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 Retirement Systems, 150 Frank Ogawa Plaza, Suite 3332 or call (510) 238-7295 for additional information.



Retirement Systems 150 Frank H. Ogawa Plaza Oakland, California 94612

### **AGENDA**

#### **AUDIT COMMITTEE MEMBERS**

John C. Speakman Chairman

> Christine Daniel Member

Robert J. Muszar 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, August 29, 2018 – 9:00 am One Frank H. Ogawa Plaza, Hearing Room 3 Oakland, California 94612

--- ORDER OF BUSINESS ---

1. Subject: PFRS Audit Committee Meeting Minutes

From: Staff of the PFRS Board

Recommendation: APPROVE June 27, 2018 Audit Committee meeting

minutes.

2. Subject: Scope of Services and initiation of the Financial Audit

of the PFRS fund for the Fiscal Year Ending June 30,

2018

From: Macias Gini & O'Connell, LLP and Staff of the PFRS Board

Recommendation: RECOMMEND BOARD APPROVAL of the Scope of

Services and initiation of the Financial Audit of the PFRS

fund for the Fiscal Year Ending June 30, 2018.

3. Subject: Administrative Expenses Report

**From:** Staff of the PFRS Board

Recommendation: ACCEPT an informational report regarding PFRS

Administrative Expenses from July 1, 2017 through June

30, 2018.

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR AUDIT COMMITTEE MEETING AUGUST 29, 2018

#### **ORDER OF BUSINESS, continued**

4. Subject: Resolution No. 7020 - Resolution to approve a two-

year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System Board and Cheiron, Inc. through June 30, 2020 at fees not to exceed \$45,500 for FY2018-2019 and

\$46,500 for FY2019-2020

From: Staff of the PFRS Board

Recommendation: RECOMMEND BOARD APPROVAL Resolution No.

**7020** – Resolution to approve a two-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System Board and Cheiron, Inc. through June 30, 2020 at fees not to exceed \$45,500 for FY2018-2019 and \$46,500 for FY2019-2020.

5. Subject: PFRS Policy Governing the Overpayment or

**Underpayment of Member Benefits** 

**From:** Staff of the PFRS Board

Recommendation: DISCUSSION regarding PFRS Policy Governing the

Overpayment or Underpayment of Member Benefits.

6. Subject: Discussion of the 2006 Management Audit of the PFRS

System

From: Staff of the PFRS Board

**Recommendation: DISCUSSION** of the 2006 Management Audit of the PFRS

System.

7. REVIEW OF PENDING AUDIT AGENDA ITEMS

8. Future Scheduling

9. Open Forum

10. Adjournment of Meeting

AN AUDIT/OPERATIONS COMMITTEE MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on Wednesday, June 27, 2018 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present: • John C. Speakman, Chairman

Robert J. Muszar, MemberChristine Daniel, Member

Additional Attendees: • Katano Kasaine, Plan Administrator

• Teir Jenkins & David Low, Staff Member

Pelayo Llamas, PFRS Legal Counsel

The meeting was called to order at 9:07 am.

 PFRS Audit Committee Meeting Minutes – Member Muszar made a motion to approve the April 25, 2018 Audit Committee meeting minutes, second by Member Daniel. Motion passed.

> [SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

 Administrative Expenses Report – Investment Officer Teir Jenkins presented the administrative expenses report from July 1, 2017 through April 30, 2018. Member Muszar made a motion to accept the administrative expenses report from July 1, 2017 through April 30, 2018, second by member Daniel. Motion passed.

> [SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

3. Resolution No. 7019 - Resolution to write-off approximately \$52,925 in death-related member benefits overpaid to members of the Oakland Police & Fire Retirement System that has been identified as uncollectable – Investment Officer Teir Jenkins reported the details regarding staff recommendation that the PFRS Board write-off approximately \$52,925 in death-related member benefits overpaid to members of the Oakland Police & Fire Retirement System that has been identified as uncollectable. The Audit Committee and Staff discussed the history of overpaid benefits collections process to date and related the conclusion by staff regarding PFRS Resolution No. 7019.

**MOTION**: Following committee and staff discussion, Member Muszar made a motion to recommend Board approval of Resolution No. 7019 to write-off approximately \$52,925 in death-related member benefits overpaid to members of the Oakland Police & Fire Retirement System that has been identified as uncollectable, with an amendment to change "Collection Division" to "Finance Department", second by member Daniel. Motion passed.

[SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

4. Discussion of the 2006 Management Audit of the PFRS System – The Audit Committee and staff continued discussion regarding consideration of conducting a management audit of the PFRS system. Member Muszar stated that a periodic management audit that addresses not only the financial aspects but also the operational aspects of the PFRS System is a necessary action for the System and

follows sound business practices. Member Daniel said a Request for Proposal (RFP) would set forth the necessary scope of services that the Board wishes to be conducted with a management audit. Chairperson Speakman reviewed his recollection of the 2006 management audit. The Committee decided that continued discussion on this matter would be carried over to the August 2018 Audit Committee meeting to address and identify which 2006 management audit items would be considered for inclusion in a possible future management audit. Staff member Jenkins stated that the cost for the 2006 audit may have approached \$100,000.

**MOTION**: Following additional committee discussion, Member Daniel made a motion to hold this matter for continued Audit Committee discussion at the August 2018 committee meeting, second by member Muszar. Motion passed.

[SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

5. PFRS Policy Governing the Overpayment or Underpayment of Member Benefits – The Audit Committee and staff reviewed the one submission from the PFRS Board presenting edits to the draft PFRS Policy Governing the Overpayment or Underpayment of Member Benefits. The Committee and staff considered board member edits and acted to make agreed-upon changes to the draft policy and agreed to hold off continued editing of the PFRS Policy Governing the Overpayment or Underpayment of Member Benefits until the August 2018 meeting. MOTION: Following additional committee discussion, member Daniel made a motion to hold this matter for continued Audit Committee discussion and editing at the August 2018 Committee meeting, second by member Muszar. Motion passed.

[SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

6. Resolution No. 7013 - Travel Authorization for PFRS board member R. Steven Wilkinson – Staff reported that Member Wilkinson's travel request was approved by President Johnson prior to his travel on June 4. PFRS legal counsel Pelayo Llamas reported that Resolution No. 7013 required additional language indicating this approval was authorized by President Johnson. Additionally, Mr. Llamas noted that, because the event had already occurred, that the tense of the resolution language must also be past tense. MOTION: Member Daniel made a motion to recommend Board approval of Resolution No. 7013 approving the travel authorization for Member Wilkinson with conforming changes to the resolution to change to the past tense and add President Johnson's pre-authorization, second by member Muszar. Motion passed.

[SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y ] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

Resolution No. 7018 - Travel Authorization for PFRS board member Martin Melia

 Member Daniel made a motion to recommend Board approval of Resolution No.
 7018 approving the travel authorization for Member Melia, second by member Muszar.
 Motion passed.

[SPEAKMAN - Y / DANIEL - Y / MUSZAR - Y] (AYES: 3 / NOES: 0 / ABSTAIN: 0)

# PFRS Audit/Operations Committee Meeting Minutes June 27, 2018 Page 3 of 3

- 8. **Pending Audit Agenda List** Staff and Audit Committee discussed the pending items list.
- 9. **Future Scheduling** The next two Audit Committee meetings were scheduled for July 25, 2018 and August 29, 2018.
- 10. **Open Forum** No Report.

11. <b>Meeting Adjournment</b> – Meeting adjourned at 10:29 an	11	. Meetina	Adjournment -	<ul> <li>Meeting</li> </ul>	adiourned	at	10:29 am
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JOHN C. SPEAKMAN, COMMITTEE CHAIRMAN	DATE	



July 23, 2018

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

The following represents our understanding of the services we will provide Oakland Police and Fire Retirement System (Retirement System).

You have requested that we audit the financial statements of Retirement System, a pension trust fund of the City of Oakland, as of June 30, 2018 and for the year then ended and the related notes, which collectively comprise Retirement System's basic financial statements. We are pleased to confirm our acceptance and our understanding of this audit engagement by means of this letter. Our audit will be conducted with the objective of our expressing an opinion on each opinion unit applicable to those basic financial statements.

Accounting principles generally accepted in the United States of America, (U.S. GAAP,) as promulgated by the Governmental Accounting Standards Board (GASB) require that supplementary information be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB, 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. As part of our engagement, we will apply certain limited procedures to the required supplementary information (RSI) in accordance with auditing standards generally accepted in the United States of America, (U.S. GAAS). These limited procedures will consist primarily of inquiries of management regarding their methods of measurement and presentation, and comparing the information for consistency with management's responses to our inquiries. We will not express an opinion or provide any form of assurance on the RSI. The following RSI is required by U.S. GAAP. This RSI will be subjected to certain limited procedures but will not be audited:

- 1) Management's Discussion and Analysis
- 2) Schedule of Changes in the Employer's Net Pension Liability and Related Ratios
- 3) Schedule of Employer Contributions
- 4) Schedule of Investment Returns

The Retirement System's annual report will also include introductory, investment, and actuarial sections prepared by the Retirement System that will not be subjected to the auditing procedures applied in our audit of the financial statements, and our auditor's report will not provide an opinion or any assurance on that other information.

#### **Auditor Responsibilities**

We will conduct our audit in accordance with U.S. GAAS. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error, misappropriation of assets, or violations of laws, governmental regulations, grant agreements, or contractual agreements.

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 basic financial statements. If appropriate, our procedures will therefore include tests of documentary evidence that support the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of cash, investments, and certain other assets and liabilities by correspondence with creditors and financial institutions. As part of our audit process, we will request written representations from the Retirement System's attorneys, and they may bill the Retirement System for responding. At the conclusion of our audit, we will also request certain written representations from management about the basic financial statements and related matters.

Because of the inherent limitations of an audit, together with the inherent limitations of internal control, an unavoidable risk that some material misstatements (whether caused by errors, fraudulent financial reporting, misappropriation of assets, or violations of laws or governmental regulations) may not be detected exists, even though the audit is properly planned and performed in accordance with U.S. GAAS.

In making our risk assessments, we consider internal control relevant to the Retirement System's preparation and fair presentation of the basic 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 Retirement System's internal control. However, we will communicate to you in writing concerning any significant deficiencies or material weaknesses in internal control relevant to the audit of the basic financial statements that we have identified during the audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any other periods.

We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions on the basic financial statements are other than unmodified, we will discuss the reasons with management in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or to issue a report as a result of this engagement.

#### **Compliance with Laws and Regulations**

As previously discussed, as part of obtaining reasonable assurance about whether the basic financial statements are free of material misstatement, we will perform tests of the Retirement System's compliance with the provisions of applicable laws, regulations, contracts, and agreements. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion.

#### **Management Responsibilities**

Our audit will be conducted on the basis that management acknowledge and understand that they have responsibility:

- a. For the preparation and fair presentation of the basic financial statements in accordance with accounting principles generally accepted in the United States of America;
- b. For the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to error, fraudulent financial reporting, misappropriation of assets, or violations of laws, governmental regulations, grant agreements, or contractual agreements; and
- c. To provide us with:
  - i. Access to all information of which management is aware that is relevant to the preparation and fair presentation of the basic financial statements such as records, documentation, and other matters;

- ii. Additional information that we may request from management for the purpose of the audit; and
- iii. Unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence.
- d. For including the auditor's report in any document containing basic financial statements that indicates that such basic financial statements have been audited by the entity's auditor;
- e. For identifying and ensuring that the entity complies with the laws and regulations applicable to its activities:
- f. For adjusting the basic financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the current year period under audit are immaterial, both individually and in the aggregate, to the basic financial statements as a whole: and
- g. For maintaining adequate records, selecting and applying accounting principles, and safeguarding assets.

As part of our audit process, we will request from management written confirmation concerning representations made to us in connection with the audit.

#### Reporting

We will issue a written report upon completion of our audit of the Retirement System's basic financial statements. Our report will be addressed to the Board of Administration of the Retirement System. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions, add an emphasis-of-matter or other-matter paragraph(s), or withdraw from the engagement.

#### Other

We understand that the Retirement System's employees will prepare all confirmations we request and will locate any documents or support for any other transactions we select for testing.

If the Retirement System intends to publish or otherwise reproduce the basic financial statements and make reference to our firm, you agree to provide us with printers' proofs or masters for our review and approval before printing. You also agree to provide us with a copy of the final reproduced material for our approval before it is distributed.

#### Provisions of Engagement Administration, Timing and Fees

Macias Gini & O'Connell LLP (MGO) is the U.S. firm of our network of separate and independent MGO firms. MGO may, in its discretion, draw on resources of its subsidiaries, its affiliates, and/or third-party contractors, in each case within or outside the United States, in connection with the provision of services. The Retirement System agrees that MGO may provide access to information it receives in connection with this agreement to our other resources. We may share confidential information about the Retirement System with these service providers, but remain committed to maintaining the confidentiality and security of the Retirement System's information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of the Retirement System's personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of the Retirement System's information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of the Retirement System's confidential information to others. Furthermore, we will remain responsible for the provision of the services.

In the performance of our professional services, we may communicate with each other and/or with others via email transmission. As emails can be intercepted and read, disclosed, or otherwise used by an unintended third party, we cannot guarantee that such email communication will be properly delivered and read only by the addressee. While we will use our best efforts to keep such communications secure in accordance with our obligations under applicable laws and professional standards, you recognize and accept that we have no control over the unauthorized interception of these communications once they have been sent. Therefore, you hereby waive any liability whatsoever for any unintended interception or unintentional disclosure of email transmissions in connection with the performance of our professional services. MGO uses cloud-based computing services, including the storage of data and files, at third party, offsite, secure facilities. In that regard, you agree that we shall have no liability for any loss or damage to any person or entity resulting from the use of email transmissions and cloud-based computing, including any direct or indirect damages that may result from any inadvertent or unanticipated disclosure of confidential or proprietary information, or disclosure through third party criminal conduct (e.g., hackers or hacking activities).

We expect to begin our audit on approximately August 1, 2018 and to issue our reports no later than October 12, 2018. Annie Louie is the engagement partner for the audit services specified in this letter. Her responsibilities include supervising our services performed as part of this engagement and signing or authorizing another qualified firm representative to sign the audit report.

Management agree to inform us of facts that may affect the basic financial statements of which management may become aware during the period from the date of the auditor's report to the date the financial statements are issued.

At the conclusion of our audit engagement, we will communicate to the Board of Administration the following significant findings from the audit:

- Our view about the qualitative aspects of the entity's significant accounting practices;
- Significant difficulties, if any, encountered during the audit;
- Uncorrected misstatements, other than those we believe are trivial, if any;
- Disagreements with management, if any;
- Other findings or issues, if any, arising from the audit that are, in our professional judgment, significant and relevant to those charged with governance regarding their oversight of the financial reporting process;
- Material, corrected misstatements that were brought to the attention of management as a result of our audit procedures;
- Representations we requested from management;
- Management's consultations with other accountants, if any; and
- Significant issues, if any, arising from the audit that were discussed, or the subject of correspondence, with management.

The audit documentation for this engagement is the property of MGO and constitutes confidential information. However, we may be requested to make certain audit documentation available to a regulator or its designees pursuant to authority given to it by law or regulation, or to peer reviewers. If requested, access to such audit documentation will be provided under the supervision of MGO's personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies of information contained therein to others, including other governmental agencies. We agree to retain our audit documentation or work papers for a period of at least seven years from the date of our report.

Professional and certain regulatory standards require us to be independent, in both fact and appearance, with respect to the Retirement System in the performance of our services. Any discussions that the Retirement System has with personnel of our firm regarding employment could pose a threat to our independence. Therefore, the Retirement System agrees to inform us prior to any such discussions that we can implement appropriate safeguards to maintain our independence.

We appreciate the opportunity to be the Retirement System's financial statement auditors and look forward to working with the Retirement System.

Respectfully,

**RESPONSE:** 

Macias Gini and O'Connell LLP

This letter correctly sets forth the understanding of the Oakland Police and Fire Retirement System. Management acknowledge and agree with the arrangements for the audit of the basic financial statements including our respective responsibilities.

Signed:			
Name and Title: _			
Date:			

Macias Gini É O'Connell LAP

Table 1

#### OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)
As of June 30, 2018

		Amended							
		Budget		June 2018		FYTD		Remaining	Percent Remaining
Internal Administrative Costs			l	<b>J</b>					
PFRS Staff Salaries	\$	1,052,800	\$	78,514	\$	939,779	\$	113,021	10.7%
Board Travel Expenditures	,	52,500	•	3,558	,	12,621	,	39,879	76.0%
Staff Training		10,000		275		4,873		5,127	51.3%
Staff Training - Tuition Reimbursement		7,500		1,640		6,560		940	12.5%
Annual Report & Duplicating Services		4,000		466		1,863		2,137	53.4%
Board Hospitality		2,600		289		2,056		544	20.9%
Payroll Processing Fees		35,000		-		35,000		-	0.0%
Miscellaneous Expenditures*		47,500		18,648		28,418		19,082	40.2%
Internal Service Fees (ISF)		63,000		7,017		60,291		2,709	4.3%
Contract Services Contingency		1,200		· -		1,200		- -	0.0%
Office Construction Costs		127,143		47,982		51,916		75,227	59.2%
Internal Administrative Costs Subtotal:	\$	1,403,243	\$	158,389	\$	1,144,576	\$	258,667	18.4%
Actuary and Accounting Services									
Audit	\$	45,000	\$	2,253	\$	43,000	\$	2,000	4.4%
Actuary	Ψ	45,000	Ψ	1,169	Ψ	40,464	Ψ	4,536	10.1%
Actuary and Accounting Subtotal:	\$	90,000	\$	3,422	\$	83,464	\$	6,536	7.3%
Legal Services									
City Attorney Salaries	\$	184,000	\$	14,278	\$	156,665	\$	27,335	14.9%
Legal Contingency	Ψ	150,000	Ψ	32,519	Ψ	104,417	Ψ	45,583	30.4%
Legal Services Subtotal:	\$	334,000	\$	46,797	\$	261,082	\$	72,918	21.8%
Investment Services									
Money Manager Fees	\$	1,224,357	\$	314,794	¢	1,210,830	¢	13,527	1.1%
Custodial Fee	Ψ	124,000	\$	29,125	Ψ	116,500	Ψ	7,500	6.0%
Investment Consultant (PCA)		100,000	Ψ	25,000		100,000		7,300	0.0%
Investment Subtotal:	\$	1,448,357	\$	368,919	\$	1,427,330	\$	21,027	1.5%
Total Operating Budget	\$	3,275,600	\$	577,527	\$	2,916,452	\$	359,148	10.96%

<sup>\*</sup> Included \$16,173 fees for retiree medical examinations

Table 2

#### OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

### Cash in Treasury (Fund 7100) - Preliminary As of June 30, 2018

	June 2018
Beginning Cash as of 5/31/2018	\$ 7,650,077
Additions:	
City Pension Contribution - June	\$ 3,738,337
Investment Draw (Incoming Wire) - 6/1/2018	1,000,000
Misc. Receipts	5,405
Total Additions:	\$ 4,743,742
Deductions:	
Pension Payment (May Pension Paid on 6/1/2018)	(4,552,525)
Expenditures Paid	(197,963)
Total Deductions	\$ (4,750,488)
Ending Cash Balance as of 6/30/2018*	\$ 7,643,331

<sup>\*</sup> On 7/01/2018, a pension payment of appx \$4,609,000 will be made leaving a cash balance of \$3,034,000

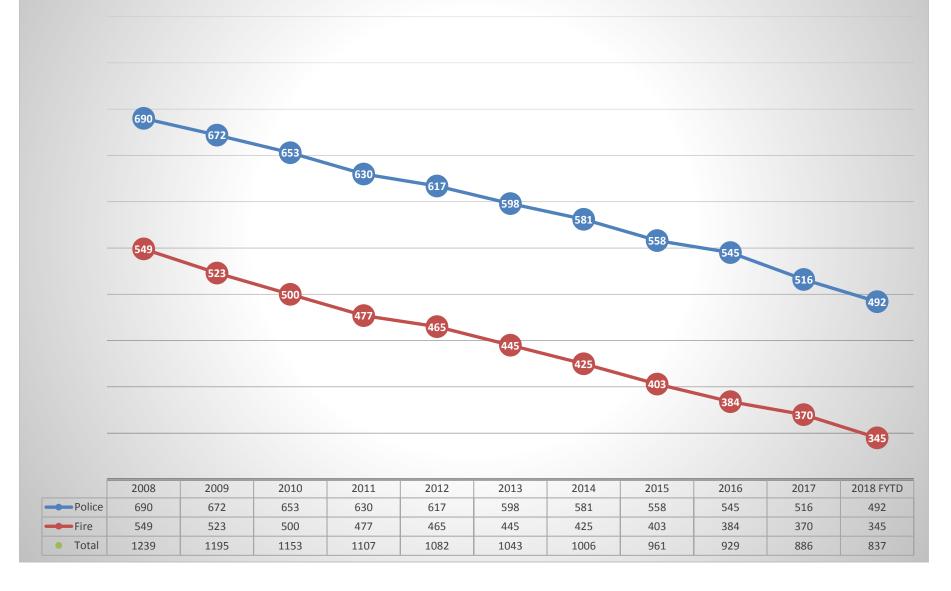
Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census As of June 30, 2018

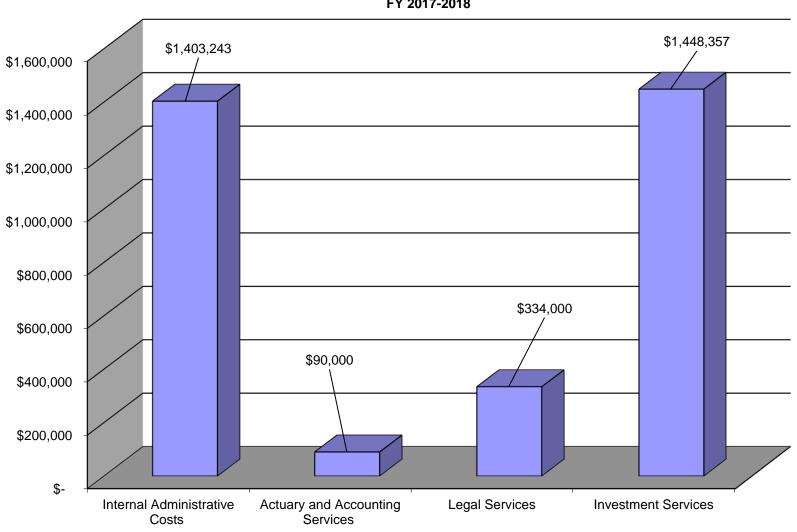
COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	359	211	570
Beneficiary	133	134	267
Total Retired Members	492	345	837
Total Membership:	492	345	837

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	327	183	510
Disability Retirement	151	148	299
Death Allowance	14	14	28
Total Retired Members:	492	345	837
Total Membership as of June 30, 2018:	492	345	837
Total Membership as of June 30, 2017:	516	370	886
Annual Difference:	-24	-25	-49

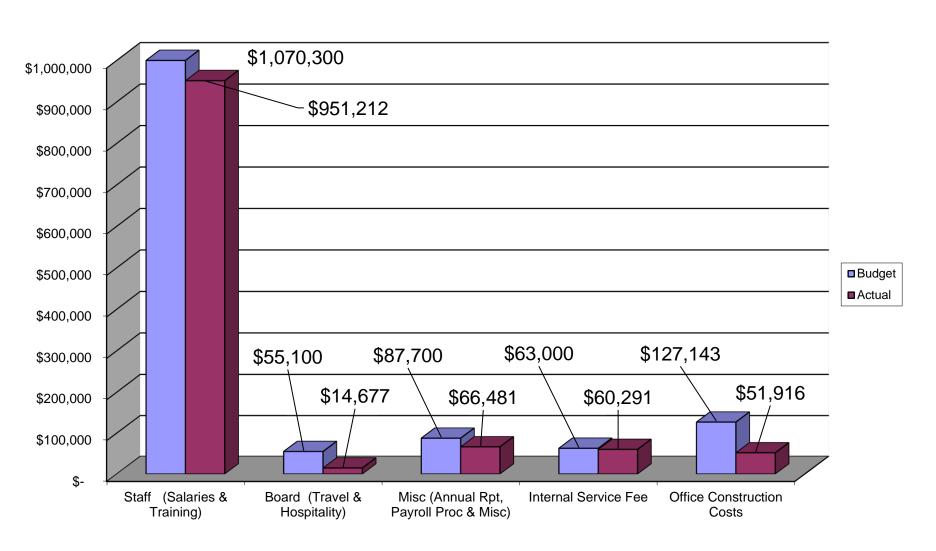
# Oakland Police and Fire Retirement System Pension Plan Membership Count As of June 30, 2018 (FY 2008 - FY 2018)



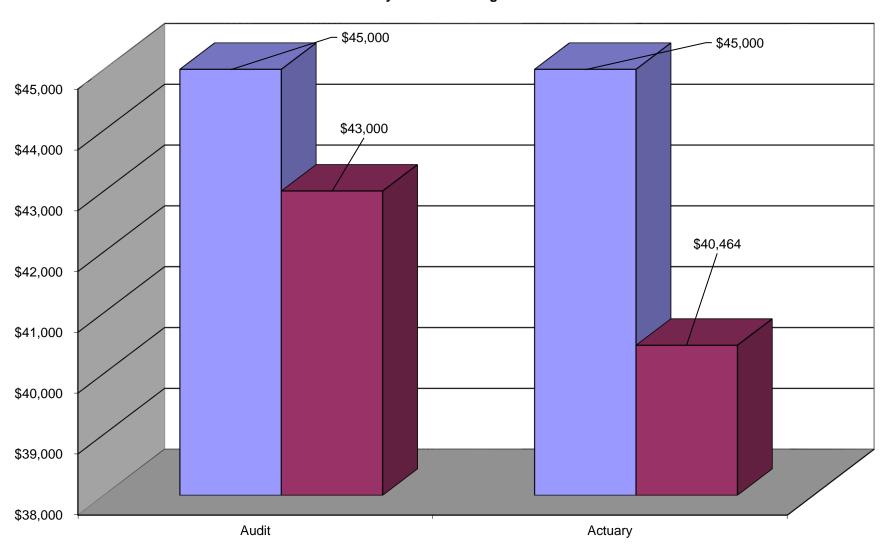
# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM Approved Budget FY 2017-2018



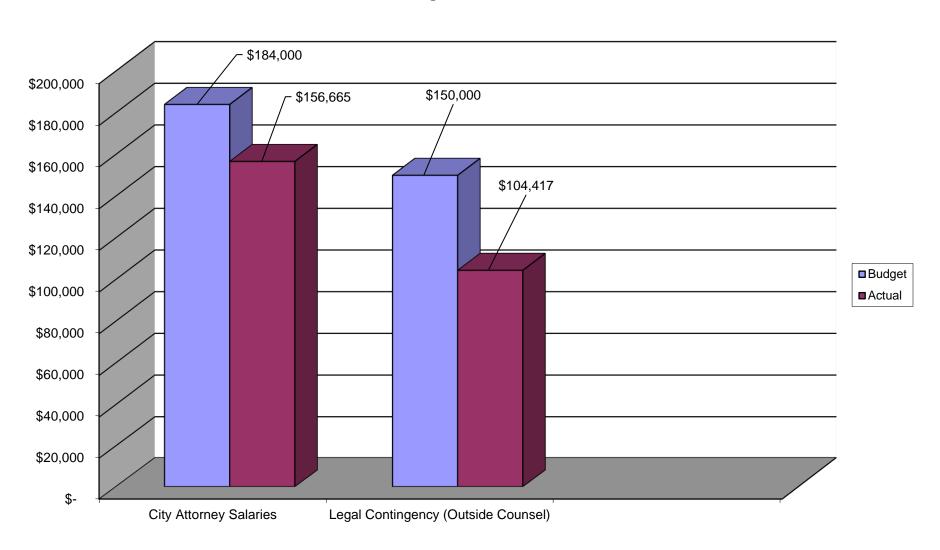
# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM Budget vs Actual as of June 30, 2018 Internal Administrative Costs



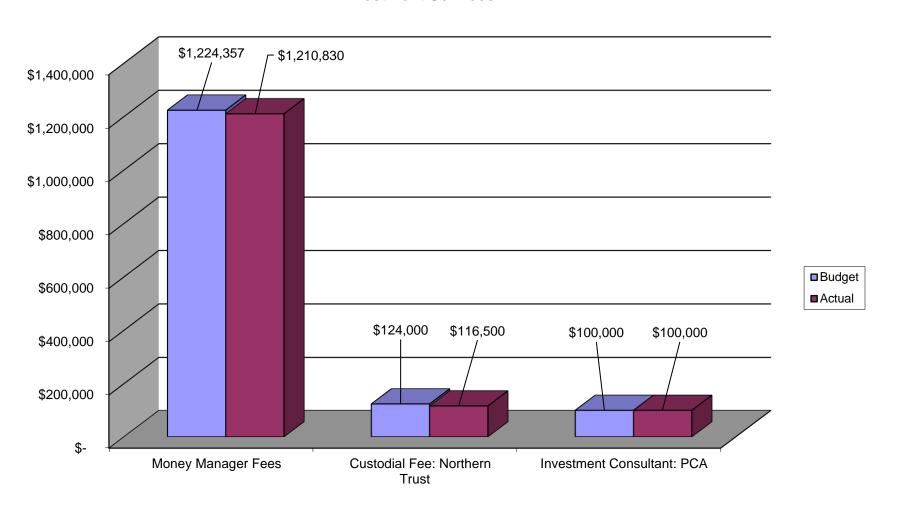
# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM Budget vs. Actual as of June 30, 2018 Actuary and Accounting Services



# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM Budget vs. Actual as of June 30, 2018 Legal Services



# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM Budget vs. Actual as of June 30, 2018 Investment Services





#### AGENDA REPORT

**TO:** Oakland Police and Fire Retirement System

FROM: Katano Kasaine

**Board** 

**SUBJECT:** Resolution No. 7020 – Resolution to approve a

**DATE:** August 23, 2018

two-year extension of the professional service agreement between the PFRS Board and

Cheiron, Inc.

#### SUMMARY

In 2013, the Oakland Police and Fire Retirement Board issued a Request for Proposal (RFP) seeking a firm to provide the Plan Actuarial services. After interviews and a screening process the PFRS Board selected the actuary firm Cheiron, Inc. Pursuant to Resolution No. 6765, PFRS entered into a contract with Cheiron, Inc. from July 01, 2013 to June 30, 2016. In 2016, the PFRS Board approved exercising its options to extend the term of the agreement to June 30, 2018.

Because of the critical timing of Cheiron's upcoming work, staff recommends the extension of the service agreement for an additional two years through June 30, 2020 for an annual not to exceed fee of \$45,500 FY2018-2019 and \$46,500 FY2019-2020.

#### RECOMENDATION

Staff recommends the PFRS board approve Resolution No. 7020 to approve a second amendment to extend the professional service agreement between the City of Oakland and Cheiron, Inc. for an additional two-year term, effective July 1, 2018 through June 30, 2020.

Respectfully submitted,

Katano Kasaine, Plan Administrator

Oakland Police and Fire Retirement System

#### Attachments (3):

- (1) Resolution No. 7020 Proposed Resolution to Approve the Second Amendment to the Agreement Between the City of Oakland Police and Fire Retirement System Board and Cheiron, Inc.
- (2) Cheiron Memo (August 16, 2018) with proposed fees effective July 1, 2018 thorugh June 30, 2020.
- (3) Resolution No. 6765 (approved 8/28/2013) Resolution Authorizing a Professional Service Contract with an Acutary Services Provider for the Oakland Police and Fire Retirement System from July 1, 2013 through June 30, 2016 in an amount not to Exceed \$45,000 Per Fiscal Year.

#### OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

	RESOLUTION No. 7020	Jen Acon
ON MOTION OF MEMBER	SECONDED BY MI	EMBER
PROFESSIONAL SI OAKLAND POLICE CHEIRON, INC. THE	APPROVE A TWO-YEAR EX ERVICE AGREEMENT BETWE AND FIRE RETIREMENT SYS ROUGH JUNE 30, 2020 AT FEE 8-2019 AND \$46,500 FOR FY20	EEN THE CITY OF STEM BOARD AND S NOT TO EXCEED

WHEREAS, at their August 28, 2013 meeting, the Board of the Oakland Police and Fire Retirement System ("PFRS") approved Resolution No. 6765, appointing Cheiron, Inc. to serve as the PFRS plan actuary for the period of July 1, 2013 through June 30, 2016 plus two one-year option for the Board to extend the agreement; and

WHEREAS, at their June 29, 2016 Board Meeting, the PFRS Board approved by board motion the First Amendment to the agreement between PFRS and Cheiron, Inc., which exercised both options and extended the agreement to June 30, 2018; and

WHEREAS, the staff of the PFRS Board recommended that the service agreement be extended through June 30, 2020, as the current service agreement between the PFRS Board and Cheiron, Inc. expired on June 30, 2018; and

**WHEREAS**, Cheiron, Inc. is desirous of extending the agreement for two years for annual amounts not to exceed \$45,500 for FY 2018-2019 and \$46,500 for FY2019-2020; now, therefore, be it

**RESOLVED:** The Plan Administrator is hereby authorized to execute an amendment to extend the professional service contract with Cheiron, Inc. to perform actuary services for PFRS for a two year period ending July 1, 2020, at fees not to exceed \$45,500 for FY2018-2019 and \$46,500 for FY2019-2020.

IN BOARD	MEETING, CITY HALL, OA	KLAND, CA	AUGUST	<u>29, 2018</u>
PASSED BY	THE FOLLOWING VOTE:	:		
AYES:	DANIEL, GODFREY, MI AND PRESIDENT JOHN		SPEAKMAN,	WILKINSON,
NOES:				
ABSTAIN:				
ABSENT:			ATTEST:	
				PRESIDENT
			Δττεςτ.	

SECRETARY



August 16, 2018

City of Oakland Treasury Division Retirement Section 150 Frank Ogawa Plaza, Suite #3341 Oakland, CA 94601 Attn: Katano Kasaine, Plan Administrator

Re: Fee Letter

Dear Ms. Kasaine:

This letter represents our proposed fees effective July 1, 2018 through June 30, 2020.

**A) Retainer** – \$45,500 FY2018-2019; \$46,500 FY2019-2020

The retainer fee covers the following services:

- Provide valuations of the defined benefit plans, including affirming the validity of benefit calculations
- Complete experience studies of the plans as required and prepare cost analyses and reports regarding proposed plan amendments
- Determine the financial disclosures related to the members pursuant to requirements of the Governmental Accounting Standards Board
- Present the experience study and the actuarial report to the Boards of Administration for PFRS at their regular meetings in Oakland
- Review and assist with the actuarial sections of the Plan's Annual reports
- If PFRS deem necessary, provide the services of a senior staff member for additional assignments or attendance at meetings
- **B)** Non-Retainer With respect to special consulting projects and services above and beyond the scope of valuation services above, we can provide such services on a fixed fee basis or at our hourly billing rates. Fees will be negotiated in advance.

For additional meetings, reasonable out-of-pocket travel expenses will be charged separately, but travel time will not be compensable.

If you would like any special services performed, we can provide a fee quote or provide them based on our normal hourly rates and our cost for out-of-pocket disbursements such as travel and outside copying. The chart below lists our general hourly billing rates for 2018. Hourly billing rates will increase with inflation in future years.

Standard Billing Rates for the 2018 Calendar Year	
<u>Category/Consultant</u>	<u>Hourly Rate</u>
Principal Consulting Actuaries	\$358 - \$496
Consulting Actuaries	\$275 - \$427
Associate Actuaries	\$180 - \$285
Senior Actuarial Analysts	\$171 - \$214
Actuarial Analysts	\$150 - \$190
Administrative Staff	\$102 - \$111

If you have any questions, please feel free to contact us.

