meketa's recommendation of \$13.85 million drawdown, which includes an \$10.85 million contribution from the City of Oakland and a \$3.0 million contribution from the PFRS Investment Fund, to be used to pay for the January 2020 through March 2020 member Retirement Allowances.
- E7. **Subject:** **Investment Fund Performance for the Quarter Ending September 30, 2019**
From: Meketa Investment Group
-
- Recommendation:** **APPROVE** the Investment Fund Performance for the Quarter Ending September 30, 2019.
- E8. **Subject:** **Preliminary Investment Fund Performance for the Quarter Ending December 31, 2019**
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** an informational report of the Preliminary Investment Fund Performance for the Quarter Ending December 31, 2019.
- E9. **Subject:** **New PFRS Fixed Income Asset Class Portfolio Manager (VERBAL REPORT)**
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** a status report on the hire of a new PFRS Fixed Income Asset Class Portfolio Manager.
- E10. **Subject:** **Northern Trust Custodian Bank Stay Protocol Consent Amendment**
From: Staff of the PFRS Board and Meketa Investment Group
-
- Recommendation:** **APPROVE** Meketa's recommendation regarding the Northern Trust Custodian Bank Stay Protocol Consent Amendment.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

- E11. **Subject:** **Select Investment Managers to invite to Interview for the Active Small Cap Domestic Equity Asset Class Investment Manager position**
From: Meketa Investment Group
-
- Recommendation:** **APPROVE** Meketa's Recommendations Regarding Interviews for the Active Small Cap Domestic Equity Asset Class Investment Manager position.
- E12. **Subject:** **Select Investment Managers to invite to Interview for the Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager position**
From: Meketa Investment Group
-
- Recommendation:** **APPROVE** Meketa's Recommendations Regarding Interviews for the Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager position.
- E13. **Subject:** **Organizational Changes at Parametric Portfolio Associates**
From: Meketa Investment Group
-
- Recommendation:** **APPROVE** the evaluation, review and possible watch status placement of Parametric Portfolio Associates, a PFRS Covered Calls Asset Class Investment Manager.
- E14. **Subject:** **Informational Report regarding emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets**
From: Staff of the PFRS Board
-
- Recommendation:** **ACCEPT** an informational report and **PROVIDE STAFF DIRECTION** regarding emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
JANUARY 29, 2020

ORDER OF BUSINESS, continued

- E15. **Subject:** Resolution No. 7080 – Resolution Authorizing One Year Extension of a Professional Services Agreement with Earnest Partners, LLC for Mid Cap Core Domestic Equity Asset Class Investment Manager Services
From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7080 – Resolution Authorizing One Year Extension of a Professional Services Agreement with Earnest Partners, LLC for Mid Cap Core Domestic Equity Asset Class Investment Manager Services.
- F. **Subject:** Member Resolution(s) No. 7088
From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7088
- F1. **Resolution No. 7088** Resolution Approving Death Benefit Payments and Directing Warrants Thereunder in the Total Sum of \$1,000.00 Payable to Debra A. Maxfield, Robin L. Harrigan, Sharon R. Tinsley, Sandra L. Tinsley, Karen M. Tinsley, Beneficiaries of Deceased Oakland Police and Fire Retirement System Member Donald H. Tinsley.
- G. **Subject:** Resolution No. 7083 – Resolution Expressing Appreciation for Robert J. Muszar’s Dedication and Loyal and Valuable Service as a Member of The Oakland Police and Fire Retirement System Board
From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7083 – Resolution Expressing Appreciation for Robert J. Muszar’s Dedication and Loyal and Valuable Service as a Member of The Oakland Police and Fire Retirement System Board.
- H. NEW BUSINESS
- I. OPEN FORUM
- J. FUTURE SCHEDULING

A BOARD MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on October 30, 2019 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Board Members Present:

- Walter L. Johnson, President
- Jaime T. Godfrey, Vice President
- John C. Speakman, Member
- Adam Benson, Member
- R. Steven Wilkinson, Member
- Robert J. Muszar, Member
- Robert W. Nichelini, Member

Additional Attendees:

- David Jones, PFRS Plan Administrator
- Jennifer Logue, PFRS Legal Counsel
- David Low & Teir Jenkins, Staff Member
- David Sancewich, Meketa Investment Group

The meeting was called to order at 11:29 am. President Johnson rearranged the agenda schedule to hear the Investment Committee report before the Audit Committee report.

A. Closed Session – Hearing that there were no public speakers request, President Johnson adjourned the Board meeting to Closed Session at 11:30 am.

B. Report of Board Actions from Closed Session – The PFRS Board meeting reconvened following the conclusion of Closed Session at 12:10 pm. President Johnson reported that the Board acted on a motion during closed session.

MOTION: PFRS Legal Counsel Jennifer Logue reported that the Attorneys for PFRS Board and the Retired Oakland Police Officers Association (ROPOA) agreed to terms for Police Captains and Deputy Chiefs retirement allowances with a motion made by Member Speakman and seconded by Member Nichelini. The vote on this motion was unanimously in favor of approval.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

D. Public Ethic Commission Presentation – Jelani Killings from the City of Oakland Public Ethics Commission gave a presentation regarding ethical standards for public servants of the City of Oakland. Mr. Killings opened with an overview of the purpose of the public ethics commission and continued with a video regarding public ethics for elected officials and public employees. Following the video, Mr. Killings answered Board Member questions about public ethics for public officials.

MOTION: Member Muszar made a motion to accept the informational report and presentation from the Mr. Killings, second by Member Speakman. Motion Passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- C. PFRS Board Meeting Minutes** – Member Muszar made a motion to approve the September 25, 2019 PFRS Board meeting minutes, second by Member Godfrey. Motion Passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

F. PFRS INVESTMENT COMMITTEE MEETING – OCTOBER 30, 2019

- F1. Investment Manager Performance Review – Parametric Portfolio Associates**
– David Sancewich from Meketa reported that representatives from Parametric Portfolio Associates presented an Investment Manager performance review of their firm's management of PFRS assets.

MOTION: Member Godfrey made a motion to accept the informational report about Parametric Portfolio Associates from Meketa, second by Member Speakman. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F2. Investment Manager Performance Review – Parametric Portfolio Associates**
– David Sancewich from Meketa presented a report and analysis of Parametric Portfolio Associates and made no recommendations at this time.

MOTION: Member Godfrey made a motion to approve Meketa's overview of Parametric Portfolio Associates, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F3. Investment Market Overview** – David Sancewich from Meketa reported the global market factors affecting the PFRS Investment Fund.

MOTION: Member Godfrey made a motion to accept the informational report regarding the investment market overview, second by Member Speakman. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F4. Third Quarter 2019 Preliminary Investment Fund Performance** – David Sancewich from Meketa reported on the preliminary investment fund performance report for the quarter ending September 30, 2019. Mr. Sancewich reported the importance of achieving a strong investment performance to assist in minimizing the City's contribution to the PFRS Fund.

MOTION: Member Godfrey made a motion to accept the informational report from Meketa regarding the preliminary investment fund performance report for the quarter ending September 30, 2019, second by Member Speakman. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F5. PFRS Fixed Income Asset Class Portfolio Review** – David Sancewich from Meketa reported his follow-up report regarding investing with Fixed Income investment instruments and presented Meketa's recommendation regarding the hiring of an additional fixed income asset class investment manager for the PFRS Fixed Income Asset Class.

MOTION: Member Godfrey made a motion to approve Meketa's recommendation to hire a new fixed income investment manager to further diversify the Fixed Income investment portfolio of the PFRS investment fund, second by Member Nichelini. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F6. RFP for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager** – David Sancewich from Meketa reported that the Request for Proposals for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager produced a listing of 55 investment managers. Mr. Sancewich said Meketa will pare down this list to the top qualified managers for the Board to interview for hire at an upcoming Investment Committee meeting.

MOTION: Member Godfrey made a motion to accept the informational report from Meketa regarding the RFP for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager, second by Member Nichelini. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F7. RFP for the new Investment Manager to service both the PFRS Passive International Equity Asset Class and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio** – David Sancewich reported on the status of the Request for Proposals for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio. He reported that this RFP yielded a small number of managers within the stated criteria and that Meketa would work with staff regarding the selection of managers for Board review for interview.

MOTION: Member Godfrey made a motion to accept the informational report from Meketa regarding the RFP for a new PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio, second by Member Nichelini. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F8. Resolution No. 7074 – Parametric Portfolio Advisors Service Agreement Extension** – Member Godfrey made a motion to approve Resolution No. 7074 authorizing a one-year extension of professional services agreement with Parametric Portfolio Associates, LLC for Covered Calls Asset Class Investment Manager services, second by Member Benson. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F9. Resolution No. 7078 – Service Agreements Termination with Fisher Investments, and (2) Transfer of PFRS assets managed by Fisher Investments to an Exchange Traded Fund** – Plan Administrator David Jones reported that the service agreement between PFRS and Fisher Investments was previously scheduled to be terminated when the hiring of Strategic Global Advisors (SGA) was completed. He reported that Resolution No. 7078 provided the PFRS Board with the option to terminate the service agreement between PFRS and Fisher Investments and move investment funds from Fisher Investments to an Exchange Traded Fund (ETF) while the service agreement with SGA is completed. Mr. Jones also reported recent public reports about Fisher Investments and its possible effect on the PFRS investments portfolio managed by Fisher Investments.