Sincerely, Cheiron

Graham Schmidt, ASA, EA, FCA, MAAA

**Consulting Actuary** 



#### OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

#### RESOLUTION No. 6765

ON MOTION OF MEMBER	SOLITEI	_ SECONDED BY MEMBER	JUHUSON
ACTUARY SE RETIREMENT	RVICES PROVIDER FO	ESSIONAL SERVICE CO OR THE OAKLAND PO I, 2013 THROUGH JUN R FISCAL YEAR	OLICE AND FIRE
	Dakland City Charter section Board") to appoint an actuar		of the Oakland Police and Fire
	Retirement System ("PFRS"		erform actuary services for the nd subsequently extended the
			PFRS Board to issue a Request ir meeting at the December 19,
WHEREAS, Staff	of the PFRS Board issued th	ne RFP on March 8, 2013; an	d
<b>WHEREAS</b> , two to on April 5, 2013; and	firms, Bartel Associates and	Cheiron, Inc., submitted the	responses to the Actuary RFP
<b>WHEREAS</b> , both thereafter; and	n respondents submitted t	heir answers to the supp	lemental questionnaire shortly
	d has selected one firm to ap		mental questionnaire responses Actuary for the three year period
appointed, subject to execu	ition of a contract, to serve a ard option to extend the conf	is PFRS Actuary for the period	e firm name NOT selected), is od of July 1, 2013 through June e-year terms on the same terms
	for the period July 1, 2013 th		ontract with said firm to perform amount not to exceed Forty-five
IN BOARD MEETING,	CITY HALL, OAKLAND, CA _	AUGUS	ST 28, 2013
PASSED BY THE FOLLOW	ING VOTE:		
AYES: JOHNSON,	GODFREY, <del>Speakman</del> , e	<del>BERNAR</del> D, <del>OZNOWICZ,</del> W	ILKINSON, SOLITEI
NOES: Bernard	OZnowic Z		
NOES: Bernard  ABSENT: Speakman	n	ATTEST:	PREMIENT
		ATTEST:	SECRETARY SECRETARY



#### A GENDA REPORT

TO: Oakland Police and Fire

FROM: Katano Kasaine

Retirement Board

**SUBJECT:** Draft policy governing the overpayment

**DATE:** August 20, 2018

and underpayment of PFRS member benefits

#### **SUMMARY**

Oakland Police and Fire Retirement System ("PFRS") staff request that the PFRS Board of Administration ("PFRS Board") review and provide comments to a draft policy governing the overpayment and underpayment of member retirement allowances (the "Policy").

#### BACKGROUND

To develop this Policy, staff researched and reviewed the bylaws, rules and regulations, and operational policies of several public pension systems including: the San Diego City Employees' Retirement System, San Joaquin County Employees' Retirement Association, San Mateo County Employees' Retirement Association, San Jose Federated Employees' Retirement System, City of Fresno Retirement System, Fresno County Employees' Retirement Association, Sacramento Regional Transit District, and Contra Costa County Employees' Retirement Association. Staff used this research, to draft a Policy to specifically address the needs and concerns of PFRS. The Policy will guide staff in the effective and efficient resolution of overpayment and underpayment of retirement allowances to members.

At the April 25, 2018 Audit Committee meeting, staff submitted for Audit Committee review the Agenda Report addressing the Draft Policy Governing Overpayment and Underpayment of Member Retirement Allowances. Following Audit Committee discussion, a motion made by Member Muszar (1) to hold this matter over until the June 2018 Audit Committee meeting for further discussion and (2) to have Committee Members submit to staff written comments by June 15, 2018 in order for them to be published with the June 2018 agenda, passed.

On April 30, staff delivered by email the DRAFT Policy Governing Overpayment and Underpayment of Member Retirement Allowances to each Board member requesting comments be returned to staff by June 13, 2018.

At the June 27, 2018 Audit Committee meeting, the Audit Committee decided that continued work on this matter would be carried over to the August 2018 Audit Committee meeting for continued discussion and editing.

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

Subject: Draft policy governing the overpayment and underpayment of PFRS member benefits

Date: August 20, 2018

Page 2

#### RECOMMENDATION

Staff recommends the PFRS Board review and provide comments to the draft Policy included as Attachment 1.

Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

#### Attachments (2):

- 1. Draft policy governing the overpayment and underpayment of PFRS member benefits by staff.
- 2. Draft policy governing the overpayment and underpayment of PFRS member benefits Edit version by Member Muszar

### ATTACHMENT 1

#### I. PURPOSE

The purpose of this Policy Governing the Overpayment or Underpayment of Member Retirement Allowances ("Policy") is to set forth procedures for handling the overpayment and underpayment of Retirement Allowance payments to members and beneficiaries ("Members") of the Oakland Police and Fire Retirement System ("PFRS").

The PFRS Board may implement a different correction process that it determines is appropriate. In the event of any inconsistency between applicable law and this Policy, the law shall take precedence.

#### II. INTRODUCTION

The Oakland Police and Fire Retirement Board ("PFRS Board") has a fiduciary obligation to the retirement fund to conserve fund assets and protect the integrity of the fund for the benefit of all <a href="PFRS Members">PFRS Members</a>,

Members have a right to accurate and timely pension payments. Except as determined by a court of law or the PFRS Board pursuant to the Policy, no Member may receive or retain retirement allowance payments over the amounts to which the Member is entitled, and no Member may be deprived of retirement allowance payments to which the Member is entitled

Deleted: Benefits

Deleted:

**Deleted:** This Policy is designed for use when a benefit overpayment/underpayment affecting an individual or small groups of Members.

**Deleted:** under special large scale adjustments; such as court orders, charter interpretation, changes to a Memoranda of Understanding ("MOU")

**Deleted:** members and beneficiaries ("Members") of the Oakland Police and Fire Retirement System

**Deleted:** This duty includes maintaining the tax-qualified status of the Plan. Therefore, the PFRS Board, acting through its delegated administrative staff ("Staff"), has a duty to investigate any retirement allowance overpayments or underpayments promptly and diligently, and to recover overpayments and pay out underpayments of retirement plan benefits, unless circumstances exist that make it unreasonable to do so.

Deleted: benefit

Deleted: benefit

**Deleted:** to receive. Subject to all applicable laws, it shall be PFRS' policy to remit to a Member the amount of any underpayment of benefits, and to make every reasonable effort to recover from a Member the amount of any overpayment of benefits consistent with the Policy and the procedures established herein by the PFRS Board.

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#### III. POLICY

It is the policy of the PFRS Board, acting through its delegated administrative staff ("Staff"), to investigate any alleged retirement allowance overpayments or underpayments promptly and diligently, and make every reasonable effort to recover overpayments and pay out underpayments of Retirement Allowances, unless the PFRS Board determines, pursuant to the terms of this Policy, that circumstances dictate otherwise.

After the discovery of an overpayment or underpayment of benefits, and after the required written notification to the affected Member, PFRS will adjust future benefit payments to the Member to reflect the correct total amount to which the Member is entitled (as indicated below). PFRS will also pay or assess the Member as appropriate for the underpayment or overpayment in a lump sum, installments, adjustments to future monthly benefit payments, or a combination of these methods to which the Members are entitled in accordance with this policy and applicable law.

#### Overpayment of Retirement Allowance to PFRS' Members and Beneficiaries

- PFRS Staff will correct the Member's recurring monthly overpayment to the correct amount going forward at the earliest practical time after discovering any overpayments.
- PFRS will take all reasonable steps to recover the full amount of all overpayments subject to the provisions of the Policy and applicable law.
- 3. PFRS will recover overpayments by (a) a lump sum payment from the Member, (b) periodic installment payments from the Member, or (c) offsetting the amount to be recovered against monthly benefit payments over a period of time not to exceed three years; unless the PFRS Board, in its discretion and because of legal or practical considerations, determines that another process is warranted.
- 4. The PFRS Board believes that considerations of cost effectiveness make it prudent and reasonable to pursue recovery of overpayments only where the cumulative total amount overpaid to the Member is \$20 or more. Accordingly, the Retirement Plan Administrator (the "Plan Administrator") is authorized to not seek recovery of any overpayments where the total amount overpaid to the Member is less than \$20.
- 5. The Plan Administrator shall have authority to negotiate the terms of recovering overpayments through installments, lump sums, or as offsets against monthly benefit payments for amounts below five thousand dollars (\$5,000.00). The PFRS Board must approve installment overpayment recovery agreements when the total amount of overpayment is five thousand dollars (\$5,000.00) or more. Among other things, the likelihood of collection, the cost of collection, the amount of possible recovery and documented financial hardship of the Member or Member's estate will be considered by the Plan Administrator and/or the PFRS Board when agreeing to

Page 2 of 5 Ver: 3.3 06/27/2018

installment recovery terms. Any forgiveness of debt above One Hundred Dollars (\$100.00) must be approved by the PFRS Board.

- PFRS may pursue all legal remedies to collect overpayments, including making a claims against an estate or trust.
- 7. Upon the death of the Member before full repayment of an overpayment has been made, PFRS shall pursue a claim or claims against the Member's estate, survivors, heirs and/or beneficiaries to recover the unpaid amounts.
- 8. If a Member dies while making repayments to PFRS, the entire balance of the amount owed shall become due upon the Member's death and deducted from the final remittance check. Any remaining unpaid balance shall be pursued in accordance with this Policy. Overpayments due shall <u>not</u> be deducted from a Member's \$1,000 death benefit payment unless there is no designated qualified beneficiary. If the deceased Member has a surviving spouse who is entitled to a reduced continuation of the Member's monthly benefit, the Plan Administrator has the authority to collect a reduced monthly amount from the surviving spouse without changing the total amount owed by the deceased Member.
- Before collecting an overpayment from the monthly retirement allowance of a Member without consent, PFRS will give at least 30-day's notice.
- 10. The PFRS Board adopts the following procedures for accomplishing the recovery of overpaid benefits:
  - A. **Notification of Overpayment.** Upon discovery of an overpayment, PFRS shall send a **Notice of Overpayment of Member Retirement Allowance** by certified mail, return receipt requested, or by express delivery service, to the Member advising the Member as follows:
    - The notice will identify the facts and circumstances of the overpayment and details showing the total amount of the overpayment.
    - ii. The notice will request payment to PFRS of the amount overpaid, subject to the provisions of the Policy.
    - iii. The notice will provide three options of repayment, one of which may be selected by the Member:
      - Option 1 lump sum payment to PFRS for the full amount overpaid. Lump sum payment must be made within 30 days of the notice.

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- (2) Option 2 reduction from monthly benefit payments in the amount equal to ten percent (10%) of the total overpayment, until paid back in full.
- (3) Option 3 repayment in equal installments over the same length of time that the overpayments occurred or three years, whichever is longer. Unless a financial hardship is approved by the PFRS Board, the installment period shall not exceed 3 years.
- iv. The notice and agreement to repay excess benefits will provide that Option 2 (10%) will go into effect by default if the Member fails to choose an alternative option within 30 days following the date of the notice.
- v. The notice shall state that dispute of overpayment must be submitted in writing to the Retirement office within 30 days following the date the notice was sent. This dispute should include supporting documentation, if applicable.

#### **Underpayment of Retirement Allowance to Members and Beneficiaries**

- When PFRS has underpaid Retirement Allowances, the Member shall be entitled to a
  prospective adjustment to his or her Retirement Allowance necessary to correct the
  underpayment, as well as a lump sum payment for all past underpayments. The
  corrective payment shall be made as soon as is reasonably practicable following
  PFRS's discovery of the underpayment.
- If a Member who was underpaid Retirement Allowances has died prior to payment of the lump sum amount due, the following procedures will be followed:
  - A. Deceased Member <u>with</u> a Qualifying Widow/Widower for Survivor's Continuance
    - i. If a deceased Member has a qualifying widow/ widower, the payment will be made directly to that person.

#### B. Deceased Member <u>without</u> a Qualifying Widow/Widower for Survivor's Continuance

- If there is an open probate (i.e., no order for final distribution has been made), payment will be made to the estate through the personal representative or other legal process provided for in the Member's state of residence.
- If final distribution of the estate has been made, PFRS will review the order for final distribution to determine how assets that were unknown at

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the time of final distribution are to be distributed under the order. Payment will then be made in compliance with the order for final distribution, if possible.

- If the Member's estate passed into an intervivos trust, the underpayment may be made to the Trustee after satisfactory inspection of trust documents.
- iv. If probate was not established, distribution will be made in accordance with any applicable and valid Affidavit for Payment of Personal Property pursuant to California Probate Code Section 13101 or other legal process provided for in the Member's state of residence.
- v. PFRS staff shall make reasonable efforts to locate the beneficiary entitled to payment by sending a letter by certified mail, return receipt requested, to the last known address of each such beneficiary, or by other means of similar intended effect.
- vi. If, after taking the above steps, PFRS staff has not been able locate a beneficiary entitled to payment, PFRS shall hold the funds on behalf of that beneficiary for five years. If the funds are not claimed within five years, the funds may be transferred into the PFRS reserve fund. If a beneficiary later appears to claim the funds, the PFRS Board will consider such claims on a case-by-case basis.
- 3. Underpayments of \$20 or less will only be paid at the request of the Member.

#### IV. Periodic Review

Review of this Policy will be conducted less than every three years.	ed by the Audit and Operations Committee not
The Policy governing the overpayment or underpa	yment of Member benefits of the Oakland
Police and Fire Retirement System is hereby appro	oved by vote of the Retirement Board, effective
<date></date>	
WALTER L. JOHNSON, SR. PRESIDENT OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD	KATANO KASAINE SECRETARY OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD

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### ATTACHMENT 2

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- v. PFRS staff shall make reasonable efforts to locate the beneficiary entitled to payment by sending a letter by certified mail, return receipt requested, to the last known address of each such beneficiary, or by other means of similar intended effect.
- vi. If, after taking the above steps, PFRS staff has not been able locate a beneficiary entitled to payment, PFRS shall hold the funds on behalf of that beneficiary for five years. If the funds are not claimed within five years, the funds may be transferred into the PFRS reserve fund. If a beneficiary later appears to claim the funds, the PFRS Board will consider such claims on a case-by-case basis.
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Review of this Policy will be conducted less than every three years.	ed by the Audit and Operations Committee not
The Policy governing the overpayment or underpa	syment of Member benefits of the Oakland
Police and Fire Retirement System is hereby appro	oved by vote of the Retirement Board, effective
<date></date>	<u>_</u> ·
WALTER L. JOHNSON, SR. PRESIDENT OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD	KATANO KASAINE SECRETARY OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD

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### A GENDA REPORT

TO: Oakland Police and Fire

FROM: Katano Kasaine

Retirement Board

**SUBJECT:** Discussion of 2006 Management Audit of

the PFRS administration

**DATE:** August 20, 2018

#### BACKGROUND

At the August 30, 2017 PFRS Audit Committee meeting, staff was directed to review the agenda package document related to the task completion reports to verify task completion related to Investment Committee recommendations.

- Staff has confirmed that the Audit Committee-related tasks were reported as completed by the PFRS Audit Committee and staff to the PFRS board at the May 26, 2010 meeting.
- Staff has also confirmed that the Investment Committee-related tasks were reported as completed by the PFRS Investment Committee and staff to the PFRS board at the May 18, 2011 meeting.

At the September and October 2017 PFRS Audit Committee meeting tabled discussion of the Management Audit item to a later meeting.

At the June 27, 2018 Audit Committee meeting, the Audit Committee decided that continued discussion on this matter would be carried over to the August 2018 Audit Committee meeting.

Respectfully submitted,

Katano Kasaine, Plan Administrator

Cetar Kenn

Oakland Police and Fire Retirement System

#### Attachments (1):

- 1. Completion Reports of Administrative Audit Task Matrix Submitted to the PFRS Board by the Audit Committee on May 26, 2010.
- 2. Completion Reports of Administrative Audit Task Matrix Submitted to the Investment Committee on May 18, 2011.

## ATTACHMENT 1

The following table summarizes the recommendations by Independent Fiduciary Services, Inc (IFS) to Oakland PFRS originally presented May 22, 2006. The comments provided reflect the staff review of these recommendations as of May 26, 2010.

Number	Recommendation(s)	Page
A. Identifica	ation and Assignment of Responsibilities	J
1	The Board should seek amendments to the Charter to delete the "legal list" restrictions on its authority to invest the System's assets and to grant to PFRS authority to select the custodian of the System's assets.	16
	Staff Comment: <u>Implemented</u> . In November 2006, City voters passed Measure M granting the Board significantly more flexibility when investing the System's assets. Specifically, the Measure amended 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.	
2	The Board should continue to consider and approve the System's administrative budget, and staff should provide to the Board all the data necessary for the Board to make prudent budget decisions.  Staff Comment: Implemented. Staff now provides monthly Administrative report. The report provides a monthly update on the System's expenditures, Cash held in Treasury, Retiree census and Investment Fund Balances.	16
3	The Board should participate in the process by which the staff assigned to PFRS are selected, evaluated and compensated, and should obtain a commitment from OPRM and FMA that no staff assigned to PFRS shall be employed without input from the Board.  Staff Comment: Partially Implemented. The PFRS Board currently participates in the interview process and selection of staff. The Board also approves a Budget that includes the allocation of staff and the appropriate salaries.	17
4	The Board should seek the assignment to PFRS of staff with investment expertise to assist the Board in setting investment policy and monitoring the performance of the System's investment managers and consultant.  Staff Comment: Not implemented. This recommendation has been raised with the Audit Committee for consideration. The Investment Consultant (PCA) monitors performance and recommends investment policy. In addition, the Retirement System Accountant works internally on investment related items.	17 (Weight = 9)
5	Pensioner records filing should be made a priority project. All pensioners' filing information	19

Number	Recommendation(s)	Page
	received in the future should be filed in a timely manner – i.e., within one week of receipt.	
	Staff Comment: Implemented. All backlogged filing has been completed and a system established for ongoing filing to avoid future backlogs. Filing is done on a regular basis.	
6	Pensioner record file drawers should be locked at all times when unattended by the Benefits Representative.	19
	Staff Comment: Partially Implemented. New file cabinets with locks have been ordered and files are in the process of being transferred.	
7	Use of a scanner for document storage is also recommended. Certain paper documents could then be shredded for security purposes.	19
	Staff Comment: Partially Implemented. Steps have been taken to begin implementation of this recommendation. All of the money manager contracts have been scanned and are stored. No timeframe has been established at this point for scanning and storing other types of documents.	
8	It should be required that all address changes are to be made in writing and signed by the pensioner only.	20
	Staff Comment: Implemented. All Address changes are now required to be made in writing and signed by the pensioner.	
9	It should be required that a notary's stamp and signature appear on all beneficiary forms verifying the signature is that of the pensioner.	20
	Staff Comment: Implemented. PFRS Retirees currently have beneficiary forms on file. The form was originally completed when the employee retired and were updated based on this recommendation. All significant changes requested by the Retiree require a notary when the Retiree is not able to come to the office.	
	In August 2008, Staff sent out information to all Retirees to update their existing Beneficiary information. All changes to Beneficiary information require a notary.	
10	OPRM should develop a written record retention policy that incorporates City requirements but addresses the special needs of a retirement system. While this will aid in preventing the untimely	23
	destruction of plan materials, with the limited availability of storage space, it may allow for the disposition of unnecessary materials.	(Weight = 1)

Number	Recommendation(s)	Page
	Staff Comment: Not Implemented. The City of Oakland already has a record retention policy.	
	It includes the requirement to retain active retirement payment records for seven years.	
11	The Board meeting cassettes should be located for the past four years so that the System is in	23
	compliance with the Brown and Sunshine requirements to maintain meeting minutes for a minimum period of four years. <sup>1</sup>	
	Staff Comment: Implemented. The Board meeting cassettes are available for the past four years.	
12	Should the practice of recording meetings be maintained, new technology, such as a CD recorder,	23
	should be utilized to avoid loss due to deterioration of cassettes over time.	
	Staff Comment: Implemented. Board meetings are now recorded using a digital recorder.	
13	Written minutes should provide more detail, especially in areas where the Board provides direction.	23
	For example, if the Board approves transfer of assets from one investment manager to another, or	
	makes a policy decision, the minutes should reflect the effective date of the transfer or policy. It is	
	also recommended that the meeting minutes reflect the signature of the President of the Board to	
	attest to the approval of the minutes as drafted.	
	Staff Comment: Implemented. Written minutes are now being prepared with more detail as	
	recommended and the Board president and Committee Chairs are now required to sign them.	
14	Use of a scanner for document storage is also recommended. Scanning of meeting materials would	23
	reduce the need for use of the limited storage space. It would also protect against the loss of older	
	records due to natural disaster.	
	Staff Comment: Partially implemented. All of the money manager contracts and additional	
	historical information has been scanned and stored. No timeframe has been established at this	
	point for scanning and storing Retiree files.	
15	Establish a written procedure, for inclusion in the Standard Operations Manual (SOM), for expense	24
	payments.	
	Staff Comment: Implemented. The expense payments process described in the Audit Report is	
	now documented in a desk operations manual. Each staff person has a desk operations manual	
	specific to the tasks performed. Manuals were completed in July 2006. Copies of the manuals	
	Specific to the times performed frameway more completed in daily 2000. Copies of the manuals	

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Staff reports that this recommendation has been completed. ATTACHMENT 1

	Recommendation(s)	Page
	are on the respective staff desk, on the shared drive accessible by appropriate staff and maintained on 3.5 floppy disks.	
16	The Board seat of Insurance Representative should be filled as soon as possible.	25
	Staff Comment: Implemented. The Board seat of Insurance Representative was filled.	
17	The pension payment spreadsheet should be password protected by Accountant 1. Any proposed changes to the file by the Benefits Representative should be provided to and entered by Accountant 1, prior to submission to the accounting department for final payment.	26
	Staff Comment: Implemented. Passwords have been assigned to pension payments files. It was recently discovered that all Pension Payments are considered public information and are not required to be password protected. SSN information is not included in the files. The process has been modified as recommended to require calculations to a member file be made by the	
1.0	Retirement Systems Accountant and verified by the Accountant.	0.6
18	All changes to the banking information for direct deposits should be verified and confirmed for accuracy. Changes to bank routing information should be approved by a second staff member.	26
	Staff Comment: Implemented. All Banking information is verified monthly by the City of	
	Oakland. Bank and staff are notified when there is incorrect information. All members who make Bank changes are required to submit a voided check with the member's name and banking information.	
19	make Bank changes are required to submit a voided check with the member's name and	27
19	make Bank changes are required to submit a voided check with the member's name and banking information.  An administrative management report providing the following information should be provided to the Board on a monthly or quarterly basis: (1) the number of pensioners receiving benefits, (2) benefit payment totals, (3) the number of active participants and their contributions, (4) beginning and	27
20	make Bank changes are required to submit a voided check with the member's name and banking information.  An administrative management report providing the following information should be provided to the Board on a monthly or quarterly basis: (1) the number of pensioners receiving benefits, (2) benefit payment totals, (3) the number of active participants and their contributions, (4) beginning and ending investment and cash balances, (5) death benefit payments and (6) operating expenses.  Staff Comment: Implemented. Staff now presents a Monthly Administrative report that	27
	make Bank changes are required to submit a voided check with the member's name and banking information.  An administrative management report providing the following information should be provided to the Board on a monthly or quarterly basis: (1) the number of pensioners receiving benefits, (2) benefit payment totals, (3) the number of active participants and their contributions, (4) beginning and ending investment and cash balances, (5) death benefit payments and (6) operating expenses.  Staff Comment: Implemented. Staff now presents a Monthly Administrative report that includes the information requested.	

Number	Recommendation(s)	Page
	could be maintained there including the AR.	
	Staff Comment: Implemented. An annual report was prepared and continues to be prepared annually.	
B. Governi	ng Body	
22	The Board should retain independent fiduciary legal counsel.	32
	Staff Comment: Implemented. On April 28, 2010, the PFRS Board reached an agreement with the City Attorney's office regarding Legal Council and approved a corresponding Resolution. The Board has interviewed and selected Legal Council. Completion of contract for Legal Council is in progress.	
23	The Board should utilize independent fiduciary legal counsel to assist it in objectively harmonizing	32
	the provisions of Proposition 162 and the City Charter and then to update its rules and regulations to	(111 1 1 . 0)
	specifically delineate the extent of the Board's authority and control regarding the administration of the pension fund, including PFRS' authority to (a) establish its budget; (b) select outside counsel; (c)	(Weight = ?)
	select and evaluate the PFRS Secretary and additional staff; (d) select and evaluate the actuary; and	
	(e) select and evaluate the custodial bank.	
	( ) =	
	Staff Comment: Board input required	
24	The Board should develop a memorandum of understanding with the City which would facilitate the	32
	Board's ability to exercise the authority granted to it by Proposition 162 and the City Charter by	
	agreeing how the two documents will be harmonized and make plain the authority of the Board to set	(Weight = ?)
	forth and establish, at a minimum, the authority of the Board to select and evaluate a Secretary to the	
	board, additional staff (e.g., a staff member with investment experience), to retain outside legal counsel, to retain the actuary, and to establish its budget.	
	counsei, to retain the actuary, and to establish its buaget.	
	Staff Comment: Board input required	
25	The Board should explore the cost/benefit of once again becoming a distinct entity within the Oakland	32
	City Government rather than being a part of the Office of Personnel.	
		(Weight = ?)
	Staff Comment: Board input required	
26	The Board should become more cognizant of the full extent of its fiduciary responsibility, authority	32
	and control regarding the pension fund by periodically holding compulsory educational sessions (for	(W/-:-1-4 0)
	current and new trustees) for the purpose of becoming more knowledgeable about the governing documents applicable to the administration of the pension fund and the investment of pension fund	(Weight = ?)
	accuments applicable to the auministration of the pension fund and the investment of pension fund	

Number	Recommendation(s)	Page
	assets, including but not limited to the provisions of Proposition 162, the City Charter, as amended, the Board's Rules and Regulations, the Brown Act, the Board's Investment Policy Statement, and any reporting and disclosure requirement applicable to the Board (e.g., Form 700).	
	Staff Comment: Board input required	
27	In consultation with the investment consultant and the equity investment managers, the Board should develop and implement a process for considering and acting upon proposed investments in equity securities which have not satisfied the five year dividend history set forth in the Charter.	36
	Staff Comment: Implemented. City voters passed Measure M which amended the City Charter to allow the System's Board to invest in non-dividend paying stocks.	
C. Account	ability	
28	We recommend that the Board seek a legal opinion regarding whether or not it has the legal authority, through rulemaking, to remove a trustee. If it is determined that the Board has such	39
	authority, then we recommend that the Board amend its rules and regulations to require that a member who misses more than four meetings in a 12 month period must either resign from the Board or obtain the approval of the Board, evidenced by a majority vote, to continue on the Board.	(Weight = ?)
	Staff Comment: Board input required	
29	We recommend that the Board's Rules and Regulations be updated.	40
	Staff Comment: Not Implemented	(Weight = 7)
30	In addition to the meeting agenda, the Board should also publish the minutes of each meeting on its website.	42
	Staff Comment: Implemented. Board meeting material is now available on the City of Oakland website.	
31	The Board should issue a current annual report as soon as possible.	42
	Staff Comment: Implemented.	
32	The Board should amend its Rules and Regulations to require that the notice of election, petition,	44
	election criteria, etc., be posted on the PFRS website.	
		(Weight = 7)
22	Staff Comment: Not Implemented Board input required.	4.4
33	The Board should go on record and request the City Council to fill the current vacancy on the Board.	44

Number	Recommendation(s)	Page
	If it is determined that the vacancy can not be filled then we recommend that the City Charter be amended to change the experience requirement from an individual with life insurance experience to one that has experience in benefits administration or investment management experience.	
	Staff Comment: The vacancy has been filled.	
34	The Board should develop a succession plan and implementation protocol.	46
	Staff Comment: Not Implemented	(Weight = 6)
35	The Board should develop a governance statement which sets forth the roles and responsibilities of the key parties involved in the management of the PFRS.	46
	Staff Comment: Not Implemented	(Weight = 8)
36	The Board should instruct staff to develop a standard operating procedures manual made up of a compilation of existing policies, procedures, and operative practices of PFRS staff, including functional position descriptions for every PFRS position.	46
	Staff Comment: Partially Implemented. Each staff person has a desk operations manual specific to the tasks performed. Manuals were completed in July 2006. Copies of the manuals are on the respective staff desk, on the shared drive accessible by appropriate staff and maintained on 3.5 floppy disks.	
D. Expert A	Advice	
37	If the Audit Committee persists in the view that the attorney identified by the Board to serve as outside legal counsel should serve as the Board's outside counsel, the Audit Committee and the City Attorney should agree to submit the issue of eligibility to a mutually acceptable, qualified attorney to issue a definitive opinion on the point. If that attorney determines that the attorney identified by the Board to serve as outside legal counsel should not be selected, the Audit Committee should promptly select another candidate from the panel, and the City Attorney should not unreasonably withhold his consent to that selection.	49
	Staff Comment: Implemented. The PFRS Board has selected an Attorney.	
38	The Board should continue to employ an investment consultant to provide a comprehensive range of consulting services.	56
	PCA Comment: PCA is willing to discuss adjusting our services where appropriate. IFS apparently did not have a complete record of services provided by PCA. For example, PCA	

Number	Recommendation(s)	Page
	(through its affiliate LDZ) calculates investment rates of return for the total fund and numerous composites, reconciles return calculations with external managers, and monitors organizational and business issues at PFRS's external managers.	
39	PFRS Board should consider expansion of PCA's contract to include advice on other collateral and secondary services about which the current agreement is silent. (Refer to report Table D1.)	56
	PCA Comment: Specific areas qualifying for current consideration include securities lending and custody. PCA has provided PFRS a preliminary review of its securities lending program. PCA expects to work with Staff to review its custody relationship in the near future.	(Weight = ?)
40	Should PFRS elect to retain third party vendors to provide additional investment related services, PCA should provide PFRS with a periodic review of the work of these vendors.	56
	PCA Comment: Upon retention of third party vendors, PCA would work with Staff to provide PFRS with a periodic review of the work of these vendors.	
41	While we have no reason to question the validity of the actuarial work performed currently, PFRS should consider obtaining a periodic 'second opinion' on the work of its actuary. Some funds do this every five years. Short of going to bid for the actuarial services, the Board's monitoring process of its actuary could consist of hiring another reputable actuary to perform a one-time review.  Staff Comment: The PFRS Board selected a new Actuary in 2007.	57
42	PFRS should seek competitive proposals for a new custody arrangement. The Board's legal counsel should be closely involved in negotiating the custody agreement.	60
	PCA Comment: PCA expects to work with Staff to review its custody relationship in the near future.	
43	Simultaneously, PFRS should seek competitive bids on its securities lending program. (See next section and recommendation.)	60
	PCA Comment: PCA has provided PFRS a preliminary review of its securities lending program. PCA expects to work with Staff to review its securities lending relationship in the near future.	
44	The Board (and staff) should refrain from approval of borrowers. Staff or the investment consultant should periodically review the list of borrowers approved by MetWest and only bring to the Board's attention any that may be questionable.	62

Number	Recommendation(s)	Page
	Staff Comment: Not Implemented	_
45	PFRS should request and obtain contractual assurances from MetWest that its securities are loaned equitably. MetWest should also provide a description and explanation of the queuing mechanism that allocates loans among lenders	62
46	Staff Comment: Not Implemented  Since the agreement for Securities Lending Services has been assigned at least three times, we	62
40	suggest that it be renegotiated to incorporate certain key provisions of the Securities Lending Agreement such as requirement for maintenance of collateral, and to reflect the current agency and more favorable terms concerning, e.g.:  • Indemnification against borrower default;  • Liability on the part of agent for failing to act in accordance with PFRS instructions; and  • Restrictions on borrowing activities of parent/affiliate of agent.	02
<del></del>	Staff Comment: The PFRS Board selected and signed a new SecLending contract in 2007.	
47	PFRS should seek to restrict the terms and conditions under which MetWest can lend PFRS securities to its parent and affiliates, i.e., Wachovia.  Staff Comment: No Longer Applicable	63
48	MetWest should provide explanations in their report when loan transactions fall outside general loan program guidelines.	63
	Staff Comment: Not Implemented	
49	The footnote on securities lending should be corrected as appropriate.  Staff Comment: No Longer Applicable	63
E. Suitabili	ty	
50	We recommend that the Board amend its travel policy to (a) clarify that travel must be approved in advance, (b) require that all international travel be approved by the full board in advance of such travel, (c) expand the policy to cover staff assigned to PFRS, (d) include a list of approved conferences, (e) limit the total number of trips that may be taken in any one year, and (f) require that members and staff that attend an educational conference provide a written overview of the conference to the board and make the conference materials available to others upon request.  Staff Comment: The travel policy has been updated and adopted by the Board to include some,	66

N	lumber	Recommendation(s)	Page
	-	but not all, of the recommendations made by the auditing consultant.	
F.	Internal	Controls	
	51	While it is only possible to revise the method of distribution for annual pay increases through the collective bargaining process, providing clear, well-defined, and obtainable staff objectives for acceptable job performance and future career growth at each annual evaluation may increase employee performance and productivity.	71
		Staff Comment: Not Implemented	
	52	In addition to the SOM, an Administrative Manual should be completed that describes each position and the related job responsibilities. The Manual should also describe the primary and secondary responsibilities for each job title so that a clear back-up is designated in the absence of the primary personnel.	71
		Staff Comment: An administrative manual has not yet been developed, however, staff have been cross trained to fill in for colleagues in their absence to the extent possible. The operating procedures developed for each desk are on the shared drive and accessible by all members of the Retirement Section staff.	
	53	<ul> <li>The percentages used for allocation purposes should be changed as follows:         <ul> <li>Reduce the percentage for the Executive Assistant to the Director of Personnel from 15% to 8%;</li> <li>Reduce the percentage for Human Resources Technician from 80 to 65%;</li> <li>Increase the percentage for Retirement Systems Accountant and Accountant 1 from 70% to 80%; and</li> <li>All other reviewed percentages appear appropriate.</li> </ul> </li> <li>(Note: The revised recommended percentages are based solely on our judgment based on the interviews conducted.)</li> <li>Staff Comment: The PFRS Retirement System no longer pays for the salaries of the Director of Human Resource Management or the Executive Assistant. Other allocations have not been changed.</li> </ul>	72
	54	The Board should develop contractual language for inclusion in each service provider's agreement requiring extensive, prompt, written disclosure from the investment consultant (including filing of Form 700 if required) and each service provider regarding the amounts of all revenues the investment consultant receives from any incumbent or proposed service provider.	74

Number	Recommendation(s)	Page
-	Staff Comment: Not Implemented	
55	The Board should designate a specific individual (e.g., legal counsel), in addition to the City Clerk, to review and monitor conflicts of interest, actual and potential, including Form 700 reports as allowed by law.  Staff Comment: Not Implemented	74
56	A HIPAA compliance study should be performed, and steps should be taken to remedy any	74
50	deficiencies in PFRS' HIPAA compliance.  Staff Comment: Not Implemented	74
57	PFRS should continue the annual external audit of benefit calculations.	75
	Staff Comment: Implemented. PFRS continues to go through annual external Audits	
58	PFRS should hire an external actuarial firm to review the work of its current actuary.	75
	Staff Comment: Partially Imlemented: PFRS hired a new Actuary in 2007, who reviewed the work of the previous Actuary. If Bartel is retained for a long period of time then a third-party review may be appropriate.	
59	PFRS should discuss a program of regular internal auditing of PFRS' activities with the City Auditor. The internal auditing activity should be performed in accordance with generally accepted standards for the practice of internal auditing and should include compliance auditing. We suggest that PFRS' external auditor be consulted on the design of such a program before it is implemented.	76
	Staff Comment: Not Implemented	
60	Observations and recommendations from this Operational Review should be tracked and monitored by staff and the Board should be updated regularly on the progress of recommendations that it chooses to implement.	76
	Staff Comment: Implemented. Board members have been asked to identify their priorities	
	relative to the recommendations made so that staff resources can be steered toward meeting their priorities.	
61	The Board should undertake a periodic management audit such as the one performed to develop this report.	76
	Staff Comment: Under Consideration	

Number	Recommendation(s)	Page
62	Staff's performance measurement criteria should identify goals and objectives specifically related to the management and administration of PFRS. The criteria should be designed to align the interest of the board and staff and facilitate PFRS' ability to accomplish its mission and strategic objectives.	77
	Staff Comment: Not Implemented	
63	Board members should provide input in the establishment of the performance measurement criteria for the staff assigned to carry out PFRS' day to day administration, as well as the input in such staffs' annual performance review.	77
	Staff Comment: Not Implemented	
G. Report		
64	Should the current method of communicating governing body decisions effecting retirees and beneficiaries, via the local union channels, remain in place, a formal process of communicating these decisions should be developed. <b>Staff Comment: Not Implemented</b>	79
65	Establishment and maintenance of a PFRS webpage within the City's portal would allow another means of communicating Board decisions. Staff Comment: Not Implemented	79
66	PFRS should resume the practice of publishing its own annual report on a timely basis. Reports for 2004 and 2005 should be prepared.  Staff Comment: This recommendation has been implemented.	81
H. Disclos		
67	All actions taken by the governing body at the monthly meeting should be recorded in detail in the meeting minutes.	82
	Staff Comment: Currently being done.	0.0
68	Draft meeting minutes should be produced within five days of the meeting and circulated to the appropriate parties for review and action. The minutes should be reviewed prior to the next meeting to assure all actions requiring follow-up are complete.	82
	Staff Comment: Minutes are completed 10 business days following the Board meeting. The minutes are reviewed prior to the next meeting to assure all actions requiring follow-up are addressed.	
69	Establishment and maintenance of a PFRS webpage within the City's portal would allow another means of communicating Board decisions. (PFRS should bear the direct cost of creating and maintaining the web pages.)	82

Number	Recommendation(s)	Page
	Staff Comment: Not Implemented	
70	Same recommendation as G. 64.	82
71	Same as H. 69	82
I. Investme	ent Analysis	
72	The Board should revise the performance objectives section of the IPS to include additional investment objectives and benchmarks for the total Pension Fund (including a Total Fund Policy Index and Total Fund Asset Allocation Index) and each asset class or composite.	88
	PCA Comment: PCA will modify the IPS over time to meet this recommendation. Currently, investment objectives and benchmarks for the total Pension Fund and each asset class (or composite) are included in the quarterly statement of performance.	
73	The IPS should include a distinct section on roles and responsibilities that covers all of the major investment related tasks.	90
	PCA Comment: The current IPS includes a section on roles and responsibilities of the Board, Investment Consultant, Investment Manager, and Investment Counsel. If not already covered in this section, PCA will modify the IPS over time to meet this recommendation.	
74	The IPS should specify the frequency with which the asset allocation and/or asset liability studies should be conducted, e.g., at least every three to five years and by whom it should be done.	91
	PCA Comment: PCA and EFI Actuaries conducted an asset-liability review for PFRS in 2005. PCA suggests that PFRS conduct a review every three to five years. PCA will work with Staff to document a schedule in the IPS.	
75	We recommend that the rebalancing ranges be tightened and modified	93
	PCA Comment: In November 2006, revisions to current asset allocation restrictions are to be voted on as part of amendment to the City Charter. If the maximum of 50% equity (at cost) restriction is amended, the rebalancing ranges will be modified as appropriate.	
76	We recommend that the IPS be expanded to include a more detailed discussion on the manager selection process or, alternatively, reference a separate manager search policy document.	94
	PCA Comment: The manager selection process is detailed in memorandums specific to each search. If further detail is required, PCA will work with Staff to include language in the IPS that provides an overview of the search process.	