MOTION: Member Wilkinson made a motion to approve Resolution No. 7078 - (1) the Termination of Service Agreements with Fisher Investments, and (2) Transfer of PFRS assets managed by Fisher Investments to an Exchange Traded Fund, second by Member Nichelini. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F10. Resolution No. 7079 – Service Agreements Termination with Hansberger, and (2) Transfer of PFRS assets managed by Hansberger to an Exchange Traded Fund** – Mr. Jones reported that the hire of Strategic Global Investors (SGA) was currently being completed by staff and that contracts are current by being finalized. As with the previous agenda item, Mr. Jones reported that the funding of SGA would come from assets managed by Hansberger Growth Investors when these contracts were finalized. Until that time, it was agreed that Hansberger Growth Investors would continue to manage these assets instead of transitioning these assets from Hansberger Growth Investors to Exchange Traded Funds during this transition. However, Mr. Jones reported that the Board should have the flexibility to initiate the termination of its agreement with Hansberger Growth Investors and move its managed assets to an ETF if desired.

MOTION: Member Nichelini made a motion to approve Resolution No. 7079 - (1) the Termination of Service Agreements with Hansberger Growth Investors, and (2) Transfer of PFRS assets managed by Hansberger Growth Investors to an Exchange Traded Fund, second by Member Wilkinson. Motion passed.

[GODFREY – Y/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

Member Godfrey left the Board meeting at 12:53 pm.

E. PFRS AUDIT COMMITTEE MEETING – OCTOBER 30, 2019

- E1. Administrative Expenses Report** – Teir Jenkins presented an informational report on the status of the administrative expenditures of the PFRS plan through August 31, 2019.

MOTION: Member Muszar made a motion to accept the administrative expenses report, second by Member Speakman. Motion passed.

[GODFREY – ABSENT/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

- E2. Hearing Procedures** – PFRS Legal Counsel Jennifer Logue reported that she presented a second draft version of the PFRS hearing procedures related to section 2603 of the Charter of the City of Oakland. She described the updated changes to her first draft presented at the September 25 Audit Committee meeting. Ms. Logue reported that the Audit Committee discussed additional edits to the hearing procedures and that the Audit Committee moved this matter to the PFRS Board for review, discussion and possible approval.

MOTION: Member Speakman made a motion to approve the PFRS hearing procedures, second by Member Muszar. Motion passed.

[GODFREY – ABSENT/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

- E3. Resolution No. 7077 – Godfrey Travel** – Member Speakman made a motion to approve Resolution No. 7077 authorizing the reimbursement for travel for Member Godfrey, second by Member Muszar. Motion passed.

[GODFREY – ABSENT/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

- G. Member Resolution(s) No. 7078-79** – Member Muszar made a motion to approve Resolutions No. 7078 and 7079, second by member Speakman. Motion passed.

[GODFREY – ABSENT/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

- G1. Resolution No. 7078** – Resolution approving death benefit payments and directing warrants thereunder in the total sum of \$1,000.00 payable to Loretta Ann Brackett, beneficiary of deceased Oakland Police and Fire Retirement System member Glenn Hicks.

- G2. Resolution No. 7079** – Resolution fixing the monthly allowance of Gloria P. Lucas, spouse of Larry L. Lucas, retired member of the Police and Fire Retirement System, in the amount of \$4,115.64; and Yvonne G. Clark, spouse of William H. Clark, retired member of the Police and Fire Retirement System, in the amount of \$4,918.23.

- H. NEW BUSINESS** – Mr. Jones discussed the matter of adding an agenda item to the Investment Committee Agenda Item regarding possible amendment of PFRS Rules and Regulations to add emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets.

MOTION: Member Speakman made a motion to schedule on the January 2020 Investment Committee meeting and agenda item regarding possible amendment of PFRS Rules and Regulations to add emergency procedures for terminating or limiting trading discretion of PFRS investment managers to protect PFRS fund assets, second by Member Nichelini. Motion passed.

[GODFREY – ABSENT/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

- I. OPEN FORUM** – Member Muszar announced his departure from the PFRS Board, effective January 22, 2020.

- J. FUTURE SCHEDULING** – The Board discussed the consolidation of the upcoming November and December 2019 Board meetings into a single meeting. Following discussion, the Board agreed to schedule the next meeting of the PFRS board for December 11, 2019.

MOTION: Member Muszar made a motion to cancel the November 20 and December 18 meetings and add a single special meeting on December 11, 2019, second by member Nichelini. Motion passed.

[GODFREY – ABSENT/ JOHNSON – Y/ BENSON – Y/ NICHELINI – Y/ MUSZAR – Y/ SPEAKMAN – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

The meeting adjourned at 1:08 pm.