77	We recommend that the Board include only broad asset class level guidelines in the IPS.  PCA Comment: The current investment policy includes broad asset class level guidelines. PCA suggests that current PFRS asset class level guideline policies are appropriate and are within generally accepted standards.  The Board should consider revising and expanding the policy on securities lending as described in our report.	96 98
78	suggests that current PFRS asset class level guideline policies are appropriate and are within generally accepted standards.  The Board should consider revising and expanding the policy on securities lending as described in	98
78		98
	PCA Comment: Policy on securities lending is included in the manager guidelines section of the IPS. If further detail is required, PCA will work with Staff to revise and expand the policy on security lending.	
79	Add policy on brokerage practices to the total fund section of the IPS, which acknowledges that commissions are a plan asset and, as such, the Board will monitor commission and other trading expenses.	99
	PCA Comment: PCA will work with Staff to add policy on brokerage practices.	
80	The Board should work with the Investment Consultant, custodian bank and investment managers to develop monthly reports that contain sufficient data to determine whether the individual portfolios and Total Fund are in compliance with the City Charter.	104
	PCA Comment: For an additional charge, PFRS could receive monthly information from its custodian.	
J. Performa	ance Benchmarks	
81	In order to evaluate the International Equity portion of the portfolio more consistently, PFRS should consider measuring its international equity segment against the MSCI EAFE Index. If the Board concludes that the MSCI ACWI ex US Index is an appropriate benchmark, it should consider measuring its international equity managers against the MSCI ACWI ex US Index.	110
	PCA Comment: Resolved. PCA has recommended and the Board adopted the MSCI ACWI ex US Index as its asset class benchmark. In addition, PCA recommended that two PFRS international equity managers be measured against the MSCI ACWI ex US index.	
82	PFRS should consider measuring the fixed income portfolio against the Lehman Brothers Universal Index.  PCA Comment: Resolved. PCA has recommended and the Board adopted the Lehman	111

Number	Recommendation(s)	Page
	Universal Index as its asset class benchmark and its fixed income managers' benchmark.	
L. Investm	ent Reporting and Monitoring	
83	PFRS should measure the performance of the Total Fund against an Asset Allocation index to allow the Board to determine how much of return was generated due to the investment managers' skill, as opposed to tactical asset allocation decisions chosen by the Board.	125
	PCA Comment: Resolved. The PFRS performance report does measure the Total Fund against an Asset Allocation (Policy) Index. In the Portfolio Performance Overview section, PCA discusses sources of return including investment managers' skill (e.g., stock selection) and asset allocation decisions.	
84	The PFRS Board should request an exhibit that displays the performance for each asset class and investment manager, along with their respective benchmarks on a consecutive time period.	126
	PCA Comment: Resolved. The PFRS performance report contains tables that provide asset class performance and those of each asset class's investment manager performance, along with their respective benchmarks for the latest quarter, one year, three year, and five year periods.	
85	PFRS should request from their consultant universe comparisons for the Total Fund, each Asset Class Composite, and underlying investment managers on a cumulative and consecutive time period.  PCA Comment: The PFRS performance reports currently provide universe comparisons for the Total Fund. PCA will work with Staff to develop appropriate documentation for the PFRS performance reports.	127
86	PFRS should request that its consultant provide holdings and/or returns based style analysis for its domestic equity portfolio.  PCA Comment: PCA will work with Staff to develop appropriate documentation for the PFRS performance reports.	127
87	PFRS should discuss with its consultant what equity characteristics it would like to see on a quarterly basis.  PCA Comment: PCA will work with Staff to develop appropriate documentation for the PFRS performance reports. Equity characteristics could be provided by PFRS' custodian at an extra cost.	128
88	PFRS should discuss with its consultant what fixed income characteristics it would like to see on a quarterly basis.	128

Number	Recommendation(s)	Page
	PCA Comment: PCA will work with Staff to develop appropriate documentation for the PFRS performance reports. Fixed income characteristics could be provided by PFRS' custodian at an extra cost.	
89	PFRS should request that its consultant provide risk/return exhibits for the Total Fund and each Asset Class.	129
	PCA Comment: The PFRS performance report currently provides a risk/return exhibit for the Total Fund. PCA will work with Staff to develop appropriate documentation for each asset class.	
90	We recommend that the individual manager guidelines be expanded to include the specific guideline elements that are included in the other sections of the IPS (including those specific to the City Charter requirements), tailored to their strategy, as well as additional investment risk elements, as appropriate for the manager.	133
	PCA Comment: PCA will work with Staff to modify individual manager guidelines.	
91	Staff should work with its investment consultant to develop a monthly manager report format, which includes all the necessary elements that would allow staff to monitor compliance more effectively.	136
	PCA Comment: PCA currently provides PFRS with a quarterly statement of performance. Monthly performance could be obtained from PFRS' custodian at an extra cost.	
92	The Board should either ask its investment consultant for assistance with monitoring its investment managers' compliance with their investment guidelines or work with staff and the custodian to enroll in an automated guideline compliance system. In any case, monitoring procedures should be documented in writing.	136
	PCA Comment: PCA will work with Staff to determine appropriate compliance monitoring procedures. Likely, an automated guideline compliance system could be obtained from PFRS custodian at an extra cost.	

## ATTACHMENT 2

The following table summarizes the recommendations by Independent Fiduciary Services, Inc (IFS) to Oakland PFRS originally presented May 22, 2006. The comments provided reflect the staff review of these recommendations as of May 26, 2010.

### <u>Investment Related Recommendations as of 05-18-2011</u>

Number	Recommendation(s)	Page
A. Identifica	ation and Assignment of Responsibilities	-
1	The Board should seek amendments to the Charter to delete the "legal list" restrictions on its authority to invest the System's assets and to grant to PFRS authority to select the custodian of the System's assets.	16
	Staff Comment: <u>Implemented</u> . In November 2006, City voters passed Measure M. Measure M amended 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.	
4	The Board should seek the assignment to PFRS of staff with investment expertise to assist the Board in setting investment policy and monitoring the performance of the System's investment managers and consultant.	17
	Staff Comment: The Investment Consultant (PCA) monitors performance and recommends investment policy. In addition, the Retirement System Accountant works internally on all investment related items. Given current funded status, the PFRS Board has elected not to hire additional full-time investment staff.	
D. Expert A	dvice	
38	The Board should continue to employ an investment consultant to provide a comprehensive range of consulting services.	56
	Comment: Implemented. PFRS currently has and will continue to retain an external investment consultant.	

39	PFRS Board should consider expansion of PCA's contract to include advice on other collateral and secondary services about which the current agreement is silent. (Refer to report Table D1.)	56
	PCA Comment: PCA currently has a full retainer relationship with OPFRS. Part of this relationship is the review and advice on collateral and secondary services as they are needed. PCA provides reviews of both securities lending and OPFRS custody relationship every three to five years or as market conditions warrant.	
40	Should PFRS elect to retain third party vendors to provide additional investment related services, PCA should provide PFRS with a periodic review of the work of these vendors.	56
	Implemented: PCA provides periodic review of Third Party Vendors when applicable. PCA provides reviews of both securities lending and OPFRS custody relationship every three to five years or as market conditions warrant.	
42	PFRS should seek competitive proposals for a new custody arrangement. The Board's legal counsel should be closely involved in negotiating the custody agreement.	60
	Implemented: PFRS Board seeks competitive bids at minimum upon contract renewal or as more frequently as needed to ensure best custody arrangements possible.	
43	Simultaneously, PFRS should seek competitive bids on its securities lending program. (See next section and recommendation.)	60
	Implemented: PFRS SecLending program is currently managed by the Custodian. PFRS Board will review Security Lending program every three to five years or at the same time of the Custodial Review or as market conditions warrant.	
44	The Board (and staff) should refrain from approval of borrowers. Staff or the investment consultant should periodically review the list of borrowers approved by MetWest and only bring to the Board's attention any that may be questionable.	62
	Implemented: PCA will annually review list of Borrowers and inform Board as needed.	
45	PFRS should request and obtain contractual assurances from MetWest that its securities are loaned equitably. MetWest should also provide a description and explanation of the queuing mechanism that allocates loans among lenders	62
	Implemented: Security Lending Loans are periodically reviewed by Staff and reported annually to the Board as part of the Annual Financial Audit.	

46	Since the agreement for Securities Lending Services has been assigned at least three times, we suggest that it be renegotiated to incorporate certain key provisions of the Securities Lending Agreement such as requirement for maintenance of collateral, and to reflect the current agency and more favorable terms concerning, e.g.:  • Indemnification against borrower default;  • Liability on the part of agent for failing to act in accordance with PFRS instructions; and  • Restrictions on borrowing activities of parent/affiliate of agent.	62
	Implemented: The PFRS Board selected a new vendor and signed a new SecLending contract in 2007.	
47	PFRS should seek to restrict the terms and conditions under which MetWest can lend PFRS securities to its parent and affiliates, i.e., Wachovia.	63
	Implemented: PCA and Staff review annually, however more frequent oversight is conducted on an ongoing basis .	
48	MetWest should provide explanations in their report when loan transactions fall outside general loan program guidelines.	63
	Implemented: SecLending Loans are periodically reviewed by Staff and as part of the PFRS Annual Financial Audit.	
49	The footnote on securities lending should be corrected as appropriate.	63
	Staff Comment: No Longer Applicable. The PFRS Board selected a new Security Lending Manager in 2007	
I. Investme	ent Analysis	
72	The Board should revise the performance objectives section of the IPS to include additional investment objectives and benchmarks for the total Pension Fund (including a Total Fund Policy Index and Total Fund Asset Allocation Index) and each asset class or composite.	88
	Implemented: Currently, investment objectives and benchmarks for the total Pension Fund and each asset class (or composite) are included in the quarterly statement of performance.	
	These items are reviewed continually and or at a minimum during annual IPS reviews.	

73	The IPS should include a distinct section on roles and responsibilities that covers all of the major investment related tasks.	90
	Comment: The current IPS includes a section on roles and responsibilities of the Board, Investment Consultant, Investment Manager, and Investment Counsel.  Language regarding the role of PFRS staff will be added and updated to the IPS as warranted	
74	The IPS should specify the frequency with which the asset allocation and/or asset liability studies should be conducted, e.g., at least every three to five years and by whom it should be done.	91
	Implemented: The Investment Policy currently states the targeted dates of the asset/ liability study. These dates and reviewed and updated as needed.	
75	We recommend that the rebalancing ranges be tightened and modified	93
	Implemented: The Investment Policy currently specifies a smaller range for asset rebalancing.  However, these ranges are reviewed at minimum monthly through the use of the cash flow report. or as needed	
76	We recommend that the IPS be expanded to include a more detailed discussion on the manager selection process or, alternatively, reference a separate manager search policy document.  Comment: The manager selection process is detailed in Board memorandums specific to each search are presented to the PFRS Board. The IPS is reviewed on a continual basis but at a	94
77	minimum annual review are conducted by staff and consultant to help ensure best practices	96
//	We recommend that the Board include only broad asset class level guidelines in the IPS.  Implemented: The PFRS Investment Policy has been updated accordingly.	90
78	The Board should consider revising and expanding the policy on securities lending as described in our report.	98
	Implemented: The PFRS Investment Policy has been updated to expand on the security lending program.	
79	Add policy on brokerage practices to the total fund section of the IPS, which acknowledges that commissions are a plan asset and, as such, the Board will monitor commission and other trading expenses.	99
	Implemented and currently in the PFRS Investment Policy	

80	The Board should work with the Investment Consultant, custodian bank and investment managers to develop monthly reports that contain sufficient data to determine whether the individual portfolios and Total Fund are in compliance with the City Charter.	104
	Implemented: Staff and PCA currently receive a monthly report that details Managers compliance with the Investment Policy.	
J. Perform	nance Benchmarks	
81	In order to evaluate the International Equity portion of the portfolio more consistently, PFRS should consider measuring its international equity segment against the MSCI EAFE Index. If the Board concludes that the MSCI ACWI ex US Index is an appropriate benchmark, it should consider measuring its international equity managers against the MSCI ACWI ex US Index.	110
	Implemented: The PFRS International Equity Benchmark was changed to the MSCI ACWI ex US Index.	
82	PFRS should consider measuring the fixed income portfolio against the Lehman Brothers Universal Index.	111
	Implemented: The PFRS Fixed Income Benchmark was changed to the Lehman Brothers Universal Index.	
L. Investn	nent Reporting and Monitoring	
83	PFRS should measure the performance of the Total Fund against an Asset Allocation index to allow the Board to determine how much of return was generated due to the investment managers' skill, as opposed to tactical asset allocation decisions chosen by the Board.	125
	Implemented PCA provides this information quarterly or as project specific requests warrant	
84	The PFRS Board should request an exhibit that displays the performance for each asset class and investment manager, along with their respective benchmarks on a consecutive time period.	126
	Implemented PCA provides this information quarterly or as project specific requests warrant	
85	PFRS should request from their consultant universe comparisons for the Total Fund, each Asset Class Composite, and underlying investment managers on a cumulative and consecutive time period.	127
	Implemented PCA provides this information quarterly or as project specific requests warrant	

86	86 PFRS should request that its consultant provide holdings and/or returns based style analysis for domestic equity portfolio.			
	Implemented PCA provides this information quarterly or as market conditions warrant			
87	PFRS should discuss with its consultant what equity characteristics it would like to see on a quarterly basis.			
	Comment: Ongoing. PCA and Staff are continually reviewing this asset class to better meetthe boards needs			
	PCA and Staff will discuss with PFRS Board and seek Board direction. Staff hopes to have this issue resolved by 3 <sup>rd</sup> Quarter 2011.			
88	PFRS should discuss with its consultant what fixed income characteristics it would like to see on a quarterly basis.	128		
	Comment: Ongoing. PCA and Staff are continually reviewing this asset class to better meetthe boards needs			
	PCA and Staff will discuss with PFRS Board and seek Board direction. Staff hopes to have this issue resolved by 3 <sup>rd</sup> Quarter 2011.			
89	PFRS should request that its consultant provide risk/return exhibits for the Total Fund and each Asset Class.	129		
	Implemented PCA provides risk/return exhibits quarterly and during each asset class structure review on an ongoing basis			
90	We recommend that the individual manager guidelines be expanded to include the specific guideline elements that are included in the other sections of the IPS (including those specific to the City Charter requirements), tailored to their strategy, as well as additional investment risk elements, as appropriate for the manager.	133		
	No Longer Applicable: PFRS no longer utilizes Individual Manager Guidelines. All Investment Managers receive a copy of the overall Investment Policy to ensure consistency and accuracy.			
91	Staff should work with its investment consultant to develop a monthly manager report format, which includes all the necessary elements that would allow staff to monitor compliance more effectively.	136		
	Implemented: Custodian currently provides a monthly compliance report.			
92	The Board should either ask its investment consultant for assistance with monitoring its investment	136		

managers' compliance with their investment guidelines or work with staff and the custodian to enroll in an automated guideline compliance system. In any case, monitoring procedures should be documented in writing.

Implemented: PCA and Staff currently works together to monitor the investment managers' compliance with the investment guidelines based on a monthly report provided by the Custodian.



### A GENDA REPORT

TO: Oakland Police and Fire

Retirement Board

FROM: Katano Kasaine

**SUBJECT:** Audit Committee Agenda Pending List

**DATE:** August 20, 2018

	SUBJECT	PROPOSED SCHEDULED MEETINGS	STATUS
1	City of Oakland Travel Insurance for PFRS Board Member Travel on Board Business	9/26/18	Pending Cost Analysis from City Broker
2	Plan Administrator Status Report regarding status of request to City Administrator to set up Working Group to Address Actuarial Funding date of July 1, 2026.	VERBAL	Pending reply from City Administrator

Respectfully submitted,

Katano Kasaine, 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 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 Retirement Systems, 150 Frank Ogawa Plaza, Suite 3332 or call (510) 238-7295 for additional information.



Retirement Systems 150 Frank H. Ogawa Plaza Oakland, California 94612

### **AGENDA**

#### **INVESTMENT COMMITTEE MEMBERS**

Jaime T. Godfrey Chairman

R. Steve Wilkinson Member

> Martin J. Melia 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, August 29, 2018 – 10:30 am One Frank H. Ogawa Plaza, Hearing Room 3 Oakland, California 94612

--- ORDER OF BUSINESS ---

1. Subject: PFRS Investment Committee Meeting Minutes

From: Staff of the PFRS Board

Recommendation: APPROVE June 27, 2018 Investment Committee meeting

minutes.

2. Subject: Investment Manager Overview – Earnest Partners

**From:** 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.

3. Subject: Investment Manager Overview – Earnest Partners

From: Pension Consulting Alliance (PCA)

**Recommendation:** ACCEPT an Informational Report regarding Earnest

Partners, a PFRS Mid Cap Core Domestic Equity

Investment Manager.

4. Subject: Investment Market Overview

From: Pension Consulting Alliance

**Recommendation:** ACCEPT an informational report on the global investment

markets through July 31, 2018.

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR INVESTMENT COMMITTEE MEETING AUGUST 29, 2018

#### **ORDER OF BUSINESS, continued**

5. Subject: Investment Fund Performance Report for the Quarter

Ending June 30, 2018

**From:** Pension Consulting Alliance

Recommendation: RECOMMEND BOARD APPROVAL of the Investment

Fund Performance Report for the Quarter Ending June 30,

2018.

6. Subject: Investment Manager Search – Defensive Equity Asset

**Class Investment Manager** 

**From:** Pension Consulting Alliance

Recommendation: RECOMMEND BOARD APPROVAL of PCA

recommendation of the Finalists for Defensive Equity Asset Class Investment Managers RFP to be interviewed at the

next PFRS Investment Committee Meeting.

7. Subject: Hansberger Growth Investors Organizational Update

**From:** Staff of the PFRS Board and Pension Consulting Alliance

Recommendation: RECOMMEND BOARD APPROVAL to sign Hansberger

Growth Investor's Consent to Assignment of Advisory

Agreement regarding its organizational update.

8. Schedule of Pending Investment Committee Meeting Agenda Items

9. Future Scheduling

10. Open Forum

11. Adjournment of Meeting

**AN INVESTMENT AND FINANCIAL MATTERS COMMITTEE MEETING** of the Oakland Police and Fire Retirement System ("PFRS") was held June 27, 2018 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present: • Jaime T. Godfrey, Chairman

• R. Steven Wilkinson, Member

Committee Members Absent: • Martin J. Melia, Member

Additional Attendees: • Katano Kasaine, Plan Administrator

• Pelayo Llamas, Deputy City Attorney / PFRS Legal Counsel

• David Low & Teir Jenkins, Staff Members

David Sancewich &

Sean Copus, Pension Consulting Alliance (PCA)

The meeting was called to order at 10:36 am.

 Approval of Investment Committee meeting minutes – Member Wilkinson made a motion to approve the April 25, 2018 Investment Committee meeting minutes, second by Chairman Godfrey. Motion passed.

> [GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

 Investment Manager Overview – Reams Asset Management – Jason Hoyer of Reams Asset Management presented an investment and operational overview of Reams Asset Management. Following Committee discussion, Member Wilkinson made a motion accept the Informational Report from Reams Asset Management, second by Chairman Godfrey. Motion passed.

> [GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

3. PCA Overview of Investment Manager – Reams Asset Management – David Sancewich from Pension Consulting Alliance (PCA) presented a follow-up review of the management and investment performance of Reams Asset Management. Mr. Sancewich reported that PCA recommended retaining Reams on watch status. Following committee discussion, Member Wilkinson made a motion to retain Reams on watch status and conduct a follow-up review of Reams' watch status in September 2018, second by Chairman Godfrey. Motion passed.

[GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

4. **Investment Market Overview** – Mr. Sancewich reported on the global economic factors affecting the PFRS Fund. Member Wilkinson made a motion accept the Informational Report from PCA, second by Member Wilkinson. Motion passed.

[GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

5. **\$14.2 million 3rd Quarter 2018 Member Benefits Drawdown** — Sean Copus from PCA reported on the PFRS investment accounts which will be used to for the 3rd Quarter Member Benefits Drawdown with the \$11.2 million drawn from the City.

# PFRS Investment & Financial Matters Committee Minutes June 27, 2018 Page 2 of 2

Member Wilkinson made a motion to recommend Board approval of the \$14.2 million 3rd quarter 2018 member benefits drawdown, second by Chairman Godfrey. Motion passed.

[GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

6. Investment Fund Performance Report for the Quarter Ending March 31, 2018 – Member Wilkinson made a motion to move the Investment Fund performance report to the full board meeting for review and discussion, second by Chairman Godfrey. Motion passed.

[GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

7. Investment Manager Search – Defensive Equity Asset Class Investment Manager – Sean Copus reported on the status of the PCA selection process for the Defensive Equity Investment Manager. The Investment Committee directed staff to schedule the committee meeting for committee selection of Defensive equity asset class investment managers for the August meeting with Interview conducted at the September 2018 Investment Committee meeting. Member Wilkinson made a motion to direct staff to schedule meetings for the selection of finalists and interview of finalists, second by Chairman Godfrey. Motion passed.

[GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

8. Resolution No. 7017 - Resolution Adopting the Revised Oakland Police and Fire Retirement System Investment Policy – David Sancewich reported that staff and PCA had completed its work to update the PFRS Investment Policy. Chairman Godfrey made a motion to recommend Board approval of Resolution No. 7017 to approve the adoption of the revised PFRS investment policy, second by member Wilkinson. Motion passed.

[GODFREY - Y / MELIA - ABSENT / WILKINSON - Y] (AYES: 2 / NOES: 0 / ABSTAIN: 0)

- 9. **Investment Committee Pending Agenda Items** The Investment Committee and staff reviewed the schedule of pending investment committee meeting agenda items.
- 10. **Future Scheduling** The next Investment Committee meeting was scheduled for July 25, 2018.
- 11. Open Forum No Report.
- 12. **Adjournment of Meeting** The meeting adjourned at 11:27 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 June 30, 2018

# Patmon Malcom, CFA Partner

Prior to joining EARNEST Partners, Mr. Malcom worked for JPMorgan Chase in New York. He was a member of the Global Investment Bank providing corporate finance coverage to natural resource companies. He is a graduate of the United States Military Academy at West Point and holds an MBA from Emory University, where he was a Donald Keough Scholar. Mr. Malcom led the Varsity Football team at West Point in scoring for three consecutive years. In his senior year, he was named the "Chevrolet Player of the Game" in the annual Army-Navy game. He also served as a helicopter pilot in the United States Army for more than seven years, an experience that included commanding a Blackhawk Helicopter Company along the demilitarized zone between North and South Korea. Mr. Malcom is a member of the CFA Institute and the Atlanta Society of Finance and Investment Professionals.

# 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 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 June 30, 2018

	Yes	No
Benchmark: Exceed Russell Midcap® Index over a full market cycle	$\checkmark$	
No prohibited securities held	$\checkmark$	
<ul> <li>Fully invested portfolio over market cycle, cash position is less than 10% of total value</li> </ul>	$\checkmark$	
<ul> <li>No more than 25% of the portfolio in sector weighing industry</li> </ul>	$\checkmark$	
<ul> <li>No security greater than 5% of portfolio value or 8% at market</li> </ul>	$\checkmark$	
Proxies voted in accordance with guidelines	$\checkmark$	
	$\checkmark$	

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.



# **Equity Market Overview**

#### Oakland Police and Fire Retirement Board June 30, 2018

Global equity markets were mixed during the second quarter of 2018; U.S. Domestic markets were positive while international markets declined over the course of the quarter. The S&P 500® Index gained 3.4% during the quarter, and the U.S. large cap market, as represented by the Russell 1000® Index gained 3.6%. The U.S. midcap market, as represented by the Russell Midcap® index gained 2.8%. The U.S. small cap market, as represented by the Russell 2000® Index, gained 7.8% on the quarter. International equity markets, as represented by the MSCI ACWI ex-U.S.® Index, lost 2.4%. Emerging Markets trailed developed markets as the MSCI Emerging Markets® Index lost 7.9% and the MSCI EAFE® Index lost 1.0% on the quarter.

Investors continued to monitor the U.S. Federal Reserve (Fed) during the quarter in anticipation of rate changes and the Central Bank's posture under new Chairman Jerome Powell. In June, the Fed again unanimously voted to raise short-term interest rates by another 0.25% to the range of 1.75% to 2.00%, the highest level since 2008. Fed officials continued to espouse an optimistic stance on the U.S. economy, noting that they expect U.S. GDP to expand by 2.7% in 2018 and unemployment to fall to 3.6% in 2019. Fed officials noted that a continued decline in the unemployment rate, growth in household spending, and increased business fixed investment contributed to the decision to raise rates. Additionally, the Fed noted that inflation has continued to move towards its 2 percent long-term target. Furthermore, the Fed increased its outlook for the total number of rate hikes for 2018 to four from three.

During the quarter, international trade policy was another focus of equity markets as investors scrambled to determine the potential impact of a wide range of tit-for-tat tariffs between the U.S. and its trade partners. The U.S. announced 25% tariffs on approximately \$50 billion of Chinese imports, and China reacted with its own proposed tariffs on \$34 billion worth of U.S. goods. The U.S. also imposed tariffs of 25% on steel and 10% on aluminum imports from Canada, Mexico, and the European Union, which were met with retaliatory tariffs on a variety of American goods such as whiskey, motor vehicles, and agricultural products.

First-quarter 2018 GDP growth was revised down during the quarter to 2.0% from 2.2%, and the unemployment rate continued to decline, as it dropped to 3.8% in May from 4.1% in February. The U.S. 10-year treasury rate continued its rise reaching 3.11% during the quarter, a 7-year high, before finishing the quarter at 2.9%. The yield curve continued to flatten as investors anticipate further Fed increases in the short term and see little prospect of significant inflation in the long term. Crude oil, which began the quarter at about \$62 per barrel, finished just over \$74 per barrel, its highest level since December of 2014, following a combination of OPEC production cuts and increased global demand. European economic growth has slowed in 2018, following a 10-year high rate of growth in 2017. First quarter GDP growth was 0.4%, while the European Union posted an unemployment rate of 8.5%, the lowest in the region since 2008. The European Central Bank (ECB) noted that it believed the first quarter slowdown was temporary, and it still expects to lower its current €30 billion repurchase program to €15 billion in September before ending it in December. However, the ECB maintained that it is still open to increasing purchases should economic activity stagnate and will likely keep interest rates at current levels through the summer of next year.

Similar to the last two quarters of 2017, the Chinese economy grew at an annual rate of 6.8% in the first quarter of 2018. However, the MSCI China Index declined about 4.3% in the quarter, as investors worried that escalating trade tensions with the U.S., along with rising corporate bond defaults, would take a toll on the Chinese economy. Chinese equities declined despite the fact that MSCI recently integrated more than 200 Chinese-listed companies into its indexes, thereby providing a new source of investment for those shares. However, because access to Chinese mainland stocks is still very limited, MSCI is targeting a very small percentage even though China is the largest emerging market in the world.



# EARNEST Partners Mid Cap Core Portfolio Review

#### Oakland Police and Fire Retirement Board June 30, 2018

The U.S. mid cap equity market, as represented by the Russell Midcap® Index, rallied after starting the year slightly negative, gaining 2.8% in the second quarter of 2018. The EARNEST Partners Mid Cap Core strategy also posted a positive return for the period but lagged the Index, net of fees. There was a wide dispersion of performance between economic sectors in the quarter; Energy was the best performing on the back of increasing commodity prices while Industrials was the worst performing sector. Stock selection was strongest in the Health Care, Consumer Discretionary and Industrials sectors.

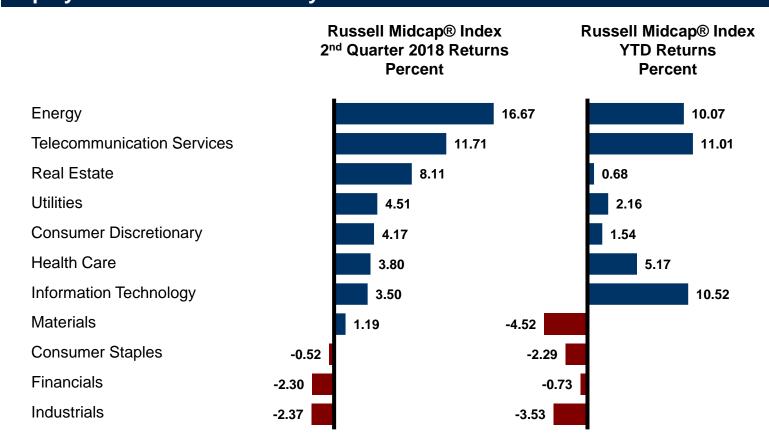
Contributing to performance, Intuit, Inc. develops and sells financial management software to consumers, small businesses and accounting professionals. The company services over 40 million customers worldwide through its flagship brands, including TurboTax and Mint for consumers and QuickBooks for small businesses. During the quarter, investors rewarded Intuit for another strong tax season. The successful debut of TurboTax Live, along with consistent subscriber growth in its small business segment, drove the company's overall revenue to \$2.9 billion in the period. Intuit also raised its earnings per share guidance for fiscal year 2018. As a result, the company's shares rose 18%. Intuit's multi-year growth strategy is based on capitalizing on social, mobile and global trends that reinforce the firm's competitive positioning among its peer group. Given the company's successful strategy implementations as well as their effective consumer product launches, we believe Intuit has further potential to improve margins and earnings over the long-term.

Continental Resources, Inc. is one of the largest petroleum and natural gas exploration and production companies in the United States. The company operates as the biggest leaseholder in one of the nation's premier oil fields, the Bakken of North Dakota and Montana, and generates most of its operating cash flow from sales to energy marketing firms and oil refining companies. Continental was rewarded for reporting earnings which exceeded expectations during the quarter, posting net income of \$234 million. Despite some unfavorable weather, daily average oil production reached approximately 287,000 BOE (barrel of oil equivalent), up 34% from this time last year. Driven partly by higher crude oil prices, Continental also delivered on cash flow growth and debt reduction, sending shares up 10% in the period. Due to the company's focus on reducing costs and generating positive operating cash flow, combined with the vastly improving production levels in the Bakken field, we believe Continental is set to benefit from strong revenue and earnings growth. The firm's dominant Bakken presence should continue to drive high margins and strong performance moving forward.

Detracting from performance, Headquartered in Boston, MA, American Tower Corporation (AMT) is one of the largest global Real Estate Investment Trusts (REITs) and a leading independent owner, operator and developer of wireless communications and broadcast towers. Operating more than 170,000 sites across 13 countries, AMT's primary business is leasing antennae space on multi-tenant towers for a diverse range of wireless communications industries. Although AMT has experienced 18% average annual revenue growth over the last 5 years, the stock slightly trailed the Index during the quarter as it gained 0.3%. The company is making substantial network investments to keep up with growing data usage and connectivity demands, but these rising infrastructure costs were a headwind for AMT during the quarter. AMT operates in a business that directly benefits from technology proliferation and the ensuing demand for greater data consumption. As these trends continue, we expect AMT to continue growing its customer base and generating strong revenue growth as potential competitors are dissuaded due to the high barriers of entry within the industry.



## **Equity Market Performance By Sector**



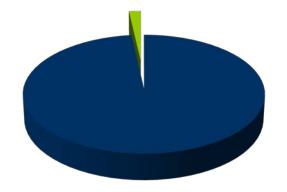


<b>Fund</b>	Total	S
I GIIG		-

**Ending Portfolio Value** \$30,135,129 **Estimated Annual Income** \$347,214

Yield on Equities 1.2%

## **Asset Distribution**



**Equities Short-term Investments** 

Portfolio % 98.2%

1.8%

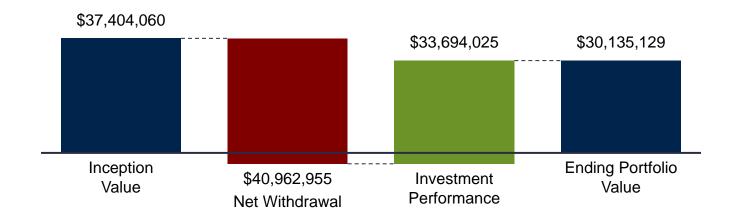


# Performance as of July 31, 2018

	Total Portfolio	Equities	Russell Midcap® Index	Excess Return (Basis Points)
3 <sup>rd</sup> Quarter-to-Date	2.92%	2.96%	2.49%	43
1 Year	16.44	16.77	13.45	299
3 Years*	14.31	14.48	10.20	411
5 Years*	14.34	14.67	11.50	284

<sup>\*</sup> Annualized.