DAVID JONES, BOARD SECRETARY

DATE

RESOLUTION No. 7081

ATTEST: _____
SECRETARY

EXHIBIT A

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM HEARING RULES AND PROCEDURES

The Police and Fire Retirement System ("PFRS") was established in 1951 by Article XXVI of the Charter of the City of Oakland ("Charter"), is a closed City of Oakland-operated retirement system for retirees of the Oakland Police and Fire Departments. Section 2601 of the Charter creates the Police and Fire Retirement System Board ("PFRS Board") and authorizes the PFRS Board to make all necessary rules and regulations for its guidance. Section 2603 of the Charter requires the PFRS Board to hold a public hearing on all disputed matters pertaining to retirement and to the granting of retirement allowances, pensions, and death benefits. The PFRS Board has determined that the establishment of Rules and Procedures for hearings held pursuant to Section 2603 will help streamline the process and provide clarity for PFRS members or dependents seeking to avail themselves of Section 2603 hearing process. Accordingly, the PFRS Board has promulgated these Rules and Procedures pursuant to its authority under Section 2601 of the Charter.

1. HEARING REQUEST

A PFRS member or dependent requesting a hearing under Section 2603 ("Requesting Party") shall submit a Request for Hearing form as follows:

In Person or by Mail to: City of Oakland, Retirement Unit 150 Frank H. Ogawa Plaza, Suite 3349 Oakland, California 94612 Attention: PFRS Benefits Representative	By Email to: dfjones@oaklandca.gov
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The Request for Hearing form may be obtained from the PFRS Benefits Representative.

2. NOTICE OF HEARING

All Section 2603 hearings shall be held during a noticed meeting of the PFRS Board.

Upon receipt of a Request for Hearing form, a public hearing shall be scheduled as soon as possible but not more than ninety (90) days from the date the Request for Hearing is received by the Retirement Unit.

Not less than 30 days before the hearing date, PFRS staff shall deliver a written Notice of Hearing, which provides the time, date and location of the hearing, by personal service or by United States Mail postage prepaid to the Requesting Party at his/her last known address.

3. CONTINUANCES, POSTPONMENT OR ABSENCE

If the Requesting Party is unable to attend the hearing on the date and time provided in the Notice of Hearing, the Requesting Party may submit a written request to continue or postpone the hearing to a future date on which a noticed meeting of the PFRS Board will be held.

4. RIGHT TO REPRESENTATION

All parties shall have the right to represent themselves or to be represented by an attorney, hired at their own expense, at the hearing. PFRS members or dependents who cannot afford or choose not to hire an attorney may be represented or assisted by a friend or family member at the hearing. The personal appearance of PFRS members and dependents at the hearing is not required; PFRS members and dependents may send an attorney, family member or friend to the hearing on their behalf or request that the Board issue a decision based on any documents and evidence that has been submitted.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM HEARING RULES AND PROCEDURES

5. EVIDENCE/ORAL ARGUMENT

All parties shall have the right to present evidence and to make oral argument in support of their position or claim subject to the following rules.

5.1 Applicability of Technical Rule of Evidence

The technical rules of evidence applied in state court shall not apply to hearings held pursuant to Section 2603. Any relevant evidence will be admitted if it is the sort of evidence on which reasonable persons would rely in the conduct of serious affairs.

5.2 Oral Argument

Each party shall have a total of fifteen (15) minutes for oral argument. The President of the PFRS Board shall have the discretion to increase or decrease this time limit based on the complexity of the issue(s) presented, the number of parties, or any other factor affecting the time needed to present a case.

5.3 Subpoenas

Pursuant to Oakland Charter section 2601(c), the Secretary of the PFRS Board shall have the authority to issue subpoenas on behalf of Board.

5.4 Witnesses

Any party intending to offer witness testimony at the hearing shall submit a witness list containing the name of all witnesses they intend to call and a time estimate for each witnesses' testimony no less than fifteen (15) days before the date of the hearing.

The purpose of the is rule is to ensure that a sufficient amount of time is allotted for the hearing on the PFRS Board meeting agenda. Therefore, the failure to timely submit a witness list may result in the reduction in the number of witnesses that may called to testify or a reduction in the amount of time each witnesses may testify.

Witness lists shall be submitted as follows:

In Person or by Mail to: City of Oakland, Retirement Unit 150 Frank H. Ogawa Plaza, Suite 3349 Oakland, California 94612 Attention: PFRS Benefits Representative	By Email to: dfjones@oaklandca.gov
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5.5 Documents/Records

Any party who intends to present documents or records for the PFRS Board's consideration at the hearing shall submit seven (7) copies of all documents and records no less than 15 days before the date of the hearing. If a party is unable to submit seven (7) copies of their documents and records, the party may contact the Administrative Assistant to the Police and Fire Retirement Board at 510-238-7295 to make alternative arrangements for submission of any documents and records.