# **Asset Growth Since Inception**





# **Sample Holdings**

#### Oakland Police and Fire Retirement Board June 30, 2018

#### Intuit, Inc.



- Intuit, Inc. develops and sells financial management software to consumers, small businesses and accounting professionals. The company services over 40 million customers worldwide through its flagship brands, including TurboTax and Mint for consumers and QuickBooks for small businesses.
- During the quarter, investors rewarded Intuit for another strong tax season. The successful debut of TurboTax Live, along with consistent subscriber growth in its small business segment, drove the company's overall revenue to \$2.9 billion in the period. Intuit also raised its earnings per share guidance for fiscal year 2018. As a result, the company's shares rose 18%.
- Intuit's multi-year growth strategy is based on capitalizing on social, mobile and global trends that reinforce the firm's
  competitive positioning among its peer group. Given the company's successful strategy implementations as well as their
  effective consumer product launches, we believe Intuit has further potential to improve margins and earnings over the longterm.

#### Continental Resources, Inc.



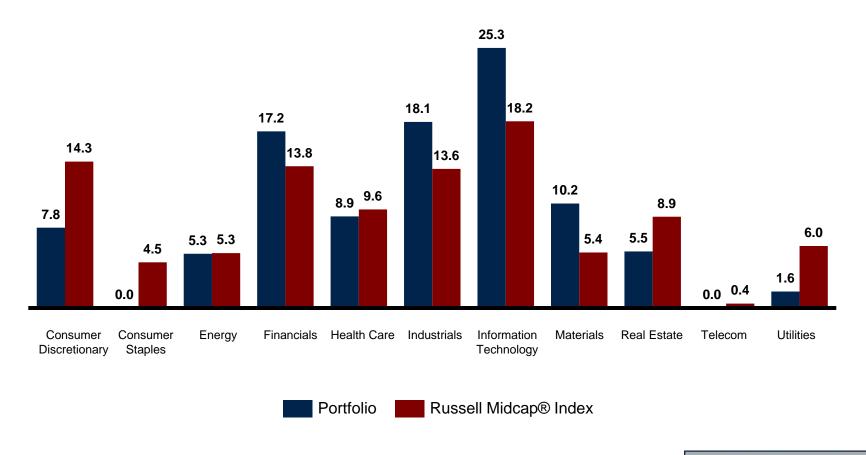
- Continental Resources, Inc. is one of the largest petroleum and natural gas exploration and production companies in the United States. The company operates as the biggest leaseholder in one of the nation's premier oil fields, the Bakken of North Dakota and Montana, and generates most of its operating cash flow from sales to energy marketing firms and oil refining companies.
- Continental was rewarded for reporting earnings which exceeded expectations during the quarter, posting net income of \$234 million. Despite some unfavorable weather, daily average oil production reached approximately 287,000 BOE (barrel of oil equivalent), up 34% from this time last year. Driven partly by higher crude oil prices, Continental also delivered on cash flow growth and debt reduction, sending shares up 10% in the period.
- Due to the company's focus on reducing costs and generating positive operating cash flow, combined with the vastly improving
  production levels in the Bakken field, we believe Continental is set to benefit from strong revenue and earnings growth. The
  firm's dominant Bakken presence should continue to drive high margins and strong performance moving forward.

#### **American Tower Corporation**

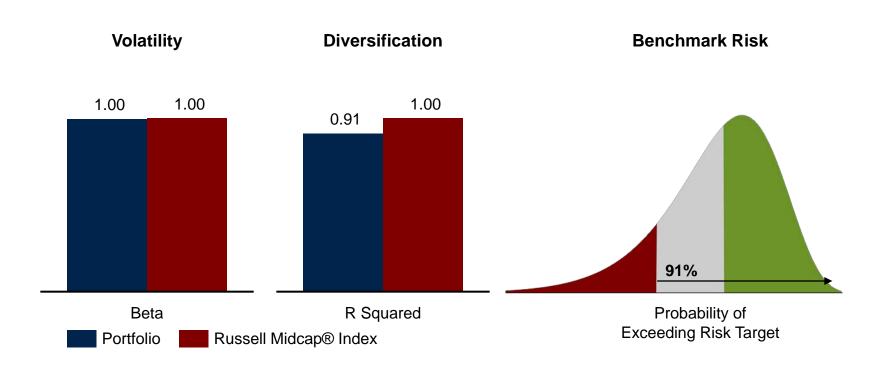


- Headquartered in Boston, MA, American Tower Corporation (AMT) is one of the largest global Real Estate Investment Trusts
  (REITs) and a leading independent owner, operator and developer of wireless communications and broadcast towers.
  Operating more than 170,000 sites across 13 countries, AMT's primary business is leasing antennae space on multi-tenant towers for a diverse range of wireless communications industries.
- Although AMT has experienced 18% average annual revenue growth over the last 5 years, the stock slightly trailed the Index during the quarter as it gained 0.3%. The company is making substantial network investments to keep up with growing data usage and connectivity demands, but these rising infrastructure costs were a headwind for AMT during the quarter.
- AMT operates in a business that directly benefits from technology proliferation and the ensuing demand for greater data consumption. As these trends continue, we expect AMT to continue growing its customer base and generating strong revenue growth as potential competitors are dissuaded due to the high barriers of entry within the industry.

## Percentage Held



# **Risk Profile**



# **UNIVERSE STOCKS** Begin with the Mid Cap Index 800 **150 60**

Initial Screen:
Return Pattern Recognition®

Risk Control:
Constrain Downside Risk

Research: Scrutinize the Companies



## **Proxy Policies and Procedures**

#### Oakland Police and Fire Retirement Board June 30, 2018

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						
2,396	APERGY CORP	41.75	100,033.00	0.33	0.00	0.00
Consumer Discretionar	v		100,033.00	0.33	0.00	0.00
Consumer Discretional	у					
8,889	BORGWARNER INC	43.16	383,649.24	1.27	5,965.73	1.55
15,798	DR HORTON INC	41.00	647,718.00	2.15	8,004.42	1.24
5,060	DARDEN RESTAURAN	107.06	541,723.60	1.80	15,047.88	2.78
7,737	TJX COS INC	95.18	736,407.66	2.44	12,050.73	1.64
			2,309,498.50	7.66	41,068.76	1.78
Energy						
11,080	CONTL RES INC/OK	64.76	717,540.80	2.38	0.00	
14.145	NEWFIELD EXPLORA	30.25	427,886.25	1.42	0.00	
4,068	CIMAREX ENERGY C	101.74	413,878.32	1.37	2,624.67	0.63
,			1,559,305.37	5.17	2,624.67	0.17
Financials						
8,515	EATON VANCE CORP	52.19	444,397.85	1.47	10,603.30	2.39
9,162	HOULIHAN LOKEY I	52.19 51.22	444,397.65 469,277.64	1.47	9,854.56	2.39
10,820	INTERCONTINENTAL	73.55	795,811.00	2.64	10,346.40	1.30
22,980	KEYCORP	19.54	449,029.20	1.49	10,996.63	2.45
10,080	PROGRESSIVE CORP	59.15	596,232.00	1.98	11,264.61	1.89
3,780	REINSURANCE GROU	133.48	504,554.40	1.67	7,565.67	1.50
7,450	RAYMOND JAMES	89.35	665,657.50	2.21	8,823.47	1.33
2,721	RENAISSANCERE	120.32	327,390.72	1.09	3,602.80	1.10
6,956	STIFEL FINANCIAL	52.25	363,451.00	1.21	3,299.73	0.91
13,822	SYNCHRONY FINANC	33.38	461,378.36	1.53	8,386.16	1.82
			5,077,179.67	16.85	84,743.32	1.67
Health Care						
7,698	AGILENT TECH INC	61.84	476,044.32	1.58	4,629.18	0.97
4,620	AMERISOURCEBERGE	85.27	393,947.40	1.31	6,954.70	1.77
1,670	BIO-RAD LABS-A	288.54	481,861.80	1.60	0.00	1.77
1,070	2.0	200.04	101,001.00	1.50	0.00	



#### Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
2,657	LABORATORY CP	179.53	477,011.21	1.58	0.00	
11,698	SYNEOS HEALTH INC	46.90	548,636.20	1.82	0.00	
5,821	DENTSPLY SIRONA	43.77	254,785.17	0.85	2,043.42	0.80
			2,632,286.10	8.73	13,627.30	0.52
Industrials						
10,594	AIR LEASE C	41.97	444,630.18	1.48	4,289.73	0.96
3,195	CUMMINS INC	133.00	424,935.00	1.41	13,777.54	3.24
7,995	CSX CORP	63.78	509,921.10	1.69	7,056.62	1.38
4,793	DOVER CORP	73.20	350,847.60	1.16	9,064.09	2.58
6,155	GATX CORP	74.23	456,885.65	1.52	11,640.40	2.55
2,665	GENERAL DYNAMICS	186.41	496,782.65	1.65	9,859.32	1.98
14,789	MASCO CORP	37.42	553,404.38	1.84	6,258.21	1.13
11,020	REPUBLIC SVCS	68.36	753,327.20	2.50	15,099.37	2.00
3,638	SNAP-ON INC	160.72	584,699.36	1.94	11,838.36	2.02
4,142	STERICYCLE INC	65.29	270,431.18	0.90	0.00	0.00
6,536	WOODWARD INC	76.86	502,356.96	1.67	3,774.13	0.75
			5,348,221.26	17.75	92,657.76	1.73
Information Technolog	У					
6,310	AUTODESK INC	131.09	827,177.90	2.74	0.00	
7,290	AKAMAI TECHNOLOG	73.23	533,846.70	1.77	0.00	
3,545	ANSYS INC	174.18	617,468.10	2.05	0.00	
4,837	ARROW ELECTRONIC	75.28	364,129.36	1.21	0.00	
7,975	ACTIVISION BLIZZ	76.32	608,652.00	2.02	2,722.56	0.45
6,910	GLOBAL PAYMENTS	111.49	770,395.90	2.56	280.17	0.04
3,557	INTUIT INC	204.31	726,712.89	2.41	5,556.67	0.76
14,716	JABIL CIRCUIT	27.66	407,044.56	1.35	4,734.80	1.16
10,117	KEYSIGHT TEC	59.03	597,206.51	1.98	0.00	
5,720	ECHOSTAR CORP-A	44.40	253,968.00	0.84	0.00	
6,406	SYNOPSYS INC	85.57	548,161.42	1.82	0.00	
8,315	TOTAL SYS SERVS	84.52	702,783.80	2.33	4,336.63	0.62
7,925	XILINX INC	65.26	517,185.50	1.72	11,434.78	2.21
			7,474,732.64	24.80	29,065.60	0.39

#### Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
Materials						
17,402 9,414 3,940 5,590 4,332 10,489	ALLEGHENY TECH BLACK KNIGHT CABOT CORP EASTMAN CHEMICAL PACKAGING CORP SEALED AIR CORP	25.12 53.55 61.77 99.96 111.79 42.45	437,138.24 504,119.70 243,373.80 558,776.40 484,274.28 445,258.05	1.45 1.67 0.81 1.85 1.61 1.48	0.00 0.00 5,232.14 12,554.25 13,653.70 6,716.12	2.15 2.25 2.82 1.51
3,975 Real Estate	SCOTTS MIRACLE-A	83.16	330,561.00 3,003,501.47	<u>1.10</u> 9.97	8,501.63 46,657.85	2.57 1.55
15,080 Utilities	CBRE GROUP INC	47.74	719,919.20 719,919.20	2.39 2.39	0.00	0.00
7,337	WEC ENERGY GROUP	64.65	474,337.05 474,337.05 28,699,014.26	1.57 1.57 95.23	16,262.57 16,262.57 326,707.84	3.43 3.43 1.14
Real Estate Investmen	t Trust		20,099,014.20	93.23	320,707.84	1.14
Real Estate						
4,382 2,185	AMERICAN TOWER C BOSTON PROPERTIE	144.17 125.42	631,752.94 274,042.70 905,795.64 905,795.64	2.10 0.91 3.01 3.01	13,488.14 7,018.86 20,507.00 20,507.00	2.14 2.56 2.26 2.26
Cash and Equivalents						
509,804 20,516	U.S. DOLLARS USD - DIVIDENDSRECEIVABLE	1.00 1.00	509,804.01 20,515.53 530,319.54 530,319.54	1.69 0.07 1.76 1.76	0.00 0.00 0.00 0.00	0.00
Total Portfolio			30,135,129.44	100.00	347,214.84	1.15



#### **Statement Of Transactions**

From 04-01-18 To 06-30-18

Quantity	Security	Sec Symbol	Unit Price	Total Amount
PURCHASES				
10,594.00	AIR LEASE C	AL	43.15	457,172.96
9,162.00	HOULIHAN LOKEY I	HLI	51.80	474,558.68
4,142.00	STERICYCLE INC	SRCL	65.22	270,141.31
				1,201,872.95
SALES				
368.00	MEDNAX INC	MD	55.76	20,518.05
2,985.00	ACTIVISION BLIZZ	ATVI	77.29	230,708.83
2,294.00	CSX CORP	CSX	66.35	152,213.41
1,035.00	INTUIT INC	INTU	208.90	216,215.72
1,576.00	AMERICAN TOWER C	AMT	144.01	226,961.85
				846,617.86

# **Historical Performance Measurement**

Oakland Police and Fire Retirement Board June 30, 2018

# Performance as of July 31, 2018

	Total Portfolio	Equities	Russell Midcap® Index
Inception 03/28/06			
2006	3.55%	3.47%	7.92%
2007	8.78	9.00	5.60
2008	-37.50	-39.47	-41.46
2009	37.48	37.94	40.48
2010	27.22	28.54	25.48
2011	-0.78	-0.11	-1.55
2012	16.36	17.82	17.28
2013	31.26	32.40	34.76
2014	10.32	10.86	13.22
2015	1.40	1.33	-2.44
2016	16.54	16.85	13.80
2017	26.22	26.72	18.52

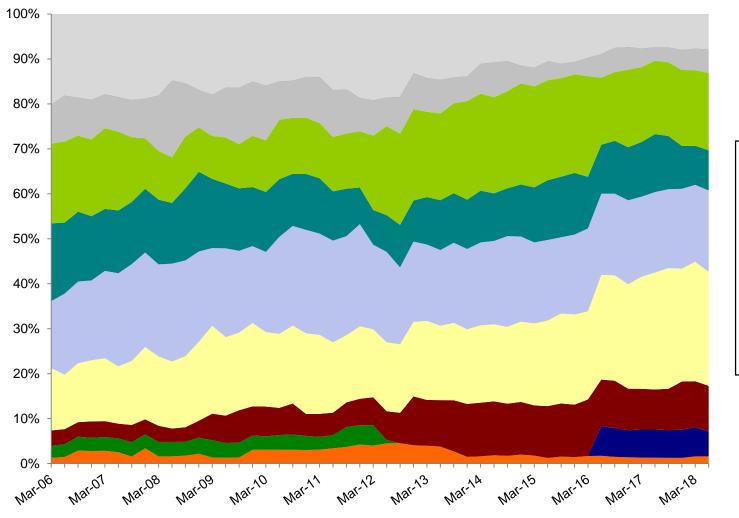
# **Historical Performance Measurement**

Oakland Police and Fire Retirement Board June 30, 2018

# Performance as of July 31, 2018

	Total Portfolio	Equities	Russell Midcap® Index
03/31/18	0.14%	0.16%	-0.46%
06/30/18	2.27	2.33	2.82
07/31/18	2.92	2.96	2.49
Year-to-Date	5.40	5.52	4.90
Since Inception			
- Annualized	9.98	10.18	8.88
- Cumulative	223.62	231.04	185.95

#### **EARNEST Partners Mid Cap Core Model Portfolio**



- Consumer Discretionary
- Consumer Staples
- Energy
- Financials
- Health Care
- Industrials
- Information Technology
- Materials
- Real Estate
- Telecommunication Services
- Utilities

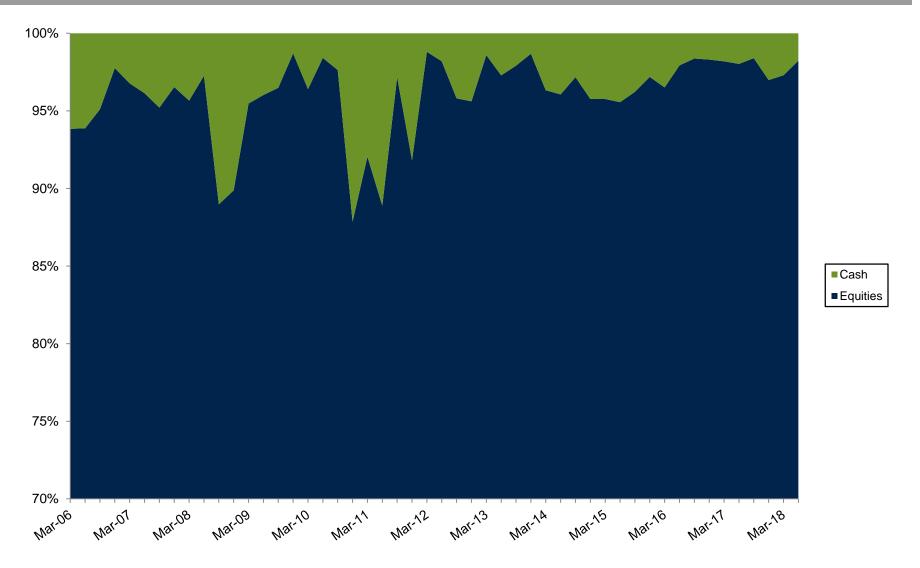


Investment Change

# **Asset Growth**

				Investmei	nt Change
Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Period	Since Inception
03/28/06	\$37,404,060			_	
2006	38,599,735	\$0	\$0	\$1,195,675	\$1,195,675
2007	51,982,630	3,500,000	14,238,850	2,644,045	3,839,720
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	-2,736,611
2010	31,053,473	8,500,000	0	7,147,174	4,410,563
2011	23,758,477	7,500,000	0	205,004	4,615,567
2012	27,646,027	0	0	3,887,550	8,503,117
2013	40,899,931	0	3,802,146	9,451,898	17,955,016
2014	31,527,407	13,001,628	0	3,629,104	21,584,119
2015	29,934,966	2,000,705	0	408,264	21,992,383
2016	27,890,394	6,500,291	0	4,455,719	26,448,102
2017	29,426,736	5,000,734	0	6,537,076	32,985,178
03/31/18	29,466,301	0	0	39,759	33,024,937
06/30/18	30,135,129	0	0	669,088	33,694,025







# **Glossary of Key Indices**

Oakland Police and Fire Retirement Board June 30, 2018

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. The index is unmanaged and it is not possible to invest directly in an index.

### **Disclosure Notes**

#### Oakland Police and Fire Retirement Board June 30, 2018

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.



**Date:** August 29, 2018

To: Oakland Police and Fire Retirement System (OPFRS)

From: Pension Consulting Alliance, LLC (PCA)

**CC**: David Sancewich – PCA

Sean Copus, CFA - PCA Teir Jenkins - OPFRS Katano Kasaine - OPFRS

RE: EARNEST Partners - Manager Update

Manager: EARNEST Partners

Inception Date:March 1, 2006OPFRS AUM (6/30/18): \$30.1 million (7.9%)Product Name:Mid Cap CoreManagement Fee:81 bps (\$243,100)\*

Investment Strategy: Domestic Mid Cap Equity Firm-wide AUM (6/30/18): \$21.7 billion

Benchmark: Russell Mid Cap Index Strategy AUM (6/30/18): \$920 million

#### **Summary & Recommendation**

EARNEST Partners has been OPFRS's active core mid cap equity manager since March 2006. Since that time, the portfolio has roughly matched its benchmark on an annualized, net-of-fees basis. However, the portfolio has enjoyed robust returns over recent periods as the portfolio has outperformed its benchmark over the most recent 1-, 3-, and 5-year periods while earning double-digit absolute returns and ranking in the top quartile of its manager peer group. EARNEST also continues to be very stable on an organizational basis with no investment professional turnover or ownership changes since our previous update in 2016.

Given EARNEST's stable organization and strong performance over the past several years, <u>PCA</u> does not recommend that any action be taken with regard to EARNEST at this time.

EAERNEST's performance and organization are discussed in further detail on the following pages.

<sup>\*</sup>Estimated \$ amount based on manager account AUM as of 6/30/2018



#### Discussion

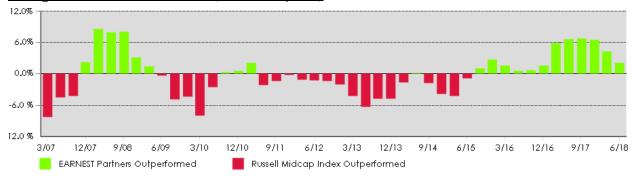
In reviewing EARNEST, PCA considered investment performance and recent organizational / personnel issues.

OPFRS Portfolio Annualized Returns (as of 6/30/2018)

Manager	Mkt Value (\$000)	Asset Class	3 MO	YTD	1 YR	3 YR	5 YR	Since Inception	Inception Date
EARNEST (Net-of-Fees)	30,136	Mid Cap Core	2.1	2.0	14.4	12.6	13.9	8.7	4/2006
Russell Mid Cap Index			2.8	2.3	12.3	9.6	12.2	8.7	
Excess Return			-0.8	-0.3	2.1	3.0	1.7	0.0	
US MCC Peer % Rank			74	52	23	12	20	32	

Over the most recently completed quarter, EARNEST has underperformed its benchmark, the Russell Mid Cap Index, by (76) basis points on a net-of-fees basis, ranking the portfolio in the 74<sup>th</sup> percentile of its Mid Cap Core peer group. Despite the dip in performance during the most recent quarter, EARNEST continues to perform well over the most recent 12-month period; outperforming its benchmark by 2.1% after fees and ranking in the top quartile of its peer group. The portfolio has also performed well over the most recent 3- and 5-year periods, earning double-digit absolute returns while outperforming the benchmark by 3.0% and 1.7%, respectively; the portfolio also ranked in the top quintile over both periods. Since OPFRS first funded its Mid Cap Core portfolio with EARNEST in March 2006, the portfolio has nearly matched its benchmark, trailing by only (4) basis points on an annualized, net-of-fees basis.

Rolling 12-Month Excess Returns (Since Inception) – Net-of-Fees



As the above table shows, EARNEST's inability to beat the benchmark on a net-of-fee basis over the life of its relationship with OPFRS can be mostly attributed to a long run of adverse performance between 2011 and 2015. EARNEST also put itself into a hole early in the relationship as the portfolio suffered its worst 12-month performance during the first full year of the mandate. However, the portfolio is currently enjoying its longest run of outperformance, having outperformed its benchmark on a rolling 12-month basis over the past 12 straight months.



#### **Product and Organization Review Summary**

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 Termi		nation

<sup>^</sup>None, low, medium, or high

#### Organizational Changes

Lead Portfolio Manager Paul Viera continues to manage EARNEST's Mid Cap Core Equity portfolio and has done so since 2003. Since EARNEST's previous manager update in June 2016, there has been no turnover among the portfolio's 12-person management team. As a firm, EARNEST continues to be 100% employee-owned, including a 60% share representing minority ownership.

As the following table shows, EARNEST's account base has dropped slightly over the past four years to its current level of 221. However, firm-wide assets under management have remained steady around the \$21 billion mark over the same period.

Historical Firm & Product AUM (\$mil)

Date	Firm AUM / Accounts	Product AUM / Accounts
6/2018	\$21,735 / 221	\$920 / 17
6/2017	\$20,773 / 217	\$850 / 17
6/2016	\$19,466 / 228	\$831 / 22
6/2015	\$22,295 / 247	\$888 / 23

The story remains the same when focusing on the Mid Cap Core portfolio's asset and account base where total accounts have dropped to their current level of 17, while assets under management have remained near the \$900 million level.

Given the lack of portfolio management turnover, firm ownership changes, or asset losses, PCA does not have any material concerns with EANREST's organization at this time.



#### Investment Philosophy & Process, per manager

Companies are unique, and the firm considers those differences in selecting companies that it believes make good investments. The first step in the investment process is to screen the relevant universe to identify stocks that the firm believes are likely to outperform based on their financial characteristics and the current environment. Using an approach called Return Pattern Recognition®, the firm identifies the financial and market characteristics that have been in place when an individual company has produced outstanding performance. These characteristics include valuation measures, market trends, operating trends, growth measures, and profitability measures. The firm screens relevant universe of companies and selects those exhibiting the set of characteristics that have historically indicated excess returns. Additionally, the firm assesses the reliability of the accounting conventions used by each company and normalizes the financial reporting to more accurately compare valuations.

The approximately 150 companies that pass the aforementioned screens are put through a second more in depth review. In this step, the team develops an investment thesis for each company. This thesis must be tested. The test generally includes conversations with the company's management team and industry specialists, review of the company's financial reports, analysis of industry and company-specific studies, and independent field research. The team seeks companies in attractive industries with developed strategies, talented and honest management teams, sufficient funding, and strong financial results. The experience and different perspectives of the investment team are an advantage in determining which companies they believe are best positioned to meet or exceed expectations. The team eliminates from consideration any the fundamental company that does not pass analysis.

The final step in the investment process is to construct a portfolio that includes the stocks which the firm expects to have the best performance and that blend together well. They believe investors are primarily concerned about the risk of meaningfully underperforming the assigned benchmark. Hence, the firm focuses its attention on reducing this possibility. The firm uses a statistical approach called downside deviation to measure and then constrain the likelihood of significantly underperforming the assigned benchmark. Using this information, the firm seeks to select investments that blend together to manage downside risk. The result is a client portfolio of approximately 60 stocks that the firm believes will provide excess returns and limited risk of meaningful underperformance versus the assigned benchmark.



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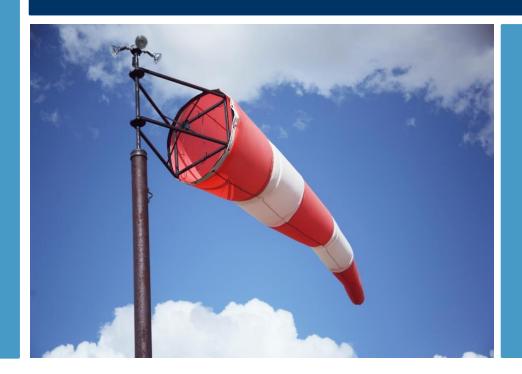
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# PCA INVESTMENT MARKET RISK METRICS

**Monthly Report** 



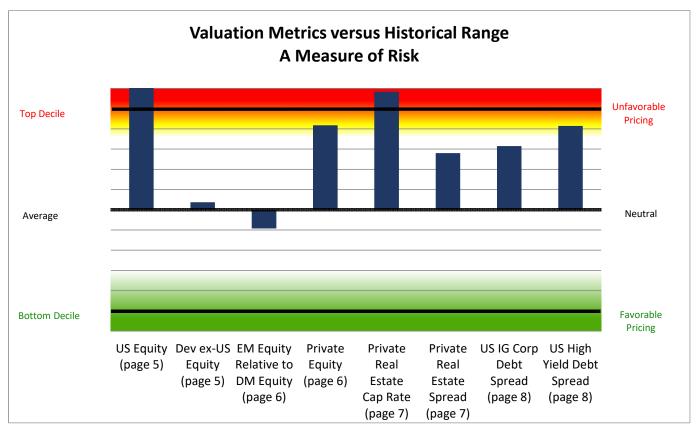
# **Takeaways**

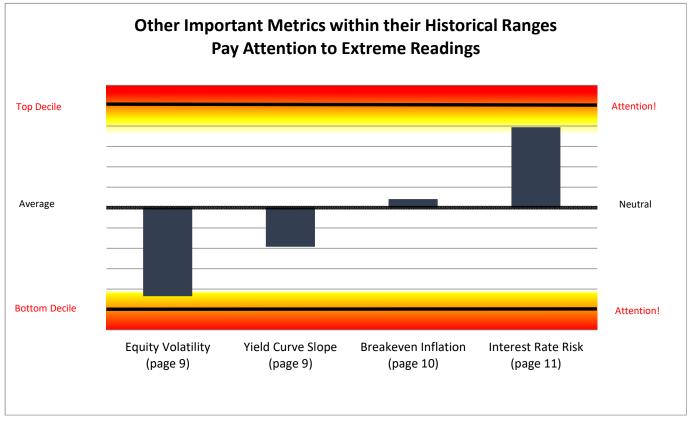
- The global capital markets have been immune to the trade war discussions that have recently taken place. This will likely remain the case until there is greater insight into the long-term economic impacts from such restrictions.
- July saw positive returns from the vast majority of assets across the globe. In particular, most broad-based regional equity markets produced positive returns in the range of 1.5-4.0% during the month. The majority of sovereign bond indices produced slightly negative or flat returns in July.
- Implied equity market volatility (i.e., VIX) decreased over the month and still remains materially below the long-term average level.
- For the third month in a row (and the first time since mid-2016), PCA's sentiment indicator (page 4) remained neutral (gray). This is the result of year-over-year changes in bond spreads.
- U.S. Treasury interest rates were relatively stable during July, and the yield curve remains relatively flat. As of the end of the month, the spread between 30-year and 3-month U.S. Treasury yields remained at 1.05%, a level not seen since 2008.
- Non-U.S. developed and emerging market equity valuations are currently in-line with long-term averages, but they remain modestly cheap relative to U.S. levels.
- A prevailing market theme at the moment is the divergence of U.S. fiscal and monetary policies. Whereas fiscal policy is currently stimulative, monetary policy is generally tightening as economic growth, inflation, and unemployment are approaching late-cycle levels. PCA expects this to remain a topic of interest/concern throughout 2018.

<sup>&</sup>lt;sup>1</sup>See Appendix for the rationale for selection and calculation methodology used for the risk metrics.



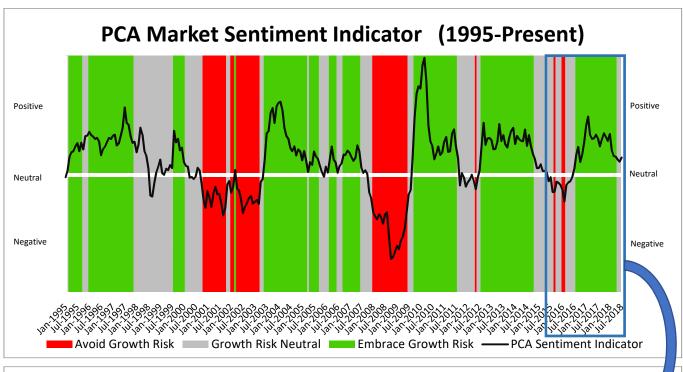
#### **Risk Overview**

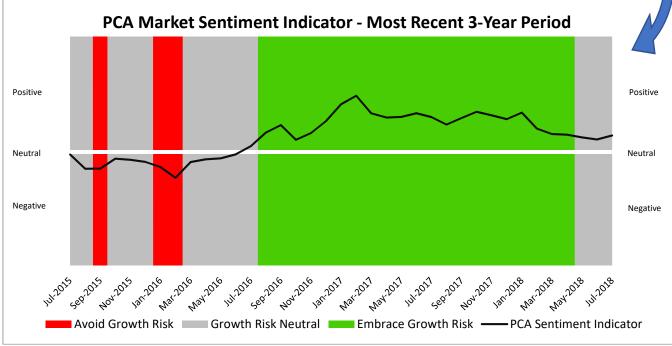






### **Market Sentiment**





### **Intormation Behind Current Sentiment Reading**

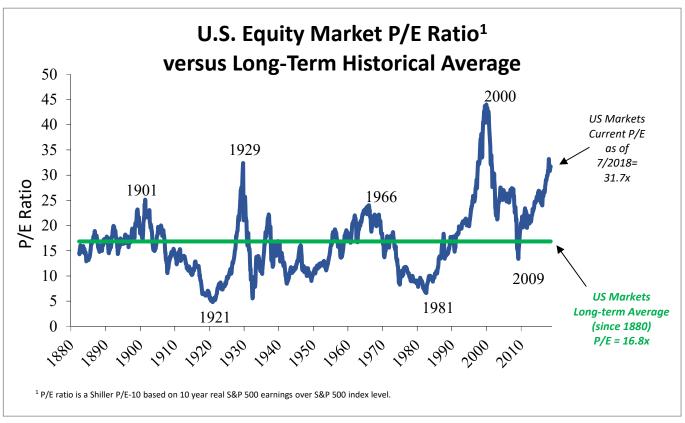
Bond Spread Momentum Trailing-Twelve Months
Equity Return Momentum Trailing-Twelve Months
Agreement Between Bond Spread and Equity Spread Momentum Measures?

Negative	
Positive	
Disagree	

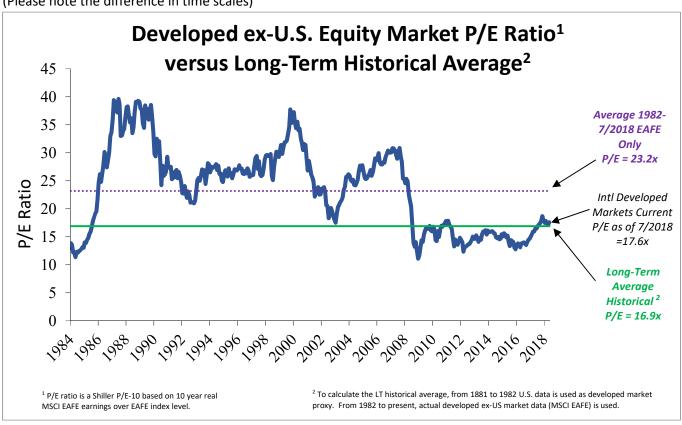
Growth Risk Visibility (Current Overall Sentiment)	Neutral	
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### **Developed Public Equity Markets**

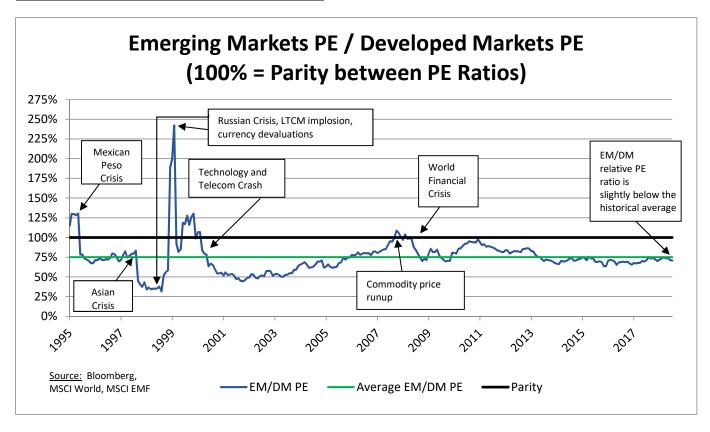


### (Please note the difference in time scales)





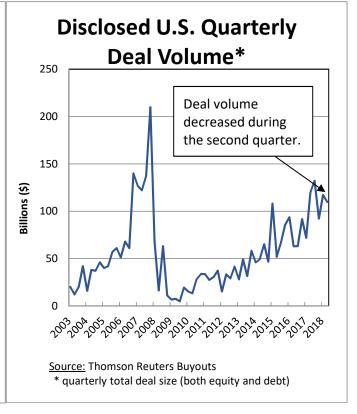
### **Emerging Market Public Equity Markets**



**US Private Equity** 

# Price to EBITDA Multiples Paid in LBOs (Updated to June 30th) 11.00 Average since 1997. 10.00 Multiples remain above the pre-crisis highs. 6.00 5.00 Source: S&P LCD study

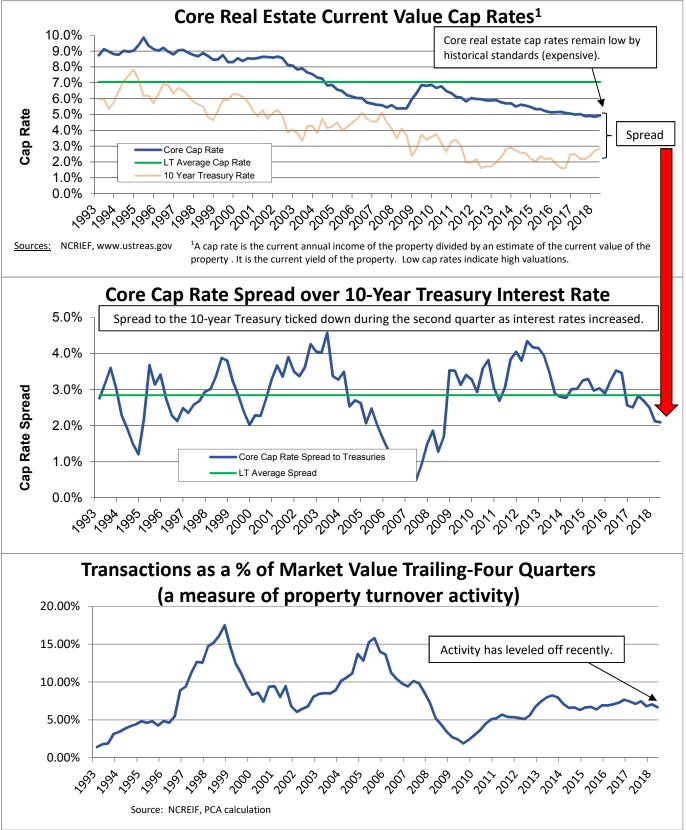
**Quarterly Data, Updated to June 30th** 





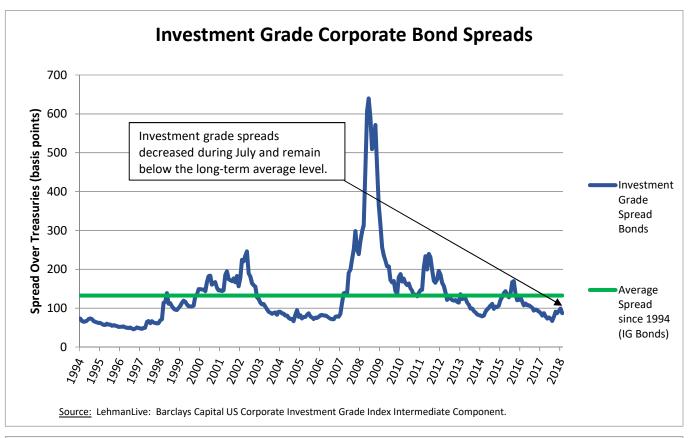
### **Private Real Estate**

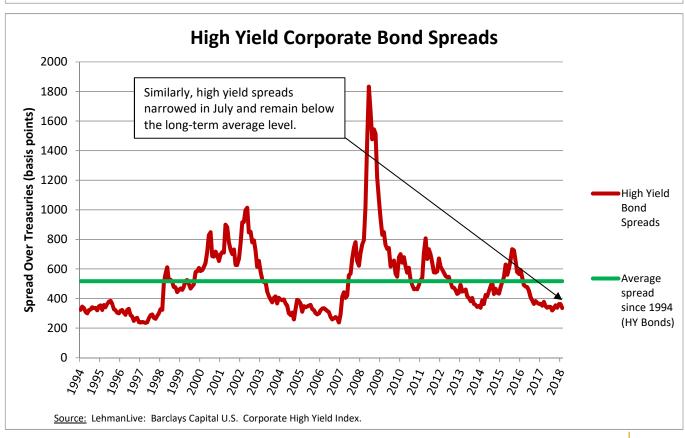
### Quarterly Data, Updated to June 30th.





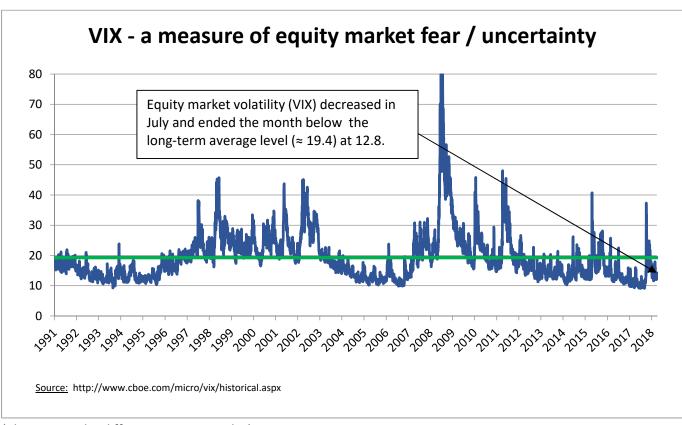
### **Credit Market US Fixed Income**



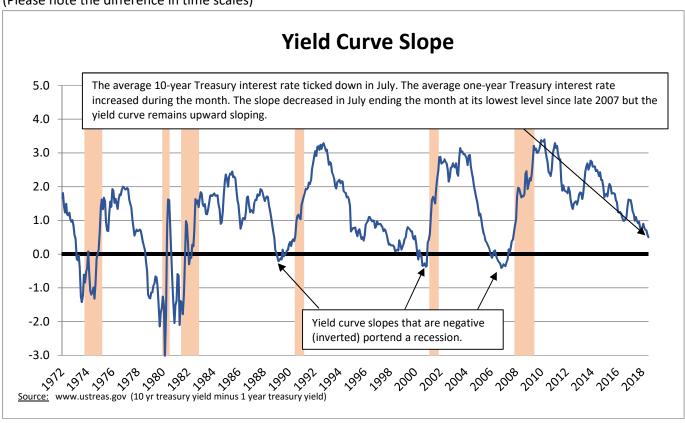




### **Other Market Metrics**

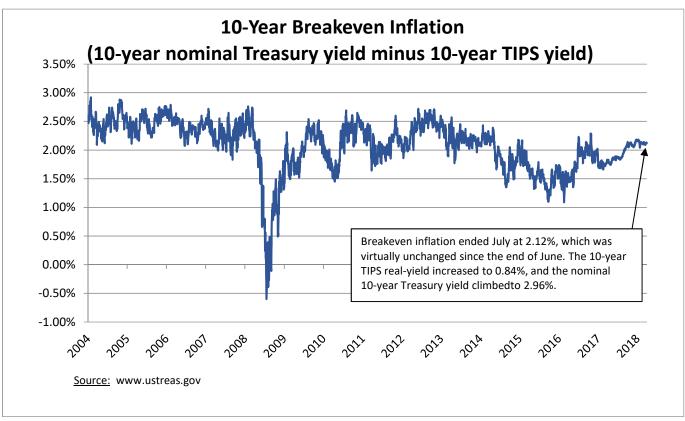


### (Please note the difference in time scales)

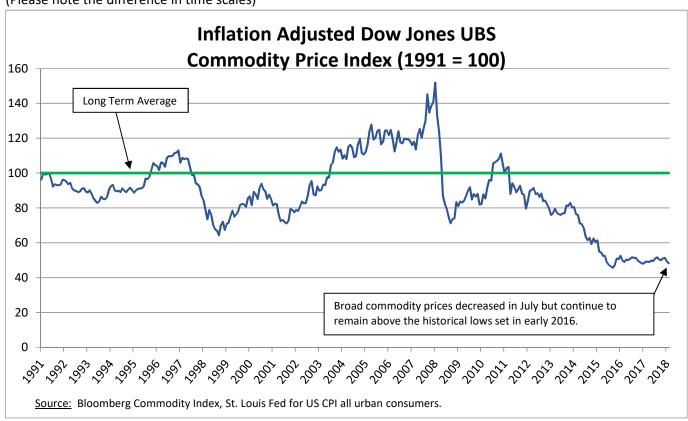




### **Measures of Inflation Expectations**

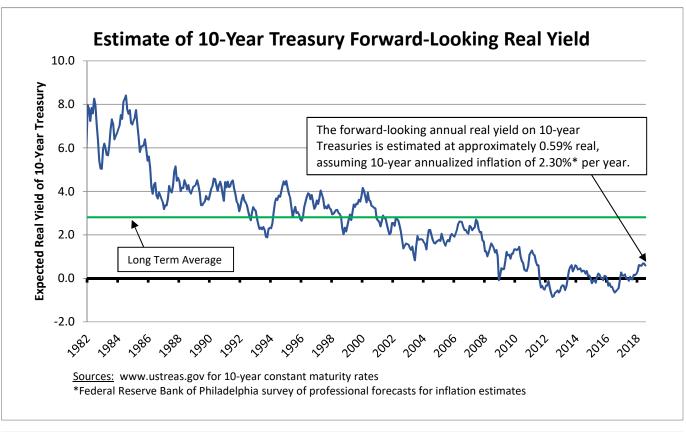


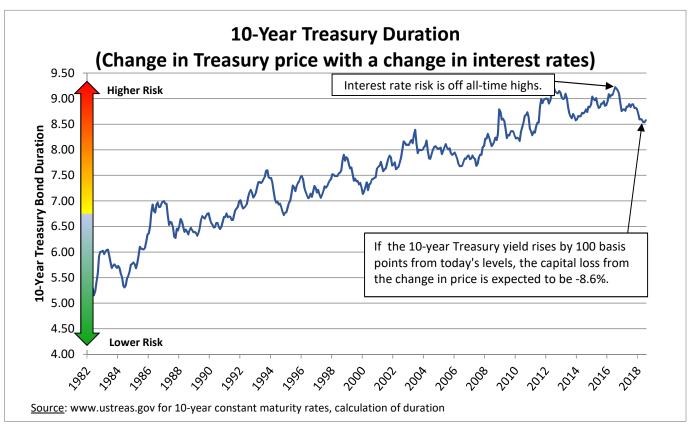
(Please note the difference in time scales)





### Measures of U.S. Treasury Interest Rate Risk









### METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

### **US Equity Markets:**

Metric: P/E ratio = Price / "Normalized" earnings for the S&P 500 Index

To represent the price of US equity markets, we have chosen the \$&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 \$&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 <a href="http://www.econ.yale.edu/~shiller/data.htm">http://www.econ.yale.edu/~shiller/data.htm</a>. 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 ratio = Price / "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.



### METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

### **Emerging Market Equity Markets:**

Metric: Ratio of Emerging Market P/E Ratio to Developed Market P/E 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 PE 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.

### **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, Cap Rate Spreads, and Transactions as a % of Market Value

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 data, published by NCREIF, describes completed and leased properties (core) on an unleveraged basis. We chose to use current value cap rates. These are capitalization rates from properties that were revalued during the quarter. This data relies on estimates of value and therefore tends to be lagging (estimated prices are slower to rise and slower to fall than transaction prices). The data is published quarterly.

Spreads between the cap rate (described above) and the 10-year nominal Treasury yield, indicate a measure of the cost of properties versus a current measure of the cost of financing.

Transactions as a % of Market Value Trailing-Four Quarters is a measure of property turnover activity in the NCREIF Universe. This quarterly metric is a measure of activity in the market.

### **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.



### METRIC DESCRIPTION. RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

### 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.

### 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 an 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.

### <u>Measures of US Treasury Bond Interest Rate Risk</u>

Metrics: 10-Year Treasury Forward-Looking Real Yield and 10-Year Treasury Duration

The expected annualized real yield of the 10 year U.S. Treasury Bond is a measure of valuation risk for U.S. Treasuries. A low real yield means investors will accept a low rate of expected return for the certainly of receiving their nominal cash flows. PCA 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

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.

### <u>Definition of "extreme" metric readings</u>

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.





# PCA Market Sentiment Indicator

Explanation, Construction and Q&A

By:

Pension Consulting Alliance, LLC.

PCA has created the PCA Market Sentiment Indicator (PMSI) to <u>complement</u> our valuation-focused PCA Investment Market 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 <u>risk-seeking trend</u> or a <u>risk-aversion trend</u>.

This paper explores:

- What is the PCA Market Sentiment Indicator (PMSI)?
- How do I read the indicator graph?
- How is the PCA Market Sentiment Indicator (PMSI) constructed?
- What do changes in the indicator mean?



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# PCA Market Sentiment Indicator

PCA has created a market sentiment indicator for monthly publication (the PMSI – see below) to complement PCA's Investment Market Risk Metrics.

PCA's Investment Market 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 PMSI 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 PMSI 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, PCA believes the Risk Metrics and PMSI 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 PCA PMSI:

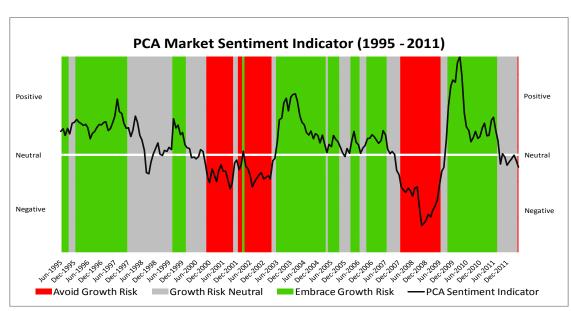
### What is the PCA Market Sentiment Indicator (PMSI)?

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 PCA 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.

Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



# PCA Market Sentiment Indicator

### How is the PCA 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 PCA 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.

"Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010 http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf



<sup>&</sup>lt;sup>1</sup>Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



Q2 2018 System
Quarterly Report

# Oakland Police and Fire Retirement

This report is solely for the use of client personnel. No part of it may be circulated, quoted, or reproduced for distribution outside the client organization without prior written approval from Pension Consulting Alliance, LLC.

Nothing herein is intended to serve as investment advice, a recommendation of any particular investment or type of investment, a suggestion of purchasing or selling securities, or an invitation or inducement to engage in investment activity.

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E	MANAGER MONITORING / PROBATION LIST
F	INDIVIDUAL MANAGER PERFORMANCE
	Appendix

### TOTAL PORTFOLIO SUMMARY

As of June 30, 2018, the City of Oakland Police and Fire Retirement System (OPFRS) portfolio had an aggregate value of \$379.2 million. This represents a \$6.8 million increase in value, and (\$3.4) million in benefit payments, over the quarter. During the previous one-year period, the OPFRS Total Portfolio increased in value by \$36.8 million, and withdrew (\$13.3) million for benefit payments.

### **Asset Allocation Trends**

The asset allocation targets (see table on page 21) reflect those as of June 30, 2018. Target weightings do not yet reflect the interim phase of the Plan's recently approved asset allocation (effective 5/31/2017).

With respect to policy targets, the portfolio ended the latest quarter overweight International Equity, Fixed Income, and Cash, while underweight Domestic Equity and Covered Calls.

### **Recent Investment Performance**

During the most recent quarter, the OPFRS Total Portfolio generated an absolute return of 1.8%, gross of fees, underperforming its policy benchmark by 2.2%. The portfolio outperformed its benchmark by 1.1% over the 1-year period, outperformed by 0.1% over the 3-year period, and outperformed by 0.4% over the 5-year period.

The Total Portfolio outperformed the Median fund's return over all time periods measured. Performance differences with respect to the Median Fund continue to be attributed largely to differences in asset allocation.

	Quarter	Fiscal YTD	1 Year	3 Year	5 Year
Total Portfolio <sup>1</sup>	1.8	10.5	10.5	8.4	9.0
Policy Benchmark <sup>2</sup>	2.2	9.4	9.4	8.3	8.6
Excess Return	-0.4	1.1	1.1	0.1	0.4
Reference: Median Fund <sup>3</sup>	1.3	8.4	8.4	6.8	8.1
Reference: Total Net of Fees <sup>4</sup>	1.8	10.2	10.2	8.1	8.7



<sup>&</sup>lt;sup>1</sup> Gross of Fees. Performance since 2005 includes securities lending.

<sup>&</sup>lt;sup>2</sup> Evolving Policy Benchmark consists of 48% Russell 3000, 12% MSCI ACWI ex U.S., 20% Bbg BC Universal, and 20% CBOE BXM

<sup>&</sup>lt;sup>3</sup> Investment Metrics < \$1 Billion Public Plan Universe.

<sup>&</sup>lt;sup>4</sup> Longer-term (>1 year) Net of fee returns are estimated based on OPFRS manager fee schedule (approximately 34 bps).

### ECONOMIC & MARKET OVERVIEW - 2Q 2018

<u>Overview:</u> Real U.S. GDP increased by 4.1% (advance estimate) in the second quarter of 2018. GDP growth was driven by increases in consumer spending, exports, business investment, and government spending, while inventory investment and housing investment detracted from GDP growth over the quarter. At quarter-end, the unemployment rate ticked down to 4.0%. The seasonally adjusted Consumer Price Index for All Urban Consumers increased by 2.3% on an annualized basis during the quarter. Commodities ticked up during the second quarter, and the 1-year return for a basket of commodities remains positive at 7.3%. Global equity returns were positive for the quarter at 0.7% (MSCI ACWI). The U.S. Dollar appreciated against the Euro, Pound, and Yen by 5.2, 5.8%, and 4.2%, respectively.

### **Economic Growth**

- Real GDP increased at an annualized rate of 4.1 percent in the second quarter of 2018.
- Real GDP growth was driven by increases in consumer spending, exports, business investment, and government spending.
- GDP growth was partially offset during the quarter by an increase in imports and a decrease in inventory and housing investments.

### **Inflation**

- The Consumer Price Index for All Urban Consumers (CPI-U) increased by 2.3 percent during the second quarter on an annualized basis after seasonal adjustment.
- Quarterly percentage changes may be adjusted between data publications due to periodic updates in seasonal factors.
- Core CPI-U increased by 1.7 percent for the quarter on an annualized basis after seasonal adjustment.
- Over the last 12 months, core CPI-U increased by 2.4 percent after seasonal adjustment.

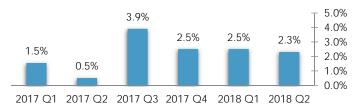
### Unemployment

- The U.S. economy gained approximately 632,000 jobs in the second quarter of 2018.
- The unemployment rate declined to 4.0% at quarter-end.
- The majority of jobs gained occurred in professional services, educational and health services, and manufacturing. The primary contributors to jobs lost were in wholesale trade, retail trade, and utilities.

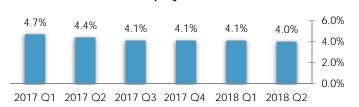
### **Annualized Quarterly GDP Growth**



### **CPI-U After Seasonal Adjustment**



### **Unemployment Rate**





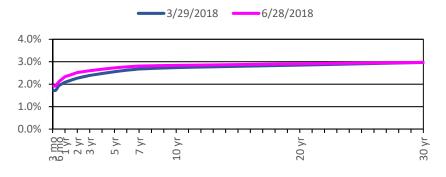
### ECONOMIC & MARKET OVERVIEW - 2Q 2018

### **Interest Rates & US Dollar**

### The yield curve slightly flattened over the quarter with shorter yields rising faster than intermediate and long-term yields.

- On June 13, the Federal Reserve raised the federal funds rate for the second time this year. The current target is between 1.75 and 2.00 percent.
- The U.S. Dollar appreciated against the Euro, Pound, and Yen by 5.2%, 5.8%, and 4.2%, respectively.

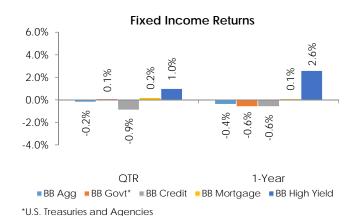
### **Treasury Yield Curve Changes**



Source: US Treasury Department

### **Fixed Income**

- U.S. bonds were mixed over the quarter as all sectors produced returns of +/- 1% over the period. High Yield provided the strongest return with 1.0% over the quarter.
- Over the trailing 1-year period, High Yield materially outperformed all other sectors with a 2.6% return. Investment grade credit experienced a more challenging environment over the 1-year period.



	ncome Secto B Aggregate	r Performance Index)	Э
Sector	Weight	QTR	1 Year
Governments*	40.3%	0.0%	-0.5%
Agencies	3.1%	-0.2%	0.0%
Inv. Grade Credit	26.5%	-1.0%	-0.8%
MBS	27.7%	0.2%	0.1%
ABS	0.6%	0.4%	0.4%
CMBS	1.8%	-0.1%	-0.3%

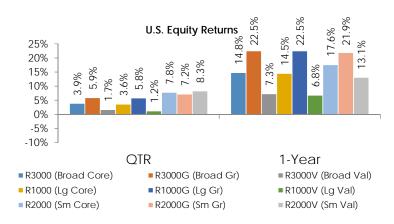
\*U.S. Treasuries and Government Related



### ECONOMIC & MARKET OVERVIEW - 20 2018

### **U.S. Equities**

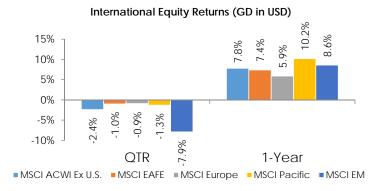
- During the quarter, growth stocks outperformed value stocks across broad and large market cap stocks. In terms of market capitalization, small cap stocks provided the strongest returns across styles. Small cap value stocks returned this quarter's strongest return at 8.3%, and large cap value provided the weakest result at 1.2%.
- During the trailing 1-year period, core and growth U.S. equities provided positive double-digit returns, with the top performers, broad and large cap growth, returning 22.5% each. Conversely, large cap value trailed all other market caps and styles with a return of 6.8%.



U.S. I	U.S. Equity Sector Performance (Russell 3000 Index)								
Sector	Weight	QTR	1 Year						
Information Tech.	24.8%	6.9%	30.8%						
Financials	14.6%	-2.4%	10.1%						
Health Care	13.5%	4.2%	9.5%						
Consumer Disc.	13.0%	8.1%	21.9%						
Industrials	10.6%	-2.1%	7.5%						
Consumer Staples	6.0%	-0.9%	-2.9%						
Energy	6.0%	14.4%	22.3%						
Real Estate	3.7%	8.1%	5.2%						
Materials	3.3%	2.8%	9.8%						
Utilities	2.8%	4.5%	4.7%						
Telecom.	1.6%	-0.4%	1.3%						

### **International Equities**

- International equities performed poorly over the quarter as each region provided negative returns. Emerging markets trailed all other regions with a return of -7.9%.
- Over the trailing 1-year period, international equities provided strong single-digit returns across the board. The Pacific led all other regions with a return of 10.2%, while Europe trailed all other regions with a 5.9% return.



International Equity Region Performance (GD in USD) (MSCI ACWI ex US)								
Weight	QTR	1 Year						
32.7%	-2.3%	4.4%						
22.0%	-7.9%	8.6%						
17.0%	-2.8%	10.9%						
10.4%	3.0%	10.1%						
11.3%	1.8%	8.8%						
6.6%	4.9%	9.9%						
	(MSCI ACWI Weight 32.7% 22.0% 17.0% 10.4% 11.3%	Weight         QTR           32.7%         -2.3%           22.0%         -7.9%           17.0%         -2.8%           10.4%         3.0%           11.3%         1.8%						



### ECONOMIC & MARKET OVERVIEW – 2Q 2018

### <u>Market Summary – Multi-term Performance</u>\*

Indexes	Month	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Global Equity							
MSCI AC World Index	-0.5%	0.7%	11.3%	8.8%	10.0%	6.4%	5.8%
Domestic Equity							
S&P 500	0.6%	3.4%	14.4%	11.9%	13.4%	10.2%	6.5%
Russell 3000	0.7%	3.9%	14.8%	11.6%	13.3%	10.2%	6.8%
Russell 3000 Growth	0.9%	5.9%	22.5%	14.6%	16.1%	11.8%	6.3%
Russell 3000 Value	0.3%	1.7%	7.3%	8.5%	10.4%	8.6%	6.8%
Russell 1000	0.6%	3.6%	14.5%	11.6%	13.4%	10.2%	6.7%
Russell 1000 Growth	1.0%	5.8%	22.5%	15.0%	16.4%	11.8%	6.3%
Russell 1000 Value	0.2%	1.2%	6.8%	8.3%	10.3%	8.5%	6.7%
Russell 2000	0.7%	7.8%	17.6%	11.0%	12.5%	10.6%	8.0%
Russell 2000 Growth	0.8%	7.2%	21.9%	10.6%	13.6%	11.2%	6.9%
Russell 2000 Value	0.6%	8.3%	13.1%	11.2%	11.2%	9.9%	8.7%
Russell Microcap	1.3%	10.0%	20.2%	10.5%	12.8%	10.6%	
Alerian MLP Index	-1.5%	11.8%	-4.6%	-5.9%	-4.1%	6.5%	
CBOE BXM Index	-0.1%	3.4%	7.3%	7.7%	8.1%	5.7%	5.6%
International Equity							
MSCI AC World Index ex USA	-1.8%	-2.4%	7.8%	5.6%	6.5%	3.0%	5.3%
MSCI EAFE	-1.2%	-1.0%	7.4%	5.4%	6.9%	3.3%	4.8%
MSCI Europe	-0.6%	-0.9%	5.9%	4.9%	6.8%	3.0%	4.5%
MSCI Pacific	-2.2%	-1.3%	10.2%	6.7%	7.2%	4.2%	5.5%
MSCI EM (Emerging Markets)	-4.1%	-7.9%	8.6%	6.0%	5.4%	2.6%	8.9%
Fixed Income							
BB Universal	-0.1%	-0.3%	-0.3%	2.1%	2.6%	4.1%	4.9%
Global Agg Hedged	0.2%	0.2%	1.7%	2.8%	3.3%	4.2%	4.7%
BB Aggregate Bond	-0.1%	-0.2%	-0.4%	1.7%	2.3%	3.7%	4.7%
BB Government	0.0%	0.1%	-0.6%	1.0%	1.5%	2.9%	4.3%
BB Credit Bond	-0.5%	-0.9%	-0.6%	2.9%	3.4%	5.2%	5.4%
BB Mortgage Backed Securities	0.0%	0.2%	0.1%	1.5%	2.3%	3.5%	4.6%
BB High Yield	0.4%	1.0%	2.6%	5.5%	5.5%	8.2%	6.5%
BCBWGIL All Maturities - Hedged	0.4%	2.5%	3.4%	4.1%	3.0%	4.6%	
Emerging Markets Debt	-0.7%	-2.4%	-1.0%	4.1%	4.5%	6.6%	8.3%
Real Estate							
NCREIF	0.7%	2.0%	8.4%	9.4%	11.0%	5.3%	8.7%
FTSE NAREIT All Equity Index	4.1%	8.3%	4.8%	9.2%	9.0%	8.5%	9.0%
Commodity Index							
Bloomberg Commodity Index	-3.5%	0.4%	7.3%	-4.5%	-6.4%	-9.0%	1.4%

<sup>\*</sup>Performance is annualized for periods greater than one year.



### ECONOMIC & MARKET OVERVIEW – 2Q 2018

### **Annual Asset Class Performance**

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD
26.0	34.5	32.6	39.8	36.3	79.0	35.9	29.9	18.6	33.6	27.4	15.2	18.3	37.8	4.3
20.7	20.2	28.0	16.1	24.0	76.4	19.2	16.0	17.9	27.6	25.1	4.4	17.5	25.6	3.2
16.7	14.0	26.9	12.7	5.2	57.5	16.9	13.9	16.8	23.4	12.6	0.5		24.6	0.1
15.8	11.4	26.1	12.5	-2.4	35.4	16.1	13.6	16.4	23.3	12.3	0.5	11.6	21.1	0.0
12.6	8.1	21.5	12.2	-10.4	32.5	15.2	7.8	15.6	13.3	6.0	-0.4	9.3	8.5	-0.1
11.9	6.5	16.1	11.6	-26.4	28.3	13.2	4.4	11.0	12.8	4.8	-1.2	8.5	7.8	-0.6
10.9	6.3	15.7	11.6	-36.9	11.4	9.4	1.0	7.0	7.4	4.7	-1.4	5.1	7.5	-1.6
8.5	6.1	11.8	9.8	-37.3	5.9	8.2	-6.9	4.8	-2.0	3.6	-1.8	4.7	3.5	-2.4
7.7	2.8	4.3	7.0	-41.8	1.5	8.2	-8.7	4.2	-2.3	2.5	-4.6	2.6	3.0	-3.0
5.2	2.7	1.8	5.1	-43.1	-12.9	6.5	-11 <i>.7</i>	3.6	-8.6	-1.8	-14.6	1.5	-4.5	-6.5
4.3	2.4	0.5	2.2	-53.2	-30.7	6.3	-18.2	-14.3	-12.7	-4.5	-32.6	1.3	-6.5	-14.8
msci ac	\A/	Manage of the last	lerian MLP Index		AFE Em	erging	BB Agg				BB TIPS Index			NCREIF ODCE
	26.0 20.7 16.7 15.8 12.6 11.9 10.9 8.5 7.7 5.2 4.3	26.0 34.5  20.7 20.2  16.7 14.0  15.8 11.4  12.6 8.1  11.9 6.5  10.9 6.3  8.5 6.1  7.7 2.8  5.2 2.7  4.3 2.4	26.0       34.5       32.6         20.7       20.2       28.0         16.7       14.0       26.9         15.8       11.4       26.1         12.6       8.1       21.5         11.9       6.5       16.1         10.9       6.3       15.7         8.5       6.1       11.8         7.7       2.8       4.3         5.2       2.7       1.8         4.3       2.4       0.5	26.0       34.5       32.6       39.8         20.7       20.2       28.0       16.1         16.7       14.0       26.9       12.7         15.8       11.4       26.1       12.5         12.6       8.1       21.5       12.2         11.9       6.5       16.1       11.6         10.9       6.3       15.7       11.6         8.5       6.1       11.8       9.8         7.7       2.8       4.3       7.0         5.2       2.7       1.8       5.1         4.3       2.4       0.5       2.2	26.0       34.5       32.6       39.8       36.3         20.7       20.2       28.0       16.1       24.0         16.7       14.0       26.9       12.7       5.2         15.8       11.4       26.1       12.5       -2.4         12.6       8.1       21.5       12.2       -10.4         11.9       6.5       16.1       11.6       -26.4         10.9       6.3       15.7       11.6       -36.9         8.5       6.1       11.8       9.8       -37.3         7.7       2.8       4.3       7.0       -41.8         5.2       2.7       1.8       5.1       -43.1         4.3       2.4       0.5       2.2       -53.2	26.0       34.5       32.6       39.8       36.3       79.0         20.7       20.2       28.0       16.1       24.0       76.4         16.7       14.0       26.9       12.7       5.2       57.5         15.8       11.4       26.1       12.5       -2.4       35.4         12.6       8.1       21.5       12.2       -10.4       32.5         11.9       6.5       16.1       11.6       -26.4       28.3         10.9       6.3       15.7       11.6       -36.9       11.4         8.5       6.1       11.8       9.8       -37.3       5.9         7.7       2.8       4.3       7.0       -41.8       1.5         5.2       2.7       1.8       5.1       -43.1       -12.9         4.3       2.4       0.5       2.2       -53.2       -30.7	26.0       34.5       32.6       39.8       36.3       79.0       35.9         20.7       20.2       28.0       16.1       24.0       76.4       19.2         16.7       14.0       26.9       12.7       5.2       57.5       16.9         15.8       11.4       26.1       12.5       -2.4       35.4       16.1         12.6       8.1       21.5       12.2       -10.4       32.5       15.2         11.9       6.5       16.1       11.6       -26.4       28.3       13.2         10.9       6.3       15.7       11.6       -36.9       11.4       9.4         8.5       6.1       11.8       9.8       -37.3       5.9       8.2         7.7       2.8       4.3       7.0       -41.8       1.5       8.2         5.2       2.7       1.8       5.1       -43.1       -12.9       6.5         4.3       2.4       0.5       2.2       -53.2       -30.7       6.3	26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9         7.7       2.8       4.3       7.0       -41.8       1.5       8.2       -8.7         5.2       2.7       1.8       5.1       -43.1       -12.9       6.5       -11.7         4.3       2.4       0.5       2.2       -53.2       -30.7       6.3       -18.2     MSCI ACWI Russell 3000 Alerian MLP Index Index Index Index Ind	26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9       18.6         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0       17.9         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9       16.8         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6       16.4         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8       15.6         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4       11.0         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0       7.0         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9       4.8         7.7       2.8       4.3       7.0       -41.8       1.5       8.2       -8.7       4.2         5.2       2.7       1.8       5.1       -43.1       -12.9       6.5       -11.7       3.6         4.3       2.4       0.5 <th>26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9       18.6       33.6         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0       17.9       27.6         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9       16.8       23.4         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6       16.4       23.3         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8       15.6       13.3         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4       11.0       12.8         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0       7.0       7.4         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9       4.8       -2.0         7.7       2.8       4.3       7.0       -41.8       1.5       8.2       -8.7       4.2       -2.3         5.2       2.7       1.8       5.1<!--</th--><th>26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9       18.6       33.6       27.4         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0       17.9       27.6       25.1         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9       16.8       23.4       12.6         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6       16.4       23.3       12.3         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8       15.6       13.3       6.0         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4       11.0       12.8       4.8         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0       7.0       7.4       4.7         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9       4.8       -2.0       3.6         7.7       2.8       4.3       7.0       -41.8       1.5       8.2</th><th>26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2  20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4  16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5  15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5  12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4  11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2  10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4  8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8  7.7 2.8 4.3 7.0 -41.8 1.5 8.2 -8.7 4.2 -2.3 2.5 -4.6  5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 -8.6 -1.8 -14.6  4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6</th><th>26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2 18.3 20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4 17.5 16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5 12.7 15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5 11.6 12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4 9.3 11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2 8.5 10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4 5.1 8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8 4.7 7.7 2.8 4.3 7.0 -41.8 1.5 8.2 -8.7 4.2 -2.3 2.5 -4.6 2.6 2.6 5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 -8.6 -1.8 -14.6 1.5 4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6 1.3</th><th>26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2 18.3 37.8 20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4 17.5 25.6 16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5 12.7 24.6 15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5 11.6 21.1 12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4 9.3 8.5 11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2 8.5 7.8 10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4 5.1 7.5 8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8 4.7 3.5 7.7 2.8 4.3 7.0 41.8 1.5 8.2 8.7 4.2 -2.3 2.5 -4.6 2.6 3.0 5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 8.6 -1.8 -14.6 1.5 4.5 4.5 4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6 1.3 -6.5</th></th>	26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9       18.6       33.6         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0       17.9       27.6         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9       16.8       23.4         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6       16.4       23.3         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8       15.6       13.3         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4       11.0       12.8         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0       7.0       7.4         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9       4.8       -2.0         7.7       2.8       4.3       7.0       -41.8       1.5       8.2       -8.7       4.2       -2.3         5.2       2.7       1.8       5.1 </th <th>26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9       18.6       33.6       27.4         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0       17.9       27.6       25.1         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9       16.8       23.4       12.6         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6       16.4       23.3       12.3         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8       15.6       13.3       6.0         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4       11.0       12.8       4.8         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0       7.0       7.4       4.7         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9       4.8       -2.0       3.6         7.7       2.8       4.3       7.0       -41.8       1.5       8.2</th> <th>26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2  20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4  16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5  15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5  12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4  11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2  10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4  8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8  7.7 2.8 4.3 7.0 -41.8 1.5 8.2 -8.7 4.2 -2.3 2.5 -4.6  5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 -8.6 -1.8 -14.6  4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6</th> <th>26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2 18.3 20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4 17.5 16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5 12.7 15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5 11.6 12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4 9.3 11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2 8.5 10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4 5.1 8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8 4.7 7.7 2.8 4.3 7.0 -41.8 1.5 8.2 -8.7 4.2 -2.3 2.5 -4.6 2.6 2.6 5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 -8.6 -1.8 -14.6 1.5 4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6 1.3</th> <th>26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2 18.3 37.8 20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4 17.5 25.6 16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5 12.7 24.6 15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5 11.6 21.1 12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4 9.3 8.5 11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2 8.5 7.8 10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4 5.1 7.5 8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8 4.7 3.5 7.7 2.8 4.3 7.0 41.8 1.5 8.2 8.7 4.2 -2.3 2.5 -4.6 2.6 3.0 5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 8.6 -1.8 -14.6 1.5 4.5 4.5 4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6 1.3 -6.5</th>	26.0       34.5       32.6       39.8       36.3       79.0       35.9       29.9       18.6       33.6       27.4         20.7       20.2       28.0       16.1       24.0       76.4       19.2       16.0       17.9       27.6       25.1         16.7       14.0       26.9       12.7       5.2       57.5       16.9       13.9       16.8       23.4       12.6         15.8       11.4       26.1       12.5       -2.4       35.4       16.1       13.6       16.4       23.3       12.3         12.6       8.1       21.5       12.2       -10.4       32.5       15.2       7.8       15.6       13.3       6.0         11.9       6.5       16.1       11.6       -26.4       28.3       13.2       4.4       11.0       12.8       4.8         10.9       6.3       15.7       11.6       -36.9       11.4       9.4       1.0       7.0       7.4       4.7         8.5       6.1       11.8       9.8       -37.3       5.9       8.2       -6.9       4.8       -2.0       3.6         7.7       2.8       4.3       7.0       -41.8       1.5       8.2	26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2  20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4  16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5  15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5  12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4  11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2  10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4  8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8  7.7 2.8 4.3 7.0 -41.8 1.5 8.2 -8.7 4.2 -2.3 2.5 -4.6  5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 -8.6 -1.8 -14.6  4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6	26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2 18.3 20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4 17.5 16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5 12.7 15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5 11.6 12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4 9.3 11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2 8.5 10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4 5.1 8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8 4.7 7.7 2.8 4.3 7.0 -41.8 1.5 8.2 -8.7 4.2 -2.3 2.5 -4.6 2.6 2.6 5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 -8.6 -1.8 -14.6 1.5 4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6 1.3	26.0 34.5 32.6 39.8 36.3 79.0 35.9 29.9 18.6 33.6 27.4 15.2 18.3 37.8 20.7 20.2 28.0 16.1 24.0 76.4 19.2 16.0 17.9 27.6 25.1 4.4 17.5 25.6 16.7 14.0 26.9 12.7 5.2 57.5 16.9 13.9 16.8 23.4 12.6 0.5 12.7 24.6 15.8 11.4 26.1 12.5 -2.4 35.4 16.1 13.6 16.4 23.3 12.3 0.5 11.6 21.1 12.6 8.1 21.5 12.2 -10.4 32.5 15.2 7.8 15.6 13.3 6.0 -0.4 9.3 8.5 11.9 6.5 16.1 11.6 -26.4 28.3 13.2 4.4 11.0 12.8 4.8 -1.2 8.5 7.8 10.9 6.3 15.7 11.6 -36.9 11.4 9.4 1.0 7.0 7.4 4.7 -1.4 5.1 7.5 8.5 6.1 11.8 9.8 -37.3 5.9 8.2 -6.9 4.8 -2.0 3.6 -1.8 4.7 3.5 7.7 2.8 4.3 7.0 41.8 1.5 8.2 8.7 4.2 -2.3 2.5 -4.6 2.6 3.0 5.2 2.7 1.8 5.1 -43.1 -12.9 6.5 -11.7 3.6 8.6 -1.8 -14.6 1.5 4.5 4.5 4.3 2.4 0.5 2.2 -53.2 -30.7 6.3 -18.2 -14.3 -12.7 -4.5 -32.6 1.3 -6.5