The purpose of this deadline for submitting documents and records is to ensure that all documents and records related to the public hearing are made available for public inspection prior to the hearing pursuant to the Oakland Sunshine Ordinance. Therefore, the deadline is **mandatory** and the failure to timely submit copies of any documents and records that the party intends to offer at the hearing **will** result in the party being prohibited from offering said documents and evidence at the hearing.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM HEARING RULES AND PROCEDURES

Record and Documents shall be submitted as follows:

In Person or by Mail to:

City of Oakland, Retirement Unit
150 Frank H. Ogawa Plaza, Suite 3349
Oakland, California 94612
Attention: PFRS Benefits Representative

5.6 Confidential Medical Records or Other Documents

Any document or record that is protected from public disclosure by state or federal law, such as medical records, may be submitted confidentially in a sealed envelope clearly marked "CONFIDENTIAL". Upon confirmation by PFRS legal counsel that said material is protected from public disclosure by state or federal law, said material will be provided to the PFRS Board for the purposes of the hearing only and will not be made available for public inspection or copying. If PFRS legal counsel determines that the document or record is not protected from public disclosure by state or federal law, the party who submitted the document or record will be contacted prior to public disclosure.

6. DECISION

Generally, at the conclusion of the hearing, the PFRS Board will render a decision which shall be ratified by Resolution passed at the next PFRS Board meeting. However, the PFRS Board shall have the discretion to continue a hearing to a future date to allow the PFRS Board additional time to consider the evidence and testimony presented before rendering its decision or to permit the parties to present additional evidence or testimony that the Board deems necessary to the resolution of the matter.

7. REHEARING AND APPEAL

A decision of the PFRS Board shall be subject to rehearing and challenge by Petition for Writ of Mandate to the Alameda County Superior Court as set forth in Oakland Charter sections 2604 and 2605.

The Hearing Rules and Procedures of the Oakland Police and Fire Retirement System have been approved
by vote of the Oakland Police and Fire Retirement Board, effective _____.

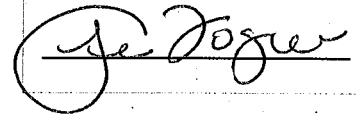
WALTER L. JOHNSON, SR.
PRESIDENT
OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD

DAVID JONES
SECRETARY
OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7082

Approved as to Form
and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

**RESOLUTION AUTHORIZING SETTLEMENT OF DISPUTE
REGARDING HOLIDAY PAY CALCULATIONS FOR POLICE MEMBERS
OF THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
CLASSIFIED AT THE RANK OF CAPTAIN AND DEPUTY CHIEF**

WHEREAS, pursuant to Article XXVI of City of Oakland Charter, retirees of the Oakland Police Department who are members of the Oakland Police and Fire Retirement System ("PFRS") are entitled to receive a retirement allowance that is based on "compensation attached to the average rank held" during the three years immediately preceding retirement; and

WHEREAS, "compensation attached to the average rank held" currently includes, but is not limited to, holiday pay; and

WHEREAS, in November 2018, the PFRS Board passed Resolution No. 7030, which changed the method for calculating the amount of holiday pay to be credited police retirees and beneficiaries of police retirees who held the rank of captain or deputy chief during the three years immediately preceding retirement; and

WHEREAS, under the new calculation method set forth in Resolution No. 7030, the amount of holiday pay credited to police retirees and beneficiaries of police retirees who held the rank of captain or deputy chief decreased from 144 hours per year to 17.67 hours per year for fiscal year 2018-2019; and

WHEREAS, PFRS currently credits police retirees and beneficiaries of police retirees who held the rank of captain with 26.8 hours of holiday pay per year; and

WHEREAS, PFRS currently credits police retirees and beneficiaries of police retirees who held the rank of deputy chief with 24 hours of holiday pay per year; and

WHEREAS, on May 21, 2019, counsel for the Retired Oakland Police Officers Association ("ROPOA") submitted a letter to the PFRS Board objecting to and challenging the new calculation method and the reduction in holiday pay being credited to police retirees and beneficiaries of police retirees who held the rank of captain or deputy chief; and

WHEREAS, the PFRS Board and the ROPOA wish to compromise, resolve and settle the dispute over holiday pay calculations for police retirees and beneficiaries of police retirees who held the rank of captain or deputy chief pursuant to the terms set forth in the Settlement Agreement attached hereto as **Exhibit A**; now, therefore, be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLVED, that the Oakland Police and Fire Retirement System Board authorizes settlement of the dispute regarding holiday pay calculations for police retirees and beneficiaries of police retirees who held the rank of captain or deputy chief pursuant to the terms set forth in the Settlement Agreement attached hereto as **Exhibit A** and directs the President of the Oakland Police and Fire Retirement System Board to execute the Settlement Agreement attached hereto as **Exhibit A** on behalf of the Oakland Police and Fire Retirement System and its Board.

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, NICHELINI, SPEAKMAN, WILKINSON,
and PRESIDENT JOHNSON**

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

EXHIBIT A

Settlement Agreement

In consideration of the mutual agreements and promises set forth below, the Parties to this Settlement Agreement (“Agreement”) hereby agree as follows:

I. Parties

This Agreement is entered into as of January ____, 2020, by and among the following Parties:

Potential Plaintiff: Retired Oakland Police Officers Association (“Plaintiff”);

Potential Defendants and Respondents: City of Oakland (“City”); Oakland Police and Fire Retirement System (“PFRS”); Oakland Police and Fire Retirement System Board (“Board”), (collectively, “Defendants”).

II. Recitals

Whereas, pursuant to Article XXVI of the City of Oakland Charter, retirees of the Oakland Police Department who are members of the Oakland Police and Fire Retirement System are entitled to receive a retirement allowance that is based on “compensation attached to the average rank held” during the three years immediately preceding retirement; and

Whereas, until December 1, 2018, for purposes of calculating “compensation attached to the average rank held”, PFRS credited retirees and beneficiaries of retirees who held the rank of captain or deputy chief for some or all of the 36-month period immediately preceding their retirement (hereinafter collectively “Covered Retirees and Beneficiaries”) with 144 hours of holiday pay per year¹ (12 hours per month); and

Whereas, on November 28, 2018, the PFRS Board passed Resolution No. 7030, which changed the method for calculating the amount of holiday pay to be credited Covered Retirees and Beneficiaries effective January 1, 2019; and

Whereas, under the new calculation method set forth in PFRS Resolution No. 7030, the amount of holiday pay Covered Retirees and Beneficiaries were to be credited for fiscal year 2018-2019 decreased from 144 hours to 17.67 hours; and

Whereas, because PFRS staff determined that as of January 1, 2019, Covered Retirees and Beneficiaries had already been paid more than 17.67 hours of holiday pay for fiscal year 2018-2019, PFRS did not pay any holiday pay benefits to Covered Retirees and Beneficiaries for the remainder of the 2018-2019 fiscal year; and

Whereas, on July 1, 2019, PFRS began crediting retired captains and their beneficiaries with 26.8 hours of holiday pay per year (and began paying 2.23 hours per month); and

Whereas, on July 1, 2019, PFRS began crediting retired deputy chiefs and their beneficiaries with 24 hours of holiday pay per year (and began paying 2.0 hours per month); and

¹ PFRS operates on a fiscal year which runs from July 1 through June 30.

Whereas, Plaintiff claims that Covered Retirees and Beneficiaries are entitled to be credited with 152 hours of holiday pay, including “floating holiday pay”, per year; and

Whereas, Plaintiff also claims that Covered Retirees and Beneficiaries are entitled to POST pay in accordance with the POST pay provided to actives in the MOU between the Oakland Police Management Association and the City of Oakland;

Whereas, Defendants dispute Plaintiff’s claims, and assert that Covered Retirees and Beneficiaries are not entitled to POST pay, are not entitled to “floating holiday pay”, were only entitled to 17.67 hours of holiday pay for fiscal year 2018-2019, and that captains and deputy chief are only entitled to 26.8 hours and 24 hours of holiday pay, respectively, for fiscal year 2019-2020;

Whereas, the Parties wish to enter into this Agreement to compromise, resolve and settle potential claims involving the proper calculation of holiday pay, including “floating holiday pay”, and POST pay for retired captains and deputy chiefs;

Therefore, the Parties agree to settle on the terms stated below.

III. Settlement Terms

A. Credit for Holiday Pay for Covered Retirees and Beneficiaries.

For the purpose of calculating retirement allowances and benefits for PFRS members who are retirees and beneficiaries of retirees who held the rank of captain or deputy chief, PFRS shall credit Covered Retirees and Beneficiaries with 104 hours of holiday pay per year (8.67 hours per month) beginning November 1, 2019 and shall continue to credit Covered Retirees and Beneficiaries with 104 hours of holiday pay per year during the Term (as defined below) of this Agreement.

PFRS shall not credit Covered Retirees and Beneficiaries with POST pay.

PFRS shall not adjust the amount of holiday pay paid to Covered Retirees and Beneficiaries for the time period from January 1, 2019 to November 1, 2019, or otherwise compensate Covered Retirees and Beneficiaries for any alleged underpayment of holiday pay during said period, nor shall PFRS or the City recover any alleged overpayments from Covered Retirees and Beneficiaries for the time period prior to January 1, 2019.

This is a resolution of disputed claims and is not an admission of liability by any Party or the absence of liability on the part of any other Party.

B. Scope of Agreement.

This Agreement does not settle or resolve any claims of members who are retirees or beneficiaries of retirees who held the ranks of police officer, sergeant, inspector, or lieutenant of police at retirement, *provided, however*, that this Agreement *does* apply to the portion, if any, of the 36-month period immediately preceding retirement that such retirees held the rank of captain or deputy chief.

C. Term of Agreement.

The term of this Agreement (“Term”) shall run from the date hereof until the earlier of: (a) June 30, 2024; or (b) the effective date of any MOU amendment adopted hereafter that results in a material change in the provision of the MOU governing POST pay or holidays, including the floating holiday, for active sworn police holding the rank of captain or deputy chief. The Party seeking to terminate the Agreement based on a material change to the above-noted MOU provisions has the burden of proof of a material change.