### **Investment Market Risk Metrics**

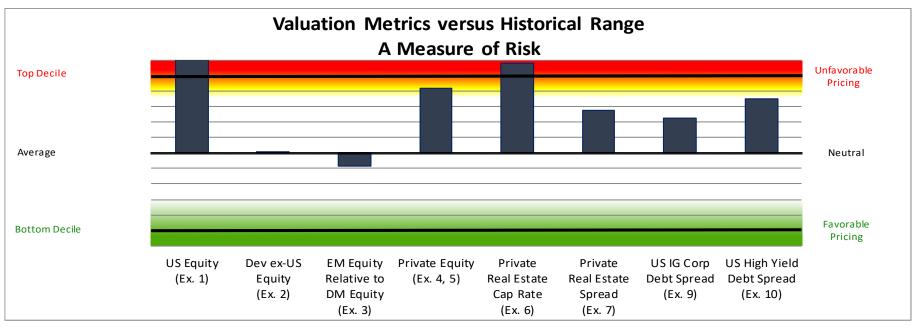
### **Takeaways**

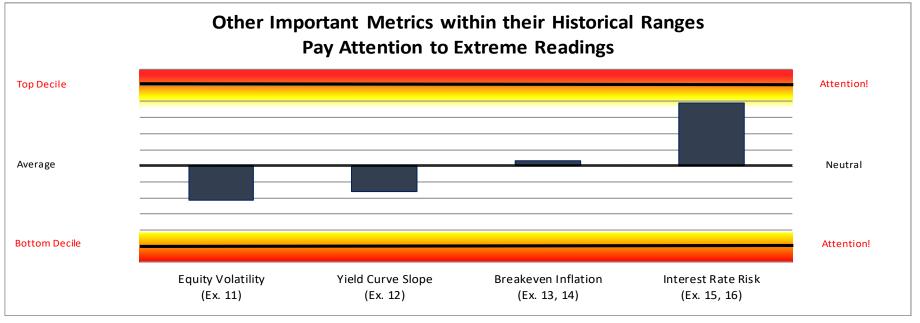
- The second quarter saw strong domestic equity returns, while non-U.S. equities struggled amid a strong U.S. Dollar and growing geopolitical concerns. The majority of asset classes produced slight positive or slight negative returns over the period.
- Implied equity market volatility (i.e., VIX) decreased over the quarter and remained materially below the long-term average level.
- The second quarter saw PCA's sentiment indicator remain neutral (gray) for two consecutive months. This is the result of year-over-year changes in bond spreads.
- U.S. Treasury interest rates were relatively stable during the quarter, and the yield curve remains relatively flat. As of the end of the quarter, the spread between 30-year and 3-month U.S. Treasury yields was roughly 1.05%, a level not seen since 2008.
- Non-U.S. developed and emerging market equity valuations are currently in-line with long-term averages, but they remain modestly cheap relative to U.S. levels.
- A prevailing market theme at the moment is the divergence of U.S. fiscal and monetary policies. Whereas fiscal policy is currently stimulative, monetary policy is generally tightening as economic growth, inflation, and unemployment are approaching late-cycle levels. PCA expects this to remain a topic of interest/concern throughout 2018.

<sup>&</sup>lt;sup>1</sup> See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

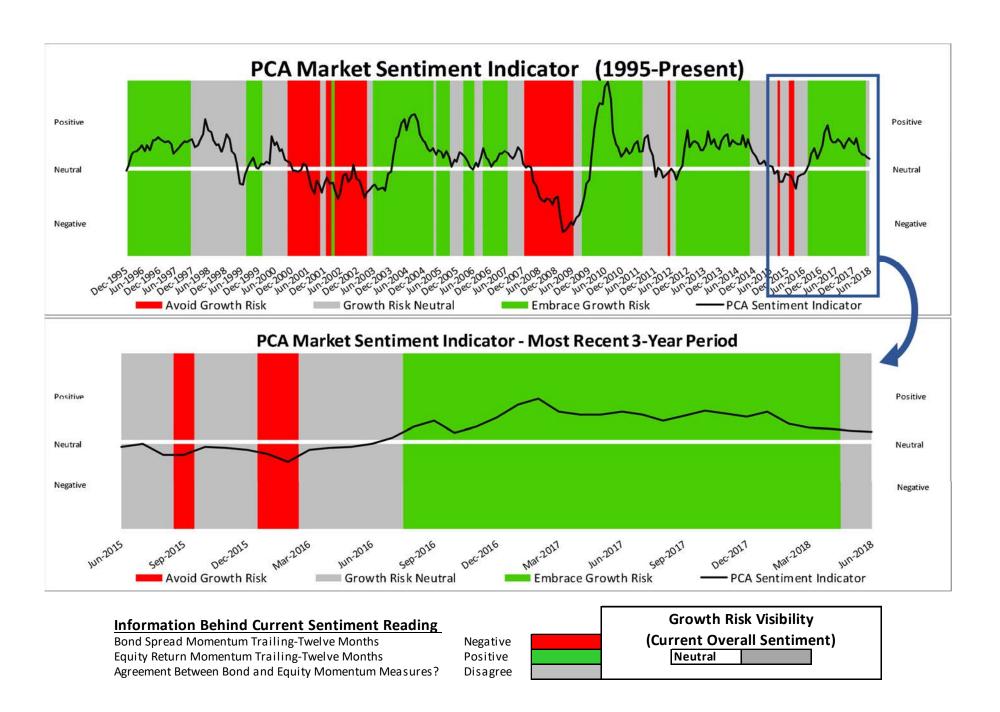


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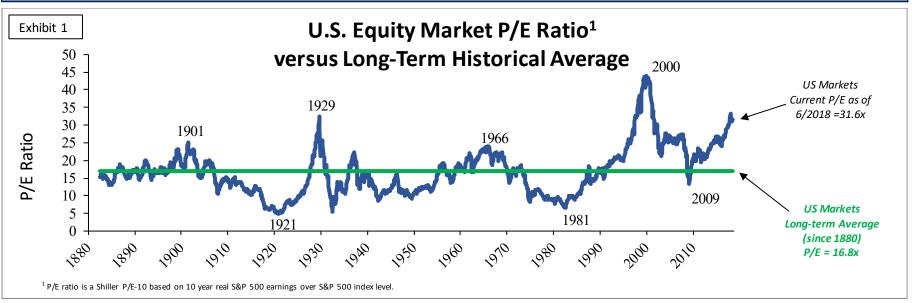




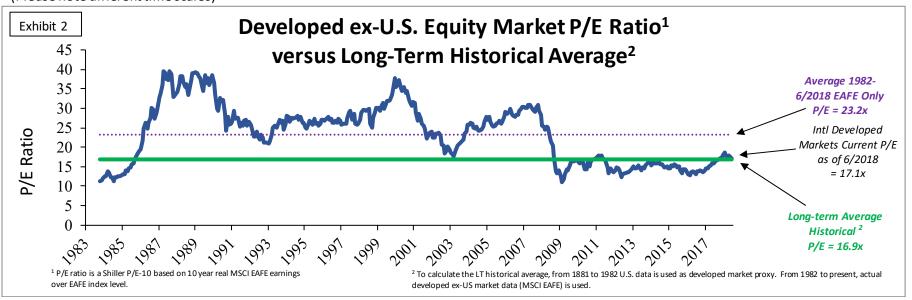




### **Developed Public Equity Markets**

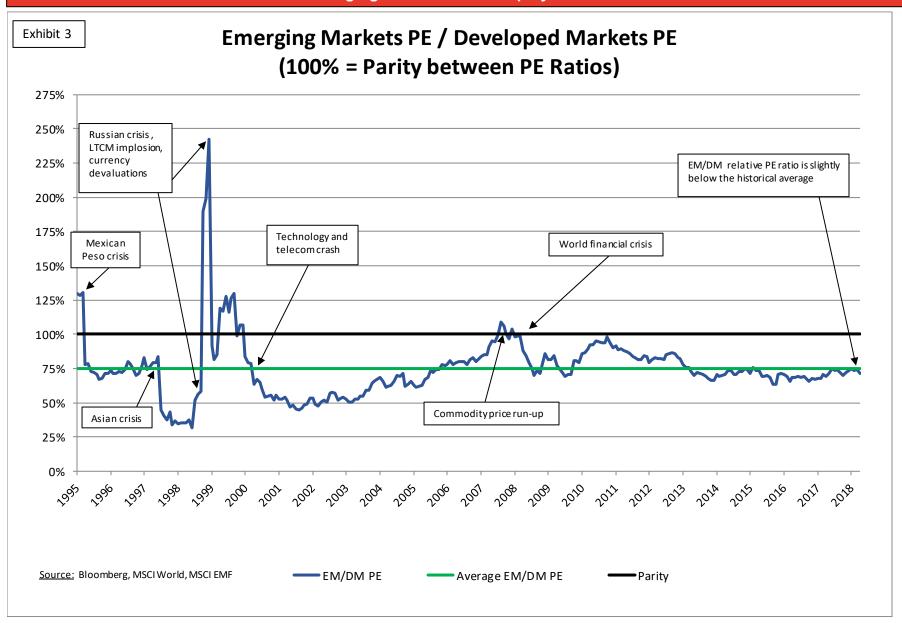


### (Please note different time scales)

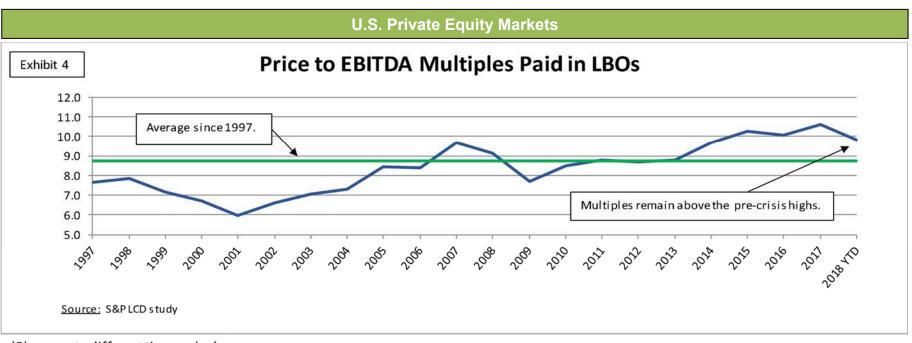




### **Emerging Markets Public Equity Markets**

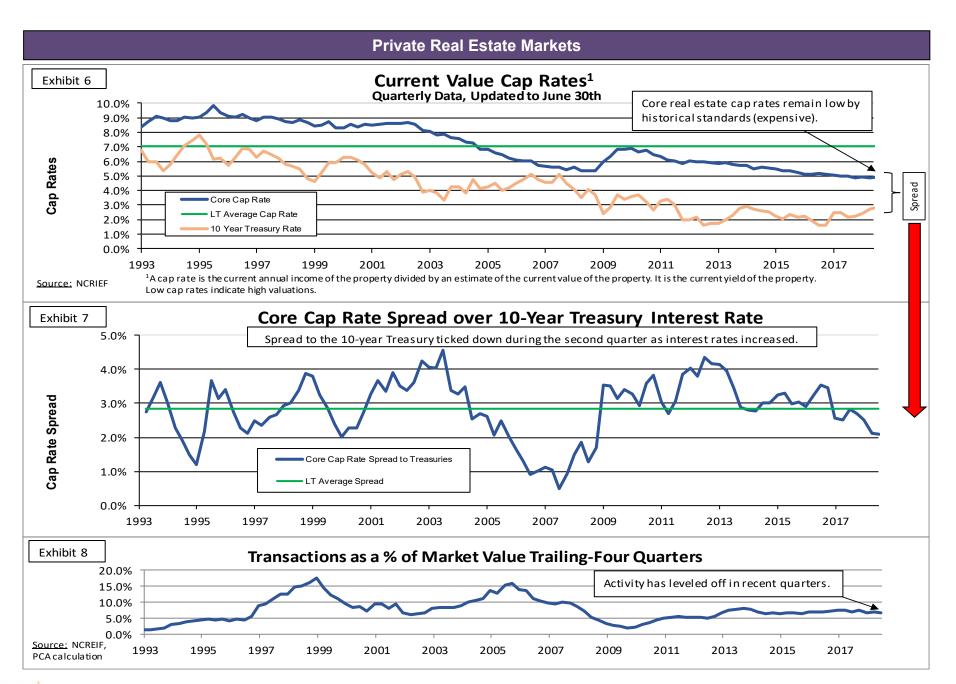




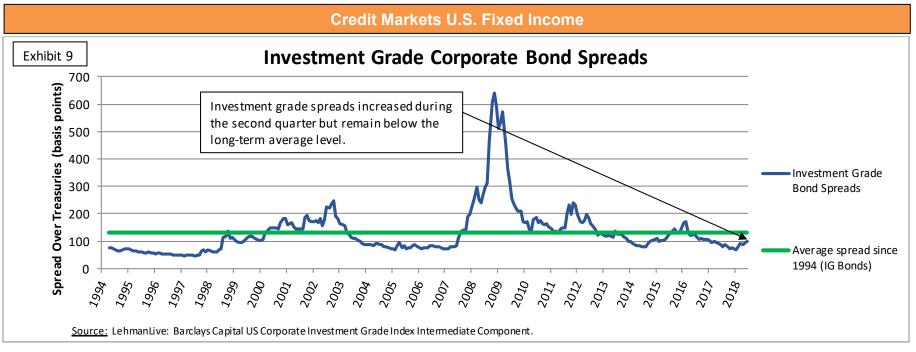


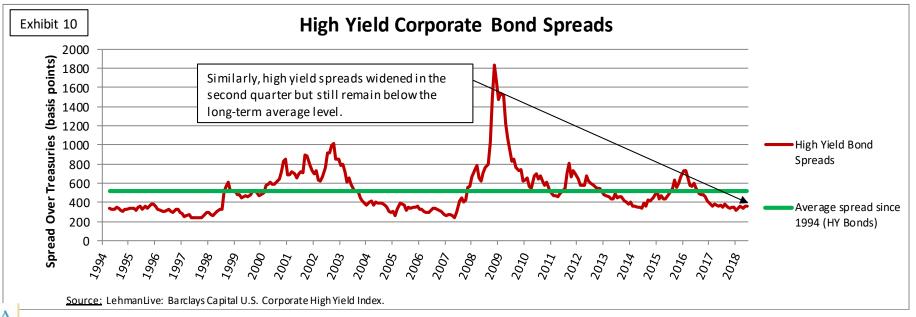




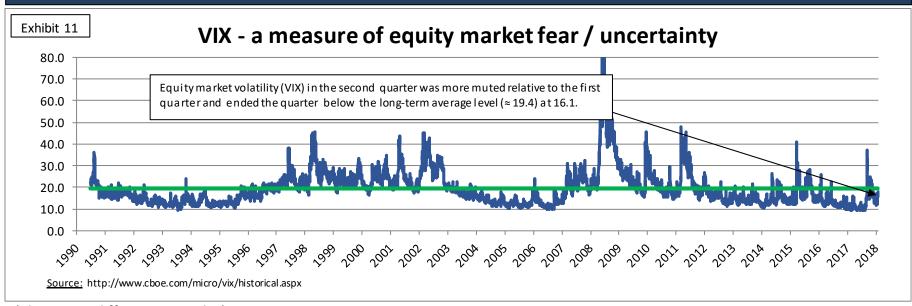




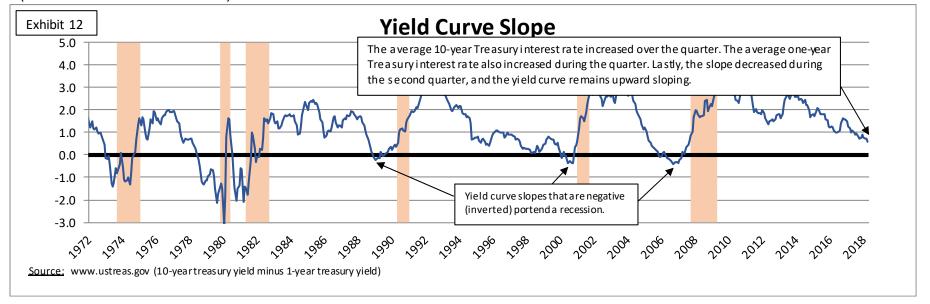




### **Other Market Metrics**

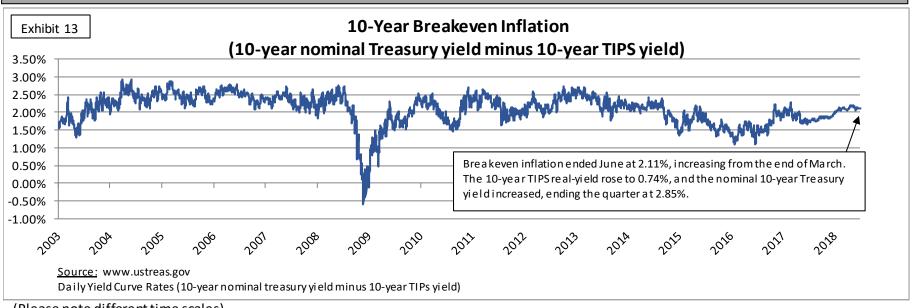


### (Please note different time scales)

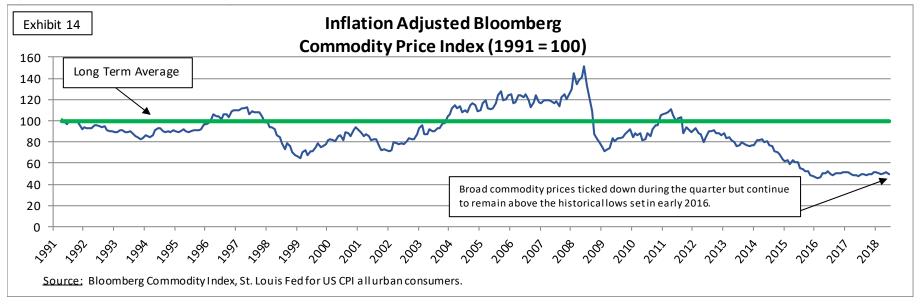






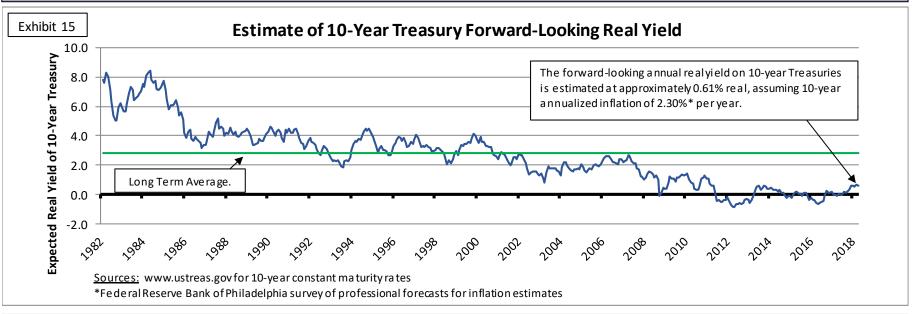


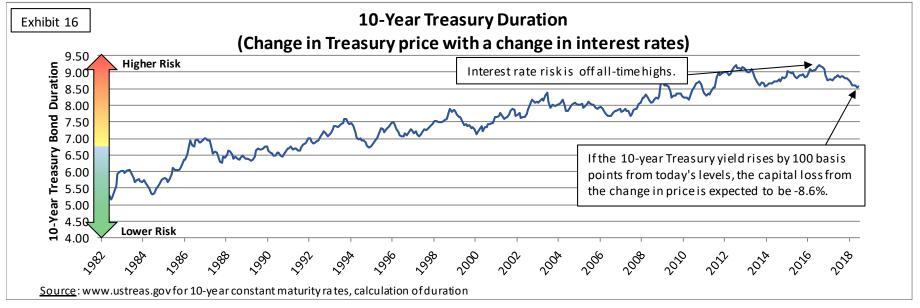
### (Please note different time scales)





### **Measures of U.S. Treasury Interest Rate Risk**

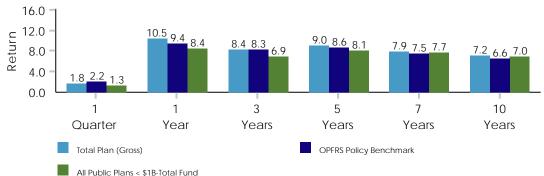






### Performance and Market Values As of June 30, 2018





### Portfolio Valuation (000's)

		1
	Quarter	Year
OPFRS Total Plan		
Beginning Market Value	375,693	355,726
Net Contributions	-3,363	-13,323
Gain/Loss	6,835	36,757
Ending Market Value	379,165	379,165

### Asset Class Performance (gross of fees)

	1	1	3	5	7	10
	Quarter	Year	Years	Years	Years	Years
OPFRS Total Plan	1.8	10.5	8.4	9.0	7.9	7.2
OPFRS Policy Benchmark*	2.2	9.4	8.3	8.6	7.5	6.6
Excess Return	-0.4	1.1	0.1	0.4	0.4	0.6
Domestic Equity	3.8	16.6	12.0	13.7	13.2	10.5
Russell 3000 (Blend)**	3.9	14.8	11.6	13.3	13.0	10.2
Excess Return	-0.1	1.8	0.4	0.4	0.2	0.3
nternational Equity	-2.6	8.3	6.5	7.7	5.2	3.3
MSCI ACWI Ex US (Blend)^	-2.4	7.8	5.6	6.5	4.3	3.0
Excess Return	-0.2	0.5	0.9	1.2	0.9	0.3
ixed Income	-0.1	1.2	2.7	3.0	3.3	4.6
Bloomberg Barclays Universal (Blend) ^ ^	-0.3	-0.3	2.1	2.6	2.9	4.1
Excess Return	0.2	1.5	0.6	0.4	0.4	0.5
Covered Calls	3.6	8.3	9.2	-	-	-
CBOE BXM	3.4	7.3	7.7	-	-	-
excess Return	0.2	1.0	1.5	-	-	-
Cash	0.4	1.4	0.8	0.5	0.3	-
FTSE 3 Month T-Bill	0.4	1.3	0.6	0.4	0.3	-
Excess Return	0.0	0.1	0.2	0.1	0.0	-

<sup>\*</sup> Starting on 5/1/2016, Policy Benchmark consists of 48% Russell 3000, 12% MSCI ACWI ex U.S., 20% BC Universal, 20% CBOE BXM

<sup>^^</sup> Fixed Income Benchmark consists of Bbg BC Aggregate prior to 4/1/06, and Bbg BC Universal thereafter.

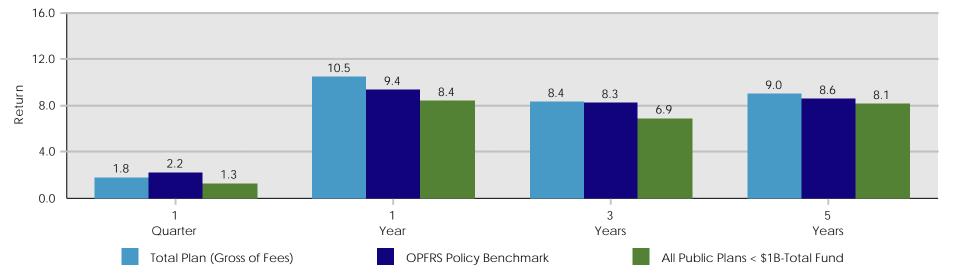


<sup>\*\*</sup> Domestic Equity Benchmark consists of S&P 500 thru 3/31/98, 10% R1000V, 5% RMC from 4/1/98 - 12/31/04, and Russell 3000 from 1/1/05 to present ^ International Equity Benchmark consists of MSCI EAFE thru 12/31/04, and MSCI ACWI x US thereafter.

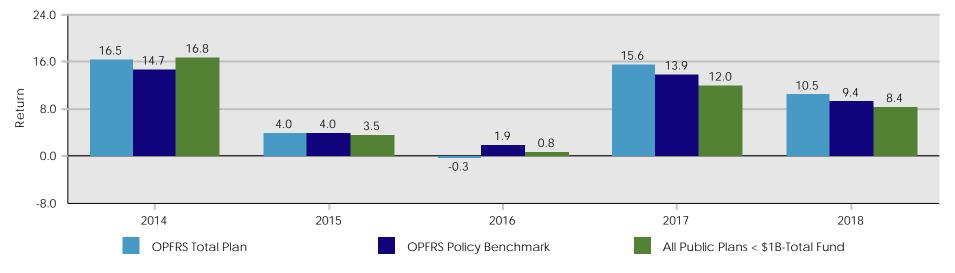
### OPFRS Portfolio Relative Performance Results

As of June 30, 2018

### Trailing Period Perfomance (annualized)



### 12-month Performance- As of June 30, 2018

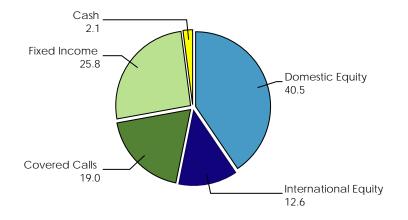


	Asset Allocation (\$000)	Asset Allocation (%)	Target Allocation* (%)	Variance (%)
OPFRS Total Plan	379,165	100.0	100.0	0.0
Domestic Equity	153,678	40.5	48.0	-7.5
International Equity	47,948	12.6	12.0	0.6
Total Fixed Income	97,806	25.8	20.0	5.8
Covered Calls	71,890	19.0	20.0	-1.0
Cash	7,843	2.1	0.0	2.1

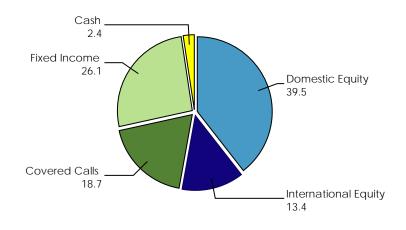
<sup>\*</sup>Target weightings reflect the Plan's evolving asset allocation (effective 3/31/2014).

### **Actual Asset Allocation Comparison**

June 30, 2018: \$379,165,246



March 31, 2018: \$375,692,944



**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	78,780	3.6	14.5	11.6	13.4	14.3	06/2010
Russell 1000 Index		3.6	14.5	11.6	13.4	14.3	
Excess Return		0.0	0.0	0.0	0.0	0.0	
Large Cap Value							
SSgA Russell 1000 Value Index	9,741	1.2	6.9	8.4		7.4	11/2014
Russell 1000 Value Index		1.2	6.8	8.3		7.3	
Excess Return		0.0	0.1	0.1		0.1	
Large Cap Growth							
SSgA Russell 1000 Growth Index	10,954	5.8	22.5	15.0		13.9	11/2014
Russell 1000 Growth Index		5.8	22.5	<i>15.0</i>		13.9	
Excess Return		0.0	0.0	0.0		0.0	
Mid Cap Core							
EARNEST Partners - Active	30,136	2.3 (74)	15.3 (23)	13.5 (12)	14.9 (20)	9.7 (32)	04/2006
Russell Midcap Index		2.8	12.3	9.6	12.2	8.7	
Excess Return		-0.5	3.0	3.9	2.7	1.0	
Small Cap Value							
NWQ - Active	10,574	7.0 (31)	19.1 (13)	11.8 (35)	13.8 (21)	8.5 (68)	02/2006
Russell 2000 Value Index		8.3	13.1	11.2	11.2	7.2	
Excess Return		-1.3	6.0	0.6	2.6	1.3	
Small Cap Growth							
Rice Hall James - Active	13,493	6.7 (80)	28.7 (29)			28.7 (29)	07/2017
Russell 2000 Growth Index		7.2	21.9			21.9	
Excess Return		-0.5	6.8			6.8	

Over the latest three-month period ending June 30, 2018, All three of OPFRS's active Domestic Equity managers underperformed their respective benchmarks.

All of OPFRS's passive Domestic Equity mandates performed in-line with their respective benchmarks.

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.

### **Domestic Equity**

SSgA Russell 1000 Value, the Plan's passive large cap value account, has continued to perform within expectations for a passive mandate.

SSgA Russell 1000 Growth, the Plan's passive large cap growth account, has continued to perform within expectations for a passive mandate.

EARNEST Partners, the Plan's mid cap core manager, underperformed its Russell Midcap benchmark by (0.5%), placing it in the 74th percentile of its peer group. The portfolio has outperformed its benchmark over the 1-, 3-, and 5-year periods by 3.0%, 3.9%, and 2.7%, respectively.

NWQ, the Plan's small cap value manager, underperformed the Russell 2000 Value Index by (1.3%) over the latest quarter, placing the fund in the 31st percentile of its peer group. The portfolio continues to outperform its benchmark over the 1-, 3-, and 5-year periods by 6.0%, 0.6%, and 2.6%, respectively.

Rice Hall James, the Plan's small cap growth manager, underperformed its Russell 2000 Growth benchmark over the most recent quarter by (0.5%), placing the fund in the 80th percentile of its peer group. Over the most recent 1-year period, the portfolio outperformed its benchmark by 6.8%.

International Equity

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Active International							
Fisher Investments	16,601	-2.9 (80)	5.7 (73)	5.9 (42)	7.4 (49)	4.9 (79)	04/2011
MSCI AC World ex USA		-2.4	7.8	5.6	6.5	4.2	
Excess Return		-0.5	-2.1	0.3	0.9	0.7	
Hansberger	16,741	-3.7 (95)	12.1 (36)	8.2 (41)	8.8 (42)	5.0 (73)	02/2006
MSCI AC World ex USA		-2.4	7.8	5.6	6.5	4.3	
Excess Return		-1.3	4.3	2.6	2.3	0.7	
Passive International							
SSgA	14,607	-1.1	7.2	5.3	6.8	7.5	08/2002
MSCI EAFE Index		-1.0	7.4	5.4	6.9	7.6	
Excess Return		-0.1	-0.2	-0.1	-0.1	-0.1	

Over the latest three-month period ending June 30, 2018, both of OPFRS's active International Equity managers underperformed their respective benchmarks.

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.

Hansberger, one of OPFRS' active international equity managers, underperformed the MSCI ACWI x US Index during the quarter by (1.3%), placing the fund in the 95th percentile of its peer group. Over the 12-month period, Hansberger outperformed its benchmark by 4.3% with an absolute return of 12.1%. Hansberger also continues to outperform over the 3- and 5-year periods with excess returns of 2.6% and 2.3%, respectively.

Fisher, one of OPFRS' active international equity managers, underperformed the MSCI ACWI x US Index by (0.5%) during the quarter, ranking the fund in the 80th percentile of its peer group. Over the most recent 1-year period, Fisher has trailed its benchmark by (2.1%), but continues to outperform over the 3- and 5-year periods by 0.3% and 0.9%, respectively.

#### Fixed Income

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Core Fixed Income							
Ramirez	67,608	-0.1 (68)	0.9 (7)			2.5 (12)	01/2017
Blmbg. Barc. U.S. Aggregate Index		-0.2	-0.4			1.2	
Excess Return		0.1	1.3			1.3	
Core-Plus Fixed Income							
Reams	22,474	0.3 (6)	0.4 (42)	2.1 (82)	2.5 (93)	5.5 (56)	02/1998
Bbg Barclays Universal (Blend)		-0.3	-0.3	2.1	2.6	4.9	
Excess Return		0.6	0.7	0.0	-0.1	0.6	
High Yield / Bank Loans							
DDJ Capital	7,724	-0.6 (100)	6.2 (9)	7.1 (8)		7.1 (7)	02/2015
ICE BofAML High Yield Master II		1.0	2.5	5.5		5.4	
Excess Return		-1.6	3.7	1.6		1.7	

Over the latest three-month period, ending June 30, 2018, two of OPFRS's three active Fixed Income managers outperformed their respective benchmarks.

Ramirez, the Plan's core fixed income manager, produced an excess quarterly return of 10 basis points by returning (0.1%) compared to the Bbg BC US Aggregate return of (0.2%). Over the latest 1-year period, Ramirez has earned a 0.9% return, outperforming its benchmark by 1.3%.

Reams, the Plan's core plus fixed income manager, outperformed its benchmark, the Bbg BC Universal index, by 0.6% over the quarter and ranked in the 6th percentile of its peer group. During the latest 1-year period Reams has earened a 0.4% return, outperforming its benchmark by 0.7%. With regard to longer periods, Reams has matched its benchmark return of 2.1% over the 3-year period, while underperfoming its benchmark by (0.1%) over the 5-year period.

DDJ, the Plan's High Yield & Bank Loan manager, underperformed its benchmark, the BofAML US High Yield Master II index, by (1.6%) over the most recent quarter, placing the fund in the 100th percentile of its peer group. Longer-term performance remains strong as the portfolio has outperformed its benchmark over the 1- and 3-year periods by 3.7% and 1.6%, respectively, while ranking in the top decile of its peer group.

### **Covered Calls**

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Covered Calls Composite							
Covered Calls	71,890	3.6	8.3	9.2		8.4	04/2014
CBOE BXM		3.4	7.3	7.7		7.1	
Excess Return		0.2	1.0	1.5		1.3	
CC - Passive Allocation							
Parametric BXM	35,921	3.6	6.5	8.1		7.3	04/2014
CBOE BXM		3.4	7.3	7.7		7.1	
Excess Return		0.2	-0.8	0.4		0.2	
CC - Active Allocation							
Parametric DeltaShift	35,969	3.6	10.1	9.8		10.2	04/2014
CBOE BXM		3.4	7.3	7.7		7.1	
Excess Return		0.2	2.8	2.1		3.1	

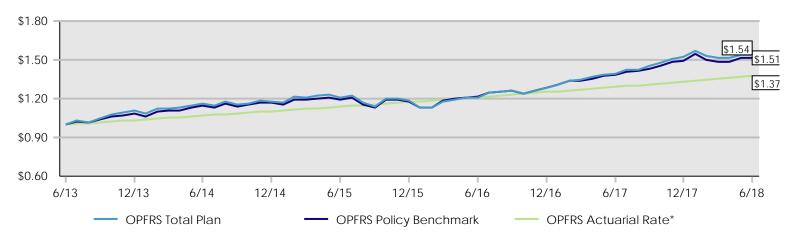
During the latest three-month period ending June 30, 2018, OPFRS' aggregate Covered Calls portfolio outperformed its benchmark by 0.2%.

Parametric BXM Portfolio, the Plan's passive covered calls allocation outperformed its CBOE BXM index by 0.2% over the most recent quarter. Over the most recent 1-year period, the portfolio has underperformed its benchmark by (0.8%), while outperforming over the 3-year period by 0.4%

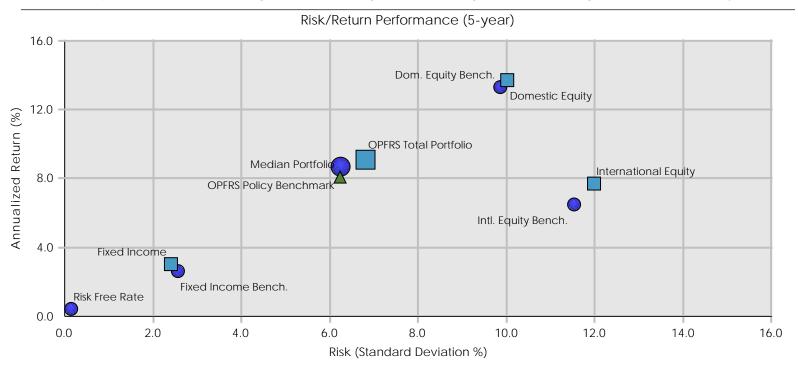
Parametric Delta Shift Portfolio, the Plan's active covered calls allocation has outperformed the CBOE BXM benchmark by 0.2% over the most recent quarter, and has outperformed the benchmark by 2.8% and 2.1% over the most recent 1- and 3-year periods, respectively.

## OPFRS Total Portfolio 5-Year Performance As of June 30, 2018

Growth of \$1 (5-year)

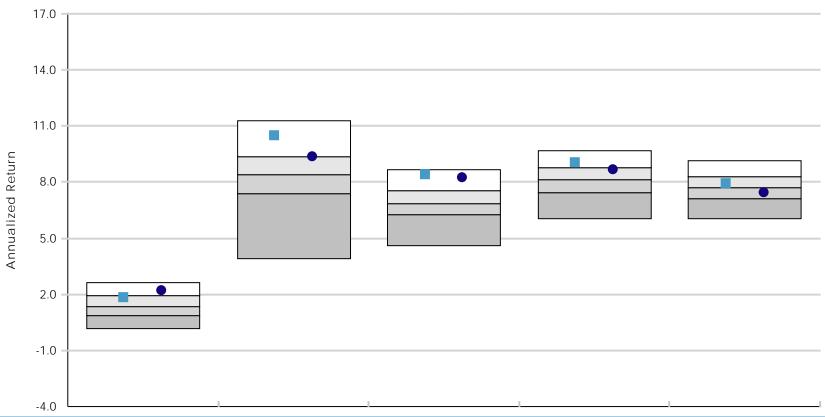


\* The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, and 6.5% currently





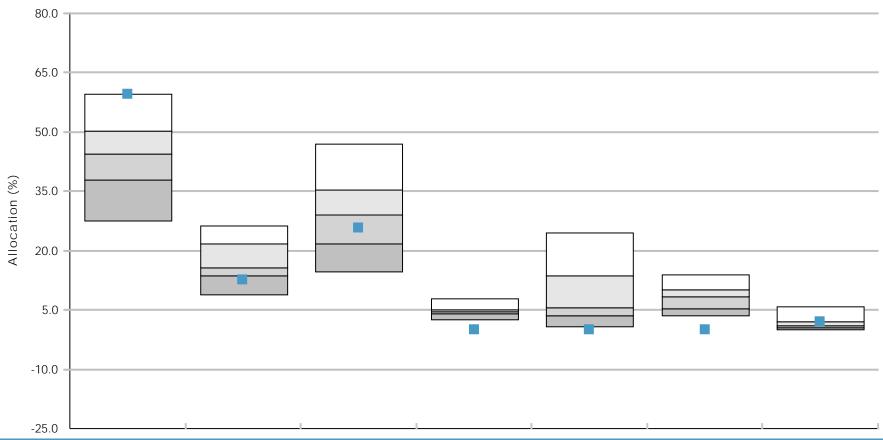
## Plan Sponsor Peer Group Analysis As of June 30, 2018



	1 Quarter	1 Year	3 Years	5 Years	7 Years
OPFRS Total Plan	1.8 (29)	10.5 (10)	8.4 (8)	9.0 (17)	7.9 (38)
OPFRS Policy Benchmark	2.2 (16)	9.4 (25)	8.3 (9)	8.6 (31)	7.5 (59)
5th Percentile	2.6	11.3	8.7	9.7	9.1
1st Quartile	1.9	9.4	7.5	8.8	8.3
Median	1.3	8.4	6.9	8.1	7.7
3rd Quartile	0.9	7.4	6.3	7.4	7.1
95th Percentile	0.2	3.9	4.6	6.0	6.0
Population	467	464	441	423	409



## Plan Sponsor TF Asset Allocation As of June 30, 2018



20.0							
	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
OPFRS Total Plan	59.5 (6)	12.6 (81)	25.8 (62)	0.0	0.0 (100)	0.0	2.1 (26)
5th Percentile	59.5	26.2	46.9	7.8	24.4	14.0	5.8
1st Quartile	50.3	21.8	35.3	5.0	13.5	10.1	2.1
Median	44.3	15.7	29.0	4.6	5.6	8.2	1.1
3rd Quartile	37.9	13.7	21.6	4.0	3.5	5.2	0.5
95th Percentile	27.5	8.8	14.8	2.6	0.8	3.4	0.1
Population	482	458	486	134	113	295	428



### **Monitoring/Probation Status**

### As of June 30, 2018 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*
Reams	On Watch	Organizational	13	0.3%	52	5/31/2017
BBG BC Universal (Blend)			13	(0.3%)		
Hansberger	On Watch	Organizational	7	(0.6%)	68	11/30/2017
MSCI ACWI ex-USA			7	(1.3%)		
NWQ	On Watch	Organizational	5	3.5%	28	1/31/2018
Russell 2000 Value			5	4.2%		

<sup>^.</sup> Annualized performance if over one year.

# 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 annizd return < bench annizd return – 1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Active International Equity	Fd return < bench return – 4.5%	Fd annizd return < bench annizd 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 annizd return < bench annizd return - 0.40% for 6 consecutive months
Fixed Income	Fd return < bench return – 1.5%	Fd annizd return < bench annizd 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.

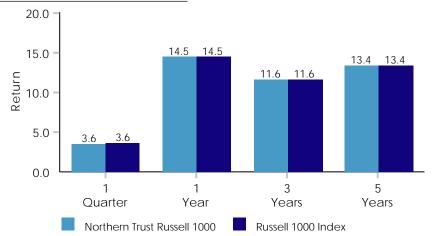


<sup>\*</sup> Approximate date based on when Board voted to either monitor a manager at a heightened level or place it on probation.

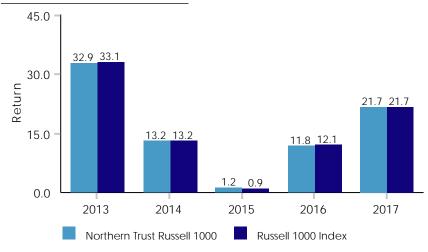
## Northern Trust Russell 1000 - gross of fees As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Northern Trust Russell 1000	0.96	0.96	0.34	1.14	1.39	0.99	99.50	94.36	05/01/2010
Russell 1000 Index	0.00	1.00	-	1.07	0.00	1.00	100.00	100.00	05/01/2010

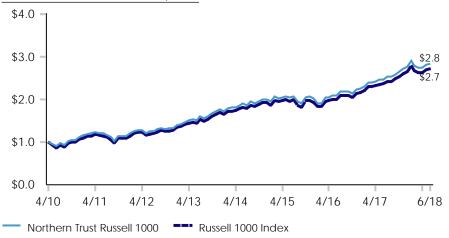
### Trailing Period Performance

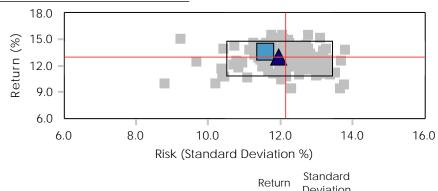


### Calendar Year Performance



### Growth of \$1 - Since Inception



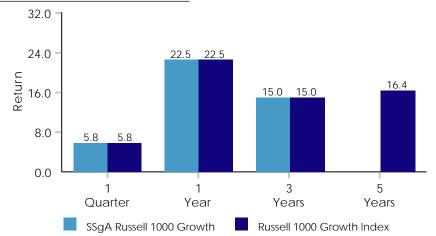


Return	Deviation
13.6	11.6
13.0	12.0
13.0	12.1
	13.6 13.0

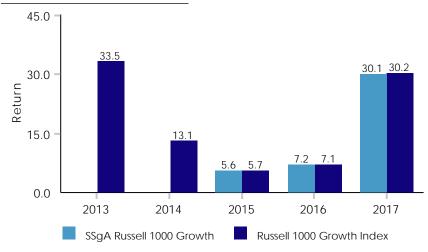
## SSgA Russell 1000 Growth - gross of fees As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
SSgA Russell 1000 Growth	0.01	1.00	0.16	1.24	0.04	1.00	100.01	99.96	11/01/2014
Russell 1000 Growth Index	0.00	1.00	-	1.23	0.00	1.00	100.00	100.00	11/01/2014

### Trailing Period Performance

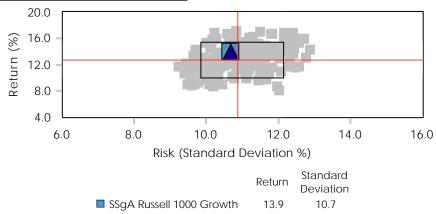


### Calendar Year Performance



### Growth of \$1 - Since Inception

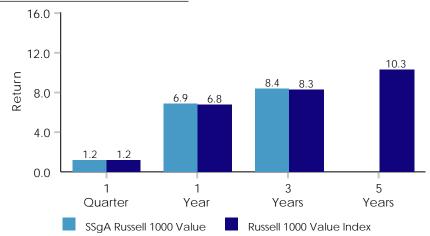




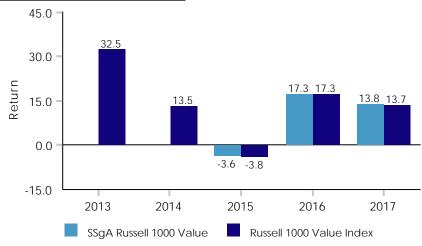
## SSgA Russell 1000 Value - gross of fees As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
SSgA Russell 1000 Value	0.11	1.00	1.55	0.72	0.07	1.00	100.28	99.41	11/01/2014
Russell 1000 Value Index	0.00	1.00	-	0.71	0.00	1.00	100.00	100.00	11/01/2014

### Trailing Period Performance

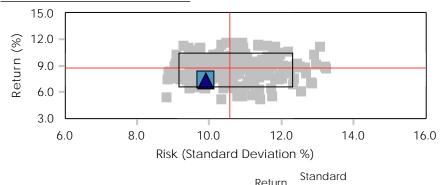


### Calendar Year Performance



### Growth of \$1 - Since Inception





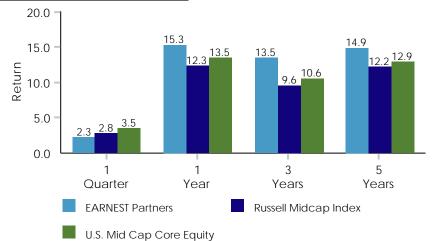
Return	Standard Deviation
7.4	9.9
7.3	9.9
8.7	10.6
	7.4 7.3

## EARNEST Partners - gross of fees

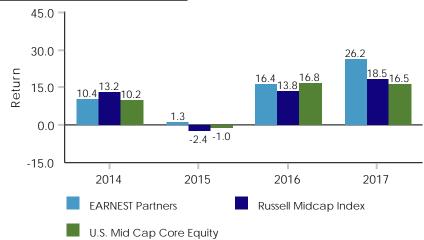
As of June 30, 2018

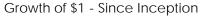
	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	ир Market Capture	Market Capture	Inception Date
EARNEST Partners	0.87	0.99	0.23	0.58	3.40	0.96	99.68	94.63	03/01/2006
Russell Midcap Index	0.00	1.00	-	0.54	0.00	1.00	100.00	100.00	03/01/2006
U.S. Mid Cap Core Equity Median	-	-	-	-	-	-	-	_	

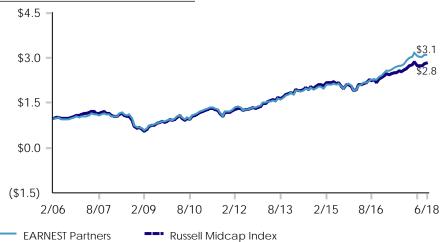
Trailing Period Performance

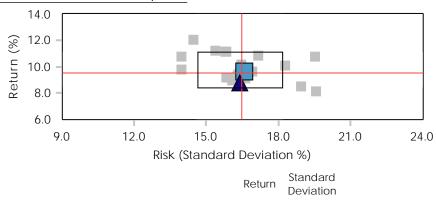


### Calendar Year Performance









	Return	Standard				
		Deviation				
EARNEST Partners	9.6	16.6				
▲ Russell Midcap Index	8.8	16.4				
— Median	9.5	16.5				



## NWQ - gross of fees As of June 30, 2018

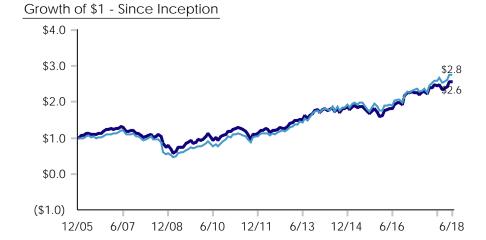
	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
NWQ	0.79	1.01	0.12	0.46	6.94	0.88	102.41	99.23	01/01/2006
Russell 2000 Value Index	0.00	1.00	-	0.44	0.00	1.00	100.00	100.00	01/01/2006
U.S. Small Cap Value Equity Median	-	-	-	-	-	-	-	-	

Trailing Period Performance



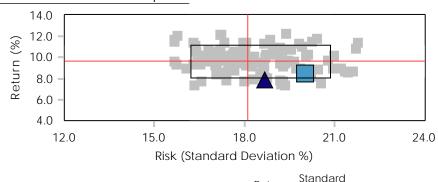
### Calendar Year Performance





## Risk/Return - Since Inception

- NWQ



Russell 2000 Value Index

	Return	Standard Deviation
■ NWQ	8.4	20.1
▲ Russell 2000 Value Index	7.9	18.7
— Median	9.6	18.1



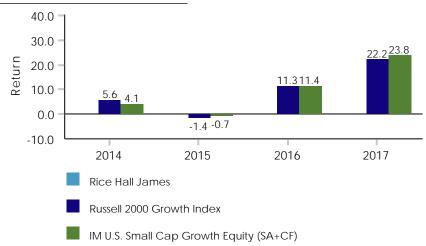
## Rice Hall James - gross of fees As of June 30, 2018

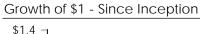
	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Rice Hall James	8.61	0.87	1.13	2.79	5.00	0.70	113.27	14.40	07/01/2017
Russell 2000 Growth Index	0.00	1.00	-	2.24	0.00	1.00	100.00	100.00	07/01/2017
IM U.S. Small Cap Growth Equity (SA+CF) Median	-	_	-	-	_	-	-	-	

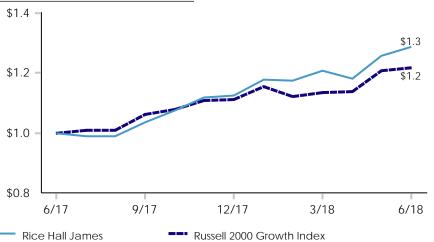
Trailing Period Performance

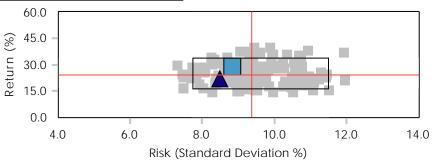


### Calendar Year Performance









	Return	Standard		
	Retuiii	Deviation		
Rice Hall James	28.7	8.8		
▲ Russell 2000 Growth Index	21.9	8.5		
— Median	24.5	9.4		

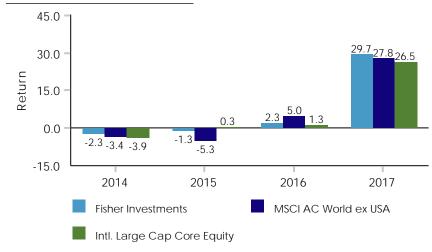


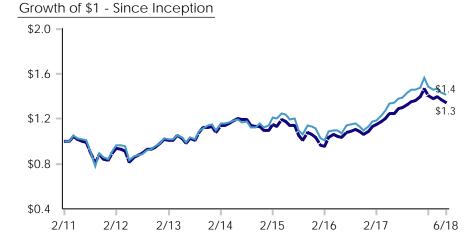
## Fisher Investments - gross of fees As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Fisher Investments	0.50	1.09	0.26	0.37	3.54	0.95	106.12	102.17	03/01/2011
MSCI AC World ex USA	0.00	1.00	-	0.34	0.00	1.00	100.00	100.00	03/01/2011
Intl. Large Cap Core Equity Median	-	-	-	-	-	-	-	-	



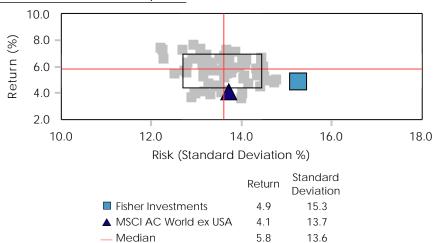
### Calendar Year Performance





## Risk/Return - Since Inception

Fisher Investments



MSCI AC World ex USA

## Hansberger - gross of fees

As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Market Capture	Market Capture	Inception Date	
Hansberger	-0.04	1.08	0.10	0.29	4.41	0.95	105.50	104.96	01/01/2006	
MSCI AC World ex USA	0.00	1.00	-	0.30	0.00	1.00	100.00	100.00	01/01/2006	
Intl. Large Cap Core Equity Median	-	-	-	-	-	-	-	-		
Trailing Period Performance			Growth of \$1 - Since Inception							

### Growth of \$1 - Since Inception



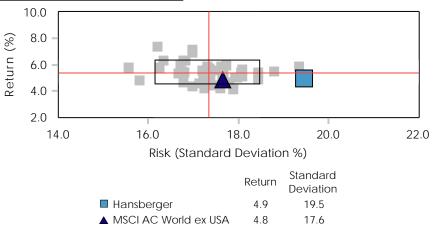


### Calendar Year Performance

#### 60.0 38.3 40.0 27.8<u>26.5</u> Return 20.0 1.6 0.0 -3.4 -3.9 -5.3 -7.1 -20.0 2014 2015 2016 2017 Hansberger MSCI AC World ex USA Intl. Large Cap Core Equity

## Risk/Return - Since Inception

Median



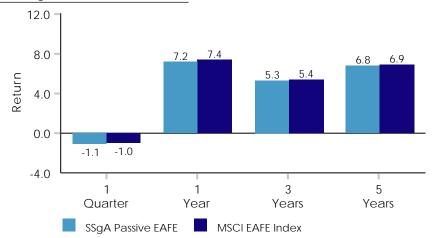
5.4

17.4

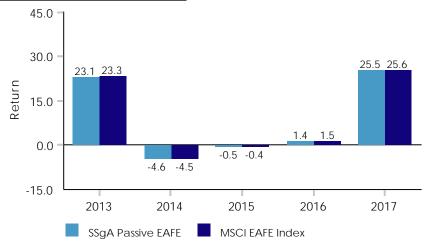
## SSgA Passive EAFE - gross of fees As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
SSgA Passive EAFE	0.00	0.99	-0.15	0.45	0.44	1.00	99.28	99.29	08/01/2002
MSCI EAFE Index	0.00	1.00	-	0.45	0.00	1.00	100.00	100.00	08/01/2002

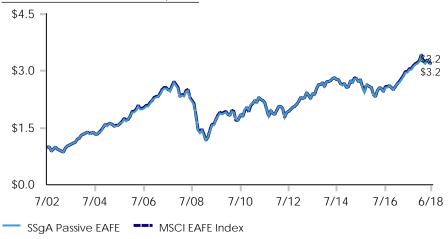
### Trailing Period Performance

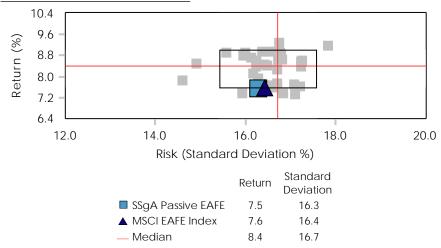


## Calendar Year Performance



### Growth of \$1 - Since Inception





## Ramirez - gross of fees

Trailing Period Performance

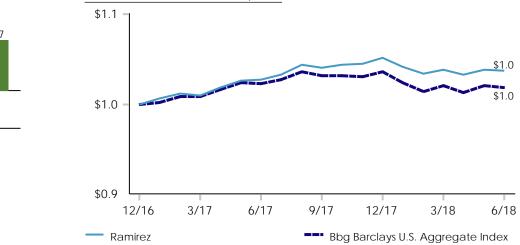
As of June 30, 2018

4.0

2.0

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	up Market Capture	Down Market Capture	Inception Date
Ramirez	1.30	0.92	2.30	0.67	0.52	0.94	116.08	76.33	01/01/2017
Bbg Barclays U.S. Aggregate Index	0.00	1.00	-	0.08	0.00	1.00	100.00	100.00	01/01/2017
U.S. Broad Market Core F.I. Median	-	-	-	-	-	-	-	-	

### Growth of \$1 - Since Inception

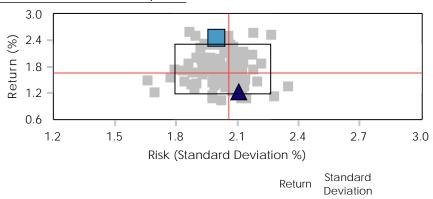




0.9

### Calendar Year Performance





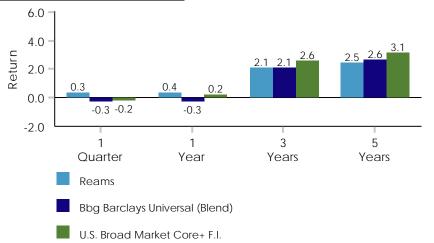
	Return	Standard Deviation
Ramirez	2.5	2.0
▲ Bbg Barclays U.S. Aggregate Index	1.2	2.1
— Median	1.7	2.1



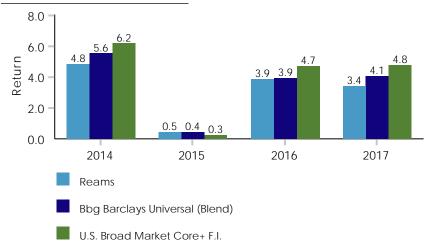
## Reams - gross of fees As of June 30, 2018

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Reams	0.31	1.06	0.15	0.65	4.04	0.44	109.15	103.48	01/01/1998
Bbg Barclays Universal (Blend)	0.00	1.00	-	0.87	0.00	1.00	100.00	100.00	01/01/1998
U.S. Broad Market Core+ F.I. Median	_	-	-	-	-	-	-	-	

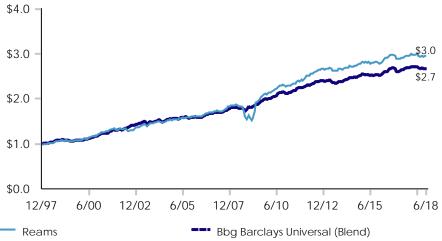
Trailing Period Performance

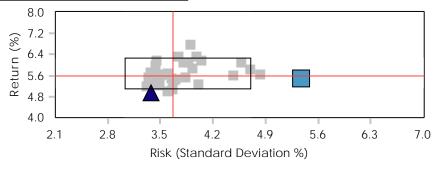


### Calendar Year Performance









	Return	Standard Deviation
■ Reams	5.5	5.4
▲ Bbg Barclays Universal (Blend)	4.9	3.4
— Median	5.6	3.7

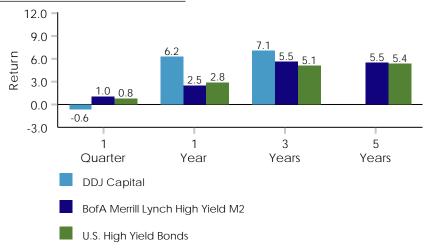


## DDJ Capital - gross of fees

As of June 30, 2018

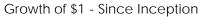
	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	up Market Capture	Down Market Capture	Inception Date	
DDJ Capital	2.98	0.71	0.45	1.40	2.94	0.69	95.92	61.88	01/01/2015	
BofA Merrill Lynch High Yield M2	0.00	1.00	-	0.93	0.00	1.00	100.00	100.00	01/01/2015	
U.S. High Yield Bonds Median	-	-	-	-	-	-	-	-		

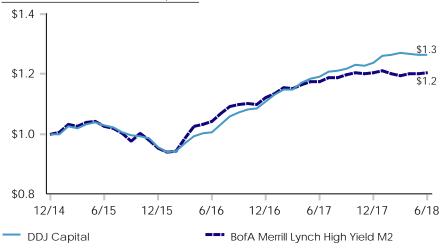
Trailing Period Performance

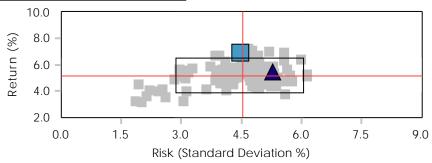


### Calendar Year Performance









	Return	Standard Deviation
DDJ Capital	6.9	4.5
▲ BofA Merrill Lynch High Yield M2	5.5	5.3
— Median	5.2	4.5



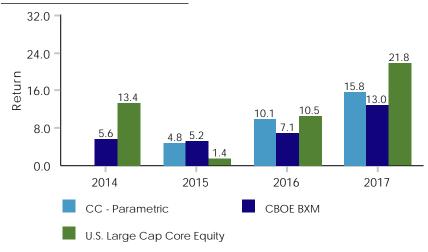
## CC - Parametric - gross of fees As of June 30, 2018

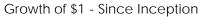
	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	ир Market Capture	Market Capture	Inception Date
CC - Parametric	0.57	1.08	0.50	1.21	2.23	0.88	113.80	110.03	03/01/2014
CBOE BXM	0.00	1.00	-	1.19	0.00	1.00	100.00	100.00	03/01/2014
U.S. Large Cap Core Equity Median	-	_	-	-	-	-	-	-	

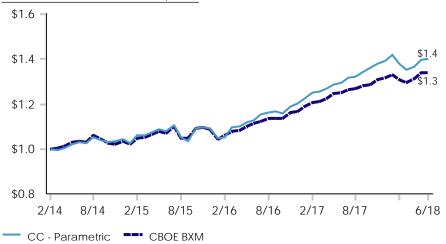
U.S. Large Cap Core Equity Median Trailing Period Performance

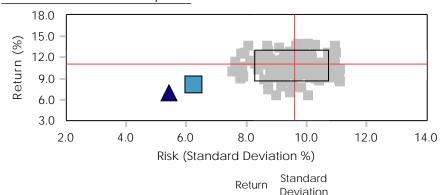


### Calendar Year Performance



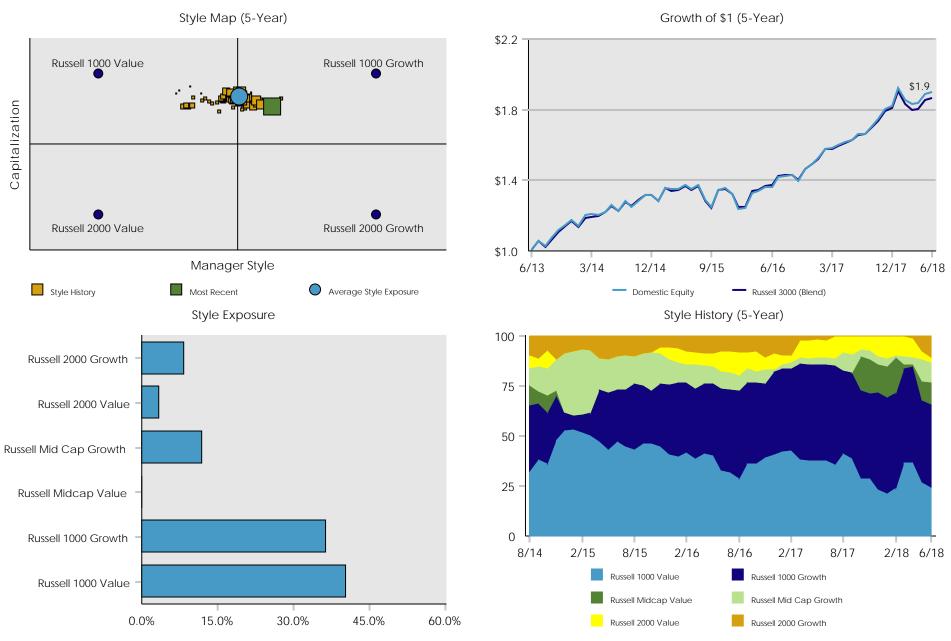




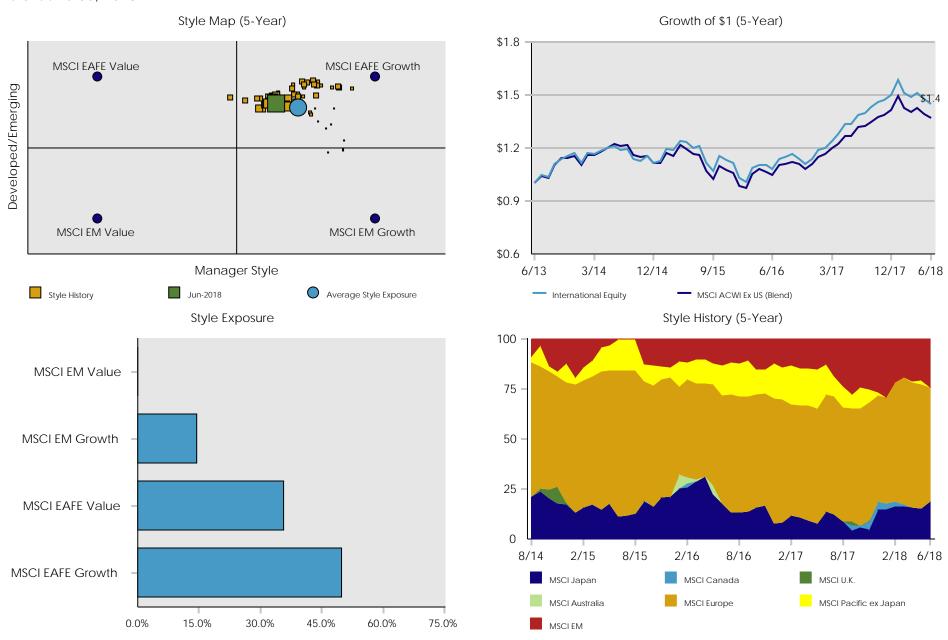


Return	Deviation
8.1	6.2
7.0	5.4
11.0	9.6
	8.1 7.0

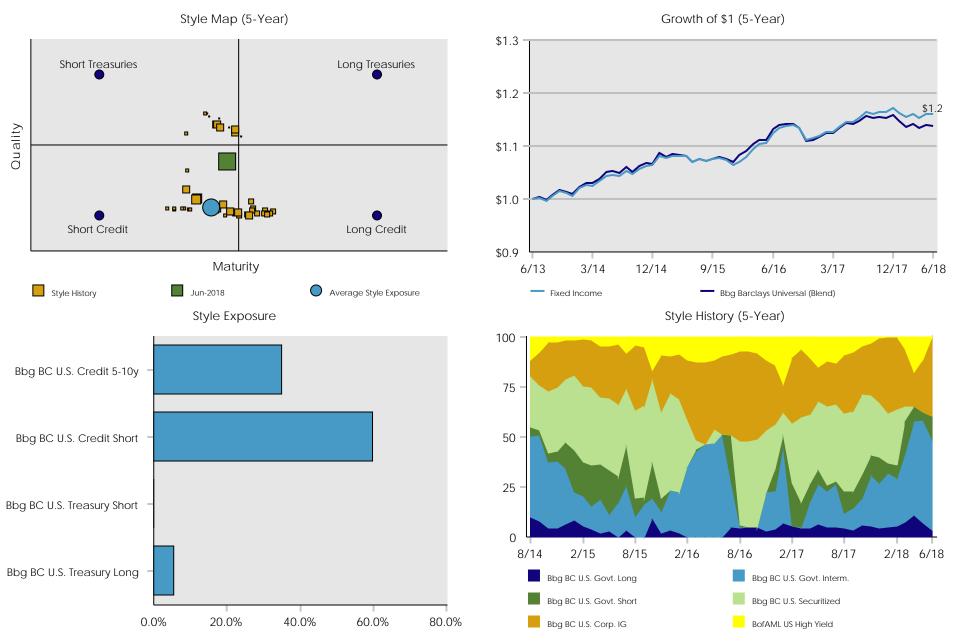
## Domestic Equity Analysis As of June 30, 2018



## International Equity Analysis As of June 30, 2018



## Fixed Income Analysis As of June 30, 2018



### **Glossary**

#### <u>Alpha</u>

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.

#### <u>Turnover</u>

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 Investor Services, Standard and Poor's Corporation, or Fitch Investor's Service, 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.

**BofA ML U.S. High Yield Master II:** Tracks the performance of US dollar denominated below investment grade rated corporate debt publically issued in the US domestic market. To qualify for inclusion in the index, securities must have a below investment grade rating (based on an average of Moody's, S&P, and Fitch) and an investment grade rated country of risk (based on an average of Moody's, S&P, and Fitch foreign currency long term sovereign debt ratings). Each security must have greater than 1 year of remaining maturity, a fixed coupon schedule, and a minimum amount outstanding of \$100 million.



#### **US Equity Markets:**

Metric: P/E ratio = Price / "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 <a href="http://www.econ.yale.edu/~shiller/data.htm">http://www.econ.yale.edu/~shiller/data.htm</a>. 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 ratio = Price / "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: Ratio of Emerging Market P/E Ratio to Developed Market P/E 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 PE 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.



#### **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.



#### 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 certainly of receiving their nominal cash flows. PCA 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.



#### What is the PCA 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 PCA 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 PCA 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 PCA 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.



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**Date:** August 29, 2018

**To:** Oakland Police and Fire Retirement System ("OPFRS")

From: Pension Consulting Alliance, LLC ("PCA")

**CC**: David Sancewich – PCA

Sean Copus - PCA Kristen Chase - PCA Teir Jenkins - OPFRS Katano Kasaine - OPFRS

**RE:** Defensive Equity Manager Search Finalists

This memo provides OPFRS with a summary of the Defensive Equity Manager Request-For-Proposal (RFP) process and provides a recommended list of finalist managers for further consideration.

#### Recommendation

PCA recommends the following Defensive Equity managers as finalists to be interviewed by OPFRS Investment Committee, based on our review of the managers' RFP responses

#### Recommended Finalists\*

- AQR Capital Management
  - o Defensive Equity
- Intech Investment Management LLC
  - Adaptive Volatility
- SPI Strategies LLC
  - o Long Alpha Plus

Upon completion of the search process, PCA recommends that the Investment Committee select one manager. The new Defensive Equity manager will be allocated a total of approximately \$20 million.

#### **Summary**

In the second quarter of 2018, an RFP was issued on behalf of OPFRS. As a result of the RFP, PCA received a total of 30 responses for the Defensive Equity mandate. PCA evaluated the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms. Based on qualitative and quantitative analysis, PCA narrowed the field to three candidates to present to the OPFRS Investment Committee.

<sup>\*</sup>Alphabetical



### **Manager Search Process**

PCA received responses from the 30 firms listed in the table below.

OPFRS Defensive Equity Manager Search Respondants*							
1	Acadian	11	Chilton	21	Oakbrook		
2	ACR	12	Codo	22	PanAgora		
3	Advisory Research	13	Denali	23	SKBA		
4	AQR	14	Diamond Hill	24	SPI		
5	Atlanta	15	Eagle	25	SSI		
6	Barrow Hanley	16	Epoch	26	Summit		
7	BMO	17	Intech	27	Syntax		
8	Cadence	18	London Company	28	Torray		
9	Calamos	19	MFS	29	Vontabel		
10	Capital Group	20	Montaq	30	Wellington		

<sup>\*</sup>Alphabetical

PCA then ran the performance data of all 30 prospective managers through a quantitative screening process in order to produce a shorter list of 12 "semi-finalist" managers. The quantitative screen scored each firm's risk and return performance, as well as several other key portfolio statistics with an emphasis on Down-Market Capture ratio during bear markets, rolling and annualized periods. The 12 firms that scored the highest on the quantitative screen are listed below in alphabetical order.

(	OPFRS Defensive Equ	ity "Semi-Finalists"*
1	Acadian	7 Intech
2	ACR	8 MFS
3	Advisory Research	9 PanAgora
4	AQR	10 Summit
5	Atlanta	11 SPI Strategies
6	BMO	12 Vontobel

<sup>\*</sup>Alphabetical

The remaining 12 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 PCA'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 the 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 \$20 million.

AQR had the highest rank, followed by Intech and SPI. All three of the recommended finalists were identified as possessing the abilities to provide OPFRS with the appropriate services.

"Semi-Finalist" Manager Rankings

Candidate	Rank
AQR	1
Intech	2
SPI	3
ACR	4
Acadian	5
PanAgora	6
Summit (SGI)	7
BMO	8
MFS	9
Vontobel	10
Atlanta	11
Advisory Research	12

#### **Manager Summary**

Based on PCA's evaluations of the RFP's, the following three managers were identified as strong candidates: AQR, Intech, and SPI. A summary of the organization and investment process of each recommended interview finalist is provided below (presented in alphabetical order).

AQR Capital Management (US Defensive Equity Strategy): AQR is a registered investment
advisor offering a diversified product line that ranges from traditional benchmark long-only
equity funds to absolute-return alternative approaches tailored to clients' risk profiles. The US
Defensive Equity strategy was originally launched in 2011 and has been managed by the
Global Stock Selection investment team since its inception. AQR Capital Management LLC's
35 principals hold majority interest in the firm (greater than 70%). Located in Greenwich, CT,



the firm currently manages \$225.2 billion in assets with \$3.4 billion in the US Defensive Equity strategy.

AQR's US Defensive Equity strategy seeks to offer equity-like returns with lower risk vs. the cap-weighted market in a diversified manner. The investment philosophy behind the strategy is based on the idea that an equity portfolio constructed to capture the low-risk anomaly across multiple dimensions can provide equity-like returns with significantly less risk and reduced drawdowns. AQR believes there are rewards for taking some level of risk, but the reward diminishes for more substantial levels. AQR imposes diversification criteria in their Defense Style portfolios, to avoid concentration risk. AQR's investment process is entirely bottom-up and does not incorporate top-down macroeconomic views or tilts. The portfolio construction process combines statistical volatility estimates (from Barra US Equity Risk Model) and fundamental views through quality tilts.

• Intech (US Adaptive Volatility): Intech is a registered investment advisor and specialized equity manager that applies advanced mathematics and systematic portfolio rebalancing to harness stock price volatility in an effort to generate excess return and control risk. Founded in 1987 in Princeton by Dr. E. Robert Fernholz, Intech delivers global equity and absolute return solutions. The US Adaptive Volatility strategy was launched in 2013 and has been managed by the same team since inception. Intech is majority owned by Janus Henderson Group (a publicly traded company). Intech employees and former employees own 3% of the company as well as rights to approximately 9% of profits. Located in West Palm Beach, Florida, the firm manages \$50.6 billion in assets with \$1.4 billion in the US Adaptive Volatility strategy.

The US Adaptive Volatility strategy uses a mathematical method to provide above benchmark returns while minimizing absolute risk. Intech implements a volatility-capture approach, which identifies target weights in stocks and then regularly rebalances in an attempt to lock in an excess return. Intech utilizes a portfolio-centric process that is neither bottom up nor top-down. Historical price data is analyzed and stocks with high relative volatility and low correlation are favored in order to maximize trading profits at the time of rebalancing, which occurs on a weekly basis. In periods of volatile markets, the portfolio will focus on volatility reduction offering a smoother ride and an increased downside protection and in periods of lower volatility, the portfolio will focus on alpha generation.

• SPI Strategies (ELROI Long Alpha Plus Portfolio): SPI Strategies is 50% owned by Blaylock Van, LLC, a broker-dealer and the remaining 50% is split between Carton Martin, Chairman (30%) and Steven Singleton, Chief Investment Officer (20%). Headquartered in Oakland, California, the firm manages \$120.3 million which makes up the Long Alpha Plus Portfolio.

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.

### Performance Data:

## Annualized Returns (as of 3/31/2018)

Manager	Quarter	1-Year	3-Year	5-Year	7-Year
AQR	0.7	16.2	12.8	14.9	15.5
Intech	1.7	15.4	9.4		
SPI	6.0	16.5			
Russell 1000 Index	-0.7	14.0	10.4	13.2	12.6
Lipper LCC Median	-4.0	14.4	10.3	13.3	12.8

## Calendar Year Returns (ending 12/31)

			` )			
Manager	2013	2014	2015	2016	2017	2018 YTD
AQR	30.9	16.7	6.5	12.3	22.7	0.7
Intech		15.8	3.9	6.3	21.4	1.7
SPI					15.5	6.0
Russell 1000 Index	33.1	13.2	0.9	12.1	21.7	-0.7
Lipper LCC Median	33.0	13.4	1.4	10.5	21.8	-0.9

## Annualized Standard Deviation (as of 3/31/2018)

Manager	1-Year	3-Year	5-Year	7-Year
AQR	4.6	5.5	5.5	7.8
Intech	2.7	6.0		
SPI	3.6			
Russell 1000 Index	5.3	7.3	6.9	11.1
Lipper LCC Median	5.4	7.5	7.3	11.3

5



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**Date:** August 29, 2018

To: Oakland Police and Fire Retirement System (OPFRS)

From: Pension Consulting Alliance, LLC (PCA)

**CC**: David Sancewich – PCA

Sean Copus, CFA - PCA Teir Jenkins - OPFRS Katano Kasaine - OPFRS

RE: Hansberger Global Investors - Organizational Update

## **Summary and Recommendation**

In June, Hansberger, one of OPFRS's active international equity managers, underwent changes to their ownership structure that requires consent from Oakland PFRS. The proposed ownership changes will result in an increase in the ownership share of Hansberger employees to 51% of the total LP interest. As a reminder, since 2014 Hansberger has been owned by two partners, Madison Asset Management, and Oakville Management Group; the latter of which is solely-owned by the employees at Hansberger. Hansberger has stated that the proposed ownership changes will not affect the investment philosophy and process of the international equity portfolio, nor will it affect the level of service that Oakland PFRS will receive from Hansberger in the future.

PCA views the proposed increase in employee ownership at Hansberger as a positive development and does not view the organizational changes as a cause for concern. With that in mind, PCA recommends that Oakland PFRS give their written consent to Hansberger to allow "assignment" of their investment advisory agreement with regard to the proposed increase in Oakville Management's (Hansberger employees) ownership interest.



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July 5, 2018

Mr. Téir Jenkins Investment Officer Oakland Police & Fire Retirement System 150 Frank H. Ogawa Plaza, Ste. 3332 Oakland, CA 94612

Re: Oakland Police & Fire Retirement System (OPFRS)

Dear Téir,

Thanks you as always for the opportunity to serve your investment needs.

On behalf of the employees of Hansberger Growth Investors let me express how excited we are to be rewarded for our hard work and performance by being offered the opportunity to increase our percentage ownership of the LP interests in our firm.

Since 2014, Hansberger Growth Investors, LP (Hansberger) has been owned by two partners – Madison Asset Management (Madison) and Oakville Management Group (OMG). The sole owners of OMG are the employees of Hansberger. It has always been the intent and philosophy of the partnership to have strong employee ownership. At this time the partners desire to transfer an additional amount of the ownership of Hansberger from Madison to OMG/the Hansberger employees. There are no new owners, partners or employees involved in this transaction, but under the Investment Adviser's Act of 1940 this transfer of ownership between existing partners can be considered an "assignment" of our advisory contract that requires your written consent.

We respectfully request your consent to this "assignment". There will be no change in the investment strategy, process or services we provide. This also does not impact any other aspect of our relationship or the investment advisory agreement.

If this is acceptable to you please have the attached consent letter executed by an authorized representative of your account, and return one fully-executed copy to the undersigned via email to: ClientService@hansberger.com. Ideally, if you could return this within 10 business days that would be very much appreciated. If you have any questions regarding this request, please do not hesitate to contact me directly, 1-905-331-5770.

Yours truly,

Thomas R. H. Tibbles, CFA

Chief Executive Officer & Chief Investment Officer

208 ADELAIDE STREET WEST, SUITE 300 TORONTO, ONTARIO M5H 1W7

TEL: 905 331 5770



### Consent to Assignment of Advisory Agreement

Since 2014, Hansberger Growth Investors, LP (Hansberger) has been owned by two partners – Madison Asset Management (Madison) and Oakville Management Group (OMG). The sole owners of OMG are the employees of Hansberger. It has always been the intent and philosophy of the partnership to have strong employee ownership. At this time, the partners desire to transfer an additional amount of the ownership of Hansberger from Madison to OMG/the Hansberger employees. There are no new owners, partners or employees involved in this transaction, but under the Investment Adviser's Act of 1940 this transfer of ownership between existing partners can be considered an "assignment" of our advisory contract that requires your written consent.

We respectfully request your consent to this "assignment". There will be no change in the investment strategy, process or services we provide. This also does not impact any other aspect of our relationship or the investment advisory agreement.

Please sign below to indicate your consent to the "assignment" of the investment advisory agreement with Hansberger as a result of the transaction described above and to indicate your agreement that the investment advisory agreement will continue in full force and effect.

Oakland F	Police &	Fire Reti	rement Sys	tem
Date				

TEL: 905 331 5770



Date: August 28, 2018

**To:** Oakland Police and Fire Retirement System (OPFRS)

From: Pension Consulting Alliance, LLC. (PCA)

CC: David Sancewich - PCA Sean Copus - PCA Teir Jenkins - OPFRS Katano Kasaine - OPFRS

RE: 2018 Monthly Strategic Investment Agenda

On an ongoing basis, PCA and OPFRS staff will be updating the investment agenda for the remaining 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.

Ongoing 2018 Preliminary Investment Project Agenda

Expected Completion Date	Task
September 2018	<ul> <li>Finalist Interviews: Defensive Equity</li> <li>Cash Flow Report (4Q2018)</li> <li>Thermal Coal Restriction Update</li> </ul>
October 2018	<ul> <li>Flash Performance Report (3Q 2018)</li> <li>Asset Class Review: Domestic Equity</li> <li>International Equity – Discussion memo</li> </ul>
November 2018	<ul> <li>PCA Performance report (3Q2018)</li> <li>Potential International Equity Interviews</li> <li>Investment Policy: Update and review</li> <li>Cash Flow Report (4Q2018)</li> <li>Manager Update: Ramirez</li> </ul>
December 2018	TBD: Depends on meeting schedule

**Bold** are priority strategic items.

This agenda includes only major strategic items. PCA also expects to work with the Staff and Board to complete more routine tasks and projects, as expected.



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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 Retirement Systems, 150 Frank Ogawa Plaza, Suite 3332 or call (510) 238-7295 for additional information.



Retirement Systems 150 Frank H. Ogawa Plaza Oakland, California 94612

## **AGENDA**

#### RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr. President

Jaime T. Godfrey
Vice President

Robert J. Muszar Member

Steven Wilkinson Member

Martin J. Melia Member

John C. Speakman Member

> Christine Daniel Member

REGULAR MEETING of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, August 29, 2018 – 11:30 am One Frank H. Ogawa Plaza, Hearing Room 3 Oakland, California 94612

--- ORDER OF BUSINESS ---

- A. CLOSED SESSION
- B. Report of PFRS Board Action from Closed Session (if any).

C. Subject: PFRS Board Meeting Minutes

**From:** Staff of the PFRS Board

**Recommendation:** APPROVE June 27, 2018 PFRS Board meeting minutes.

D. AUDIT AND OPERATIONS COMMITTEE AGENDA – AUGUST 29, 2018

D1. Subject: Scope of Services and initiation of the Financial Audit

of the PFRS fund for the Fiscal Year Ending June 30,

2018

From: Macias Gini & O'Connell, LLP and Staff of the PFRS

Board

**Recommendation:** APPROVE the Scope of Services and initiation of the

Financial Audit of the PFRS fund for the Fiscal Year

Ending June 30, 2018.

D2. Subject: Administrative Expenses Report

From: Staff of the PFRS Board

Recommendation: ACCEPT an informational report regarding PFRS

Administrative Expenses from July 1, 2017 through June

30, 2018.

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING AUGUST 29, 2018

## **ORDER OF BUSINESS, continued**

D3.	Subject: From:	Resolution No. 7020 – Resolution to approve a two year extension of the professional service agreement between the City of Oakland Police and For Retirement System Board and Cheiron, Inc. through June 30, 2020 at fees not to exceed \$45,500 for FY2018-2019 and \$46,500 for FY2019-2020 Staff of the PFRS Board			
	Recommendation:	APPROVE Resolution No. 7020 – Resolution to approve a two-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System Board and Cheiron, Inc. through June 30, 2020 at fees not to exceed \$45,500 for FY2018-2019 and \$46,500 for FY2019-2020.			
D4.	Subject: From:	PFRS Policy Governing the Overpayment or Underpayment of Member Benefits Staff of the PFRS Board			
	Recommendation:	<b>DISCUSSION</b> regarding PFRS Policy Governing the Overpayment or Underpayment of Member Benefits.			
D5.	Subject:	Discussion of the 2006 Management Audit of the PFRS System			
	From:	Staff of the PFRS Board			
	Recommendation:	<b>DISCUSSION</b> of the 2006 Management Audit of the PFRS System.			
E.	INVESTMENT & FIN AUGUST 29, 2018	ANCIAL MATTERS COMMITTEE AGENDA –			
E1.	Subject: From:	Investment Manager Overview – Earnest Partners Earnest Partners			
	Recommendation:	<b>ACCEPT</b> an Informational Report regarding the investment performance and managerial assessment of Earnest Partners, a PFRS Mid Cap Core Domestic Equity Investment Manager.			
E2.	Subject: From:	Investment Manager Overview – Earnest Partners Pension Consulting Alliance (PCA)			
	Recommendation:	ACCEPT an Informational Report regarding Earnest Partners, a PFRS Mid Cap Core Domestic Equity Investment Manager.			

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING AUGUST 29, 2018

## **ORDER OF BUSINESS, continued**

E3.	Subject: From:	Investment Market Overview Pension Consulting Alliance
	Recommendation:	ACCEPT an informational report on the global investment markets through July 31, 2018.
E4.	Subject:	Investment Fund Performance Report for the Quarter Ending June 30, 2018
	From: Recommendation:	Pension Consulting Alliance  APPROVE the Investment Fund Performance Report for the Quarter Ending June 30, 2018.
E5.	Subject: From:	Investment Manager Search – Defensive Equity Asset Class Investment Manager Pension Consulting Alliance
	Recommendation:	<b>APPROVE</b> PCA recommendation of the Finalists for Defensive Equity Asset Class Investment Managers RFP to be interviewed at the next PFRS Investment Committee Meeting.
E6.	Subject: From:	Hansberger Growth Investors Organizational Update Staff of the PFRS Board and Pension Consulting Alliance
	Recommendation:	<b>APPROVE</b> signing of the Hansberger Growth Investor's Consent to Assignment of Advisory Agreement regarding its organizational update.
F.	Subject:	Announcement of Robert J. Muszar's election to the 5-year Police Member Position on the PFRS Board Staff of the PFRS Board
	Recommendation:	ACCEPT an announcement of Robert J. Muszar's election to the 5-year Police Member Position on the PFRS Board.
G.	Subject: From:	Resolution No. 7021 – Resolution Changing the Retirement Status for Jack C. Huth, a Member of the Police and Fire Retirement System, from Service to Service-Connected Disability Staff of the PFRS Board
	Recommendation:	<b>APPROVE</b> Resolution No. 7021 - Resolution Changing the Retirement Status for Jack C. Huth, a Member of the Police and Fire Retirement System, from Service to Service-Connected Disability.

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING AUGUST 29, 2018

## **ORDER OF BUSINESS, continued**

H. Subject: Member Resolution(s) No. 7022

From: Staff of the PFRS Board

**Recommendation:** APPROVE Member Resolution(s) No. 7022

H1. Resolution No. 7022

Resolution approving Death Benefit Payments and directing warrants thereunder in the total sum of \$1,000.00 payable to the beneficiaries of deceased members as follows: Timothy J. Kastanos, Russell S. Kastanos and

Robin A. Cassalia

- **I. NEW BUSINESS** No Report.
- J. OPEN FORUM
- K. FUTURE SCHEDULING

A BOARD MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on June 27, 2018 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California.

Board Members Present: • Walter L. Johnson, President

Jaime T. Godfrey, Vice President
R. Steven Wilkinson, Member
John C. Speakman, Member
Robert J. Muszar, Member
Christine Daniel, Member

Board Members Absent: • Martin J. Melia, Member

Additional Attendees: • Pelayo Llamas, Jr., PFRS Legal Counsel

Katano Kasaine, Plan AdministratorDavid Low & Teir Jenkins, Staff Member

• David Sancewich & Sean Copus, Pension Consulting Alliance

The meeting was called to order at 11:34 am. President Johnson re-ordered the discussion of the PFRS Board Agenda items.

C. Approval of PFRS Board Meeting Minutes – Member Godfrey made a motion to approve the April 25, 2018 PFRS Board meeting minutes, second by Member Daniel. Motion Passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

## D. PFRS AUDIT COMMITTEE MEETING - JUNE 27, 2018

D1. Administrative Expenses Report – Investment Officer Teir Jenkins presented the administrative expenses report from July 1, 2017 through April 30, 2018. Member Daniel made a motion to accept the administrative expenses report from July 1, 2017 through April 30, 2018, second by member Speakman. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y] (AYES: 6 / NOES: 0 / ABSTAIN: 0)

D2. Resolution No. 7019 - Resolution to write-off approximately \$52,925 in overpaid death-related PFRS member benefits — Member Speakman summarized the Audit Committee discussion of this matter. Member Daniel added that there was additional staff and committee discussion regarding this write-off matter. Plan Administrator Katano Kasaine explained the current procedures established to prevent over-accumulation of such debt. Member Daniel made a motion to approve Resolution No. 7019 to write-off approximately \$52,925 in overpaid death-related PFRS member benefits as amended and recommended by the Audit Committee earlier today, second by member Speakman. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

- D3. Discussion of the 2006 Management Audit of the PFRS System Member Speakman reported the audit committee discussed this matter and would bring this matter back for continued discussion at the August 2018 Audit Committee meeting.
- **D4. PFRS Policy Governing the Overpayment or Underpayment of Member Benefits** Member Muszar reported the audit committee discussed this matter and would bring this matter back for continued discussion at the August 2018 Audit Committee meeting.
- **D5.** Resolution No. 7013 Travel Authorization for PFRS board member R. Steven Wilkinson Member Daniel made a motion to approve Resolution No. 7013 as amended and approved by the Audit Committee this morning Travel authorization for PFRS Board members R. Steven Wilkinson, second by member Speakman. Member Wilkinson abstained from the vote. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - ABTAIN] (AYES: 5 / NOES: 0 / ABSTAIN: 1)

**D6.** Resolution No. 7018 - Travel Authorization for PFRS Board Member Martin Melia – Member Muszar made a motion to approve Resolution No. 7018 – Travel authorization for PFRS Board members Martin Melia, second by member Daniel. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

### E. PFRS INVESTMENT COMMITTEE MEETING – JUNE 27, 2018

E1. Investment Manager Overview – Reams Asset Management – David Sancewich reported that Ream Asset Management presented a report to the PFRS Investment Committee. Member Godfrey made a motion accept the informational report regarding Reams Asset Management's presentation to the investment committee, second by member Daniel. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

**E2. Investment Manager Overview – Reams Asset Management** – David Sancewich reported PCA overview of Reams Asset Management. Member Godfrey made a motion to keep Reams Asset Management on watch status with a follow-up review to be scheduled for early September for possible reconsideration, second by member Wilkinson. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

**E3. Investment Market Overview** – David Sancewich report on current market conditions affecting the PFRS Investment fund. Member Godfrey made a motion to accept the informational report from PCA regarding the Investment Market Overview, second by member Speakman. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

**E4. \$14.2 million 3rd Quarter 2018 Member Benefits Drawdown** – Sean Copus from PCA report on the PFRS investment accounts which will be used to for the 3rd Quarter Member Benefits Drawdown with the \$11.2 million drawn from the City and \$3 million from the PFRS Fund. Member Godfrey made a **motion** to approve the \$14.2 million 3rd quarter 2018 member benefits drawdown, second by Member Daniel. Motion passed

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

E5. Investment Fund Performance Report for the Quarter Ending March 31, 2018 – Sean Copus reported the details of the PFRS Investment Fund Performance Report for the quarter ending March 31, 2018. Following Board discussion, member Godfrey made a motion to approve the Investment Fund Performance Report for the Quarter Ending March 31, 2018, second by member Wilkinson. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

E6. Investment Fund Performance Report for the Quarter Ending March 31, 2018 Investment Manager Search – Defensive Equity Asset Class Investment Manager – Sean Copus reported on the status of the PCA selection process for the Defensive Equity Investment Manager. Staff was directed to schedule the committee meeting for its report about the defensive equity asset class investment managers for the August meeting with Interview conducted at the September 2018 Investment Committee meeting. Member Godfrey made a motion to direct staff to schedule meetings for the selection of finalists and interview of finalists, second by member Muszar. Motion passed

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

E7. Resolution No. 7017 - Resolution Adopting the Revised Oakland Police and Fire Retirement System Investment Policy — David Sancewich reported that staff and PCA had completed its work to update the PFRS Investment Policy. Following Board discussion, Member Godfrey made a motion to approve Resolution No. 7017 to approve the adoption of the revised PFRS investment policy, second by member Wilkinson. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

A. Closed Session – Sarah Grossman-Swenson, Legal counsel for the Retired Oakland Police Officers Association ("ROPOA"), alleged that the closed session about to be held today was not properly noticed under the Brown Act. PFRS Legal Counsel Pelayo Llamas showed her the published notice, and she agreed that the notice complied with the law. She then stated that ROPOA had made a settlement proposal to the Board, and it should be considered as an opening offer. PFRS Legal Counsel Pelayo Llamas reported that PFRS Board Member Robert Muszar has a financial conflict related to matters to be heard in the closed session and asked Member Muszar if he would recuse himself from closed session proceedings. Mr. Muszar stated he would not recuse himself from the closed session of the PFRS Board at that time. Following additional Board and Staff discussion, the PFRS Board entered closed session at 12:07 pm.

- **B.** Report of Board Actions from Closed Session The PFRS Board reconvened the PFRS Board meeting following the conclusion of Closed Session at 1:12 pm. The PFRS Board reported no Board action was made during closed session.
- **F. Police Holiday Pay Calculation matters** Discussion on the police pay matter was continued to the September 2018 Board meeting by Board President Johnson. Speakers prepared to discuss this matter withdrew their requests for speaking on this matter. Member Daniel made a motion to continue this item to the September 2018 Board meeting, second by member Godfrey. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y] (AYES: 6 / NOES: 0 / ABSTAIN: 0)

**G. Resolution No. 7014 – Approval of PFRS Rules and Regulations** – Member Muszar requested the Rules and Regulations be returned to the Audit Committee. Following some Board discussion, Member Muszar made a motion to approve Resolution No. 7014 including the edits recommended by the Audit Committee, second by member Daniel. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

H. Announcement of upcoming election of Five-year Police Board Member seat – PFRS Staff reported the expiration of the Five-Year Police Board Member seat currently occupied by Mr. Muszar's will end August 31, 2018 and the Retired Oakland Police Officers Association had been notified of the upcoming election. Member Muszar made a motion to accept the informational report, second by member Daniel. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

- **I. Resolutions No. 7015-16** The PFRS Board reviewed and approved Resolution No. 7015-16.
  - I1. Approval of Resolutions No. 7015 Member Muszar made a motion to approve resolution No. 7015 approving Death Benefit Payments and directing warrants thereunder in the total sum of \$1,000.00 payable to the beneficiaries of deceased members as follows: Ulla Lear, Theresa L. Tenorio, the Estate of Gerald H. Cohn, Elaine A. Kurlinski, Laurene A. Gruen, Heather Novak, Brett Mckay and Barry Mckay, second by member Speakman. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 0)

PFRS Board Meeting Minutes June 27, 2018 Page 5 of 5

I2. Approval of Resolutions No. 7016 – Member Muszar made a motion to approve resolution No. 7016 fixing the monthly allowance of Elizabeth Thompson, spouse of Steven Thompson; of Diana Kenton, spouse of Thomas Kenton; of Annette Brooks, spouse of Willie Brooks; of Joann Schoenweiler, spouse of Rolf Schoenweiler; and of Edith F. Brown, spouse of Robert E. Brown, retired members of the Police and Fire Retirement System, second by member Speakman. Motion passed.

[DANIEL - Y / GODFREY - Y / JOHNSON - Y / MELIA - ABSENT / MUSZAR - Y / SPEAKMAN - Y / WILKINSON - Y] (AYES: 6 / NOES: 0 / ABSTAIN: 0)

- J. **NEW BUSINESS** No Report.
- K. OPEN FORUM No Report
- L. FUTURE SCHEDULING The next PFRS Board meeting was scheduled for Wednesday July 25, 2018. Plan Administrator asked Board members to contact PFRS Staff if they are running late for the committee or Board meetings.

The meeting adjourned at 1:24 pm.





## A GENDA REPORT

TO: Oakland Police and Fire Retirement Board

FROM: Katano Kasaine

**SUBJECT:** Member Robert J. Muszar Elected as 5-

**DATE:** August 20, 2018

year Police Member of the Police and Fire Retirement Board from September 1, 2018

through August 31, 2023

### **SUMMARY**

Robert J. Muszar was sworn-in on August 31, 2016 as the 5-year police member of the Board of the City of Oakland Police and Fire Retirement System Board to complete the 5-year term of Member James F. Cooper, who resigned from the PFRS Board on June 29, 2016 and whose term ran through to August 31, 2018.

The 5-year police member seat on the PFRS Board was scheduled to expire on August 31, 2018. The deadline for submission of nomination forms to the City Clerk's office was 5:00 p.m. on Wednesday, July 18, 2018. Member Muszar's nomination form was the only form submitted by this deadline. Pursuant to section 11.6 of the PFRS Rules and Regulations, Robert J. Muszar was elected by default as a Member of the PFRS board for the five-year term ending August 31, 2023.

Respectfully submitted,

Katano Kasaine, Plan Administrator

Oakland Police and Fire Retirement System

Attachments (if any):

• None



## A GENDA REPORT

TO: Oakland Police and Fire

Retirement Board

FROM: Katano Kasaine

**DATE:** August 20, 2018

**SUBJECT:** Resolution No. 7021 - Resolution changing

the retirement status for Jack C. Huth, a member of the Police and Fire Retirement

System, from Service to Service-

Connected Disability

### RECOMMENDATION

Based on the findings of the medical examiner, Staff recommends that Jack C. Huth be granted a conversion from a service retirement to a service-connected disability retirement.

### **BACKGROUND**

Jack C. Huth was a Sergeant of Police for the Oakland Police Department. Mr. Huth was granted a service retirement effective February 14, 1998 after Board approval of PFRS Resolution No. 6197 on February 25, 1998 following 25.189 years of service.

On August 18, 2016, Mr. Huth formally requested that his retirement status be changed from a service retirement to a service-connected disability retirement. Mr. Huth complied with staff direction regarding testing and medical reporting necessary for staff to gather pertinent information to evaluate his request. Mr. Huth was subsequently examined by the City of Oakland Physician and an additional medical expert. It is the opinion of the medical expert that Mr. Huth has a disabling condition which existed at the time of his service retirement, and that said condition arose out of his performance of duties as a Sergeant for the Oakland Police Department.

Based on this medical evaluation and subsequent analysis received, Staff recommends that Jack C. Huth be granted a conversion from a service retirement to a service-connected disability retirement.

Respectfully submitted,

Oakland Police and Fire Retirement System

### Attachments (1):

1. Resolution No. 7021 - Resolution changing the retirement status for Jack C. Huth, a member of the Police and Fire Retirement System, from Service to Service-Connected Disability

## OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7021

		-
ON MOTION OF MEMBER	SECONDED BY MEMBER	

Approved to Form

# RESOLUTION CHANGING THE RETIREMENT STATUS FOR JACK C. HUTH, A MEMBER OF THE POLICE AND FIRE RETIREMENT SYSTEM, FROM SERVICE TO SERVICE-CONNECTED DISABILITY

WHEREAS, on February 25, 1998 under Resolution No. 6197, Jack C. Huth was granted a Service Retirement in accordance with Section 2608(c) of the Charter of the City of Oakland after completion of 25.189 years of service, with a final rank of Sergeant of Police in the Oakland Police Department; and

WHEREAS, Mr. Huth has requested, by Application For Change Of Retirement Status filed August 18, 2016, a re-classification of his Service Retirement into a Service-Connected Disability Retirement pursuant to Section 2610(a) of the Charter of the City of Oakland, and

WHEREAS, Mr. Huth's Application and supporting medical and other records were examined by PFRS staff and medical experts retained for the purpose of evaluating the medical basis of the claim, and Mr. Huth underwent a medical examination; and

WHEREAS, after review of the records and recent medical reports, it is staff's position that sufficient evidence exists to support a finding that, at the time of his Service Retirement, Mr. Huth possessed a disability and incapacity which would have disabled him from further carrying out his patrol job duties and that said conditions arose as a result Mr. Huth performing his job duties; and

**WHEREAS**, staff recommends that Board grant the request to change retirement status; and

**WHEREAS**, the matter was brought before the Police and Fire Retirement Board at its meeting on August 29, 2018; now, therefore, be it

**RESOLVED**: That the Police and Fire Retirement Board hereby adopts staff's recommended findings that at the time of his Service Retirement, Mr. Huth possessed a disability and incapacity which would have disabled him from further carrying out his patrol job duties and that said conditions arose in part as a result Mr. Huth performing his job duties for the Oakland Police Department; and be it

**FURTHER RESOLVED:** that the retirement status of Jack C. Huth is hereby reclassified from Service Retirement under Charter section 2607(a) into a Service-Connected Disability Retirement under Charter section 2608(c) effective September 1, 2018 without retroactive effect; and be it

## OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

**FURTHER RESOLVED:** that Resolution No. 6197, to the extent it pertains to Jack C. Huth, is superseded by this Resolution effective September 1, 2018.

IN BOAR	D MEETING	G, CITY HALL, C	DAKLAND, C	CA	AUGUST 2	9, 2018
PASSED	BY THE FO	OLLOWING V	OTE:			
AYES:		GODFREY, SIDENT JOHN	•	MUSZAR,	SPEAKMAN,	WILKINSON,
NOES:						
ABSTAIN	J:					
ABSENT	:					
				Α	ATTEST:	PRESIDENT
				A	ATTEST;	SECRETARY

## OAKLAND POLICE AND FIRE RETIREMENT BOARD Approved to Form

CITY OF OAKLAND, CALIFORNIA

## RESOLUTION No. 7022

	RESCENIENTIS. 702	-				
ON MOTION OF MEMBER	SECONDE	D BY MEMBER				
RESOLUTION APPROVING DEATH BENEFIT PAYMENTS AND DIRECTING WARRANTS THEREUNDER IN THE TOTAL SUM OF \$1,000.00 PAYABLE TO THE BENEFICIARIES OF DECEASED MEMBERS AS FOLLOWS: TIMOTHY J. KASTANOS, RUSSELL S. KASTANOS AND ROBIN A. CASSALIA						
Column (1) below, retired	WHEREAS, due proof having been received of the death of the persons named in Column (1) below, retired members of the Oakland Police or Fire Department, under XXVI of the Charter of the City of Oakland; and					
Section 2612 are payab	beneficiaries to whom the ole, are the persons whose names of the deceased retire	e names are stated in				
<b>WHEREAS,</b> the a respective names; now,	mount of said death benefit therefore, be it	is stated in Column (4) o	pposite said			
	at the Retirement Board doe named in Column (2); and b		eath Benefit			
	LVED: That the Director of s for the amount in Column (s) in Column (2):	•	•			
(1)	(2)	(3)	(4)			
Name of Deceased Member	Name of Beneficiary(ies)	Relationship of Beneficiary(ies)	Death Benefit Amount			
	Timothy J. Kastanos	Son	\$334.00			
Thomas Katsanos	Russell S. Kastanos	Son	\$333.00			
(P)	Robin A. Cassalia	Daughter	\$333.00			
IN BOARD MEETING, CI	TY HALL, OAKLAND, CA	AUGUST 29, 20	18			
PASSED BY THE FOLL	OWING VOTE:					
	DFREY, MELIA, MUSZA NT JOHNSON	R, SPEAKMAN, WIL	KINSON,			
NOES:						
ABSENT:						
		ATTEST: PRESIDENT				
		ATTEST:SECRETARY				
		SECRETARY	1			

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 Retirement Systems, 150 Frank Ogawa Plaza, Suite 3332 or call (510) 238-7295 for additional information.



Retirement Systems 150 Frank H. Ogawa Plaza Oakland, California 94612

## **AGENDA**

#### RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr. President

Jaime T. Godfrey
Vice President

Robert J. Muszar Member

R. Steven Wilkinson Member

> Martin J. Melia Member

John C. Speakman Member

> Christine Daniel Member

CLOSED SESSION of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, August 29, 2018 – during regular meeting starting at 11:30 am One Frank H. Ogawa Plaza, Hearing Room 3 Oakland, California 94612

--- ORDER OF BUSINESS ---

## THE PFRS BOARD WILL MEET IN CLOSED SESSION DURING ITS SCHEDULED BOARD MEETING

Please see the meeting agenda for open session items. The board will convene in open session prior to the closed session. Speakers may address the items of business on the closed session agenda prior to closed session. All speakers must fill out a speaker's card and submit it to the Secretary to the Board. The Board will reconvene in open session following the closed session to report any final decisions that the board makes in closed session.

Pursuant to California Government Code Section 54956.9(a) and 54956.9(d)(1):

1. CONFERENCE WITH LEGAL COUNSEL - PENDING LITIGATION

Retired Oakland Police Officers Association v. Oakland Police and Fire Retirement System, et al., Alameda County Superior Court Action No. RG16838274