D. Terms and Conditions for Active Sworn Officers.

This settlement does not prevent the City of Oakland and the Oakland Police Management Association from re-negotiating the way POST or holiday pay is calculated for active sworn police in any rank, or from negotiating any other term or condition of employment for said active sworn police.

E. Waiver and Release.

Plaintiff hereby waives and releases any and all claims against Defendants that: (1) at any time prior to November 1, 2019, Covered Retirees and Beneficiaries were entitled to be credited with POST pay, “floating holiday pay”, or a different number of hours of holiday pay than the number of holiday pay hours actually credited to them by PFRS; and (2) at any time commencing on or after November 1, 2019 through the Term of this Agreement, Covered Retirees and Beneficiaries are entitled to be credited with POST pay, “floating holiday pay” or more than 104 hours of holiday pay per year.

Defendants hereby waive and release any and all claims that during the Term of the Agreement, Covered Retirees and Beneficiaries should be credited with fewer than 104 hours per year for holiday pay, and hereby waive and release any and all claims that PFRS should be entitled to recoup any alleged overpayments for holiday pay for the period prior to January 1, 2019.

Defendants further agree that in the event a MOU amendment is adopted hereafter that results in a material change to the holiday pay or POST provisions as described in Section C above, PFRS will only adjust retirement allowances and benefits for Covered Retirees and Beneficiaries from the effective date of such change and will not assert any claim for overpayments on account of payments made pursuant to this Agreement before such date. This limit on PFRS’ ability to adjust retirement allowances and benefits from the effective date of a MOU amendment resulting in a material change to the above-described provisions shall survive any termination of this Agreement in accordance with Section C above.

F. Covenant Not to Sue.

Plaintiff hereby agrees that during the Term of this Agreement it will not file the same or similar claims on behalf of itself or Covered Retirees and Beneficiaries, nor provide financial or other support for litigating such claims. Plaintiff further agrees that it will not, after the Term of this Agreement, file the same or similar claims on behalf of itself or Covered Retirees and

Beneficiaries seeking relief for any period of time covered by this Agreement except to enforce the terms of this Agreement.

G. Non-Party Claims

Notwithstanding the preceding Waiver and Release and Covenant Not to Sue provisions, this Agreement does not bar claims or lawsuits by an individual retiree or beneficiary that is not a party to this Agreement. ROPOA shall use its best efforts to encourage Covered Retirees and Beneficiaries to agree to the terms of this Agreement, which agreement shall be reflected by the individual retiree or beneficiary signing a copy of this Agreement.

Pursuant to the terms of this Agreement, PFRS will credit Covered Retirees and Beneficiaries with 104 hours per year for holiday pay starting November 1, 2019 regardless of their status as a party or non-party to this agreement, *provided, however*, Defendants expressly reserve all rights, claims and defenses with respect to any non-party retiree or beneficiary who hereafter asserts a claim demanding to be credited with a different number of holiday pay hours, “floating holiday pay”, or POST pay for any of the time periods covered by this Agreement, including time periods prior to the Term hereof.

H. Costs and Fees. Each side will bear their own costs and fees.

I. Admissibility of Settlement Agreement. This Settlement Agreement shall not be admissible in a court of law or other proceeding except to secure its enforcement.

J. Warranty of Authority; Successors and Assigns. Each person who executes this Agreement warrants that he or she has the authority to bind the person or entity on whose behalf he or she signs and that he or she is authorized to sign on behalf of the principal. This Agreement shall inure to the benefit of, and is binding upon, each Party’s heirs, successors and assigns.

K. Right to Consult Attorney. Each Party acknowledges that each of them has read this Agreement and has had the opportunity to consult with attorneys as to the meaning and legal effect of the Agreement.

L. Voluntary Execution of Agreement. The Parties acknowledge, agree and understand that each of them executes this Agreement voluntarily and without any duress or undue influence on the part of, or on behalf of, any person or entity; and that no promise, inducement or agreement not expressed herein has been made by any Party to any other Party.

M. Acts in Furtherance of this Agreement. The Parties agree to execute, deliver and, where appropriate, file any and all documents required to carry out this Agreement.

N. Mutual Drafting. This Agreement is the product of negotiations and preparation by and among the Parties and their respective counsel. The Parties agree that this Agreement shall not be deemed prepared or drafted by one Party or another, or by one Party’s or another’s attorneys. The language of this Agreement shall be construed according to its fair meaning, and not strictly for or against any of the Parties. The Parties expressly waive the provisions of Cal. Civ. Code

§ 1654. The Parties agree that prior drafts of this Agreement were made pursuant to settlement privilege and shall not be admissible to show the meaning of the Agreement.

O. Applicable Law. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

P. Execution in Counterparts; Facsimile Signatures. This Agreement may be executed in one or more duplicate counterparts, all of which taken together shall constitute the complete Agreement. A faxed signature shall have the same force and effect as an original signature.

FOR PLAINTIFFS:

Dated: January_____, 2020

Retired Oakland Police Officers Association

By: _____
Peter Peterson, President

FOR DEFENDANTS AND RESPONDENTS:

Dated: January _____, 2020

City of Oakland

By: _____
Sabrina Landreth, City Administrator

Dated: January _____, 2020

Oakland Police and Fire Retirement System

By: _____
Walter Johnson, Board President

Dated: January _____, 2020

Oakland Police and Fire Retirement System Board

By: _____
Walter Johnson, Board President

APPROVED AS TO FORM:

Dated: January _____, 2020

McCracken, Stemerman & Holsberry, LLP

By: _____
Sarah Grossman-Swenson
Counsel for Retired Oakland Police Officers
Association

Dated: January _____, 2020

Gordon & Polland, LLP

By: _____
Paul Gordon
Counsel for Oakland Police and Fire
Retirement System and its Board

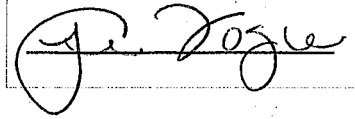
Dated: January _____, 2020

By: _____
Barbara Parker
City Attorney, City of Oakland
2872920v1

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 7088

Approved to Form
and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION APPROVING DEATH BENEFIT PAYMENTS AND DIRECTING WARRANTS THEREUNDER IN THE TOTAL SUM OF \$1,000.00 PAYABLE TO DEBRA A. MAXFIELD, ROBIN L. HARRIGAN, SHARON R. TINSLEY, SANDRA L. TINSLEY, KAREN M. TINSLEY, BENEFICIARIES OF DECEASED OAKLAND POLICE AND FIRE RETIREMENT SYSTEM MEMBER DONALD H. TINSLEY

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) has received proof of the death of the retired member of the Oakland Police Department listed in Column (1) below; and

WHEREAS, the beneficiaries to whom the death benefit provided in City of Oakland Charter Section 2612 is payable, are the persons listed in Column (2) below; and

WHEREAS, the amount of said death benefit is stated in Column (4) below; now, therefore, be it

RESOLVED: That the PFRS Board does hereby approve the Death Benefit payment to the persons identified in Column (2); and be it

FURTHER RESOLVED: That the Director of Finance is hereby directed to draw and sign warrants for the amount in Column (4) payable to the persons identified in Column (2):

(1) Name of Deceased Member	(2) Name of Beneficiary(ies)	(3) Relationship of Beneficiary(ies)	(4) Death Benefit Amount
Donald H. Tinsley (F)	DEBRA A. MAXFIELD	CHILDREN	\$200.00
	ROBIN L. HARRIGAN		\$200.00
	SHARON R. TINSLEY		\$200.00
	SANDRA L. TINSLEY		\$200.00
	KAREN M. TINSLEY		\$200.00

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, NICHELINI, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON**

NOES:

ABSTAIN:

ABSENT:

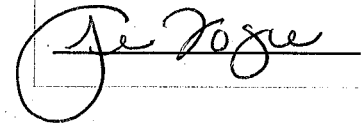
ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved as to
Form and Legality

RESOLUTION No. 7083



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION EXPRESSING APPRECIATION FOR ROBERT J. MUSZAR'S DEDICATION AND LOYAL AND VALUABLE SERVICE AS A MEMBER OF THE OAKLAND POLICE AND FIRE RETIREMENT BOARD

WHEREAS, Robert J. Muszar was elected in accordance with Section 2601 of the Oakland City Charter to the Oakland Police and Fire Retirement Board to fill the seat vacated by James F. Cooper and to serve as the police representative for the remainder of James F. Cooper's five-year term, commencing August 31, 2016; and

WHEREAS, Robert J. Muszar was elected in accordance with Section 2601 of the Oakland City Charter to the Police and Fire Retirement Board to serve a second five-year term as the police representative, commencing September 1, 2018; and

WHEREAS, Robert J. Muszar served as a member of the Audit Committee during his entire term and assisted the Board with its policy decisions; and

WHEREAS, Robert J. Muszar served as a member of the Ad Hoc Committee working to manage the challenge of fully funding the Retirement System by June 2026; and

WHEREAS, on October 22, 2019, Robert J. Muszar announced his resignation from the Police and Fire Retirement Board as the police representative, effective January 22, 2020; now, therefore, be it

RESOLVED: That the Oakland Police and Fire Retirement Board does hereby commend Robert J. Muszar for his loyal service from August 31, 2016 to January 22, 2020 and express appreciation for his dedication and valuable contribution as a member of the Oakland Police and Fire Retirement Board ; and be it

FURTHER RESOLVED: That the members of the Oakland Police and Fire Retirement Board express their sincere best wishes to Robert J. Muszar for a healthy and prosperous future.

IN BOARD MEETING, CITY HALL, OAKLAND, CA JANUARY 29, 2020

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, NICHELINI, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON**

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY