

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

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



AGENDA

AUDIT COMMITTEE MEMBERS

John C. Speakman
Chairman

Adam Benson
Member

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 28, 2019 – 9:30 am
One Frank H. Ogawa Plaza, Hearing Room 1
Oakland, California 94612**

--- ORDER OF BUSINESS ---

- 1. Subject: PFRS Audit Committee Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: APPROVE July 31, 2019 Audit Committee meeting minutes.
- 2. Subject: Administrative Expenses Report**
From: Staff of the PFRS Board

Recommendation: ACCEPT an informational report regarding PFRS administrative expenses from July 1, 2018 through June 30, 2019.
- 3. Subject: Resolution No. 7065 – Travel authorization for PFRS Board Member R. Steven Wilkinson to travel and attend the Value Edge Advisors, LLC 2019 Public Funds Forum ("2019 VEA Public Funds Forum") from September 3, 2019 to September 5, 2019 in Park City, UT with an estimated budget of Two Thousand Five Hundred Dollars (\$2,500.00)**
From: Staff of the PFRS Board

Recommendation: RECOMMEND BOARD APPROVAL of Resolution No. 7065 – Travel authorization for PFRS Board Member R. Steven Wilkinson to travel and attend the Value Edge Advisors, LLC 2019 Public Funds Forum ("2019 VEA Public Funds Forum") from September 3, 2019 to September 5,

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
AUGUST 28, 2019**

ORDER OF BUSINESS, continued

2019 in Park City, UT with an estimated budget of Two Thousand Five Hundred Dollars (\$2,500.00).

4. **Subject:** **2006 Management Audit of the PFRS System**
From: Staff of the PFRS Board
-

Recommendation: **DISCUSSION** regarding development of scope of services to be used for a Request for Proposal of an audit of the management of PFRS.

5. **REVIEW OF PENDING AUDIT AGENDA ITEMS**
6. **Future Scheduling**
7. **Open Forum**
8. **Adjournment of Meeting**

AN AUDIT/OPERATIONS COMMITTEE MEETING of the Oakland Police and Fire Retirement System (“PFRS”) was held on Wednesday, July 31, 2019 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present: • John C. Speakman, Chairman
• Katano Kasaine, Member
• Robert J. Muszar, Member

Additional Attendees: • David Jones, Plan Administrator
• Teir Jenkins & David Low, Staff Member
• Jennifer Logue, PFRS Legal Counsel

The Meeting was called to order at 9:06 a.m. Member Kasaine was not present at the start of the Audit Committee meeting; she arrived at 9:22 am.

1. **PFRS Audit Committee Meeting Minutes** – Member Muszar made a motion to approve the June 26, 2019 Audit Committee meeting minutes, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y / MUSZAR – Y/ KASAIN –ABSENT]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

3. **Scope of Services and Initiation of FY 2018 Financial Audit** – Annie Louie of Macias Gini & O’Connell, LLP presented the scope of services for the PFRS Financial Audit for the Fiscal Year Ending June 30, 2019.

MOTION: Member Muszar made a motion to recommend Board approval of the scope of services and initiation of the financial services audit of the PFRS fund for fiscal year ending June 30, 2019 by Macias Gini and O’Connell, LLP, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y / MUSZAR – Y/ KASAIN –ABSENT]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

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

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

[SPEAKMAN – Y / MUSZAR – Y/ KASAIN –ABSENT]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

4. **Hearing Procedures and Handling of Confidential Member Medical Files** – PFRS Legal Counsel Jennifer Logue advised the Audit Committee of her requirements for clear direction regarding her task of writing the policy and procedures which address Hearing Procedures and Handling of Confidential Member Medical Files. Through discussion between the Audit Committee and staff, an agreement was made regarding what Ms. Logue would be preparing for the Audit Committee review at a future Committee meeting regarding Hearing Procedures. Additionally, Ms. Logue said she would address the challenge of the Sunshine Ordinance requirements for agenda

material conflicting with privacy concerns related to hearings containing confidential member medical files.

MOTION: Member Muszar made a motion to direct the PFRS Legal Counsel to present to the PFRS board proposed procedures for Charter section 2603 hearings, any proposed procedures for other public hearings held by the PFRS board, procedures and process for handling confidential materials, and where and how these policies will be documented, second by Chairman Speakman. Motion passed.

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

AMENDED MOTION: Member Muszar amended his motion to direct the PFRS Legal Counsel to present to the PFRS board proposed procedures for Charter section 2603 hearings, any proposed procedures for other public hearings held by the PFRS board, procedures and process for handling confidential materials, and where and how these policies will be documented for the September 2019 Audit Committee meeting, second by Chairman Speakman. Motion passed.

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

5. **Resolution No. 7064 – Logue Travel** – Member Muszar made a motion to recommend Board approval Resolution No. 7064 - Travel authorization for PFRS Legal Counsel Jennifer Logue to travel and attend the California Association of Public Employee Retirement Systems (CALAPRS) Attorneys' Roundtable (2019 CALAPRS Attorneys' Roundtable) on September 20, 2019 in Oakland, CA with an estimated budget of One Hundred Twenty-five Dollars (\$125.00), second by Chairman Speakman. Motion passed.

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

6. **2006 Management Audit of the PFRS System** – Plan Administrator David Jones reported the staff work and submission of additional information requested by the Audit Committee regarding the scope of services provided by IFS for its 2006 Management Audit. The Audit Committee and staff discussed the benefits and drawbacks of conducting an updated management audit in some form, such as in a more limited scope than the 2006 Management Audit. Member Kasaine recommended providing staff clear direction regarding the scope of a new management audit services if the Committee decides that a management audit should be conducted. Member Muszar said the scope of services of the original engagement letter provided by IFS for its 2006 management audit would adequately assist staff in drafting such an RFP for a new management audit. Member Muszar suggested the Audit Committee review the scope of services at its next meeting to assist the development of a scope for a new management audit. Alternatively, member Kasaine suggested an ad hoc committee be created to develop the scope of service for the Audit Committee review and recommendation upon its completion.

MOTION: Member Muszar made a motion continue discussion of this matter to the next Audit Committee meeting, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y / MUSZAR – Y/ KASAINÉ –ABSTAIN]
(AYES: 2 / NOES: 0 / ABSTAIN: 1)

7. **Pending Audit Agenda List** – Plan Administrator David Jones reported the status of agenda items Audit/Operations Committee’s pending list.
8. **Future Scheduling** – The next Audit Committee meeting was scheduled for August 28, 2019.
9. **Open Forum** – No Speakers.
10. **Meeting Adjournment** – Meeting adjourned at 10:01 a.m.

JOHN C. SPEAKMAN, COMMITTEE CHAIRMAN

DATE

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Administrative Budget Spent to Date (Preliminary)
 As of June 30, 2019

	Approved Budget		June 2019		FYTD		Remaining		Percent Remaining	
Internal Administrative Costs										
PFRS Staff Salaries	\$	1,084,000	\$	112,607	\$	920,232	\$	163,768		15.1%
Board Travel Expenditures		52,500		3,685		12,555		39,945		76.1%
Staff Training		20,000		309		1,542		18,458		92.3%
Staff Training - Tuition Reimbursement		7,500		-		1,640		5,860		78.1%
Annual Report & Duplicating Services		4,000		-		-		4,000		100.0%
Board Hospitality		3,600		565		2,838		762		21.2%
Payroll Processing Fees		35,000		35,000		35,000		-		0.0%
Miscellaneous Expenditures		46,700		2,602		33,606		13,094		28.0%
Internal Service Fees (ISF)		65,400		-		64,974		426		0.7%
Contract Services Contingency		50,000		6,091		34,778		15,222		30.4%
Office Construction Costs*		75,227		35,746		70,098		5,129		6.8%
Internal Administrative Costs Subtotal :	\$	1,443,927	\$	196,603	\$	1,177,263	\$	266,664		18.5%
Actuary and Accounting Services										
Audit	\$	45,000	\$	-	\$	44,300	\$	700		1.6%
Actuary		45,000		1,771		38,225		6,775		15.1%
Actuary and Accounting Subtotal:	\$	90,000	\$	1,771	\$	82,525	\$	7,475		8.3%
Legal Services										
City Attorney Salaries	\$	188,000	\$	13,391	\$	146,924	\$	41,076		21.8%
Legal Contingency		150,000		7,002		39,590		110,410		73.6%
Legal Services Subtotal:	\$	338,000	\$	20,393	\$	186,514	\$	151,486		44.8%
Investment Services										
Money Manager Fees	\$	1,301,900	\$	351,847	\$	1,116,548	\$	185,352		14.2%
Custodial Fee		124,000		29,125		116,500		7,500		6.0%
Investment Consultant (PCA)		100,000		25,000		100,000		-		0.0%
Investment Subtotal:	\$	1,525,900	\$	405,972	\$	1,333,048	\$	192,852		12.6%
Total Operating Budget	\$	3,397,827	\$	624,739	\$	2,779,350	\$	618,477		18.20%

*Carry Forward from FY 2017-2018

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of June 30, 2019

	June 2019
Beginning Cash as of 5/31/2019	\$ 6,505,329
Additions:	
City Pension Contribution - June	\$ 3,735,083
Investment Draw (Incoming Wire) - 6/1/2019	1,000,000
Misc. Receipts	1,150
Total Additions:	\$ 4,736,233
Deductions:	
Pension Payment (May Pension Paid on 6/1/2019)	(4,522,759)
Expenditures Paid	(333,844)
Total Deductions	\$ (4,856,603)
 Ending Cash Balance as of 6/30/2019*	 \$ 6,384,960

** On 7/1/2019, June pension payment of appx \$4,597,000 will be made leaving a cash balance of \$1,788,000*

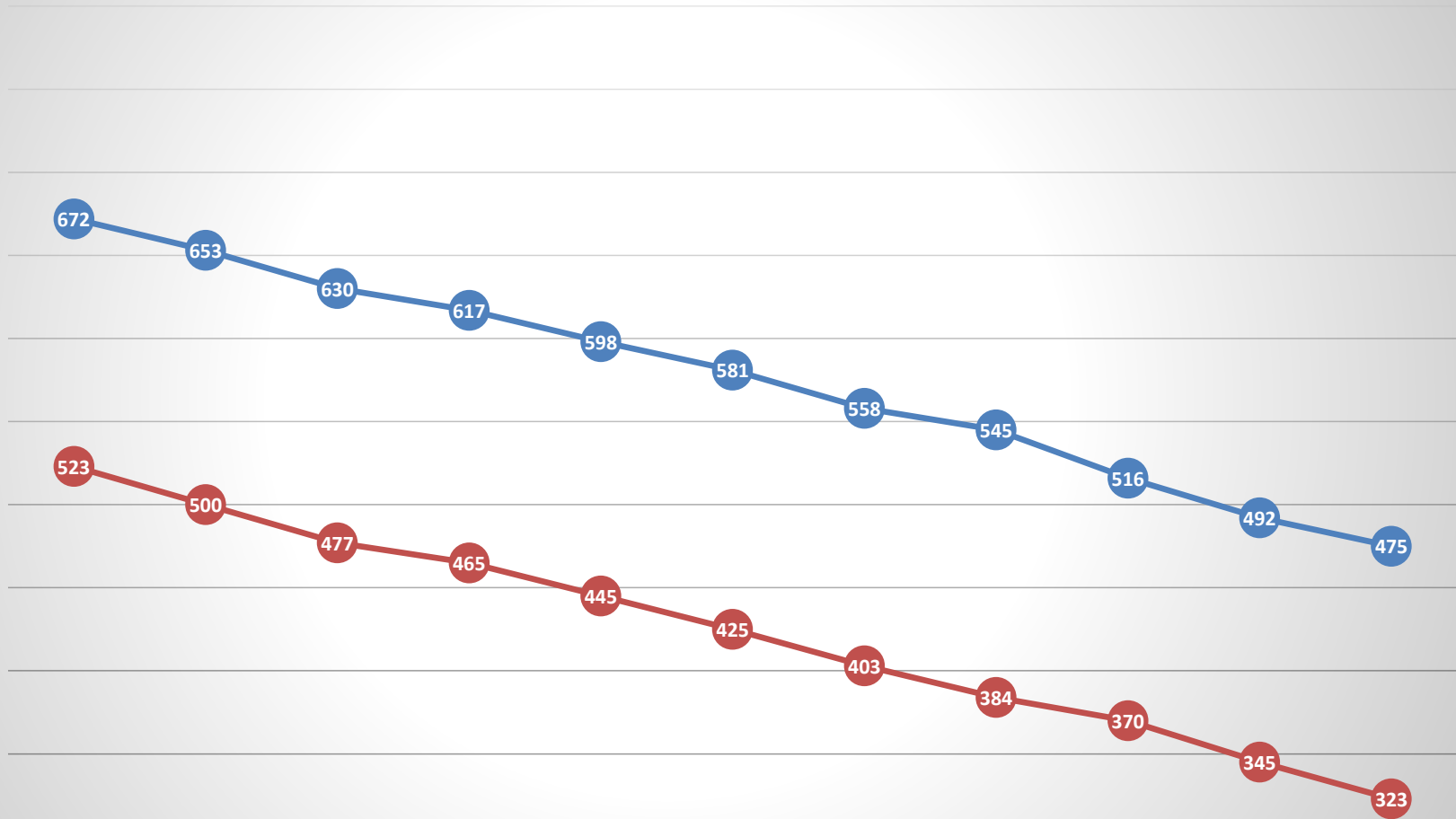
Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census
As of June 30, 2019

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	348	199	547
Beneficiary	127	124	251
<i>Total Retired Members</i>	475	323	798
<i>Total Membership:</i>	475	323	798

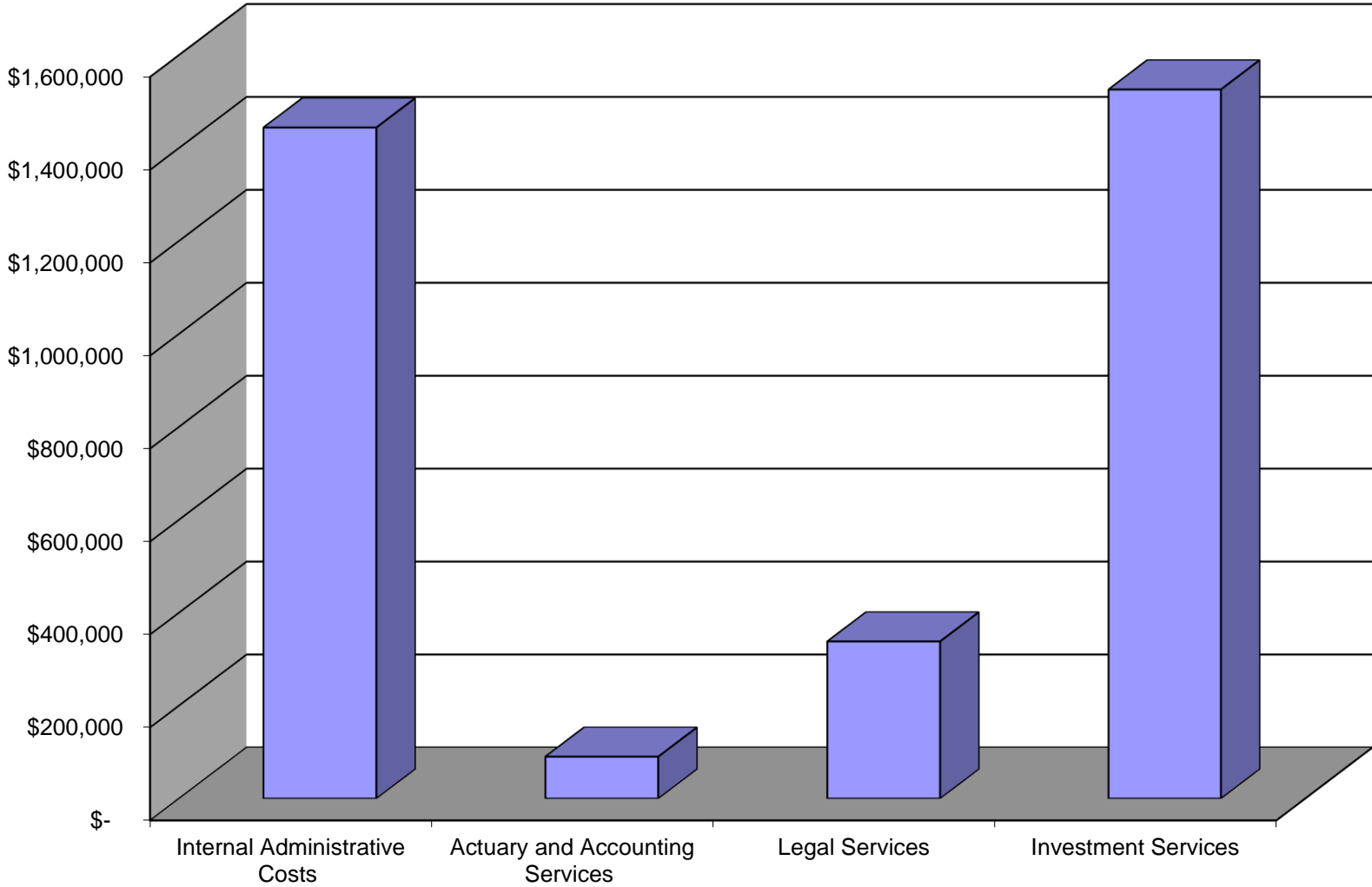
COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	314	168	482
Disability Retirement	147	142	289
Death Allowance	14	13	27
<i>Total Retired Members:</i>	475	323	798
<i>Total Membership as of June 30, 2019:</i>	475	323	798
<i>Total Membership as of June 30, 2018:</i>	492	345	837
<i>Annual Difference:</i>	-17	-22	-39

Oakland Police and Fire Retirement System Pension Plan Membership Count As of June 30, 2019 (FY 2009 - FY 2019)

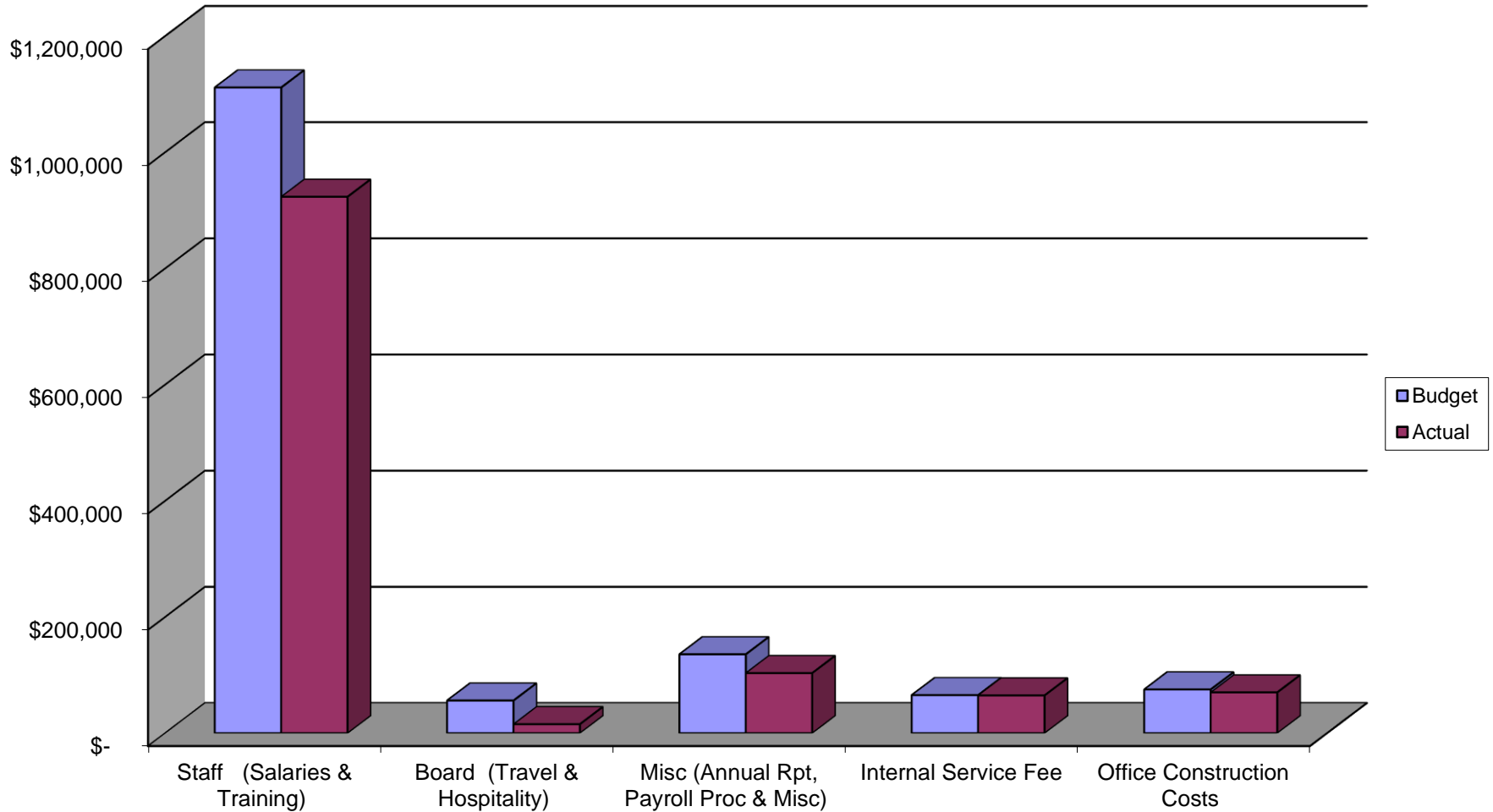


	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 FYTD
Police	672	653	630	617	598	581	558	545	516	492	475
Fire	523	500	477	465	445	425	403	384	370	345	323
Total	1195	1153	1107	1082	1043	1006	961	929	886	837	798

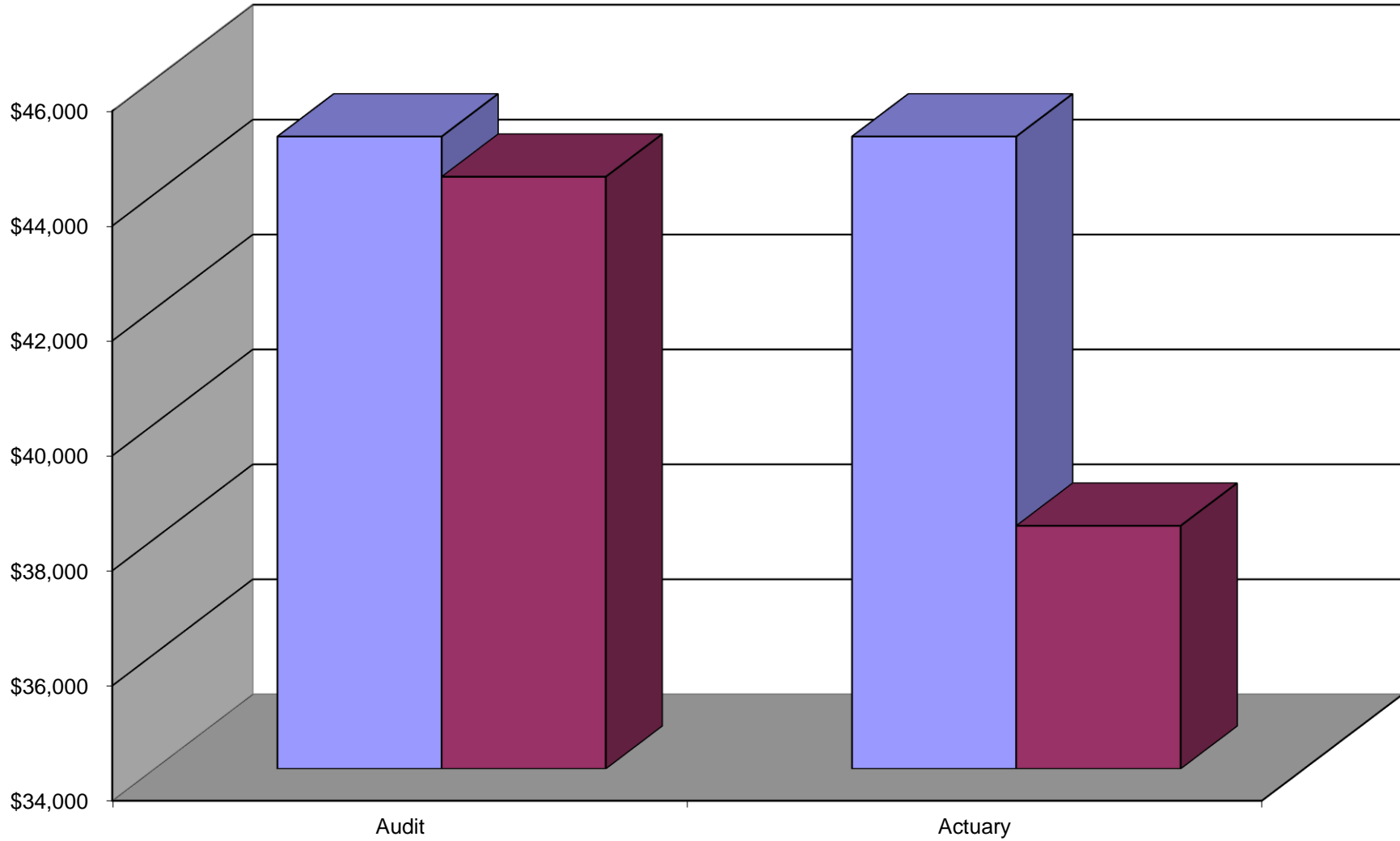
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Approved Budget
FY 2018-2019



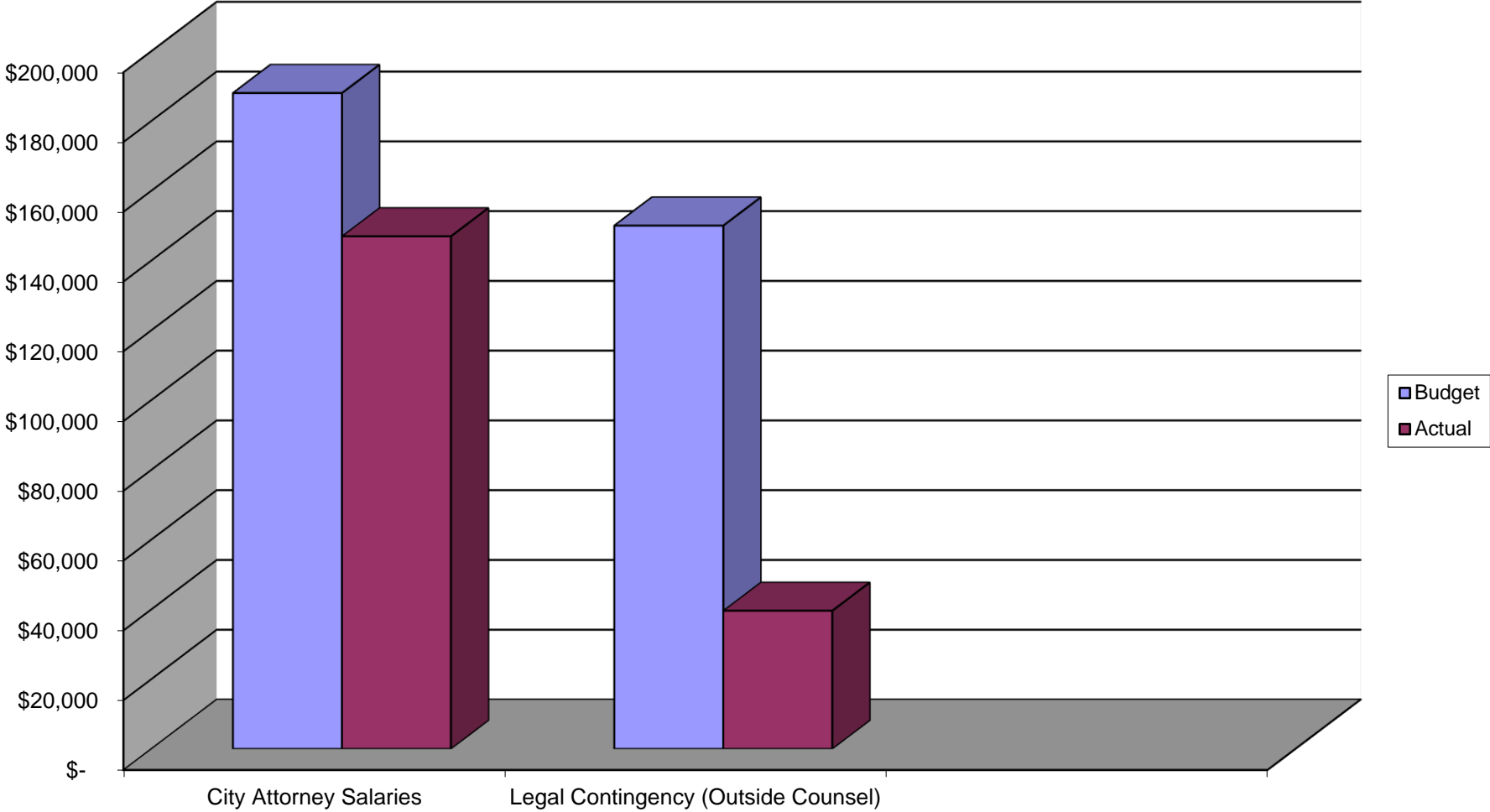
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs Actual as of June 30, 2019
Internal Administrative Costs



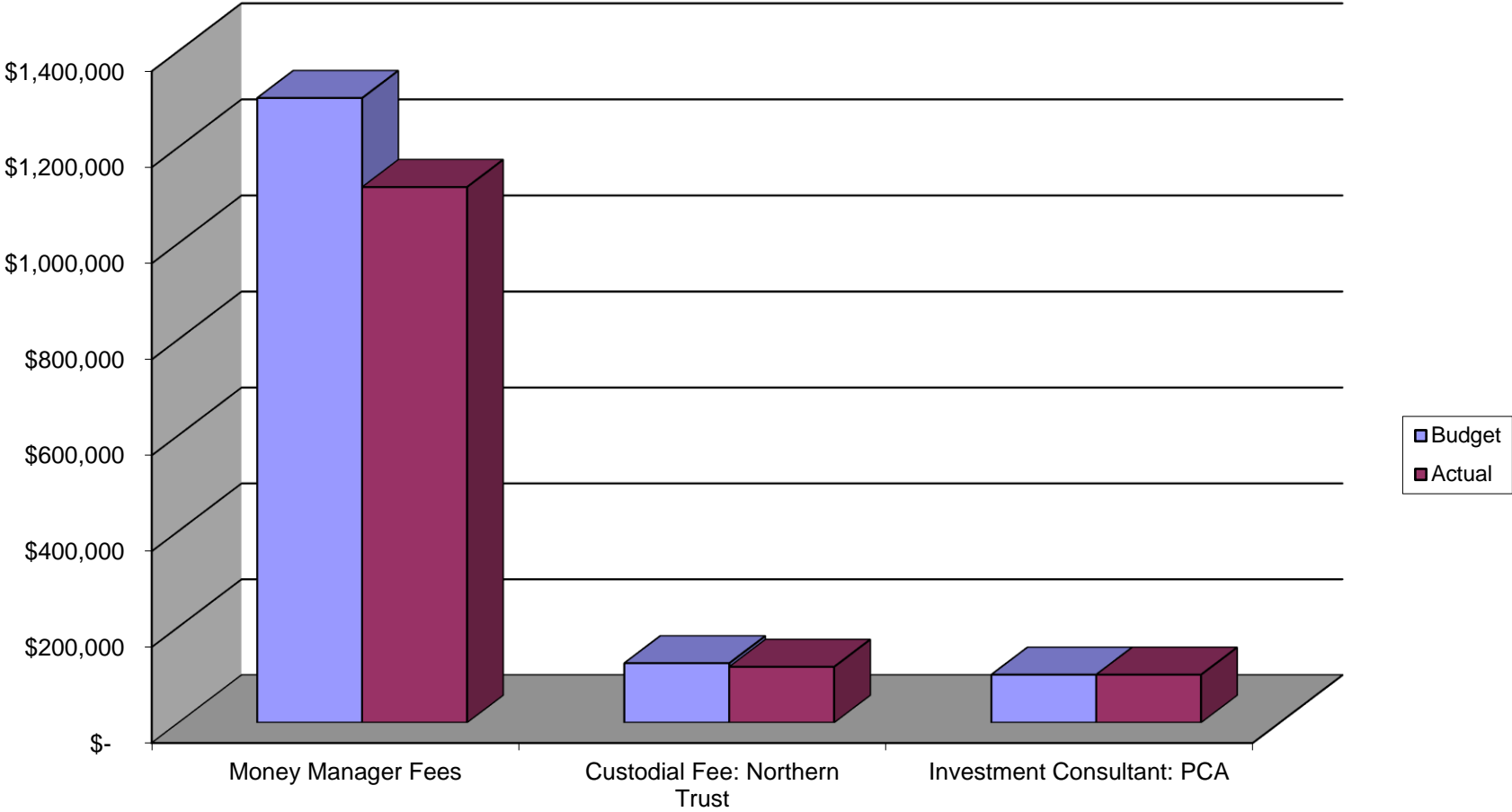
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs. Actual as of June 30, 2019
Actuary and Accounting Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs. Actual as of June 30, 2019
Legal Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs. Actual as of June 30, 2019
Investment Services





MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: David Jones

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

DATE: August 19, 2019

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

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

Travel / Education Event: 2019 VEA Public Funds Forum

Event Location: Montage Deer Valley, Park City, UT

Event Date: September 3, 2019 to September 5, 2019

Estimated Event Expense*: \$ 2,500.00

Notes: _____

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

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

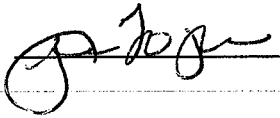
For questions please contact David Low, Administrative Assistant, at 510-238-7295.

Attachments (if any):
Resolution # 7065
Conference Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7065

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

TRAVEL AUTHORIZATION FOR PFRS BOARD MEMBER R. STEVEN WILKINSON TO TRAVEL AND ATTEND THE 2019 VALUE EDGE ADVISORS, LLC PUBLIC FUNDS FORUM CONFERENCE ("2019 VEA PUBLIC FUNDS FORUM CONFERENCE") FROM SEPTEMBER 3, 2019 TO SEPTEMBER 5, 2019 IN PARK CITY, UT WITH AN ESTIMATED BUDGET OF TWO THOUSAND FIVE HUNDRED DOLLARS (\$2,500.00)

WHEREAS, PFRS Board Member R. Steven Wilkinson wishes to attend the 2019 VEA Public Funds Forum Conference in Park City, UT from September 3, 2019 to September 5, 2019; and

WHEREAS, PFRS Board Member Wilkinson is expected to seek reimbursement of expenses from the Board; and

WHEREAS, the Board Education and Travel Policy requires that PFRS Board/Staff Members seek PFRS Board approval prior to travel; and

WHEREAS, in compliance with the Board Education and Travel Policy, the Board/Staff Member has presented costs for travel, lodging and/or registration fees to the 2019 VEA Public Funds Forum Conference in the amount of approximately \$2,500.00; and

WHEREAS, PFRS Board Member Wilkinson seeks Board approval of the aforementioned mentioned estimated costs to travel to Park City , UT to attend the 2019 VEA Public Funds Forum Conference from September 3, 2019 to September 5, 2019; now, therefore, be it

RESOLVED: That PFRS Board Member R. Steven Wilkinson's travel request and estimated budget of \$2,500.00 to attend the 2019 2019 VEA Public Funds Forum Conference is hereby approved.

IN BOARD MEETING, CITY HALL, OAKLAND, CA _____ **AUGUST 28, 2019**

PASSED BY THE FOLLOWING VOTE:

**AYES: BENSON, GODFREY, MELIA, MUSZAR, SPEAKMAN,
AND PRESIDENT JOHNSON**

NOES:

ABSTAIN: WILKINSON

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY



CONFERENCE ITINERARY

DAY ONE

TUESDAY, SEPTEMBER 3, 2019

1:00 pm - 4:30 pm

Check-In and Registration

6:00 pm - 6:15 pm

Opening Remarks

6:15 pm - 7:15 pm

Session 1: Charting a New Course: A Conversation with Governor John Kasich

7:30 pm - 10:30 pm

Deer Valley Street Fare Dinner

DAY TWO

WEDNESDAY, SEPTEMBER 4, 2019

7:00 am - 8:00 am

Breakfast

8:00 am - 9:00 am

Session 2: Innovation, Information, and Investing

9:00 am - 10:00 am

Session 3: The Outlook for Public Funds

10:00 am - 10:15 am

Networking Break

10:15 am - 11:15 am

Session 4: The Politics of Investing: Dark Money, Fake News, and Front Groups

11:15 am - 12:15 pm

Session 5: New Trends in Securities Litigation

12:15 pm - 1:00 pm

Lunch

1:00 pm - 2:00 pm

Session 6: Fraud Is Not a Trade Secret

2:00 pm - 3:00 pm

Session 7: Tackling Sustainable Development and Climate Change: Untying the Gordian Knot for Trustees

3:00 pm - 4:00 pm

Session 8: Best Practices in Fund Governance

5:30 pm - 6:30 pm

Cocktail Reception

6:30 pm - 12:00 am

Nordic Nights Dinner

DAY THREE
THURSDAY, SEPTEMBER 5, 2019

7:00 am - 8:00 am

Breakfast

8:00 am - 9:00 am

Session 9: Losses and Litigation: Deciding When to Pursue Private Action

9:00 am - 10:00 am

Session 10: Private Equity: A New Approach for Fees, Governance, and Transparency

10:00 am - 10:15 am

Networking Break

10:15 am - 11:00 am

Session 11: Trends to Watch in Governance and Investing

11:00 am - 12:00 pm

Session 12: Hedging 2020: Lead-Up to the Election Year

12:00 pm - 12:10 pm

Closing Remarks

12:30 pm - 5:30 pm

Lunch and Networking Activities

[Click Here for Information Regarding CPE Credit.](#)
CLE Accreditation Pending.



AGENDA REPORT

TO: Oakland Police and Fire
Retirement Board

FROM: David Jones

SUBJECT: 2006 Management Audit of the PFRS
administration

DATE: August 19, 2019

BACKGROUND

At the April 24, 2019 Audit Committee meeting, the Audit Committee continued a discussion about conducting a modified Management Audit of the PFRS system which was previously conducted by the consulting firm Independent Fiduciary Services, Inc. (“IFS”) in 2006. The Audit Committee discussed whether to conduct a new management audit and forwarded the discussion to the full Board. Following Board discussion at the April 24, 2019 meeting of the PFRS Full Board, President Johnson directed this matter be returned to the Audit Committee for continued discussion. President Johnson recommend PFRS staff and the Audit Committee work together to the following information before returning the matter to the Board:

1. provide the scope of the previous management audit;
2. provide a cost of the previous management audit; and
3. provide the findings of the previous management audit.

At the May 29, 2019 Audit Committee meeting, the Audit Committee discussed whether to conduct a new management audit and forwarded the discussion to the full Board. Following Audit Committee discussion, the Audit Committee directed staff to find the original engagement letter submitted by IFS in 2005 which further refined the scope of services provided by IFS for the 2006 Management Audit. The Audit Committee said this discussion on this matter would be continued at the July 2019 Audit Committee meeting.

At the July 31, 2019 Audit Committee meeting, the Audit Committee continued discussion about the possibility of conducting a new management audit. The Committee moved continued discussion of this matter to the August 2019 Audit Committee.

SUMMARY

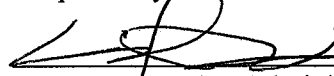
Pursuant to the request of the PFRS Board, staff has searched internal files for all document related to the 2006 management audit. Staff has collected for its review the following documents: An excerpt from the original 2004 Request for Information for Management / Governance audit services which defined the initial scope of work/services for this service (**ATTACHMENT 1**); the professional services agreement between the City of Oakland and Independent Fiduciary Services (which includes Schedule A: Scope of Services) (**ATTACHMENT 2**); the August 8, 2005 letter detailing proposed additional tasks to be performed and the resulting fee adjustment (and its September 5, 2005 revision) (**ATTACHMENT 3**); the December 16, 2005 memo from IFS to PFRS Staff detailing the review methodology and process to conduct the management audit (**ATTACHMENT 4**); and a list of documents and data needed to commence the review and evaluation for the management audit (**ATTACHMENT 5**).

Additionally, staff has included its completion reports for Operational management (**ATTACHMENT 6**) and Investment/Financial management (**ATTACHMENT 7**), reporting that all itemized work was satisfactorily completed at the time of each reporting to the PFRS Board.

RECOMMENDATION

Staff recommends the PFRS Board accept the Informational Report regarding the 2006 Management Audit.

Respectfully submitted,



David Jones, Plan Administrator
Oakland Police and Fire Retirement System

Attachments (7):

1. *Excerpt from Request for Information, Management/Governance Audit Services from December 1, 2004 showing scope of work/services.*
2. *Professional Services Agreement between Independent Fiduciary Services (IFS) and the City of Oakland (including Schedule A: Scope of Services).*
3. *August 8, 2005 letter detailing proposed additional tasks to be performed and the resulting fee adjustment (and its September 5, 2005 revision).*
4. *December 16, 2005 memo from IFS to PFRS Staff detailing the review methodology and process to conduct the management audit.*
5. *list of documents and data needed to commence the review and evaluation for the management audit.*
6. *Completion Reports of Administrative Audit Task Matrix Submitted to the PFRS Board by the Audit Committee on May 26, 2010.*
7. *Completion Reports of Administrative Audit Task Matrix Submitted to the Investment Committee on May 18, 2011.*

ATTACHMENT 1

City of Oakland
Police and Fire Retirement System
Request for Information
Management/Governance Audit Services

December 1, 2004

SCOPE OF WORK

1. Identification of Responsibilities

- Are the responsibilities for the governing body (PFRS Board), administrative staff, and the plan sponsor clearly identified?
- Is there a clear identification and assignment of operation and oversight responsibilities (Board, internal staff and external experts)?
- Is the structure adequate to meet the needs of the system for carrying out its mission in the following areas: collection of contribution, record keeping, benefit payments, asset-liability management, asset management, and reporting?

2. Governing Body

- What is the role of the governing body (PFRS Board) in the administration of PFRS?
- Does the governing body have complete authority over the administration of all operations and oversight responsibilities of the PFRS pension fund?
- Does the governing body select and compensate internal staff with operational responsibilities and external service providers (money managers, actuaries, custodians, auditors, etc)?
- Is it in compliance with the charter and other regulating policies (California Pension Protection Act)?

3. Accountability

- Does the governing body hold regular meetings and keep records of such?
- Does the PFRS Board utilize established criteria in its decision making process?
- Is there appropriate disclosure of the decisions reached in the meeting of the governing body to plan members and beneficiaries?
- Are the actions/decisions of the PFRS Board reported?
- Is the selection process for members of governing body transparent? Does this process meet the requirements of the Charter and other associated regulations?
- Is there an appropriate succession planning process?

4. Expert Advice

- Does the governing body seek and employ the use of independent experts in the following areas: Investment Consultant, Actuary, Custodian, Auditor, and Legal Representation?

5. Suitability

- Are the members of the governing body suitable to serve on the PFRS board? (Specifically, they have not been convicted of fraud, or other criminal offences, gross mismanagement of a pension fund or personal bankruptcy).
- Develop a list of comparable pension funds base on number of members and total amount of fund assets. Survey the selected pension funds to determine pertinent policies and procedure, performance characteristics and other such relevant information.

- Review the administrative costs of operating the pension system including internal administrative costs and City overhead charges levied against the pension fund. Compare these costs to comparable pension funds. Evaluate the cost effectiveness of existing administrative structure, policies, and procedures.

6. Internal Controls

- Are appropriate internal controls in place?
- Regular assessment of the performance of the persons and entities involved in the operation and oversight of the pension fund.
- Regular review of compensation mechanisms, in order to ensure that they provide the correct incentives for those responsible for the operation and oversight of the pension fund.
- Regular review of information processes, operational software systems, and accounting and financial reporting systems.
- Identification, monitoring and where necessary, correction of conflicts of interest situations.
- Mechanisms to sanction the improper use of privileged information
- Implementation of an adequate risk measurement and management system including effective internal audit.
- Regular assessment of regulatory compliance systems.
- The establishment of objective performance measures for all persons and entities involved in the administration of the PFRS fund.

7. Reporting

- Are reporting channels established between all persons and entities involved in the administration of the PFRS fund in order to ensure the effective and timely transmission of relevant and accurate information?
- Does the PFRS fund comply with federal and state reporting requirement?
- Are audit, actuary, and financial reports completed annually or as required?

8. Disclosure

- Does the governing body disclose relevant information to all parties in a clear, accurate, and timely manner?

9. Investment Analysis

- Review investment policies, procedures, and periodic reporting to the PFRS Board. Determine if the investment portfolio complies with the City Charter and Board investment policy. Compare investment performance with other California city and county public pension funds. Calculate annual investment cost as a percent of annual investment purchases and compare to other funds. (Note: Staff suggests that our Investment Consultant has the ability and resources to complete this task).

ATTACHMENT 2

**PROFESSIONAL OR SPECIALIZED SERVICE AGREEMENT
BETWEEN THE CITY OF OAKLAND
AND INDEPENDENT FIDUCIARY SERVICES (IFS)**

Whereas, the City Council has authorized the City Administrator to enter into contracts for professional or specialized services if the mandates of Oakland City Charter Section 902(e) have been met.

Now therefore the parties to this Agreement covenant as follows:

1. Parties and Effective Date

This Agreement is made and entered into as of August 22, 2005 between the City of Oakland, a municipal corporation, ("City"), One Frank H. Ogawa Plaza, Oakland, California 94612, and Independent Fiduciary Services (IFS), ("Contractor")

2. Scope of Services

Contractor agrees to perform the services specified in **Schedule A** attached to this Agreement and incorporated herein by reference. Contractor shall designate an individual who shall be responsible for communications with the City for the duration of this Agreement. **Schedule A** includes the manner of payment. The Project Manager for the City shall be Steven M. Harding, CPA, Sr. Vice President.

3. Time of Performance

Contractor's services shall begin on August 22, 2005 and shall be completed by January 31, 2006.

4. Compensation and Method of Payment

Contractor will be paid for performance of the entire scope of work set forth in **Schedule A** an amount not to exceed \$127,500. Payment at the **rates** stated in **Schedule A**, shall be due upon completion and acceptance of the **services**, at which time Contractor shall submit an invoice. Invoices shall state a description of the **services** completed and the amount due.

5. Independent Contractor

a. Rights and Responsibilities

It is expressly agreed that in the performance of the services necessary to carry out this Agreement, Contractor shall be, and is, an independent contractor, and is not an employee of the City. Contractor has and shall retain the right to exercise full control and supervision of the services, and full control over the employment, direction, compensation and discharge of all persons assisting Contractor in the

performance of Contractor's services hereunder. Contractor shall be solely responsible for all matters relating to the payment of his/her employees, including compliance with social security, withholding and all other regulations governing such matters, and shall be solely responsible for Contractor's own acts and those of Contractor's subordinates and employees. Contractor will determine the method, details and means of performing the services described in **Schedule A**.

b. Contractor's Qualifications

Contractor represents that Contractor has the qualifications and skills necessary to perform the services under this Agreement in a competent and professional manner without the advice or direction of The City. This means Contractor is able to fulfill the requirements of this Agreement. Failure to perform all of the services required under this Agreement will constitute a material breach of the Agreement and may be cause for termination of the Agreement. Contractor has complete and sole discretion for the manner in which the work under this Agreement is performed. Prior to execution of this agreement, Contractor shall complete **Schedule M** ("Independent Contractor Questionnaire"), attached hereto.

c. Payment of Income Taxes

Contractor is responsible for paying, when due, all income taxes, including estimated taxes, incurred as a result of the compensation paid by the City to Contractor for services under this Agreement. On request, Contractor will provide the City with proof of timely payment. Contractor agrees to indemnify the City for any claims, costs, losses, fees, penalties, interest or damages suffered by the City resulting from Contractor's failure to comply with this provision.

d. Non-Exclusive Relationship

Contractor may perform services for, and contract with, as many additional clients, persons or companies as Contractor, in his or her sole discretion, sees fit.

e. Tools, Materials and Equipment

Contractor will supply all tools, materials and equipment required to perform the services under this Agreement.

f. Cooperation of the City

The City agrees to comply with all reasonable requests of Contractor necessary to the performance of Contractor's duties under this Agreement.

g. Extra Work

Contractor will do no extra work under this Agreement without first receiving prior written authorization from the City.

6. Proprietary of Confidential Information of the City

Contractor understands and agrees that, in the performance of the work or services under this Agreement or in contemplation thereof, Contractor may have access to private or confidential information which may be owned or controlled by the City and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to the City. Contractor agrees that all information disclosed by the City to Contractor shall be held in confidence and used only in performance of the Agreement. Contractor shall exercise the same standard of care to protect such information as a reasonably prudent contractor would use to protect its own proprietary data.

7. Ownership of Results

Any interest of Contractor or its Subcontractors, in specifications, studies, reports, memoranda, computation documents prepared by Contractor or its Subcontractors in drawings, plans, sheets or other connection with services to be performed under this Agreement shall be assigned and transmitted to the City. However, Contractor may retain and use copies for reference and as documentation of its experience and capabilities.

8. Copyright

Contractor shall execute appropriate documents to assign to the City the copyright to works created pursuant to this Agreement.

9. Audit

Contractor shall maintain (a) a full set of accounting records in accordance with generally accepted accounting principles and procedures for all funds received under this Agreement; and (b) full and complete documentation of performance related matters such as benchmarks and deliverables associated with this Agreement.

Contractor shall (a) permit the City to have access to those records for the purpose of making an audit, examination or review of financial and performance data pertaining to this Agreement; and (b) maintain such records for a period of four years following the last fiscal year during which the City paid an invoice to Contractor under this Agreement.

10. Agents/Brokers

Contractor warrants that Contractor has not employed or retained any subcontractor, agent, company or person other than bona fide, full-time employees of Contractor working solely for Contractor, to solicit or secure this Agreement, and that Contractor has not paid or agreed to pay any subcontractor, agent, company or persons other than bona fide employees any fee, commission, percentage, gifts or any other consideration, contingent upon or resulting from the award of this Agreement. For breach or violation of this warranty, the City shall have the right to rescind this Agreement without liability or, in its discretion, to

deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage or gift.

11. Assignment

Contractor shall not assign or otherwise transfer any rights, duties, obligations or interest in this Agreement or arising hereunder to any person, persons, entity or entities whatsoever without the prior written consent of the City and any attempt to assign or transfer without such prior written consent shall be void. Consent to any single assignment or transfer shall not constitute consent to any further assignment or transfer.

12. Publicity

Any publicity generated by Contractor for the project funded pursuant to this Agreement, during the term of this Agreement or for one year thereafter, will make reference to the contribution of the City of Oakland in making the project possible. The words "City of Oakland" will be explicitly stated in all pieces of publicity, including but not limited to flyers, press releases, posters, brochures, public service announcements, interviews and newspaper articles.

City staff will be available whenever possible at the request of Contractor to assist Contractor in generating publicity for the project funded pursuant to this Agreement. Contractor further agrees to cooperate with authorized City officials and staff in any City-generated publicity or promotional activities undertaken with respect to this project.

13. Title of Property

Title to all property, real and personal, acquired by the Contractor from City funds shall vest in the name of the City of Oakland and shall be accounted for by means of a formal set of property records. The Contractor shall, upon expiration or termination of this Agreement, deliver to the City all of said property and documents evidencing title to same. In the case of lost or stolen items or equipment, the Contractor shall immediately notify the Police Department, obtain a written police report and notify the City in accordance with "Notice" section of this Agreement.

14. Conflict of Interest

a. Contractor

The following protections against conflict of interest will be upheld:

- i. Contractor certifies that no member of, or delegate to the Congress of the United States shall be permitted to share or take part in this Agreement or in any benefit arising therefrom.
- ii. Contractor certifies that no member, officer, or employee of the City or its designees or agents, and no other public official of the City who exercises any functions or responsibilities with respect to the programs or projects

covered by this Agreement, shall have any interest, direct or indirect in this Agreement, or in its proceeds during his/her tenure or for one year thereafter.

- iii. Contractor shall immediately notify the City of any real or possible conflict of interest between work performed for the City and for other clients served by Contractor.
- iv. Contractor warrants and represents, to the best of its present knowledge, that no public official or employee of City who has been involved in the making of this Agreement, or who is a member of a City board or commission which has been involved in the making of this Agreement whether in an advisory or decision-making capacity, has or will receive a direct or indirect financial interest in this Agreement in violation of the rules contained in California Government Code Section 1090 et seq., pertaining to conflicts of interest in public contracting. Contractor shall exercise due diligence to ensure that no such official will receive such an interest.
- v. Contractor further warrants and represents, to the best of its present knowledge and excepting any written disclosures as to these matters already made by Contractor to City, that (1) no public official of City who has participated in decision-making concerning this Agreement or has used his or her official position to influence decisions regarding this Agreement, has an economic interest in Contractor or this Agreement, and (2) this Agreement will not have a direct or indirect financial effect on said official, the official's spouse or dependent children, or any of the official's economic interests. For purposes of this paragraph, an official is deemed to have an "economic interest" in any (a) for-profit business entity in which the official has a direct or indirect investment worth \$2,000 or more, (b) any real property in which the official has a direct or indirect interest worth \$2,000 or more, (c) any for-profit business entity in which the official is a director, officer, partner, trustee, employee or manager, or (d) any source of income or donors of gifts to the official (including nonprofit entities) if the income or value of the gift totaled more than \$500 the previous year. Contractor agrees to promptly disclose to City in writing any information it may receive concerning any such potential conflict of interest. Contractor's attention is directed to the conflict of interest rules applicable to governmental decision-making contained in the Political Reform Act (California Government Code Section 87100 et seq.) and its implementing regulations (California Code of Regulations, Title 2, Section 18700 et seq.).
- vi. Contractor understands that in some cases Contractor or persons associated with Contractor may be deemed a "city officer" or "public official" for purposes of the conflict of interest provisions of Government Code Section 1090 and/or the Political Reform Act. Contractor further understands that, as a public officer or official, Contractor or persons associated with Contractor may be disqualified from future City contracts

to the extent that Contractor is involved in any aspect of the making of that future contract (including preparing plans and specifications or performing design work or feasibility studies for that contract) through its work under this Agreement.

- vii. Contractor shall incorporate or cause to be incorporated into all subcontracts for work to be performed under this Agreement a provision governing conflict of interest in substantially the same form set forth herein.

b. No Waiver

Nothing herein is intended to waive any applicable federal, state or local conflict of interest law or regulation

c. Remedies and Sanctions

In addition to the rights and remedies otherwise available to the City under this Agreement and under federal, state and local law, Contractor understands and agrees that, if the City reasonably determines that Contractor has failed to make a good faith effort to avoid an improper conflict of interest situation or is responsible for the conflict situation, the City may (1) suspend payments under this Agreement, (2) terminate this Agreement, (3) require reimbursement by Contractor to the City of any amounts disbursed under this Agreement. In addition, the City may suspend payments or terminate this Agreement whether or not Contractor is responsible for the conflict of interest situation.

15. Non-Discrimination/Equal Employment Practices

Contractor shall not discriminate or permit discrimination against any person or group of persons in any manner prohibited by federal, state or local laws. During the performance of this Agreement, Contractor agrees as follows:

- a. Contractor and Contractor's subcontractors, if any, shall not discriminate against any employee or applicant for employment because of age, marital status, religion, gender, sexual preference, race, creed, color, national origin, Acquired-Immune Deficiency Syndrome (AIDS), AIDS-Related Complex (ARC) or disability. This nondiscrimination policy shall include, but not be limited to, the following: employment, upgrading, failure to promote, demotion or transfer, recruitment advertising, layoffs, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- b. Contractor and Contractor's Subcontractors shall state in all solicitations or advertisements for employees placed by or on behalf of Contractor that all qualified applicants will receive consideration for employment without regard to age, marital status, religion, gender, sexual preference, race, creed, color, national origin, Acquired-Immune Deficiency Syndrome (AIDS), AIDS-Related Complex (ARC) or disability.

- c. Contractor shall make its goods, services, and facilities accessible to people with disabilities and shall verify compliance with the Americans with Disabilities Act by executing **Schedule C-1** (“Declaration of Compliance with the Americans with Disabilities Act,”) attached hereto and incorporated herein.
- d. If applicable, Contractor will send to each labor union or representative of workers with whom Contractor has a collective bargaining agreement or contract or understanding, a notice advising the labor union or workers’ representative of Contractor’s commitments under this nondiscrimination clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

16. Local and Small Local Business Enterprise Program (L/SLBE)

- a. *Requirement* - There is a twenty percent (20%) minimum participation requirement for all professional services contracts of \$50,000 or more. Contractors shall comply with the twenty percent (20%) local business participation requirement at a rate of ten percent (10%) local and 10% small local business participation. The requirement may be satisfied by a certified prime consultant and/or sub-consultant(s) or a small local certified firm may meet the twenty percent requirement. A business must be certified by the City of Oakland in order to earn credit toward meeting the twenty percent requirement.
- b. *Good Faith Effort* - In light of the twenty percent requirement, good faith effort documentation is not necessary.
- c. *Incentives* – Upon satisfying the twenty percent requirement, a consultant will earn two (2) preference points. Three additional preference points may be earned at a rate of one point for every additional ten percent participation up to fifty percent participation of the total contract dollars attributable to local certified firms.
- d. *Banking* – The City will allow banking of credits for L/SLBE participation that exceeds fifty percent (50%) on a City funded project and will allow consultants to accumulate credits for hiring certified local businesses and certified small local businesses on non-city funded projects within a year of the City funded project. Banked credits will count toward achieving a bid discount or preference points (up to 2%) on a City contract. The ability of firms to bank credits or hours on non-City projects will not be retroactive. Consultants will have one year to apply credits. A certificate validating banked credits must be issued by the City prior to the submittal or bid date.
- e. *The Exit Report and Affidavit (ERA)* – This report declares the level of participation achieved and will be used to calculate banked credits. The prime consultant must complete the Exit Report and Affidavit for, and have it executed by, each L/SLBE sub consultant and submitted to the City Administrator’s Office of Contract Compliance & Employment Services along with a *copy* of the final progress payment application.

- f. *Joint Venture and Mentor Protégé Agreements.* If a prime contractor or prime consultant is able to develop a Joint Venture or “Mentor-Protégé” relationship with a certified LBE or SLBE, the mentor or Joint Venture partners will enjoy the benefit of credits against the participation requirement. In order to earn credit for Joint Venture or Mentor-Protégé relationships, the Agreement must be submitted for approval to Contract Compliance and Employment Services prior to the project bid date for construction, and by proposal due date for professional services contracts. Joint Venture Applications and elements of City approved Mentor Protégé relation are available upon request .
- g. Contractor shall submit information concerning the ownership and workforce composition of Contractor’s firm as well as its subcontractors and suppliers, by completing **Schedule E** (“Project Consultant Team”), attached and incorporated herein and made a part of this Agreement.
- h. All affirmative action efforts of Contractor are subject to tracking by the City. This information or data shall be used for statistical purposes only. All contractors are required to provide data regarding the make-up of their subcontractors and agents who will perform City contracts, including the race and gender of each employee and/or contractor and his or her job title or function and the methodology used by Contractor to hire and/or contract with the individual or entity in question.
- i. In the recruitment of subcontractors, the City of Oakland requires all contractors to undertake nondiscriminatory and equal outreach efforts, which include outreach to minorities and women-owned businesses as well as other segments of Oakland’s business community. The City Administrator will track the City’s MBE/WBE utilization to ensure the absence of unlawful discrimination on the basis of age, marital status, religion, gender, sexual preference, race, creed, color, national origin, Acquired-Immune Deficiency Syndrome (AIDS), AIDS-Related Complex (ARC) or disability.
- j. In the use of such recruitment, hiring and retention of employees or subcontractors, the City of Oakland requires all contractors to undertake nondiscriminatory and equal outreach efforts which include outreach to minorities and women as well as other segments of Oakland’s business community.

17. Living Wage Ordinance

If the contract amount of this Agreement is equal to or greater than \$25,000 annually, then Contractor must comply with the Oakland Living Wage Ordinance. The Living Wage Ordinance requires that nothing less than a prescribed minimum level of compensation (a living wage) be paid to employees of service contractors (consultants) of the City and employees of CFARs (Ord. 12050 § 1, 1998). The Ordinance also requires submission of the Declaration of Compliance attached and incorporated herein as **Schedule N** and made part of this Agreement, and, unless specific exemptions apply or a waiver is granted, the consultant must provide the following to its employees who perform services under or related to this Agreement:

- a. Minimum compensation – Said employees shall be paid an initial hourly wage rate of \$9.58 with health benefits or \$11.02 without health benefits. These initial rates shall be upwardly adjusted each year no later than April 1 in proportion to the increase at the immediately preceding December 31 over the year earlier level of the Bay Region Consumer Price Index as published by the Bureau of Labor Statistics, U.S. Department of Labor. Effective July 1, 2004, wage rates will increase to \$9.66 with health benefits and \$11.11 without health benefits.
- b. Health benefits – Said full-time and part-time employees paid at the lower living wage rate shall be provided health benefits of at least \$1.25 per hour. Contractor shall provide proof that health benefits are in effect for those employees no later than 30 days after execution of the contract or receipt of City financial assistance.
- c. Compensated days off – Said employees shall be entitled to twelve compensated days off per year for sick leave, vacation or personal necessity at the employee's request, and ten uncompensated days off per year for sick leave. Employees shall accrue one compensated day off per month of full time employment. Part-time employees shall accrue compensated days off in increments proportional to that accrued by full-time employees. The employees shall be eligible to use accrued days off after the first six months of employment or consistent with company policy, whichever is sooner. Paid holidays, consistent with established employer policy, may be counted toward provision of the required 12 compensated days off. Ten uncompensated days off shall be made available, as needed, for personal or immediate family illness after the employee has exhausted his or her accrued compensated days off for that year.
- d. Federal Earned Income Credit (EIC) – Contractor shall inform said employees who earn less than \$12.00 per hour that he or she may be eligible for EIC and shall provide forms to apply for advance EIC payments to eligible employees.
- e. Contractor shall provide to all employees and to the Office of Contract Compliance, written notice of its obligation to eligible employees under the City's Living Wage requirements. Said notice shall be posted prominently in communal areas of the work site(s) and shall include the above-referenced information.
- f. Contractor shall provide all written notices and forms required above in English, Spanish or other languages spoken by a significant number of employees within 30 days of employment under this Agreement.
- g. Reporting – Contractor shall maintain a listing of the name, address, hire date, occupation classification, rate of pay and benefits for each of its employees. Contractor shall provide a copy of said list to the Office of Contract Compliance, on a quarterly basis, by March 31, June 30, September 30 and December 31 for the applicable compliance period. Failure to provide said list within five days of the due date will result in liquidated damages of five hundred dollars (\$500.00) for each day that the list remains outstanding. Contractor shall maintain employee payroll and related records for a period of four (4) years after expiration of the compliance period.

- h. Contractor shall require subcontractors that provide services under or related to this Agreement to comply with the above Living Wage provisions. Contractor shall include the above-referenced sections in its subcontracts. Copies of said subcontracts shall be submitted to the Office of the City Administrator, Contract Compliance & Employment Services Division.

18. Equal Benefits Ordinance

This Agreement is subject to the Equal Benefits Ordinance of Chapter 2.232.010 of the Oakland Municipal Code and its implementing regulations. The purpose of this Ordinance is to protect and further the public, health, safety, convenience, comfort, property and general welfare by requiring that public funds be expended in a manner so as to prohibit discrimination in the provision of employee benefits by City contractors (consultants) between employees with spouses and employees with domestic partners, and/or between domestic partners and spouses of such employees. (Ord. 12394 (part), 2001)

The following contractors are subject to the Equal Benefits Ordinance: Entities which enter into a "contract" with the City for an amount of twenty-five thousand dollars (\$25,000.00) or more for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided at the expense of the City or to be paid out of moneys deposited in the treasury or out of trust moneys under the control of or collected by the city; and Entities which enter into a "property contract" pursuant to Section 2.32.020(D) with the City in an amount of twenty-five thousand dollars (\$25,000.00) or more for the exclusive use of or occupancy (1) of real property owned or controlled by the city or (2) of real property owned by others for the city's use or occupancy, for a term exceeding twenty-nine (29) days in any calendar year.

The Ordinance shall only apply to those portions of a contractor's operations that occur (1) within the city; (2) on real property outside the city if the property is owned by the city or if the city has a right to occupy the property, and if the contract's presence at that location is connected to a contract with the city; and (3) elsewhere in the United States where work related to a city contract is being performed. The requirements of this chapter shall not apply to subcontracts or subcontractors of any contract or contractor

19. City of Oakland Campaign Contribution Limits

This Agreement is subject to the City of Oakland Campaign Reform Act of Chapter 3.12 of the Oakland Municipal Code and its implementing regulations if it requires Council approval. The City of Oakland Campaign Reform Act prohibits contractors that are doing business or seeking to do business with the City of Oakland from making campaign contributions to Oakland candidates between commencement of negotiations and either 180 days after completion of, or termination of, contract negotiations.

If this Agreement requires Council approval, Contractor must sign and date an Acknowledgment of Campaign Contribution Limits Form attached hereto and incorporated herein as **Schedule O**.

20. Nuclear Free Zone Disclosure

Contractor represents, pursuant to **Schedule P** (“Nuclear Free Zone Disclosure Form”), that Contractor is in compliance with the City of Oakland’s restrictions on doing business with service providers considered nuclear weapons makers. Prior to execution of this agreement, Contractor shall complete **Schedule P**, attached hereto.

21. Insurance

Unless a written waiver is obtained from the City’s Risk Manager, Contractor must provide the insurance listed in **Schedule Q**. **Schedule Q** is attached hereto and incorporated herein by reference.

22. Indemnification

Contractor shall protect, defend (with counsel acceptable to City), indemnify and hold harmless City, its council members, officers, employees and agents from any and all actions, causes of actions, claims, losses, expenses (including reasonable attorneys’ fees and costs) or liability (collectively called “Actions”) on account of damage of property or injury to or death of persons arising out of or resulting in any way from work performed in connection with this Agreement by Contractor, its officers, employees, sub-consultants or agents.

Contractor acknowledges and agrees that it has an immediate and independent obligation to defend City, its council members, officers, employees and agents from any claim or action which potentially falls within this indemnification provision, which obligation shall arise at the time such claim is tendered to Contractor by City and continues at all times thereafter.

All of Contractor’s obligations under this section are intended to apply to the fullest extent permitted by law and shall survive the expiration or sooner termination of this Agreement.

23. Political Prohibition

Subject to applicable State and Federal laws, moneys paid pursuant to this Agreement shall not be used for political purposes, sponsoring or conducting candidate's meetings, engaging in voter registration activity, nor for publicity or propaganda purposes designed to support or defeat legislation pending before federal, state or local government.

24. Religious Prohibition

There shall be no religious worship, instruction, or proselytization as part of, or in connection with the performance of the Agreement.

25. Business Tax Certificate

Contractor shall obtain and provide proof of a valid City business tax certificate. Said certificate must remain valid during the duration of this Agreement.

26. Termination on Notice

The City may terminate this Agreement immediately for cause or without cause upon giving (30) calendar days' written notice to Contractor. Unless otherwise terminated as provided in this Agreement, this Agreement will terminate on February 28, 2006.

27. Abandonment of Project

The City may abandon or indefinitely postpone the project or the services for any or all of the project at any time. In such event, the City shall give thirty (30) days written notice of such abandonment. In the event of abandonment prior to completion of the final drawings, if applicable, and cost estimates, Contractor shall have the right to expend a reasonable amount of additional time to assemble work in progress for the purpose of proper filing and closing the job. Prior to expending said time, Contractor shall present to the City a complete report of said proposed job closure and its costs, and the City may approve all or any part of said expense. Such additional time shall not exceed ten percent (10%) of the total time expended to the date of notice of termination. All charges thus incurred and approved by the City, together with any other charges outstanding at the time of termination, shall be payable by the City within thirty (30) days following submission of a final statement by Contractor.

Should the project or any portion thereof be abandoned, the City shall pay the Contractor for all services performed thereto in accordance with the terms of this Agreement.

28. Validity of Contracts

The Oakland City Council must approve all agreements greater than \$15,000.

This Agreement shall not be binding or of any force or effect until signed by the City Administrator or his or her designee and approved as to form and legality by the City Attorney or his or her designee.

29. Governing Law

This Agreement shall be governed by the laws of the State of California.

30. Notice

If either party shall desire or be required to give notice to the other, such notice shall be given in writing, via facsimile and concurrently by prepaid U.S. certified or registered postage, addressed to recipient as follows:

(City of Oakland)

Yvonne S. Hudson, Manager

Retirement and Benefits
City of Oakland
150 Frank H. Ogawa Plaza, Suite 3332
Oakland, CA 94612-2033

(Contractor)

Independent Fiduciary Services, Inc.
805 15th Street, NW, Suite 1120
Washington, DC 20005

Attn: Samuel H. Halpern
Executive Vice President

Any party to this Agreement may change the name or address of representatives for purpose of this Notice paragraph by providing written notice to all other parties ten (10) business days before the change is effective.

31. Entire Agreement of the Parties

This Agreement supersedes any and all agreements, either oral or written, between the parties with respect to the rendering of services by Contractor for the City and contains all of the representations, covenants and agreements between the parties with respect to the rendering of those services. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, that are not contained in this Agreement, and that no other agreement, statement or promise not contained in this Agreement will be valid or binding.

32. Modification

Any modification of this Agreement will be effective only if it is in a writing signed by all parties to this Agreement.

33. Severability/Partial Invalidity

If any term or provision of this Agreement, or the application of any term or provision of this Agreement to a particular situation, shall be finally found to be void, invalid, illegal or unenforceable by a court of competent jurisdiction, then notwithstanding such determination, such term or provision shall remain in force and effect to the extent allowed by such ruling and all other terms and provisions of this Agreement or the application of this Agreement to other situation shall remain in full force and effect.

Notwithstanding the foregoing, if any material term or provision of this Agreement or the application of such material term or condition to a particular situation is finally found to be void, invalid, illegal or unenforceable by a court of competent jurisdiction, then the Parties hereto agree to work in good faith and fully cooperate with each other to amend this Agreement to carry out its intent.

34. Time of the Essence

Time is of the essence in the performance of this Agreement.

35. Commencement, Completion and Close out

It shall be the responsibility of the Contractor to coordinate and schedule the work to be performed so that commencement and completion take place in accordance with the provisions of this Agreement.

Any time extension granted to Contractor to enable Contractor to complete the work must be in writing and shall not constitute a waiver of rights the City may have under this Agreement.

Should the Contractor not complete the work by the scheduled date or by an extended date, the City shall be released from all of its obligations under this Agreement.

Within thirty (30) days of completion of the performance under this Agreement, the Contractor shall make a determination of any and all final costs due under this Agreement and shall submit a requisition for such final and complete payment (including without limitations any and all claims relating to or arising from this Agreement) to the City. Failure of the Contractor to timely submit a complete and accurate requisition for final payment shall relieve the City of any further obligations under this Agreement, including without limitation any obligation for payment of work performed or payment of claims by Contractor.

36. Approval

If the terms of this Agreement are acceptable to Contractor and the City, sign and date below.

37. Inconsistency

If there is any inconsistency between the main agreement and the attachments/exhibits, the text of the main agreement shall prevail.

City of Oakland,
a municipal corporation

Contractor

(City Administrator's Office) (Date)

(Signature) (Date)

(Department Head Signature) (Date)

Business Tax Certificate No.

(City Attorney's Office Signature) (Date)

Accounting Number

Schedule Q

INSURANCE REQUIREMENTS PROFESSIONAL AND SPECIALIZED SERVICES AGREEMENTS

a. General Liability, Automobile, Worker's Compensation and Professional Liability

Contractor shall procure, prior to commencement of service, and keep in force for the term of this contract, at Contractor's own cost and expense, the following policies of insurance or certificates or binders as necessary to represent that coverage as specified below is in place with companies doing business in California and acceptable to the City. If requested, Contractor shall provide the City with copies of all insurance policies. The insurance shall at a minimum include:

- i. Commercial General Liability insurance, including but not limited to, Bodily Injury, Broad Form Property Damage, Contractual Liability and if necessary, Products and Completed Operations or Owners and Contractor Protective Liability. The policy shall contain a severability of interest clause or cross liability clause or the equivalent thereof.
 - A. Coverage afforded on behalf of the City shall be primary insurance and any other insurance available to the City under any other policies shall be excess insurance (over the insurance required by this Agreement).
 - B. Limits of liability shall include the following:

Bodily Injury - \$1,000,000
Property Damage - \$1,000,000
Or, Combined Single Limit (C.S.L) for Bodily Injury and Property Damage - \$2,000,000
 - C. If the policy is a "claim made" type policy, the following should be included as endorsements:
 - 1) The retroactive date shall be the effective date of this Agreement or a prior date.
 - 2) The extended reporting or discovery period shall not be less than thirty-six (36) months.
- ii. Automobile Liability insurance, including all owned, non-owned and hired automobiles used by the Contractor or its agents in the performance of this Agreement shall have the following minimum limits for Bodily Injury and Property Damage - \$1,000,000 Combined Single Limit.
- iii. Worker's Compensation insurance as required by the laws of the State of California. Statutory coverage may include Employers Liability coverage with limits not less than \$1,000,000. The Contractor certifies that he/she is aware of the provisions of section 3700 of the California Labor Code, which requires every employer to

provide Workers' Compensation coverage, or to undertake self-insurance in accordance with the provisions of that Code. The Contractor shall comply with the provisions of section 3700 of the California Labor Code before commencing performance of the work under this Agreement and thereafter as required by that code.

iv. Professional Liability/errors and omissions insurance – N/A

b. Terms Conditions and Endorsements

The aforementioned insurance shall be endorsed and have all the following conditions:

- i. Additional Insured: Contractor shall name the City of Oakland, its Councilmembers, directors, officers, agents and employees as additional insureds in its Comprehensive Commercial General Liability and Automobile Liability policies. If Contractor submits the ACORD Insurance Certificate, the additional insured endorsement must be set forth on a CG20 10 11 85 form (or more recent) and/or CA 20 48 - Designated Insured Form (for business auto insurance). A STATEMENT OF ADDITIONAL INSURED ENDORSEMENT ON THE ACORD INSURANCE CERTIFICATE FORM IS INSUFFICIENT AND WILL BE REJECTED AS PROOF OF THE ADDITIONAL INSURED REQUIREMENT; and
- ii. Cancellation Notice: 30-day prior written notice of cancellation, termination or material change in coverage; and
- iii. Certificate holder is to be the same person and address as indicated in the “Notices” section of this Agreement; and
- iv. Insurer shall carry a Best Rating of B+ or greater.

EXEMPTION NOTE: Until further notice, the City will accept the State Compensation Insurance Fund (SCIF) as an acceptable insurer for the purposes of Workers' Compensation coverage.

c. Replacement of Coverage

In the case of the breach of any of the insurance provisions of this Agreement, the City may, at the City's option, take out and maintain at the expense of Contractor, such insurance in the name of Contractor as is required pursuant to this Agreement, and may deduct the cost of taking out and maintaining such insurance from any sums which may be found or become due to Contractor under this Agreement.

d. Insurance Interpretation

All endorsements, certificates, forms, coverage and limits of liability referred to herein shall have the meaning given such terms by the Insurance Services Office as of the date of this Agreement.

e. Proof of Insurance

Contractor will be required to provide proof of all insurance required for the work prior to execution of the contract, including copies of Contractor's insurance policies if and when requested. Failure to provide the insurance proof requested or failure to do so in a timely manner shall constitute ground for rescission of the contract award.

f. Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall maintain separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all the requirements stated herein. The City reserves the right to perform an insurance audit during the course of the project to verify compliance with requirements.

g. Deductibles and Self-Insured Retentions

Any deductible or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductible or self-insured retentions as respects the City, its Councilmembers, directors, officers, agents, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

CITY OF OAKLAND
CONSULTING AND PROFESSIONAL SERVICES CONTRACTORS
SCOPE OF WORK/OUTLINE OF SERVICES TO BE PERFORMED

The services to be performed by Independent Fiduciary Services, Inc. (IFS) shall consist of a comprehensive, independent review and evaluation of the governance and management structure of the PFRS, including analysis, conclusions and recommendations presented in a final report to the Board. The audit shall include (but not be limited to) the following:

TASK

1. Identification and Responsibilities

- Are the responsibilities of the governing body (PFRS Board), Administrative staff and the plan sponsor clearly identified?
- Is there a clear identification and assignment of operation and oversight responsibilities (Board, internal staff and external experts)?
- Is the structure adequate to meet the needs of the system for carrying out its mission in the following areas:
 - Collection of contribution
 - Record keeping
 - Benefit payments
 - Asset-liability management
 - Asset management
 - Reporting

2. Governing Body

- What is the role of the governing body (PFRS Board) in the administration of PFRS?
- Does the governing body have complete authority over the administration of all operations and oversight responsibilities of the PFRS pension fund?
- Does the governing body select and compensate internal staff with operational responsibilities and external service providers (money managers, actuaries, custodians, auditors, etc.)?
- Is it in compliance with the Charter and other regulating policies (California Pension Protection Act)?

3. Accountability

- Does the governing body hold regular meetings and keep records of such?
- Does the PFRS Board utilize established criteria in its decision making process?
- Is there appropriate disclosure of the decisions reached in the meeting of the governing body to plan members and beneficiaries?
- Are the actions/decisions of the PFRS Board reported?
- Is the selection process for members of governing body transparent? Does this process meet the requirements of the Charter and other associated regulations?
- Is there an appropriate succession planning process?

4. Expert Advice

- Does the governing body seek and employ the use of independent experts in the following areas:
 - Investment Consultant
 - Actuary
 - Custodian
 - Auditor
 - Legal Representation

5. Suitability

- Are the members of the governing body suitable to serve on the PFRS board? (Specifically, they meet the background criteria appropriate for the seat they hold i.e., appointed reps, insurance rep, banking rep, etc.; also are they adequately trained by attending educational seminars, conferences, etc. to stay current on trends, best practices, investment strategies in the industry.
- Develop a list of comparable pension funds based on number of members and total amount of fund assets and other pertinent factors. Survey the selected pension funds to determine pertinent policies and procedure, performance characteristics and other relevant information.
- Review the administrative costs of operating the pension system including internal administrative costs and City overhead charges levied against the pension fund. Compare these costs to comparable pension funds. Evaluate the cost effectiveness of existing administrative structure, policies and procedures.

6. Internal Controls

- Are the appropriate internal controls in place?
- Regular assessment of the performance of the persons and entities involved in the operation and oversight of the pension fund.
- Regular review of compensation mechanisms, in order to ensure that they provide the correct incentives for those responsible for the operation and oversight of the pension fund.
- Regular review of information processes, operational software systems, and accounting and financial reporting systems.
- Identification, monitoring and, where necessary, correction of conflicts of interest situations.
- Mechanisms to sanction the improper use of privileged information.
- Implementation of an adequate risk measurement and management system including effective internal audit.
- Regular assessment of regulatory compliance systems.
- The establishment of objective performance measures for all persons and entities involved in the administration of the PFRS fund.

7. Reporting

- Are reporting channels established between all persons and entities involved in the administration of the PFRS fund in order to ensure the effective and timely transmission of relevant and accurate information?
- Does the PFRS fund comply with federal and state reporting requirements?
- Are audits, actuary and financial reports completed annually or as required?

8. Disclosure

- Does the governing body disclose relevant information to all parties in a clear, accurate, and timely manner?

9. Investment Analysis

- Review investment policies, procedures and periodic reporting to the PFRS Board. Determine if the investment portfolio complies with the City Charter and Board investment policy. Compare investment performance with other California city and county public pension funds. Calculate annual investment cost as a percentage of annual investment purchases and compare to other funds. (Note: Task completed working with Investment Consultant).

10. Investment Performance Measurement and Evaluation

The review of this task area will include the evaluation of:

- 1) Total portfolio performance, as well as each asset class, from numerous perspectives, including absolute and risk-adjusted returns, returns compared to the benchmarks adopted by the Board and peer universe comparisons.
- 2) Processes used to determine and measure investment performance, including
 - The methods used for collecting, verifying, and reporting performance data,
 - An assessment of the degree to which the calculation and reporting is consistent with industry standards, and
 - The appropriateness of the level of detail, timeliness and frequency of reporting.

11. Investment Benchmarks – This task area is interconnected with the investment performance measurement area, above, and the monitoring and reporting area, below. Performance benchmarking is a critical element in performance evaluation and many published benchmarks exist within every major asset class.

Our review will analyze --

- 1) The reasonableness of the performance benchmarks used to evaluate the Fund's investment returns. This assessment typically includes:
 - A review of the process used to select the benchmarks and the reasons for their selection,
 - A determination of the benchmarks' suitability for measuring the financial characteristics of each asset class of the portfolio being evaluated, and
 - If another benchmark is deemed more suitable, how the returns achieved compare using the benchmarks adopted by the Fund versus the more suitable benchmark.
 - Benchmarks at different levels of monitoring, e.g. at the strategic level and at the "policy" level.

Evaluation at the policy level is more general and broad, e.g., the whole portfolio compared to a long-term target mix of assets, while the strategic level is narrower and tied to a more specific standard, e.g. small cap stocks compared to the Russell 2000 Index. The “policy index” is a combination of applicable market indices, weighted according to the composition of the Fund’s portfolio. IFS will compare the returns of the policy index against those of the actual portfolio to help evaluate the portfolio’s performance results and possible causes for such results. For example, assuming for simplicity’s sake that the Fund’s portfolio consisted of 60% in large company domestic stocks and 40% in domestic bonds, then a suitable “policy index” might consist of a 60% weighting in the S&P 500 Index and 40% in the Lehman Aggregate Bond Index. The Fund’s actual applicable policy index will be a function of its actual asset classes and sub classes. In all instances where raw return data is required, we will rely on the accuracy historically reported information. (Note: Recalculation of returns from raw data would be cost-prohibitive.)

12. Investment Reporting and Monitoring

The review of this task area will include the evaluation of:

- 1) Whether the nature and scope of the Fund’s performance reports are technically sound and practically useful, as well as the utility of the current reporting method(s) and formats.
- 2) Whether investment managers have been provided with written investment guidelines?
- 3) Whether appropriate criteria were used to develop the guidelines for each type of manager? (For this task we will sample the guidelines.)
- 4) Whether processes are in place to monitor adherence to stated investment guidelines, and if so, whether the monitoring processes are documented in writing and adhered to as written? Whether the processes are sufficient and effective? Whether the Fund monitors the investment managers’ for investment risk?

TIME TABLE TO COMPLETE TASK

<u>Date</u>	<u>Event</u>
The later of August 26, 2005 or 5 business days after execution of the Contract	Make Initial documents request
December 15, 2005	Prepare and mail survey
November-January, 2005	Review and analyze documents
January, 2005	Begin On-site work
Early February, 2006	Review survey responses and follow up with telephone work
Late February, 2006	Send PFRS Board working draft report
Mid March, 2006	Telephone Meeting to discuss draft
Early April, 2006	Final draft to PFRS Board

April 30, 2006

Issue Final Report to PFRS Board

Note; PFRS acknowledges and agrees that Amendments to this Contract may require amendments to this schedule for completion.

Consultant:

Independent Fiduciary Services, Inc.

By Samuel W. Halpern, Executive Vice President

(Please Print)

(Signature)

(Date)

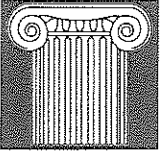
PFRS Representative:

(Please Print)

(Signature)

(Date)

ATTACHMENT 3



744 Broad Street
Suite 1120
Newark, NJ 07102
Phone: 973-424-6400
Fax: 973-424-6419
www.IndependentFiduciary.com

August 8, 2005

By E-mail and Overnight Delivery

Ms. Yvonne Hudson
City of Oakland Police & Fire Retirement System
150 Frank Ogawa Plaza, Suite 3341
Oakland, CA 94612

Dear Yvonne,

This letter sets forth a description of the proposed addition of three inter-related investment performance task areas and the resulting fee adjustment as requested by the Board. We believe that the inclusion of these areas will greatly enhance the value of the review.

❖ ***Investment Performance Measurement and Evaluation***

The review of this task area will include the evaluation of:

- 1) Total portfolio performance, as well as each asset class, from numerous perspectives, including absolute and risk-adjusted returns, returns compared to the benchmarks adopted by the Board and peer universe comparisons.
- 2) Processes used to determine and measure investment performance, including
 - The methods used for collecting, verifying, and reporting performance data,
 - An assessment of the degree to which the calculation and reporting is consistent with industry standards, and
 - The appropriateness of the level of detail, timeliness and frequency of reporting.

❖ ***Investment Benchmarks*** – This task area is interconnected with the investment performance measurement area, above, and the monitoring and reporting area, below.

Performance benchmarking is a critical element in performance evaluation and many published benchmarks exist within every major asset class.

Our review will analyze --

- 1) The reasonableness of the performance benchmarks used to evaluate the Fund's investment returns. This assessment typically includes:
 - A review of the process used to select the benchmarks and the reasons for their selection,
 - A determination of the benchmarks' suitability for measuring the financial characteristics of each asset class of the portfolio being evaluated, and
 - If another benchmark is deemed more suitable, how the returns achieved compare using the benchmarks adopted by the Fund versus the more suitable benchmark.

Benchmarks at different levels of monitoring, e.g. at the strategic level and at the "policy" level. Evaluation at the policy level is more general and broad, e.g., the whole portfolio compared to a long-term target mix of assets, while the strategic level is narrower and tied to a more specific standard, e.g. small cap stocks compared to the Russell 2000 Index. The "policy index" is a combination of applicable market indices, weighted according to the composition of the Fund's portfolio. IFS will compare the returns of the policy index against those of the actual portfolio to help evaluate the portfolio's performance results and possible causes for such results. For example, assuming for simplicity's sake that the Fund's portfolio consisted of 60% in large company domestic stocks and 40% in domestic bonds, then a suitable "policy index" might consist of a 60% weighting in the S&P 500 Index and 40% in the Lehman Aggregate Bond Index. The Fund's actual applicable policy index will be a function of its actual asset classes and sub classes. In all instances where raw return data is required, we will rely on the accuracy historically reported information. (Note: Recalculation of returns from raw data would be cost-prohibitive.)

❖ ***Investment Reporting and Monitoring***

The review of this task area will include the evaluation of:

- 1) Whether the nature and scope of the Fund's performance reports are technically sound and practically useful, as well as the utility of the current reporting method(s) and formats.

Ms. Yvonne Hudson
August 8, 2005
Page 3

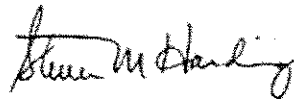
- 2) Whether investment managers have been provided with written investment guidelines?
- 3) Whether appropriate criteria were used to develop the guidelines for each type of manager?
- 4) Whether processes are in place to monitor adherence to stated investment guidelines, and if so, whether the monitoring processes are documented in writing and adhered to as written? Whether the processes are sufficient and effective?
- 5) Whether the Fund monitors the investment managers' for investment risk?

All of the above areas will be analyzed in the context of current industry standards and "best practices". We will also suggest reasonable alternatives when we consider them practical to implement.

As the Board requested, this list of added tasks and procedures will provide a more thorough and comprehensive look at the investment program of the City of Oakland Police and Fire Retirement System than we originally discussed in our proposal. The addition of these task areas will increase our previously proposed fee by \$40,000. Our total revised fee for the entire review, including these added areas, is \$160,000 plus \$9,500 for reasonable out-of-pocket expenses (primarily related to travel), assuming the revised scope of work and an acceptable contract. (Yvonne, I increased the travel expense by \$2,000 because of the additional work.)

We would like to discuss this letter with the investment committee at its convenience. Please call me at 973-424-6410 to answer any questions you may have or to clarify any of the above. Also, if for any reason I am not available, please contact Jeanna Cullins in our Washington office at 202-898-2270. (Jeanna will return from vacation on August 17.)

Very truly yours,



Steven M. Harding
Senior Vice President
Independent Fiduciary Services, Inc.

Cc: Jeanna Cullins
Marc Becker



INDEPENDENT FIDUCIARY SERVICES, INC.

744 Broad Street ~ Suite 1120 ~ Newark, NJ 07102 ~ phone: 973-424-6400 ~ fax: 973-424-6419

September 15, 2005

By E-mail

Ms. Yvonne Hudson
City of Oakland Police & Fire Retirement System
150 Frank Ogawa Plaza, Suite 3341
Oakland, CA 94612

Dear Yvonne,

This revised letter sets forth a description of the proposed addition of three inter-related investment performance task areas and the revised fee adjustment as requested by the Board. We believe that the inclusion of these areas will greatly enhance the value of the review.

When we first priced this engagement we took into account several characteristics of the fund and the original fee quote is lower than we typically charge. Some of the factors we considered included the nature of the plan, being closed; the size of the fund and its operations; and the fact that we have known members of the Board for some time. We also brought in an experienced sub-contractor for some of the benefit areas and its fee will come out of the amount we receive. We recently (September 2) bid on a large fund operational review and our average discounted hourly rate was \$375. That rate is significantly more than we have proposed for Oakland PFRS. That said, we have reduced the additional fee by \$12,000 (29%) but we cannot go lower than that.

❖ ***Investment Performance Measurement and Evaluation***

The review of this task area will include the evaluation of:

- 1) Total portfolio performance, as well as each asset class, from numerous perspectives, including absolute and risk-adjusted returns, returns compared to the benchmarks adopted by the Board and peer universe comparisons.
- 2) Processes used to determine and measure investment performance, including
 - The methods used for collecting, verifying, and reporting performance data,
 - An assessment of the degree to which the calculation and reporting is consistent with industry standards, and
 - The appropriateness of the level of detail, timeliness and frequency of reporting.

- ❖ **Investment Benchmarks** – This task area is interconnected with the investment performance measurement area, above, and the monitoring and reporting area, below. Performance benchmarking is a critical element in performance evaluation and many published benchmarks exist within every major asset class.

Our review will analyze --

- 1) The reasonableness of the performance benchmarks used to evaluate the Fund's investment returns. This assessment typically includes:
 - ☑ A review of the process used to select the benchmarks and the reasons for their selection,
 - ☑ A determination of the benchmarks' suitability for measuring the financial characteristics of each asset class of the portfolio being evaluated, and
 - ☑ If another benchmark is deemed more suitable, how the returns achieved compare using the benchmarks adopted by the Fund versus the more suitable benchmark.

Benchmarks at different levels of monitoring, e.g. at the strategic level and at the "policy" level. Evaluation at the policy level is more general and broad, e.g., the whole portfolio compared to a long-term target mix of assets, while the strategic level is narrower and tied to a more specific standard, e.g. small cap stocks compared to the Russell 2000 Index. The "policy index" is a combination of applicable market indices, weighted according to the composition of the Fund's portfolio. IFS will compare the returns of the policy index against those of the actual portfolio to help evaluate the portfolio's performance results and possible causes for such results. For example, assuming for simplicity's sake that the Fund's portfolio consisted of 60% in large company domestic stocks and 40% in domestic bonds, then a suitable "policy index" might consist of a 60% weighting in the S&P 500 Index and 40% in the Lehman Aggregate Bond Index. The Fund's actual applicable policy index will be a function of its actual asset classes and sub classes. In all instances where raw return data is required, we will rely on the accuracy historically reported information. (Note: Recalculation of returns from raw data would be cost-prohibitive.)

- ❖ **Investment Reporting and Monitoring**

The review of this task area will include the evaluation of:

- 1) Whether the nature and scope of the Fund's performance reports are technically sound and practically useful, as well as the utility of the current reporting method(s) and formats.
- 2) Whether investment managers have been provided with written investment guidelines?

- 3) Whether appropriate criteria were used to develop the guidelines for each type of manager? (For this task we will sample the guidelines.)
- 4) Whether processes are in place to monitor adherence to stated investment guidelines, and if so, whether the monitoring processes are documented in writing and adhered to as written? Whether the processes are sufficient and effective?
- 5) Whether the Fund monitors the investment managers' for investment risk?

All of the above areas will be analyzed in the context of current industry standards and "best practices". We will also suggest reasonable alternatives when we consider them practical to implement.

As the Board requested, this list of added tasks and procedures will provide a more thorough and comprehensive look at the investment program of the City of Oakland Police and Fire Retirement System than we originally discussed in our proposal. The addition of these task areas will increase our previously proposed fee by \$30,000. Our total revised fee for the entire review, including these added areas, is \$150,000 plus \$7,500 for reasonable out-of-pocket expenses (primarily related to travel), assuming the revised scope of work and an acceptable contract. I have discussed this fee proposal carefully with Jeanna Cullins and we are in agreement on it. I hope that the Board finds the added amount to be reasonable and of value considering the additional work described above.

We would like to discuss this letter with the investment committee at its convenience. Please call me at 973-424-6410 to answer any questions you may have or to clarify any of the above. Also, if for any reason I am not available, please contact Jeanna Cullins in our Washington office at 202-898-2270.

Very truly yours,



Steven M. Harding
Senior Vice President
Independent Fiduciary Services, Inc.

Cc: Jeanna Cullins
Marc Becker

ATTACHMENT 4



805 15th Street, NW
Suite 1120
Washington, DC 20005
Phone: 202-898-2270
Fax: 202-898-1819
www.independentfiduciary.com

MEMORANDUM

TO: Oakland Police and Fire Retirement System Operational Review Interviewees

FROM: Independent Fiduciary Services (IFS)

DATE: December 16, 2005

RE: Interviews

We hope this memo will serve as an introduction to the IFS team and the process we follow in the upcoming interviews to be held January 30 and 31. It may also possibly raise some questions, which we hope you will ask in the interviews.

The methodology IFS utilizes to conduct an Operational Review proceeds through several phases. The first phase is document collection. During the document collection phase – with the staff's cooperation – we collected information regarding the System's operations and investment program and practices. This included amassing extensive data and documents, such as the System's enabling statute, oversight processes, written operating policies and procedures, written investment policies and guidelines, Board minutes, investment performance data and evaluation reports, service provider contracts, financial reports and more. The depth and breath of the document collection phase is driven by the project's scope of work.

Another method IFS utilizes to collect information beyond the document collection phase, is a series of discussions and interviews with people directly associated with the System's operations. The interview process includes face-to-face and/or telephone interviews with,

including but not limited to, for example, principal representatives of the oversight body, Board Members, key management, staff, and various service providers.

During the interview process we will discuss with you many aspects of the System's, investment and benefits programs and practices. This process will facilitate our ability to address the subjects included in our scope of work. Our discussion with you will focus on your knowledge and perspective of the System's operations in the area in which you work.

These interviews are very important to the success of the review process. While we have read and assimilated lots of written documents and theory about PFRS, nothing can take the place of direct, personal and realistic views from the Board Members, staff and select service providers.

As a matter of policy, and to encourage candor in the interviews, we do not and will not attribute comments to any particular person or job function. We hope this will help you feel more at ease in our discussion.

The interviews may be an opportunity for you to advance a cause or insight, which you have thus far been unable to promote or disclose. Sometimes we can be helpful in getting something accomplished that has been desired for a long time but, for whatever reason, support could not be obtained. If there is something of that nature on your mind, and we concur, and believe it relevant and significant, we may recommend it.

When we meet with you, we would like to begin by letting you tell us about your background and involvement with PFRS, and by all means, if you have questions about us, please ask.

Finally, there are several features of our firm and process that you may find informative:

- We are independent. IFS has no affiliates, period.
- We are not pursuing anyone's job; IFS does not accept public fund retainer investment consulting business and generally these are one-time projects.

- We are only paid only one way – “hard dollars.” IFS does not accept brokerage payments or “soft dollars.”
- We are experienced. IFS has performed evaluations similar to this regarding many other PERS across the U.S.
- We are practical, not “pie in the sky.” This is because of our backgrounds and experience. Among our personnel are current and former trustees and fund staff. Also, as a firm, IFS frequently acts as a fiduciary.

You can find more about IFS at our website – www.independentfiduciary.com

Thank you. We look forward to meeting with you. If you have any questions (before or after the interviews), please don't hesitate to contact us at 202-898-2270.

ATTACHMENT 5

**THE CITY OF OAKLAND
POLICE AND FIRE RETIREMENT SYSTEM**

**INITIAL LIST OF DOCUMENTS AND DATA NEEDED
TO COMMENCE REVIEW AND EVALUATION**

1. Agendas, minutes and handouts from Board and committee meetings for the period 2004 through year to date 2005.
2. The System's most recent Annual Report, including the audited financials and any management letter that may have been issued.
3. The System's most recent actuarial report.
4. The System's most recent organization chart, including an explanation of which (if any) of the System's staff are paid by the System (as opposed to the City) and/or subject to hiring and termination by the Board (as opposed to the City or its officials).
5. For each System employee, please provide their:
 - resume;
 - current compensation (without fringe benefits);
 - compensation with fringe benefits;
 - position/job description and performance measures;
 - applicable standard operating procedures; and
 - prior positions held with the System.
6. Description of personnel compensation components – amounts and types (e.g. bonuses, fringe benefits, retention incentives, etc.)
7. Any internal administrative manuals, policies, procedures or documents regarding the System's operations, including:
 - any standard operating procedures;
 - delegations of authority by the Board to staff;
 - conflict of interest guidelines;
 - financial disclosure requirements
 - accounting procedures;
 - benefits administration procedures;
 - internal controls and audit functions policies and procedures;
 - staff annual performance evaluation procedures;
 - budget planning procedures;
 - records maintenance policies and procedures; and
 - systems backup and disaster recovery policy.

8. Any policies and procedures, in written form and flowchart form, if available, for the review, approval, processing and payment of manager fees and expenses.
9. The current investment policy statement and investment guidelines for the System's overall portfolio and/or for individual investment managers or other accounts.
10. A copy of the System's latest asset/liability study, if any.
11. A list of all investment objectives, market indices and other investment performance benchmarks the System currently uses, including a description of each asset class or subclass to which each such benchmark applies.
12. Any and all internal policy or procedures documents or manuals regarding the System's investment activities, including, for instance, procedures for determining asset allocation, practices for monitoring investment managers, delegations of authority by the Board to staff regarding investment activities.
13. Any written procedures and criteria for selecting investment managers, investment consultants, and primary service providers to the System (e.g. master custodian, outside counsel, actuary, auditor etc).
14. A listing of all outside advisers, consultants (other than investment managers) and primary service providers for investment related matters that the System currently employs, by name, function and fees paid over the periods 2004 and 2005, and copies of the contracts between the System and the service providers.
15. A listing of each firm or person who serves the System as an investment manager, by name, the asset class and/or subclass (e.g., large, small, value, growth, etc.) involved, market value of assets under management, date hired, and fees paid over the periods 2004 and 2005, and copies of the contracts between investment managers and the System.
16. A listing of total investment management costs, for the last two years for the System's portfolio as a whole, as well as by asset class, and for active versus passive accounts.
17. The two most recently completed quarterly performance evaluation report from your investment consultant for the System's entire portfolio and each component of it, including rates of return, analytics and portfolio characteristics. If this data is available on a disk, please provide it in that form.
18. The rates of return the System has earned each quarter for the year and nine months ending September 30, 2005, plus – when available – the quarter ending December 31, 2005, for each investment manager and the entire Fund, including each component (e.g., domestic equity, international equity, etc.), and each asset

subclass (large, small, value, growth, etc.) both gross and net of fees. If already computed by or on behalf of the System, please also include any risk-adjusted returns for each category, as well as the benchmark for – and stated method of – calculating such returns. If this data is available on a disk, please provide it in that form.

19. Any compilation or analysis of the System's investment transaction costs over the last two years, including the most recent transactions cost report prepared on behalf of the System.
20. Any policy statements and analyses regarding the System's practices and costs regarding securities lending, soft dollars, directed brokerage or commission recapture, if any are applicable.
21. A copy of the statute(s) governing the System that cover its structure, Board Members, personnel, benefits, investment and administrative activities, including:
 - its Charter
 - provisions regarding board composition, fiduciary obligations, experience requirements, disclosure requirements, code of conduct;
 - indemnification coverage;
 - reporting obligations to the participants and beneficiaries;
 - records retention requirements;
 - freedom of information and/or public access (sunshine laws) requirements;
22. Any orientation manual provided to new Board Members.
23. A listing of Board members with their background/bio, Board Committees and committee charters.
24. A list of all educational conferences and due diligence visits Board Members or staff attended within the last two (2) years, including a general description of the meeting and who attended.
25. Any statements, regulations, and/or procedures regarding the System's travel and education policy, including recommended conferences, requirements to file conference reports, attendance approval procedures, expenses reimbursement criteria, etc.
26. A copy of any insurance and/or liability coverage maintained by the System.
27. Samples of recent, routine staff reports to the Board.
28. A written description of all investment and administrative software (e.g. accounting, benefits, cash management, etc.) currently used by the System and its function/purpose.

29. A flow chart that depicts the flow of monies received, invested and paid out by the System, including contributions, benefit payments, accounts payable to third parties and any flows among the System, the City, and its banking service providers.
30. The System's agreement with its custodian, plus any addenda regarding, e.g. securities lending, special analytics, cash management and other services.
31. The current status of any open litigation involving the System.
32. A list of other public pension funds that the Board and staff consider peers for comparison purposes and the criteria that validates the comparison. For example, similar asset size, number and type of member, e.g., police/fire, California municipal fund, etc.
33. A list and description of any regulatory reports required to be filed for city, state, and federal government. Please include a copy of the latest filing.

ATTACHMENT 6

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. Identification and Assignment of Responsibilities		
1	<p><i>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.</i></p> <p>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.</p>	16
2	<p><i>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.</i></p> <p>Staff Comment: <u>Implemented</u>. 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.</p>	16
3	<p><i>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.</i></p> <p>Staff Comment: <u>Partially Implemented</u>. 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.</p>	17
4	<p><i>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.</i></p> <p>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.</p>	17 (Weight = 9)
5	<p><i>Pensioner records filing should be made a priority project. All pensioners’ filing information</i></p>	19

Number	Recommendation(s)	Page
	<p><i>received in the future should be filed in a timely manner – i.e., within one week of receipt.</i></p> <p>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.</p>	
6	<p><i>Pensioner record file drawers should be locked at all times when unattended by the Benefits Representative.</i></p> <p>Staff Comment: Partially Implemented. New file cabinets with locks have been ordered and files are in the process of being transferred.</p>	19
7	<p><i>Use of a scanner for document storage is also recommended. Certain paper documents could then be shredded for security purposes.</i></p> <p>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.</p>	19
8	<p><i>It should be required that all address changes are to be made in writing and signed by the pensioner only.</i></p> <p>Staff Comment: Implemented. All Address changes are now required to be made in writing and signed by the pensioner.</p>	20
9	<p><i>It should be required that a notary's stamp and signature appear on all beneficiary forms verifying the signature is that of the pensioner.</i></p> <p>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.</p> <p>In August 2008, Staff sent out information to all Retirees to update their existing Beneficiary information. All changes to Beneficiary information require a notary.</p>	20
10	<p><i>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 destruction of plan materials, with the limited availability of storage space, it may allow for the disposition of unnecessary materials.</i></p>	23 (Weight = 1)

Number	Recommendation(s)	Page
	<p>Staff Comment: <u>Not Implemented.</u> The City of Oakland already has a record retention policy. It includes the requirement to retain active retirement payment records for seven years.</p>	
11	<p><i>The Board meeting cassettes should be located for the past four years so that the System is in compliance with the Brown and Sunshine requirements to maintain meeting minutes for a minimum period of four years.¹</i></p> <p>Staff Comment: Implemented. The Board meeting cassettes are available for the past four years.</p>	23
12	<p><i>Should the practice of recording meetings be maintained, new technology, such as a CD recorder, should be utilized to avoid loss due to deterioration of cassettes over time.</i></p> <p>Staff Comment: Implemented. Board meetings are now recorded using a digital recorder.</p>	23
13	<p><i>Written minutes should provide more detail, especially in areas where the Board provides direction. 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.</i></p> <p>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.</p>	23
14	<p><i>Use of a scanner for document storage is also recommended. Scanning of meeting materials would reduce the need for use of the limited storage space. It would also protect against the loss of older records due to natural disaster.</i></p> <p>Staff Comment: <u>Partially implemented.</u> 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.</p>	23
15	<p><i>Establish a written procedure, for inclusion in the Standard Operations Manual (SOM), for expense payments.</i></p> <p>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</p>	24

¹ Staff reports that this recommendation has been completed.
ATTACHMENT 3

Number	Recommendation(s)	Page
	<p>are on the respective staff desk, on the shared drive accessible by appropriate staff and maintained on 3.5 floppy disks.</p>	
16	<p><i>The Board seat of Insurance Representative should be filled as soon as possible.</i></p> <p>Staff Comment: Implemented. The Board seat of Insurance Representative was filled.</p>	25
17	<p><i>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.</i></p> <p>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 Retirement Systems Accountant and verified by the Accountant.</p>	26
18	<p><i>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.</i></p> <p>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.</p>	26
19	<p><i>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.</i></p> <p>Staff Comment: Implemented. Staff now presents a Monthly Administrative report that includes the information requested.</p>	27
20	<p><i>The administrative budget reports should continue to be shared with the Board.</i></p> <p>Staff Comment: Implemented. Administrative budget reports continue to be shared with the Board.</p>	27
21	<p><i>It is recommended that the completion of an Annual Report (AR) for the Plan Year 2005 be made a priority. The completed AR could be put online to reduce staff time and costs related to photocopying the report. An internet site could also be established for the PFRS and all pertinent information</i></p>	27

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	<p><i>could be maintained there including the AR.</i></p> <p>Staff Comment: Implemented. An annual report was prepared and continues to be prepared annually.</p>	
B. Governing Body		
22	<p><i>The Board should retain independent fiduciary legal counsel.</i></p> <p>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.</p>	32
23	<p><i>The Board should utilize independent fiduciary legal counsel to assist it in objectively harmonizing the provisions of Proposition 162 and the City Charter and then to update its rules and regulations to 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) select and evaluate the PFRS Secretary and additional staff; (d) select and evaluate the actuary; and (e) select and evaluate the custodial bank.</i></p> <p>Staff Comment: Board input required</p>	32 (Weight = ?)
24	<p><i>The Board should develop a memorandum of understanding with the City which would facilitate the 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 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.</i></p> <p>Staff Comment: Board input required</p>	32 (Weight = ?)
25	<p><i>The Board should explore the cost/benefit of once again becoming a distinct entity within the Oakland City Government rather than being a part of the Office of Personnel.</i></p> <p>Staff Comment: Board input required</p>	32 (Weight = ?)
26	<p><i>The Board should become more cognizant of the full extent of its fiduciary responsibility, authority and control regarding the pension fund by periodically holding compulsory educational sessions (for 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</i></p>	32 (Weight = ?)

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	<i>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).</i>	
	Staff Comment: Board input required	
27	<i>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.</i>	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. Accountability		
28	<i>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 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.</i>	39 (Weight = ?)
	Staff Comment: Board input required	
29	<i>We recommend that the Board's Rules and Regulations be updated.</i>	40
	Staff Comment: Not Implemented	(Weight = 7)
30	<i>In addition to the meeting agenda, the Board should also publish the minutes of each meeting on its website.</i>	42
	Staff Comment: Implemented. Board meeting material is now available on the City of Oakland website.	
31	<i>The Board should issue a current annual report as soon as possible.</i>	42
	Staff Comment: Implemented.	
32	<i>The Board should amend its Rules and Regulations to require that the notice of election, petition, election criteria, etc., be posted on the PFRS website.</i>	44
	Staff Comment: Not Implemented Board input required.	(Weight = 7)
33	<i>The Board should go on record and request the City Council to fill the current vacancy on the Board.</i>	44

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	<p><i>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.</i></p> <p>Staff Comment: The vacancy has been filled.</p>	
34	<p><i>The Board should develop a succession plan and implementation protocol.</i></p> <p>Staff Comment: Not Implemented</p>	46 (Weight = 6)
35	<p><i>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.</i></p> <p>Staff Comment: Not Implemented</p>	46 (Weight = 8)
36	<p><i>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.</i></p> <p>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.</p>	46
D. Expert Advice		
37	<p><i>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.</i></p> <p>Staff Comment: Implemented. The PFRS Board has selected an Attorney.</p>	49
38	<p><i>The Board should continue to employ an investment consultant to provide a comprehensive range of consulting services.</i></p> <p>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</p>	56

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	(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	<p><i>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.)</i></p> <p>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.</p>	<p>56</p> <p>(Weight = ?)</p>
40	<p><i>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.</i></p> <p>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.</p>	56
41	<p><i>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.</i></p> <p>Staff Comment: The PFRS Board selected a new Actuary in 2007.</p>	57
42	<p><i>PFRS should seek competitive proposals for a new custody arrangement. The Board's legal counsel should be closely involved in negotiating the custody agreement.</i></p> <p>PCA Comment: PCA expects to work with Staff to review its custody relationship in the near future.</p>	60
43	<p><i>Simultaneously, PFRS should seek competitive bids on its securities lending program. (See next section and recommendation.)</i></p> <p>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.</p>	60
44	<p><i>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.</i></p>	62

Number	Recommendation(s)	Page
	Staff Comment: Not Implemented	
45	<i>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..</i>	62
	Staff Comment: Not Implemented	
46	<p><i>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.:</i></p> <ul style="list-style-type: none"> • <i>Indemnification against borrower default;</i> • <i>Liability on the part of agent for failing to act in accordance with PFRS instructions; and</i> • <i>Restrictions on borrowing activities of parent/affiliate of agent.</i> <p>Staff Comment: The PFRS Board selected and signed a new SecLending contract in 2007.</p>	62
47	<p><i>PFRS should seek to restrict the terms and conditions under which MetWest can lend PFRS securities to its parent and affiliates, i.e., Wachovia.</i></p> <p>Staff Comment: No Longer Applicable</p>	63
48	<p><i>MetWest should provide explanations in their report when loan transactions fall outside general loan program guidelines.</i></p> <p>Staff Comment: Not Implemented</p>	63
49	<p><i>The footnote on securities lending should be corrected as appropriate.</i></p> <p>Staff Comment: No Longer Applicable</p>	63
E. Suitability		
50	<p><i>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.</i></p> <p>Staff Comment: The travel policy has been updated and adopted by the Board to include some,</p>	66

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but not all, of the recommendations made by the auditing consultant.		
F. Internal Controls		
51	<p><i>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.</i></p> <p>Staff Comment: Not Implemented</p>	71
52	<p><i>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.</i></p> <p>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.</p>	71
53	<p><i>The percentages used for allocation purposes should be changed as follows:</i></p> <ul style="list-style-type: none"> ▪ <i>Reduce the percentage for the Executive Assistant to the Director of Personnel from 15% to 8%;</i> ▪ <i>Reduce the percentage for Human Resources Technician from 80 to 65%;</i> ▪ <i>Increase the percentage for Retirement Systems Accountant and Accountant 1 from 70% to 80%; and</i> ▪ <i>All other reviewed percentages appear appropriate.</i> <p><i>(Note: The revised recommended percentages are based solely on our judgment based on the interviews conducted.)</i></p> <p>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.</p>	72
54	<p><i>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.</i></p>	74

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55	<p>Staff Comment: Not Implemented</p> <p><i>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.</i></p>	74
56	<p>Staff Comment: Not Implemented</p> <p><i>A HIPAA compliance study should be performed, and steps should be taken to remedy any deficiencies in PFRS' HIPAA compliance.</i></p>	74
57	<p>Staff Comment: Not Implemented</p> <p><i>PFRS should continue the annual external audit of benefit calculations.</i></p>	75
58	<p>Staff Comment: Implemented. PFRS continues to go through annual external Audits</p> <p><i>PFRS should hire an external actuarial firm to review the work of its current actuary.</i></p> <p>Staff Comment: Partially Implemented: 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.</p>	75
59	<p><i>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.</i></p> <p>Staff Comment: Not Implemented</p>	76
60	<p><i>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.</i></p> <p>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.</p>	76
61	<p><i>The Board should undertake a periodic management audit such as the one performed to develop this report.</i></p> <p>Staff Comment: Under Consideration</p>	76

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62	<p><i>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.</i></p> <p>Staff Comment: Not Implemented</p>	77
63	<p><i>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.</i></p> <p>Staff Comment: Not Implemented</p>	77
G. Reporting		
64	<p><i>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.</i> Staff Comment: Not Implemented</p>	79
65	<p><i>Establishment and maintenance of a PFRS webpage within the City's portal would allow another means of communicating Board decisions.</i> Staff Comment: Not Implemented</p>	79
66	<p><i>PFRS should resume the practice of publishing its own annual report on a timely basis. Reports for 2004 and 2005 should be prepared.</i></p> <p>Staff Comment: This recommendation has been implemented.</p>	81
H. Disclosure		
67	<p><i>All actions taken by the governing body at the monthly meeting should be recorded in detail in the meeting minutes.</i></p> <p>Staff Comment: Currently being done.</p>	82
68	<p><i>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.</i></p> <p>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.</p>	82
69	<p><i>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.)</i></p>	82

Number	Recommendation(s)	Page
	Staff Comment: Not Implemented	
70	<i>Same recommendation as G. 64.</i>	82
71	<i>Same as H. 69</i>	82
I.	Investment Analysis	
72	<p><i>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.</i></p> <p>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.</p>	88
73	<p><i>The IPS should include a distinct section on roles and responsibilities that covers all of the major investment related tasks.</i></p> <p>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.</p>	90
74	<p><i>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.</i></p> <p>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.</p>	91
75	<p><i>We recommend that the rebalancing ranges be tightened and modified</i></p> <p>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.</p>	93
76	<p><i>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.</i></p> <p>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.</p>	94

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77	<p><i>We recommend that the Board include only broad asset class level guidelines in the IPS.</i></p> <p>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.</p>	96
78	<p><i>The Board should consider revising and expanding the policy on securities lending as described in our report.</i></p> <p>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.</p>	98
79	<p><i>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.</i></p> <p>PCA Comment: PCA will work with Staff to add policy on brokerage practices.</p>	99
80	<p><i>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.</i></p> <p>PCA Comment: For an additional charge, PFRS could receive monthly information from its custodian.</p>	104
J. Performance Benchmarks		
81	<p><i>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.</i></p> <p>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.</p>	110
82	<p><i>PFRS should consider measuring the fixed income portfolio against the Lehman Brothers Universal Index.</i></p> <p>PCA Comment: Resolved. PCA has recommended and the Board adopted the Lehman</p>	111

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Universal Index as its asset class benchmark and its fixed income managers' benchmark.		
L. Investment Reporting and Monitoring		
83	<p><i>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.</i></p> <p>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.</p>	125
84	<p><i>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.</i></p> <p>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.</p>	126
85	<p><i>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.</i></p> <p>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.</p>	127
86	<p><i>PFRS should request that its consultant provide holdings and/or returns based style analysis for its domestic equity portfolio.</i></p> <p>PCA Comment: PCA will work with Staff to develop appropriate documentation for the PFRS performance reports.</p>	127
87	<p><i>PFRS should discuss with its consultant what equity characteristics it would like to see on a quarterly basis.</i></p> <p>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.</p>	128
88	<p><i>PFRS should discuss with its consultant what fixed income characteristics it would like to see on a quarterly basis.</i></p>	128

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	<p>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.</p>	
89	<p><i>PFRS should request that its consultant provide risk/return exhibits for the Total Fund and each Asset Class.</i></p> <p>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.</p>	129
90	<p><i>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.</i></p> <p>PCA Comment: PCA will work with Staff to modify individual manager guidelines.</p>	133
91	<p><i>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.</i></p> <p>PCA Comment: PCA currently provides PFRS with a quarterly statement of performance. Monthly performance could be obtained from PFRS' custodian at an extra cost.</p>	136
92	<p><i>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.</i></p> <p>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.</p>	136

ATTACHMENT 7

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.

Investment Related Recommendations as of 05-18-2011

Number	Recommendation(s)	Page
A. Identification and Assignment of Responsibilities		
1	<p><i>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.</i></p> <p>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.</p>	16
4	<p><i>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.</i></p> <p>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.</p>	17
D. Expert Advice		
38	<p><i>The Board should continue to employ an investment consultant to provide a comprehensive range of consulting services.</i></p> <p>Comment: Implemented. PFRS currently has and will continue to retain an external investment consultant.</p>	56

39	<p><i>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.)</i></p> <p>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.</p>	56
40	<p><i>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.</i></p> <p>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.</p>	56
42	<p><i>PFRS should seek competitive proposals for a new custody arrangement. The Board's legal counsel should be closely involved in negotiating the custody agreement.</i></p> <p>Implemented: PFRS Board seeks competitive bids at minimum upon contract renewal or as more frequently as needed to ensure best custody arrangements possible.</p>	60
43	<p><i>Simultaneously, PFRS should seek competitive bids on its securities lending program. (See next section and recommendation.)</i></p> <p>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.</p>	60
44	<p><i>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.</i></p> <p>Implemented: PCA will annually review list of Borrowers and inform Board as needed.</p>	62
45	<p><i>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..</i></p> <p>Implemented: Security Lending Loans are periodically reviewed by Staff and reported annually to the Board as part of the Annual Financial Audit.</p>	62

46	<p><i>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.:</i></p> <ul style="list-style-type: none"> • <i>Indemnification against borrower default;</i> • <i>Liability on the part of agent for failing to act in accordance with PFRS instructions; and</i> • <i>Restrictions on borrowing activities of parent/affiliate of agent.</i> <p>Implemented: The PFRS Board selected a new vendor and signed a new SecLending contract in 2007.</p>	62
47	<p><i>PFRS should seek to restrict the terms and conditions under which MetWest can lend PFRS securities to its parent and affiliates, i.e., Wachovia.</i></p> <p>Implemented: PCA and Staff review annually, however more frequent oversight is conducted on an ongoing basis .</p>	63
48	<p><i>MetWest should provide explanations in their report when loan transactions fall outside general loan program guidelines.</i></p> <p>Implemented: SecLending Loans are periodically reviewed by Staff and as part of the PFRS Annual Financial Audit.</p>	63
49	<p><i>The footnote on securities lending should be corrected as appropriate.</i></p> <p>Staff Comment: No Longer Applicable. The PFRS Board selected a new Security Lending Manager in 2007</p>	63
I. Investment Analysis		
72	<p><i>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.</i></p> <p>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.</p>	88

73	<p><i>The IPS should include a distinct section on roles and responsibilities that covers all of the major investment related tasks.</i></p> <p>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</p>	90
74	<p><i>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.</i></p> <p>Implemented: The Investment Policy currently states the targeted dates of the asset/ liability study. These dates and reviewed and updated as needed.</p>	91
75	<p><i>We recommend that the rebalancing ranges be tightened and modified</i></p> <p>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</p>	93
76	<p><i>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.</i></p> <p>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 minimum annual review are conducted by staff and consultant to help ensure best practices</p>	94
77	<p><i>We recommend that the Board include only broad asset class level guidelines in the IPS.</i></p> <p>Implemented: The PFRS Investment Policy has been updated accordingly.</p>	96
78	<p><i>The Board should consider revising and expanding the policy on securities lending as described in our report.</i></p> <p>Implemented: The PFRS Investment Policy has been updated to expand on the security lending program.</p>	98
79	<p><i>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.</i></p> <p>Implemented and currently in the PFRS Investment Policy</p>	99

80	<p><i>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.</i></p> <p>Implemented: Staff and PCA currently receive a monthly report that details Managers compliance with the Investment Policy.</p>	104
J. Performance Benchmarks		
81	<p><i>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.</i></p> <p>Implemented: The PFRS International Equity Benchmark was changed to the MSCI ACWI ex US Index.</p>	110
82	<p><i>PFRS should consider measuring the fixed income portfolio against the Lehman Brothers Universal Index.</i></p> <p>Implemented: The PFRS Fixed Income Benchmark was changed to the Lehman Brothers Universal Index.</p>	111
L. Investment Reporting and Monitoring		
83	<p><i>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.</i></p> <p>Implemented PCA provides this information quarterly or as project specific requests warrant</p>	125
84	<p><i>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.</i></p> <p>Implemented PCA provides this information quarterly or as project specific requests warrant</p>	126
85	<p><i>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.</i></p> <p>Implemented PCA provides this information quarterly or as project specific requests warrant</p>	127

86	<p><i>PFRS should request that its consultant provide holdings and/or returns based style analysis for its domestic equity portfolio.</i></p> <p>Implemented PCA provides this information quarterly or as market conditions warrant</p>	127
87	<p><i>PFRS should discuss with its consultant what equity characteristics it would like to see on a quarterly basis.</i></p> <p>Comment: Ongoing. PCA and Staff are continually reviewing this asset class to better meet the boards needs PCA and Staff will discuss with PFRS Board and seek Board direction. Staff hopes to have this issue resolved by 3rd Quarter 2011.</p>	128
88	<p><i>PFRS should discuss with its consultant what fixed income characteristics it would like to see on a quarterly basis.</i></p> <p>Comment: Ongoing. PCA and Staff are continually reviewing this asset class to better meet the boards needs PCA and Staff will discuss with PFRS Board and seek Board direction. Staff hopes to have this issue resolved by 3rd Quarter 2011.</p>	128
89	<p><i>PFRS should request that its consultant provide risk/return exhibits for the Total Fund and each Asset Class.</i></p> <p>Implemented PCA provides risk/return exhibits quarterly and during each asset class structure review on an ongoing basis</p>	129
90	<p><i>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.</i></p> <p>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.</p>	133
91	<p><i>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.</i></p> <p>Implemented: Custodian currently provides a monthly compliance report.</p>	136
92	<p><i>The Board should either ask its investment consultant for assistance with monitoring its investment</i></p>	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.



AGENDA REPORT

TO: Oakland Police and Fire
Retirement Board

FROM: David Jones
Plan Administrator

SUBJECT: Audit Committee Agenda Pending List

DATE: August 19, 2019

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	
2	DISCUSSION of Hearing Procedures and Handling of Confidential Member Medical Files, and provide staff direction in this regard.	SEP 25, 2019	

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

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

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



AGENDA

INVESTMENT COMMITTEE MEMBERS

Jaime T. Godfrey
Chairman

R. Steve Wilkinson
Member

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 28, 2019 – 10:00 am
One Frank H. Ogawa Plaza, Hearing Room 1
Oakland, California 94612

--- ORDER OF BUSINESS ---

- 1. Subject: PFRS Investment Committee Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: APPROVE July 31, 2019 Investment Committee meeting minutes.
- 2. Subject: Investment Market Overview**
From: Meketa Investment Group

Recommendation: ACCEPT an informational report on the global investment markets through August 2019.
- 3. Subject: Investment Fund Performance for the Quarter Ending June 30, 2019**
From: Meketa Investment Group

Recommendation: RECOMMEND BOARD APPROVAL of the report on the Investment Fund Performance for the Quarter Ending June 30, 2019.
- 4. Subject: Request for Information for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager (VERBAL REPORT)**
From: Meketa Investment Group

Recommendation: ACCEPT an Informational Report on the status of the Request for Information for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager.

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
AUGUST 28, 2019**

ORDER OF BUSINESS, continued

5. **Subject:** Request for Information for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio (**VERBAL REPORT**)

From: Meketa Investment Group

Recommendation: **ACCEPT** Informational Report on the status of the Request for Information for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio.

6. **Subject:** **New Active International Equities Asset Class Investment Managers Presentations**

From: Meketa Investment Group

Recommendation: **ACCEPT** the presentations of possible new Active International Equities Asset Class Investment Firms for the PFRS Fund:

- Acadian Asset Management
- Strategic Global Advisors
- GQG Partners
- William Blair Investment Management

7. **Subject:** **Selection of a new Active International Equities Asset Class Investment Manager for the PFRS Fund**

From: Staff of the PFRS Board

Recommendation: **RECOMMEND BOARD APPROVAL** of the Selection of a new Active International Equities Asset Class Investment Manager for the PFRS Fund.

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 July 31, 2019 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present:

- Jaime T. Godfrey, Chairman
- R. Steven Wilkinson, Member
- Martin J. Melia, Member

Additional Attendees:

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

The meeting was called to order at 10:07 a.m.

1. **Approval of Investment Committee meeting minutes** – Member Melia made a motion approve the May 29, 2019 Investment Committee meeting minutes, second by Member Wilkinson. Motion passed.

[GODFREY – ABSTAIN / MELIA – Y / WILKINSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 1)

2. **Approval of Investment Committee meeting minutes** – Chairman Godfrey made a motion approve the June 26, 2019 Investment Committee meeting minutes, second by Member Melia. Motion passed.

[GODFREY – Y / MELIA – Y / WILKINSON – ABSTAIN]
(AYES: 2 / NOES: 0 / ABSTAIN: 1)

3. **Investment Manager Performance Review – Reams Asset Management** – Jason Hoyer from Reams presented a review of the investment performance of the PFRS Investments with Reams. The Investment Committee and staff also discussed Ream’s history of local broker usage and diversity of its Board of directors and workforce.

MOTION: Member Wilkinson made a motion to accept the review of the Reams Investment performance, second by Member Melia. Motion passed.

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

4. **Investment Manager Overview – Reams Asset Management** – David Sancewich from Meketa presented an analysis of Reams and its work as investment manager for the PFRS fund. Mr. Sancewich noted that Reams’ investment portfolio for PFRS has been positioned more so as a CORE Fixed Income investment manager by Reams rather than a CORE PLUS fixed income investment manager as defined in its mandate by the PFRS Investment policy. Mr. Sancewich did not recommend any action Board action on Reams at this time, but said that a Fixed Income Asset Class review would be conducted at the September 2019 Investment Committee meeting.

MOTION: Member Melia made a motion to recommend Board approval of Meketa's recommendation of no action on Reams, second by member Wilkinson. Motion passed.

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

- 5. Investment Manager Performance Review – NWQ** – Mike Mullane and Andy Hwang from NWQ presented a review of the investment performance of PFRS Investments with NWQ. They also addressed the management changes within NWQ with the departure of the longtime portfolio manager, Phyllis Thomas.

MOTION: Member Melia made a motion to accept the informational report presented by NWQ, second by Member Wilkinson. Motion passed.

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

- 6. Investment Manager Review – NWQ** – David Sancewich from Meketa presented an analysis of NWQ and its work as investment manager for the PFRS fund. He said that NWQ had been underperforming as PFRS investment manager for the PFRS fund and would have been otherwise recommended for watch status. Mr. Sancewich also talked about the impact of the departure of Portfolio Manager Phyllis Thomas from NWQ on the PFRS investment portfolio and an overview of NWQ's investment performance. The Investment Committee discussed its options with the PFRS investments with NWQ moving forward.

MOTION: Member Melia made a motion to recommend Board approval of: 1) the termination of services between PFRS and NWQ, 2) the immediate movement of all PFRS investment asset with NWQ into Exchange-traded Funds (ETFs) in the small cap domestic equities investment space, and 3) the direction to Meketa to begin a Request for Proposals (RFP) for an investment manager to replace NWQ in the active small cap domestic equity asset class, second by Member Wilkinson. Motion passed.

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

- 7. Investment Market Overview** – David Sancewich from Meketa provided an informational report on the global economic factors affecting the PFRS Fund.

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

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

- 8. Select Investment Managers to invite to Interview as the new PFRS Active International Equity Asset Class Investment Manager** – David Sancewich from Meketa presented his report of the three finalists that Meketa has determined the PFRS Board should interview to become its new Active International Equities asset class investment manager. Mr. Sancewich explained Meketa's reasoning for its

recommendation of GQG Partners, Strategic Global Advisors, and William Blair Investment Management.

MOTION: Member Wilkinson made a motion to recommend Board approval of Meketa's recommendation of GQG Partners, Strategic Global Advisors, and William Blair Investment Management to be interviewed by the PFRS investment Committee at the August 2019 Investment Committee meeting to be the new PFRS Active International Equity Asset Class Investment Manager, second by member Melia.

SUBSTITUTE MOTION: Chairman Godfrey made a substitute motion to recommend Board approval of Acadian Asset Management, GQG Partners, Strategic Global Advisors, and William Blair Investment Management to be interviewed by the PFRS investment Committee at the August 2019 Investment Committee meeting to be the new PFRS Active International Equity Asset Class Investment Manager, second by member Wilkinson. Motion passed.

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

9. **Informational Report on Preliminary Investment Fund Performance for the Quarter Ending June 30, 2019** – Sean Copus from Meketa reported the Preliminary Investment Fund Performance for the Quarter Ending June 30, 2019.

MOTION: Member Melia made a motion to accept the informational report, second by member Wilkinson. Motion passed.

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

10. **Options for replacing State Street Global Advisors (SSgA) as PFRS Investment Manager and possible steps to follow for replacing SSgA** – David Sancewich from Meketa presented a report of previous Investment Committee and Board discussion regarding consideration to terminate State Street Global Advisors as a PFRS Investment Manager.

MOTION: Member Wilkinson made a motion to accept the informational report, and made a motion to recommend Board Approval to terminate SSgA and place its investment funds into an Exchange Traded Fund (ETF) with passive International Equity exposure, second by member Melia. Motion passed.

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

11. **Options to select a new PFRS Investment Manager to implement the Crisis Risk Offset (Long Duration Treasury) Investment Strategy** – Mr. Sancewich from Meketa presented an informational report on the status of PFRS Investments placed in ETFs which cover the Long Duration – Treasury investment strategy. He reported that Meketa recommended that it conduct a Request for Proposal for a new investment manager to manage these funds.

MOTION: Member Godfrey made a motion to recommend the Board to direct Meketa to conduct an RFP for a Long Duration/Treasury manager who can also serve as the Passive International Equity Investment Manager for the PFRS Fund, second by member Melia. Motion passed.

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

12. **Schedule of Pending Agenda Items** – Staff reported the agenda items scheduled for future Investment Committee meetings.
13. **Future Scheduling** – The next Investment Committee meeting was scheduled for August 28, 2019.
14. **Open Forum** – Chairman Godfrey directed staff to create a regular scheduled time for a conference call with staff and suggested the meeting occur on the second Thursday of each month at 8:30 am.
15. **Adjournment of Meeting** – The meeting adjourned at 11:47 a.m.

JAIME T. GODFREY, COMMITTEE CHAIRMAN

DATE



Capital Markets Outlook & Risk Metrics

As of July 31, 2019

M E K E T A I N V E S T M E N T G R O U P

100 LOWDER BROOK DRIVE SUITE 1100 WESTWOOD MA 02090

781 471 3500 fax 781 471 3411 www.meketagroup.com

Capital Markets Outlook

Takeaways

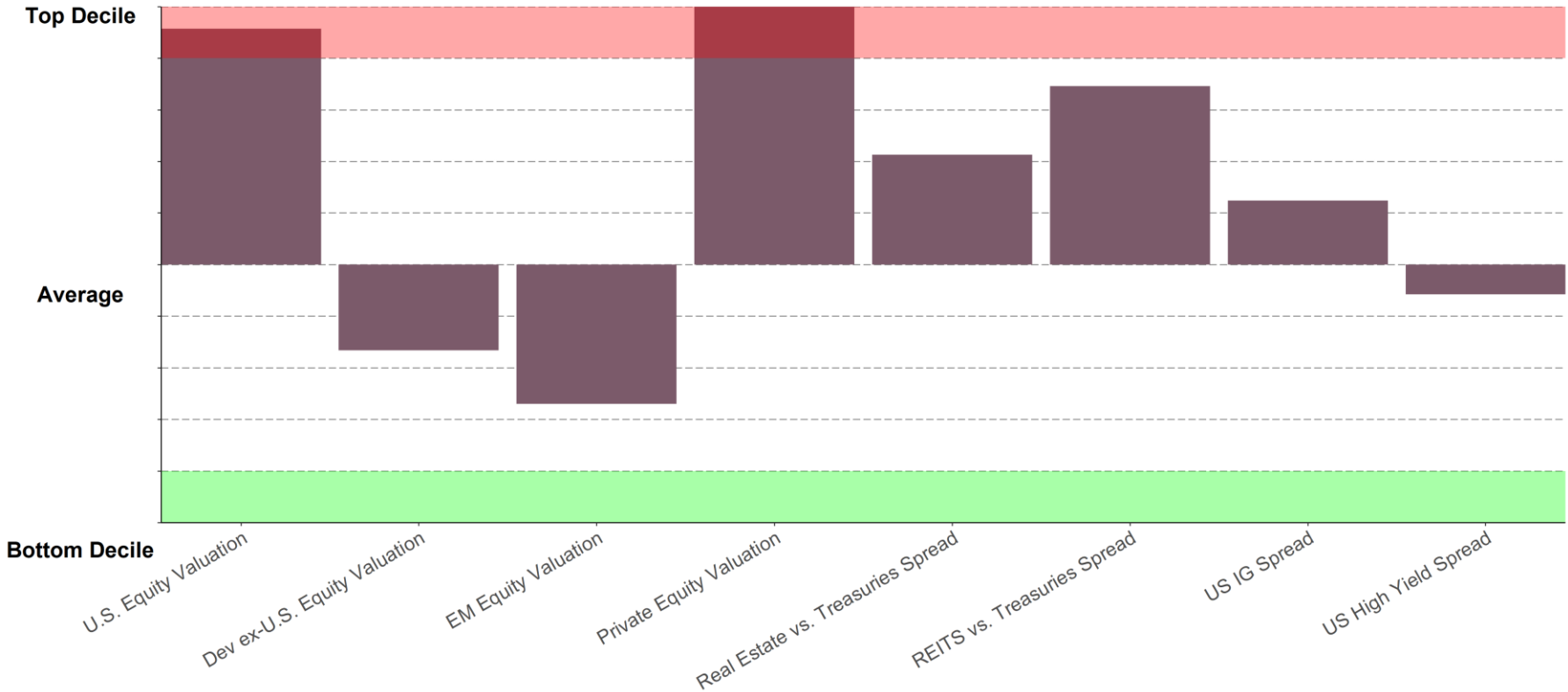
- While not as strong as June, July was another profitable month for U.S. Equity markets whereas Non-U.S. Equity markets experienced marginal declines. YTD returns across Global Equity markets are in the double-digits, with several segments of the U.S. Equity market leading the pack at 20%+. Additionally, interest rates in the middle and long-end of the curve have continued to decline, with U.S. Long Bonds producing YTD returns of over 11%.
- In an effort to combat global growth uncertainty and persistently low inflation, the Federal Reserve elected to cut rates for the first time in a decade. The full impact of this decision on economic data and the capital markets is likely to remain uncertain over the near term.
- Geopolitical events, especially trade wars between the U.S. and China, are expected to provide variable shocks to the global economy and capital markets for the foreseeable future.
- U.S. Equity markets remain expensive whereas Non-U.S. Equity markets remain reasonably valued relative to their history.
- Implied equity market volatility¹ remained well-below its historical average (~19) throughout July while ticking up to 16 at month-end.
- The Market Sentiment Indicator² returned to neutral at month end.
- Market uncertainty as measured by Systemic Risk remains low, but there is potential for negative surprises, as global economies navigate their respective “late-cycle” dynamics and geopolitical events continue to unfold, as evidenced by early market movements in August.

¹ As measured by VIX Index.

² See Appendix for the rationale for selection and calculation methodology used for the risk metrics.



Risk Overview/Dashboard (1)
(As of July 31, 2019)¹

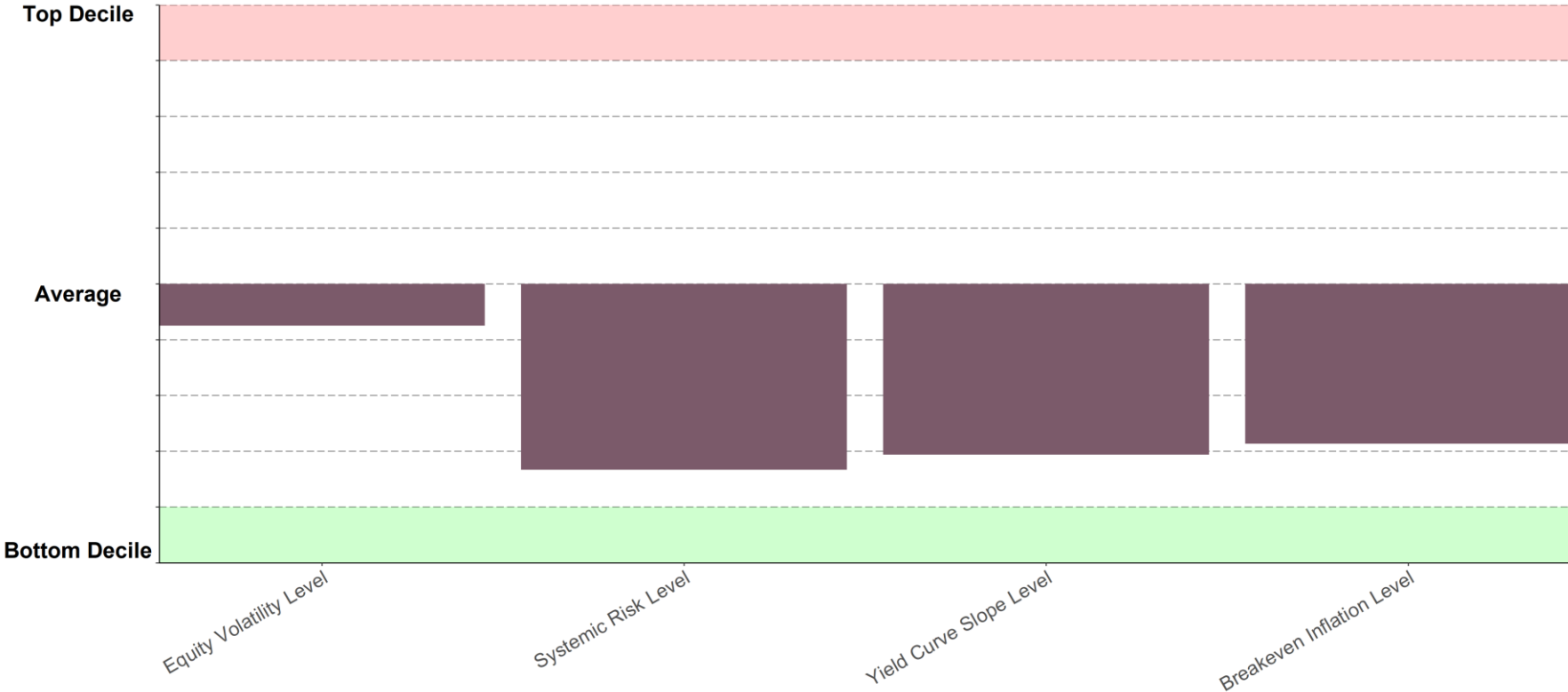


- Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

¹ With the exception of Private Equity Valuation that are available annually and data is as of December 31, 2018.

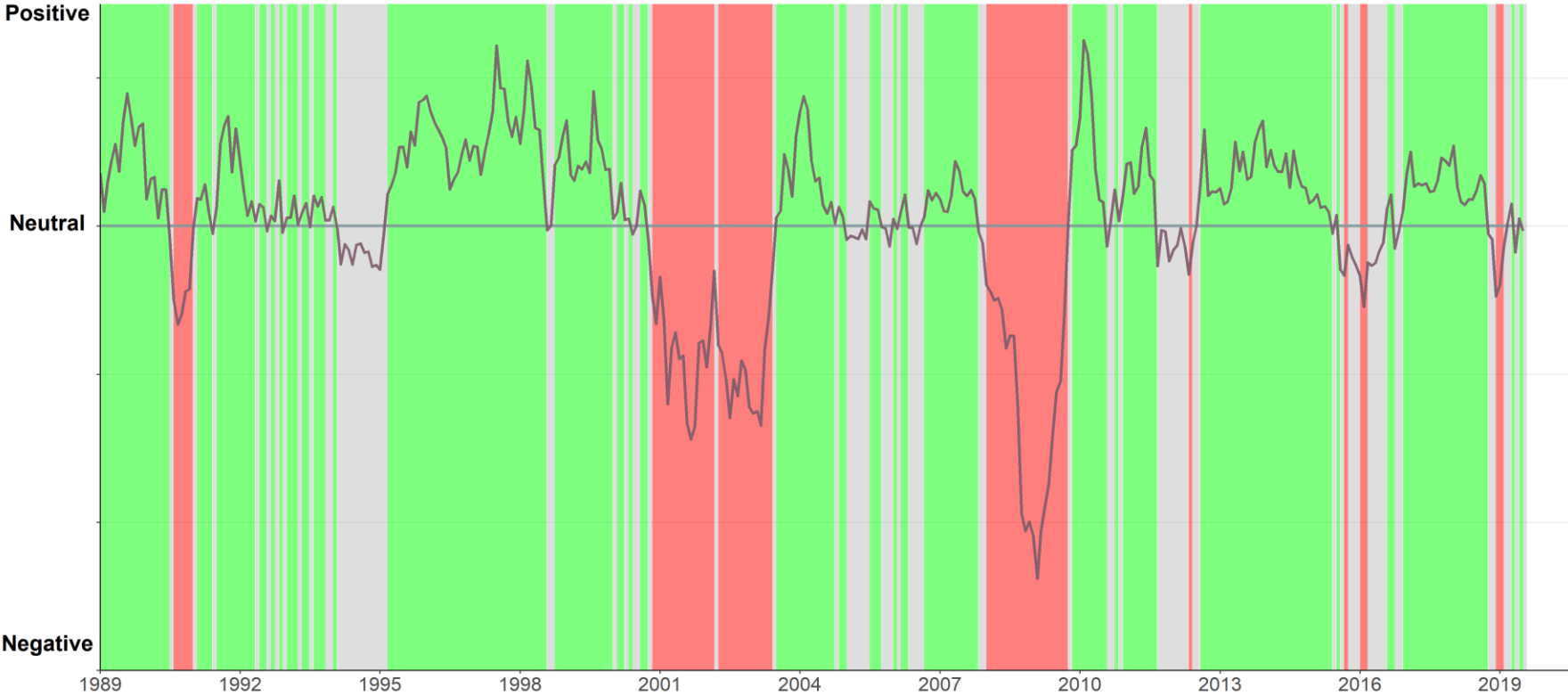


Risk Overview/Dashboard (2) (As of July 31, 2019)

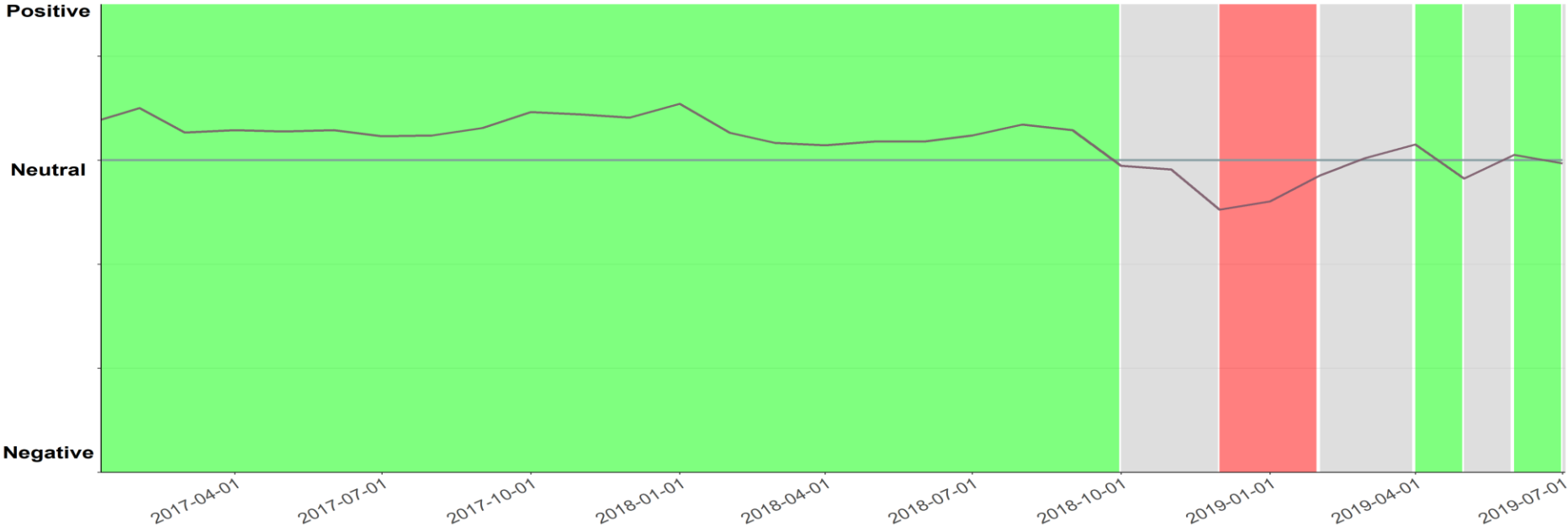


- Dashboard (2) shows how the current level of each indicator compares to its respective history.

Market Sentiment Indicator (All History) (As of July 31, 2019)



Market Sentiment Indicator (Last Three Years) (As of July 31, 2019)



U.S. Equity Cyclically Adjusted P/E¹ (As of July 31, 2019)

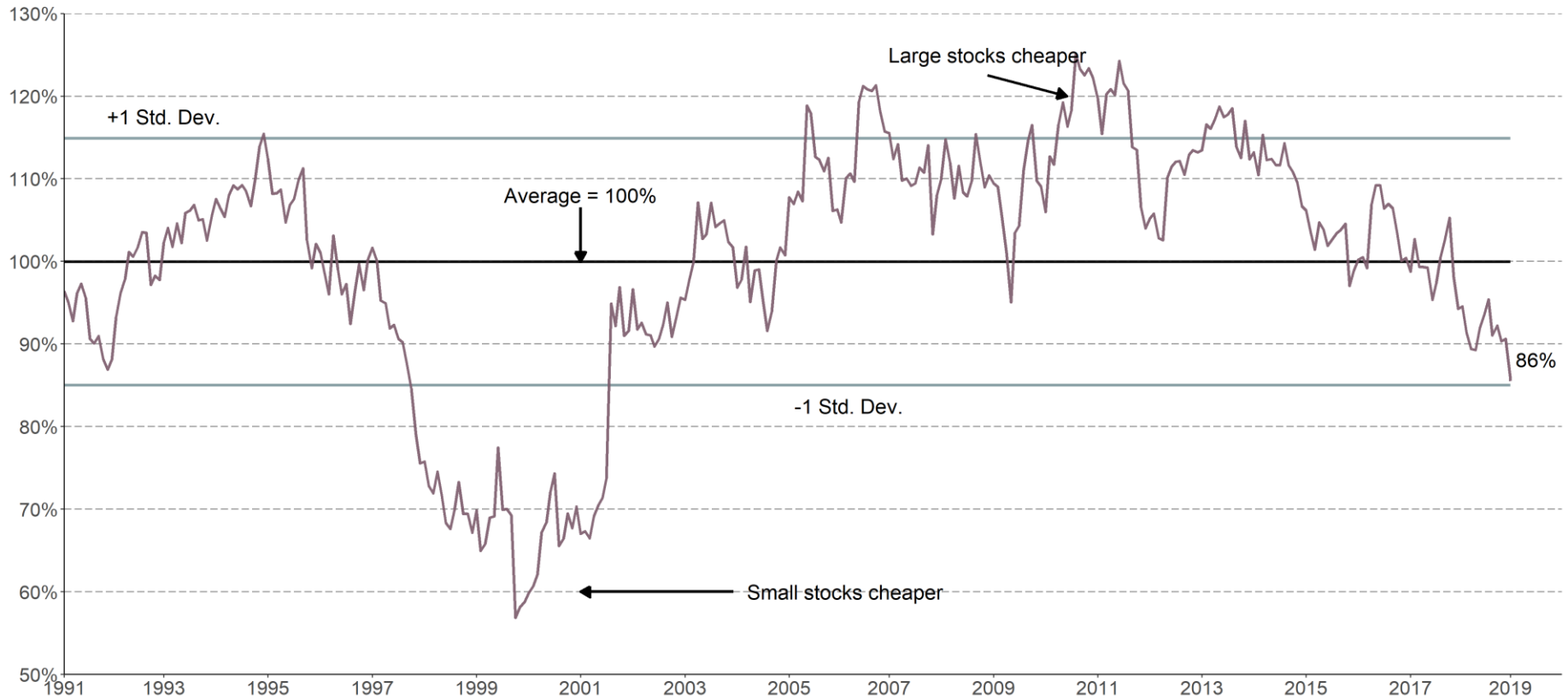


- This chart details one valuation metric for U.S. Equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ U.S. Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.



Small Cap P/E vs. Large Cap P/E¹ (As of July 31, 2019)



- This chart compares the relative attractiveness of Small Cap U.S. Equities vs. Large Cap U.S. Equities on a valuation basis. A higher (lower) figure indicates that Large Cap (Small Cap) is more attractive.

¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.



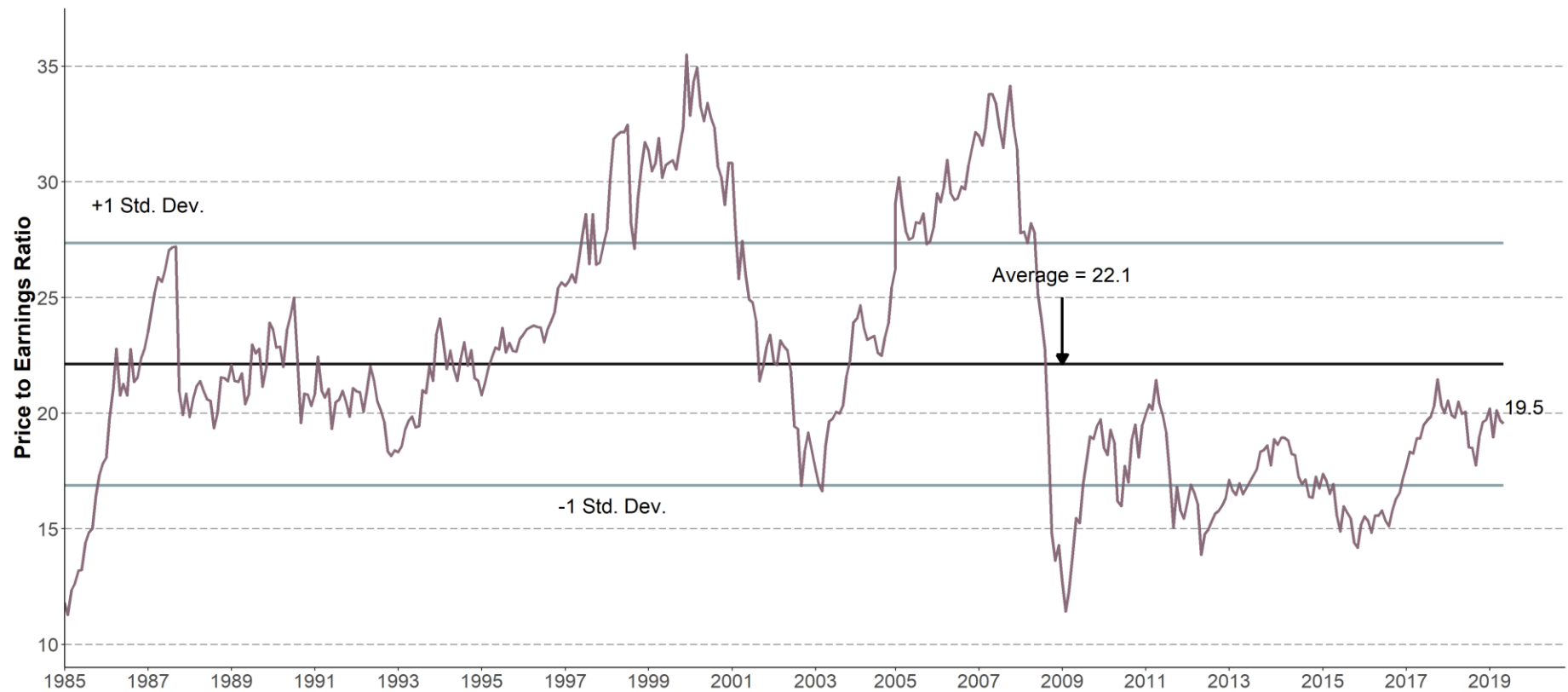
Growth P/E vs. Value P/E¹ (As of July 31, 2019)



- This chart compares the relative attractiveness of U.S. Growth Equities vs. U.S. Value Equities on a valuation basis. A higher (lower) figure indicates that Value (Growth) is more attractive.

¹ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E¹ (As of July 31, 2019)



- This chart details one valuation metric for Developed International Equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

Emerging Market Equity Cyclically Adjusted P/E¹ (As of July 31, 2019)

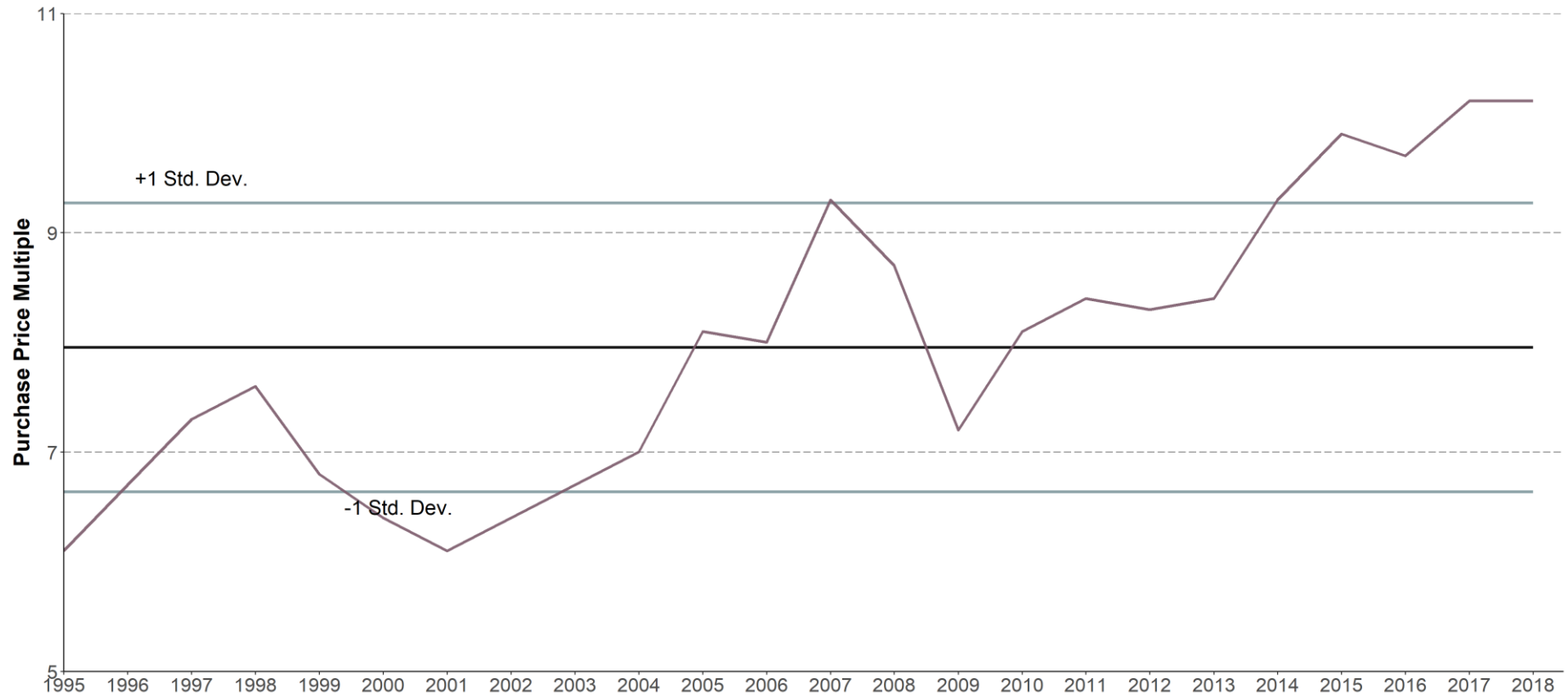


- This chart details one valuation metric for Emerging Markets Equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.



Private Equity Multiples¹ (As of December 31, 2018)²



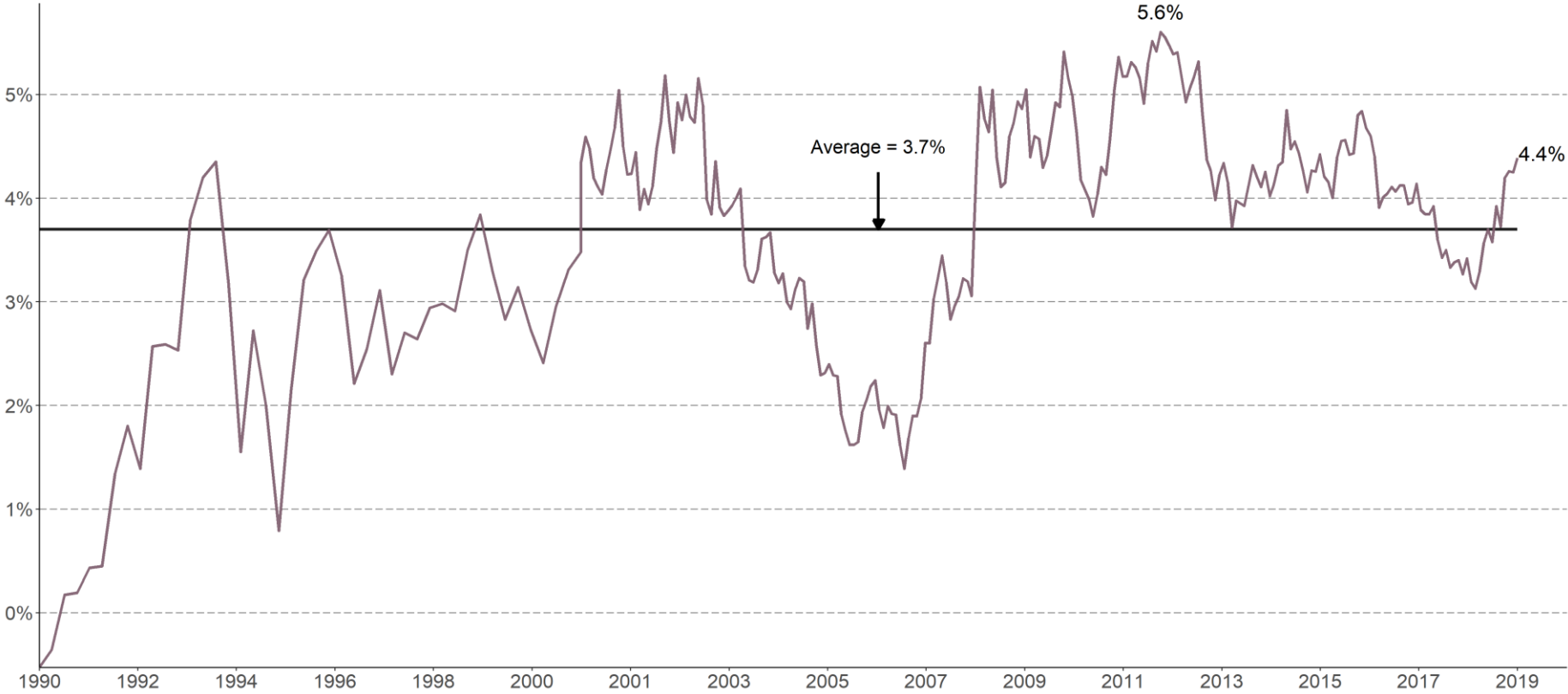
- This chart details one valuation metric for the Private Equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

² Only annual figures available.



Core Real Estate Spread vs. Ten-Year Treasury¹ (As of July 31, 2019)

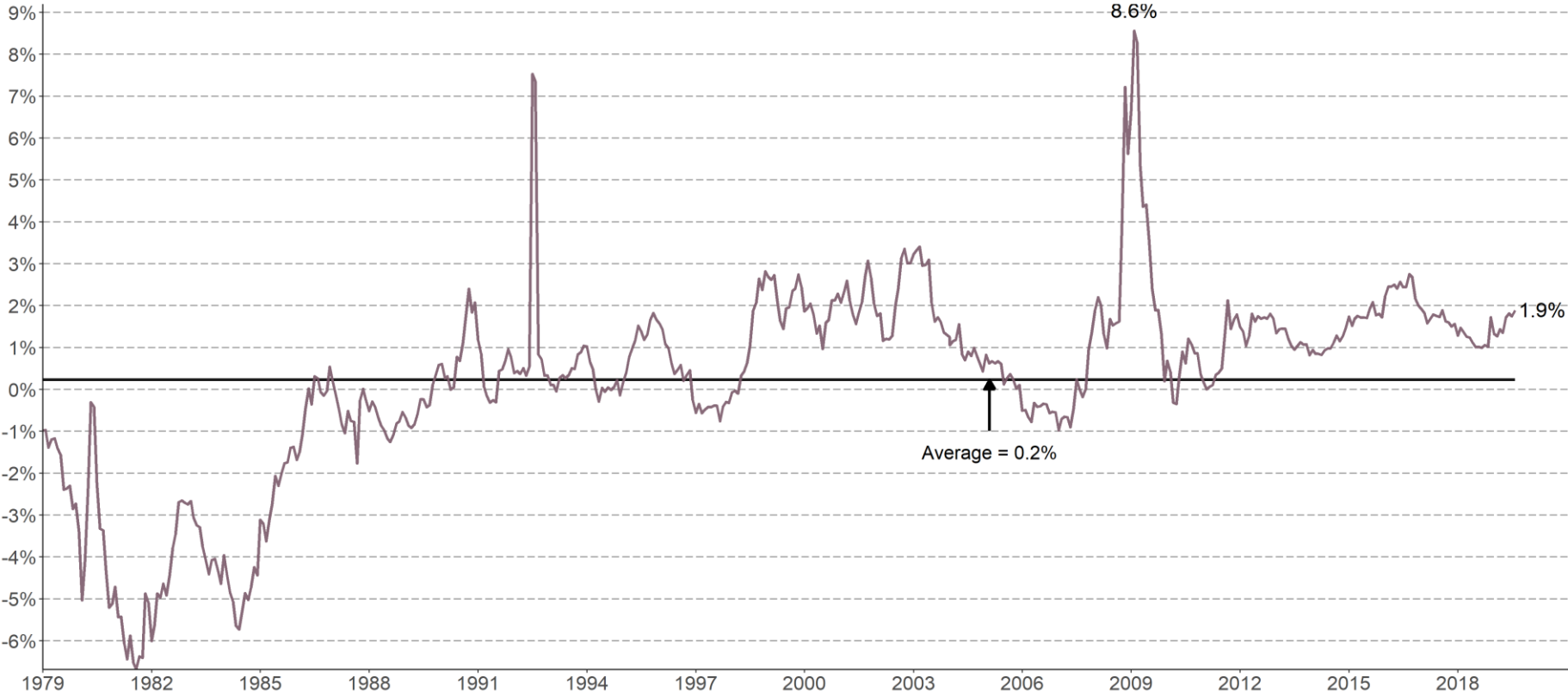


- This chart details one valuation metric for the Private Core Real Estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, U.S. Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.



REITs Dividend Yield Spread vs. Ten-Year Treasury¹ (As of July 31, 2019)



- This chart details one valuation metric for the Public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, U.S. Treasury. REITs are proxied by the yield for the NAREIT Equity index.



Credit Spreads¹ (As of July 31, 2019)

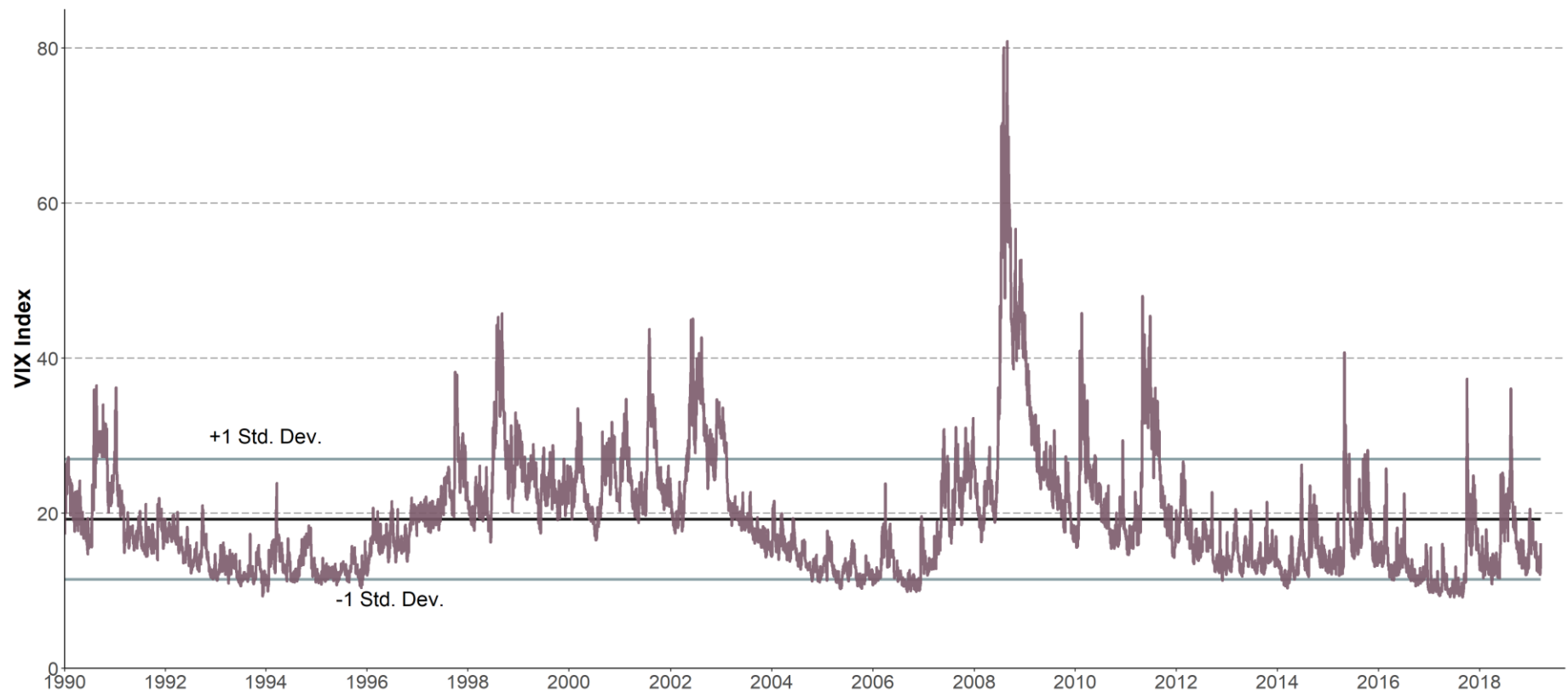


- This chart details one valuation metric for the U.S. Credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays U.S. Corporate Investment Grade index.



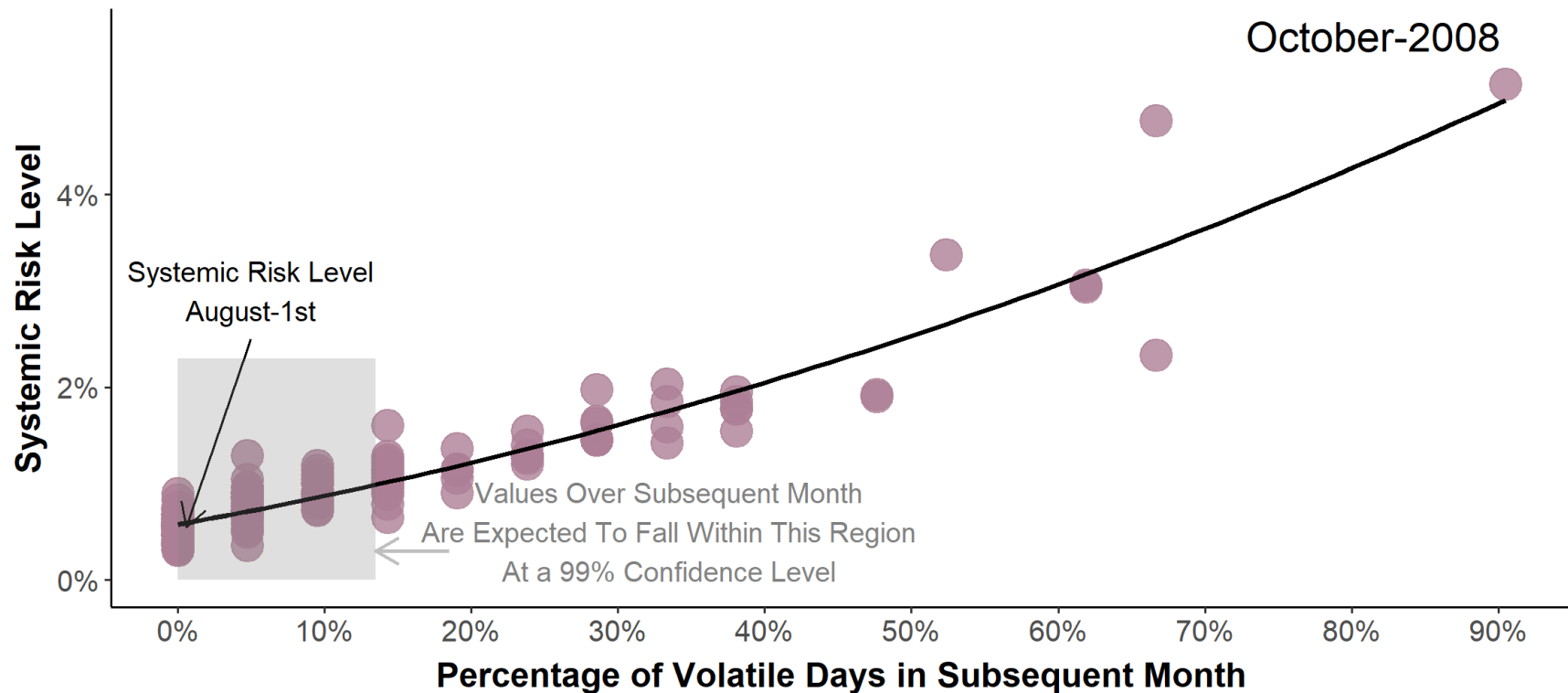
Equity Volatility¹ (As of July 31, 2019)



- This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for U.S. equity markets.

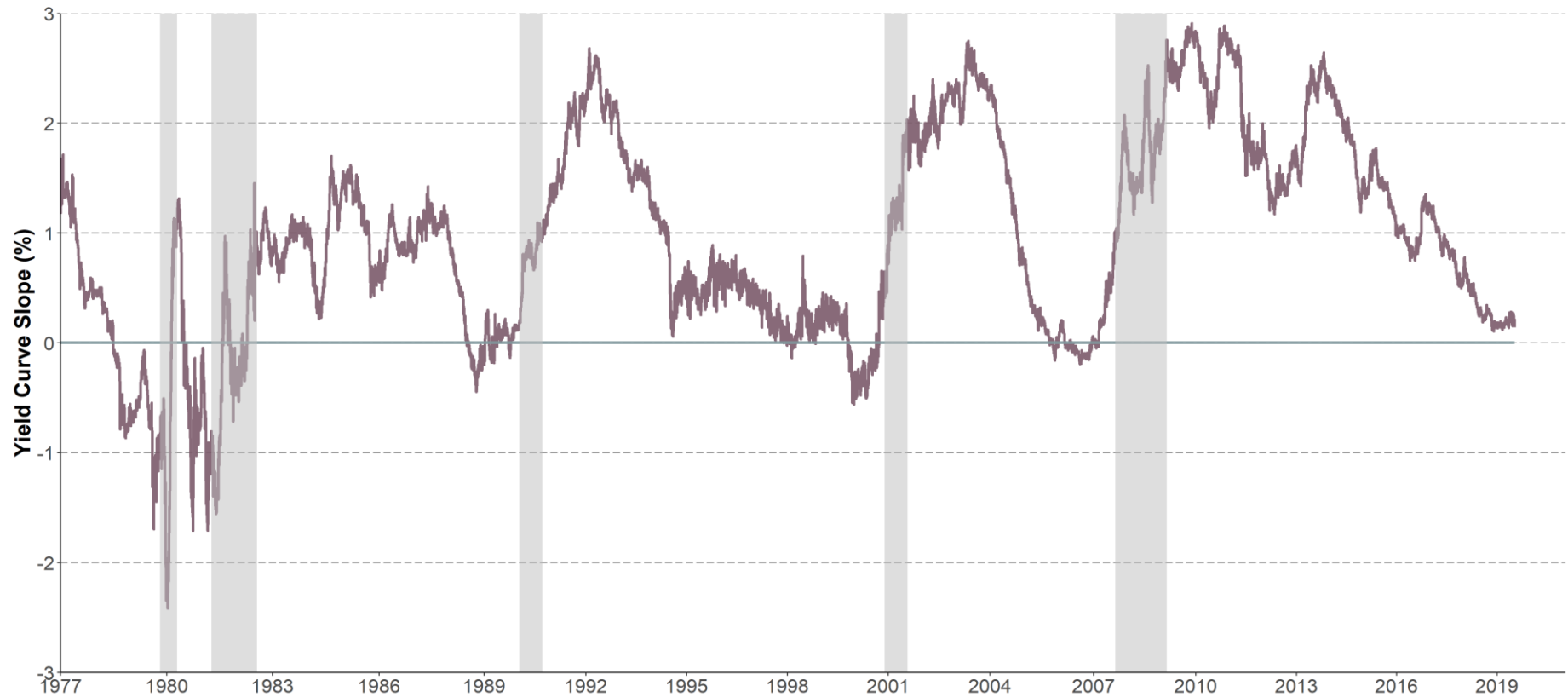
Systemic Risk and Volatile Market Days¹ (As of August 1, 2019)



- Systemic Risk is a measure of ‘System-wide’ risk, which indicates herding type behavior. This chart shows that starting in August this measure is low and that subsequently we can expect the number of turbulent days in August to be low.

¹ Source: Meketa Investment Group, as of August 1, 2019. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

Yield Curve Slope (Ten Minus Two)¹ (As of July 31, 2019)



- This chart details the historical difference in yields between ten-year and two-year U.S. Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

¹ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year U.S. Treasury Yield and 2-Year U.S. Treasury Yield.

Ten-Year Breakeven Inflation¹ (As of July 31, 2019)

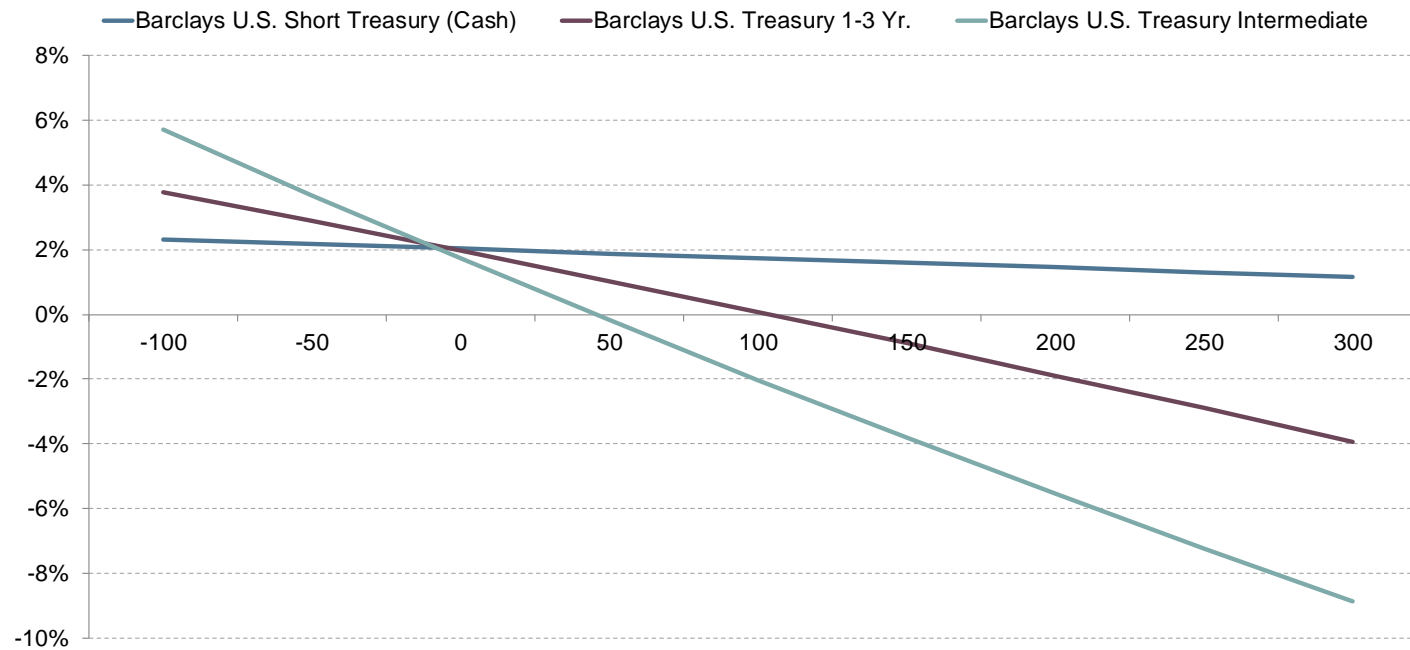


- This chart details the difference between nominal and inflation-adjusted U.S. Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

¹ Ten-Year Breakeven Inflation – Source: U.S. Treasury and Federal Reserve. Data is as of June 30, 2019 for TIPS and Treasuries. Inflation is measured by the Consumer Price Index (CPI-U NSA).



Total Return Given Changes in Interest Rates (bps)¹ (As of July 31, 2019)

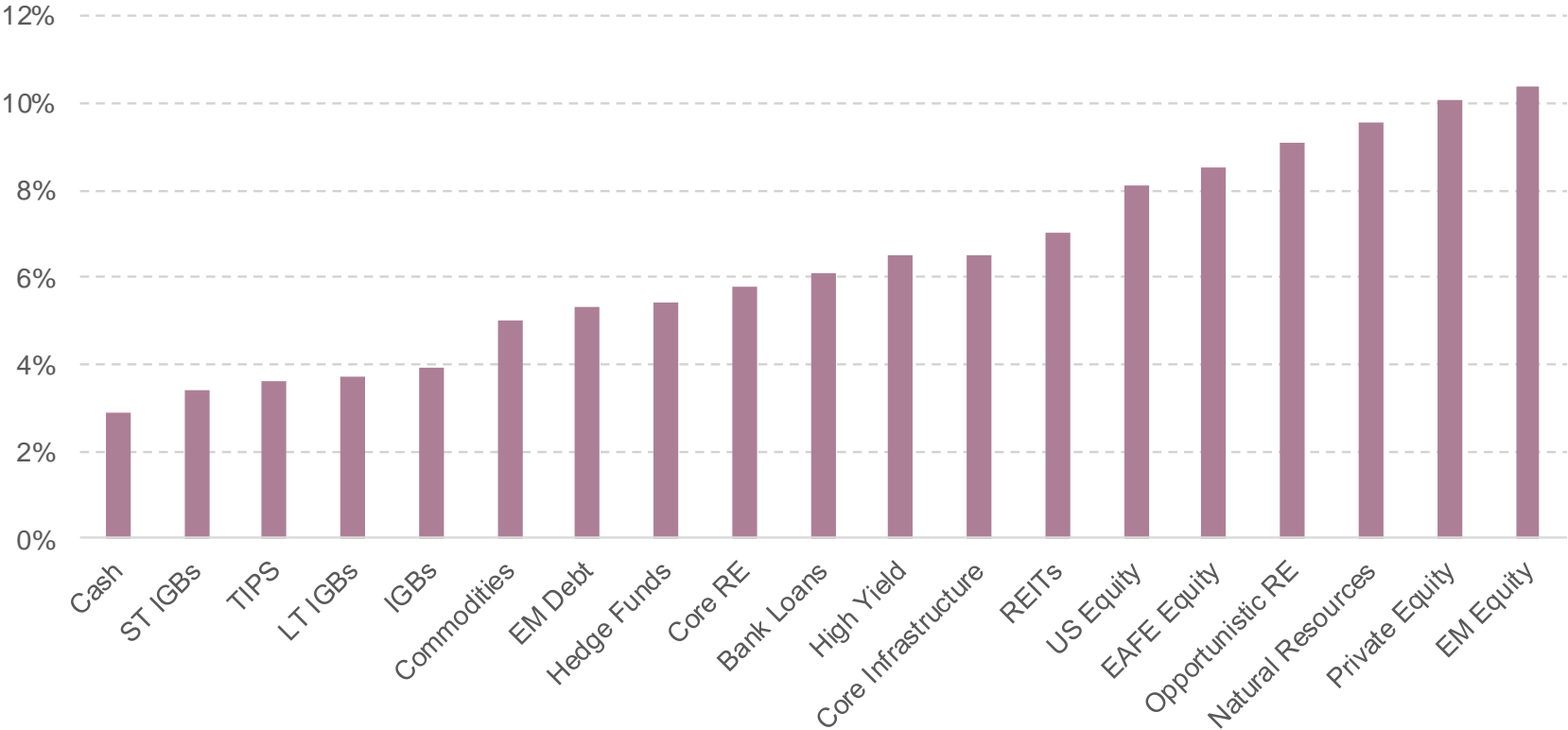


	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays U.S. Short Treasury (Cash)	2.3%	2.2%	2.0%	1.9%	1.7%	1.6%	1.5%	1.3%	1.2%	0.29	2.03%
Barclays U.S. Treasury 1-3 Yr.	3.8%	2.9%	2.0%	1.0%	0.1%	-0.9%	-1.9%	-2.9%	-3.9%	1.85	1.97%
Barclays U.S. Treasury Intermediate	5.7%	3.7%	1.7%	-0.2%	-2.0%	-3.8%	-5.6%	-7.2%	-8.9%	3.86	1.73%
Barclays U.S. Treasury Long	22.3%	11.8%	2.3%	-6.1%	-13.6%	-20.0%	-25.3%	-29.7%	-32.9%	17.95	2.32%

¹ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Data is as of July 31, 2019 via Barclays, Bloomberg, and Meketa Investment Group.



Long-Term Outlook – 20-Year Annualized Expected Returns¹



- This chart details Meketa’s long-term forward-looking expectations for total returns across asset classes.

¹ Source: Meketa Investment Group’s 2019 Annual Asset Study.



Appendix

Data Sources and Explanations¹

- U.S. Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month “as reported” earnings.
- Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, U.S. Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.
- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, U.S. Treasury. REITs are proxied by the yield for the NAREIT Equity index.
- Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays U.S. Corporate Investment Grade index.

¹ All Data as of July 31, 2019.



Appendix

Data Sources and Explanations¹

- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for U.S. equity markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
 - Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.
- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year U.S. Treasury Yield and 2-Year U.S. Treasury Yield.
- Ten-Year Breakeven Inflation – Source: U.S. Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

¹ All Data as of July 31, 2019.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa’s Risk Metrics.

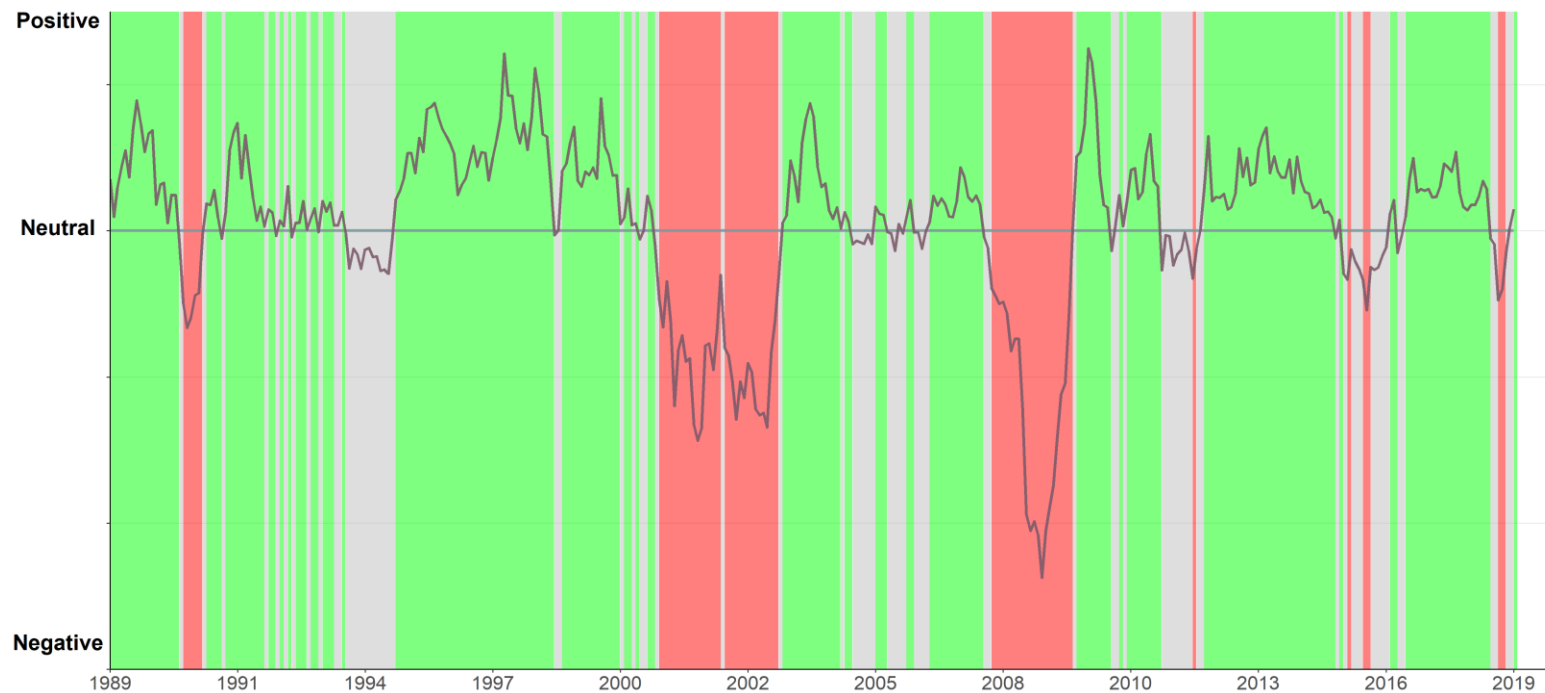
- Meketa’s Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market corrections take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

- The MIG-MSI is a measure meant to gauge the market’s sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
 - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
 - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration U.S. Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
 - Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure.¹ The color reading on the graph is determined as follows:
 - If both stock return momentum and bond spread momentum are positive = GREEN (positive)
 - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
 - If both stock return momentum and bond spread momentum are negative = RED (negative)

¹ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.
“Time Series Momentum” Moskowitz, Ooi, Pedersen, August 2010. <http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

- There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

The background features a serene sunset over a body of water. Several dark wooden posts are silhouetted against the bright orange and yellow sky. A large, light blue wave graphic curves across the bottom of the image.

Q2 2019

Oakland Police and Fire Retirement System

Quarterly Report

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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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5	MANAGER MONITORING / PROBATION LIST
6	INDIVIDUAL MANAGER PERFORMANCE
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TOTAL PORTFOLIO SUMMARY

As of June 30, 2019, the City of Oakland Police and Fire Retirement System (OPFRS) portfolio had an aggregate value of \$388.7 million. This represents a \$12.2 million increase in investment value and (\$4.2) million in benefit payments over the quarter. During the previous one-year period, the OPFRS Total Portfolio increased in value by \$22.7 million and withdrew (\$13.2) million for benefit payments.

Asset Allocation Trends

The asset allocation targets (see table on page 46) reflect those as of June 30, 2019. Target weightings reflect the interim phase (CRO = 10%) of the Plan's previously approved asset allocation (effective 5/31/2017).

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

Recent Investment Performance

During the most recent quarter, the OPFRS Total Portfolio generated an absolute return of 3.3%, gross of fees, underperforming its policy benchmark by (23) basis points. The portfolio outperformed its benchmark by 0.7% and 1.2% over the 1- and 3-year periods, respectively, and outperformed by 21 basis points over the 5-year period.

The Total Portfolio matched the Median fund's return over the most recent quarter but underperformed the Median fund over the 1-year period. The Total Portfolio outperformed the Median fund over the 3-year and 5-year periods by 1.9% and 1.1%, respectively. Performance differences with respect to the Median Fund continue to be attributed largely to differences in asset allocation.

	Quarter	Fiscal Year	1 Year	3 Year	5 Year
Total Portfolio ¹	3.3	6.2	6.2	10.7	7.0
Policy Benchmark ²	3.5	5.5	5.5	9.5	6.8
Excess Return	-0.2	0.7	0.7	1.2	0.2
Reference: Median Fund ³	3.3	6.4	6.4	8.8	5.9
Reference: Total Net of Fees ⁴	3.2	5.9	5.9	10.4	6.7

¹ Gross of Fees. Performance since 2005 includes securities lending.

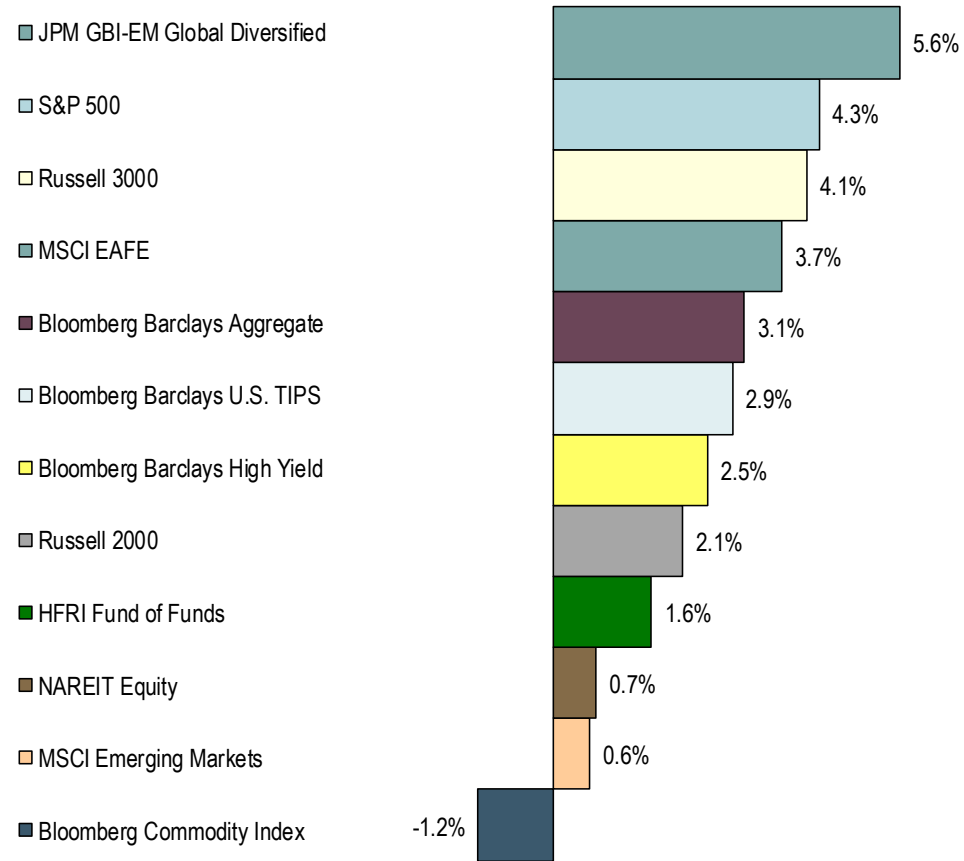
² Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bbg BC Universal, 5% CBOE BXM , 6.7% SG Multi Asset Risk Premia, 3.3% Bbg BC Long Treasury

³ Investment Metrics < \$1 Billion Public Plan Universe.

⁴ Longer-term (>1 year) Net of fee returns are estimated based on OPFRS manager fee schedule (approximately 34 bps)

The World Markets Second Quarter of 2019

The World Markets¹ Second Quarter of 2019



¹ Source: InvestorForce.

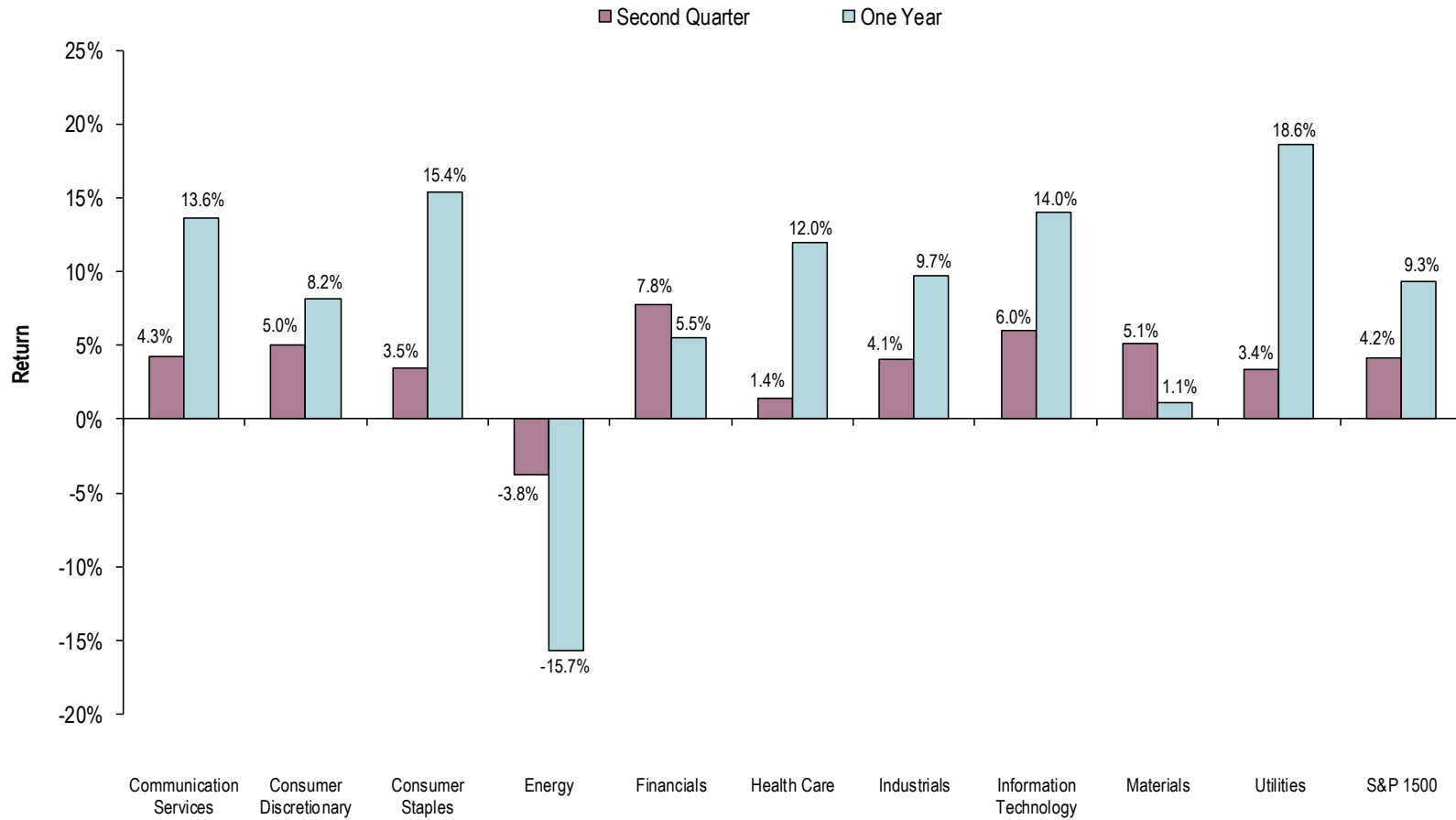


Index Returns¹

	2Q19 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
S&P 500	4.3	10.4	14.2	10.7	14.7
Russell 3000	4.1	9.0	14.0	10.2	14.7
Russell 1000	4.2	10.0	14.1	10.5	14.8
Russell 1000 Growth	4.6	11.6	18.1	13.4	16.3
Russell 1000 Value	3.8	8.5	10.2	7.5	13.2
Russell MidCap	4.1	7.8	12.2	8.6	15.2
Russell MidCap Growth	5.4	13.9	16.5	11.1	16.0
Russell MidCap Value	3.2	3.7	8.9	6.7	14.6
Russell 2000	2.1	-3.3	12.3	7.1	13.4
Russell 2000 Growth	2.7	-0.5	14.7	8.6	14.4
Russell 2000 Value	1.4	-6.2	9.8	5.4	12.4
Foreign Equity					
MSCI ACWI (ex. U.S.)	3.0	1.3	9.4	2.2	6.5
MSCI EAFE	3.7	1.1	9.1	2.2	6.9
MSCI EAFE (Local Currency)	2.8	2.2	9.8	5.9	8.3
MSCI EAFE Small Cap	1.7	-6.3	9.1	4.4	9.7
MSCI Emerging Markets	0.6	1.2	10.7	2.5	5.8
MSCI Emerging Markets (Local Currency)	7.4	9.4	13.8	7.6	8.6
Fixed Income					
Bloomberg Barclays Universal	3.1	8.1	2.8	3.2	4.4
Bloomberg Barclays Aggregate	3.1	7.9	2.3	2.9	3.9
Bloomberg Barclays U.S. TIPS	2.9	4.8	2.1	1.8	3.6
Bloomberg Barclays High Yield	2.5	7.5	7.5	4.7	9.2
JPM GBI-EM Global Diversified	5.6	9.0	4.2	-0.5	3.4
Other					
NAREIT Equity	0.7	10.1	3.8	7.7	15.3
Bloomberg Commodity Index	-1.2	-6.8	-2.2	-9.1	-3.7
HFRI Fund of Funds	1.6	1.3	4.3	2.2	3.2

¹ Source: InvestorForce.

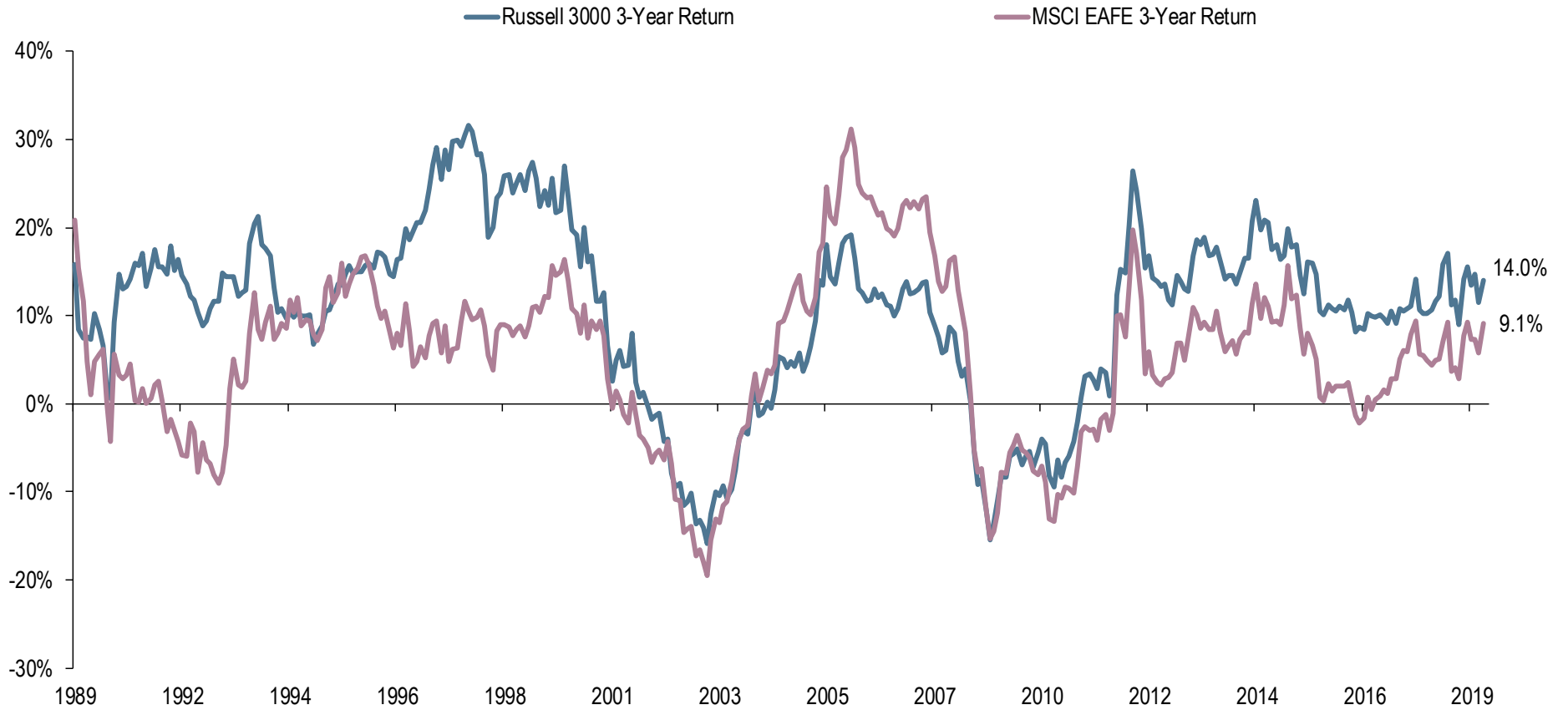
S&P Sector Returns¹



¹ Source: InvestorForce. Represents S&P 1500 (All Cap) data.



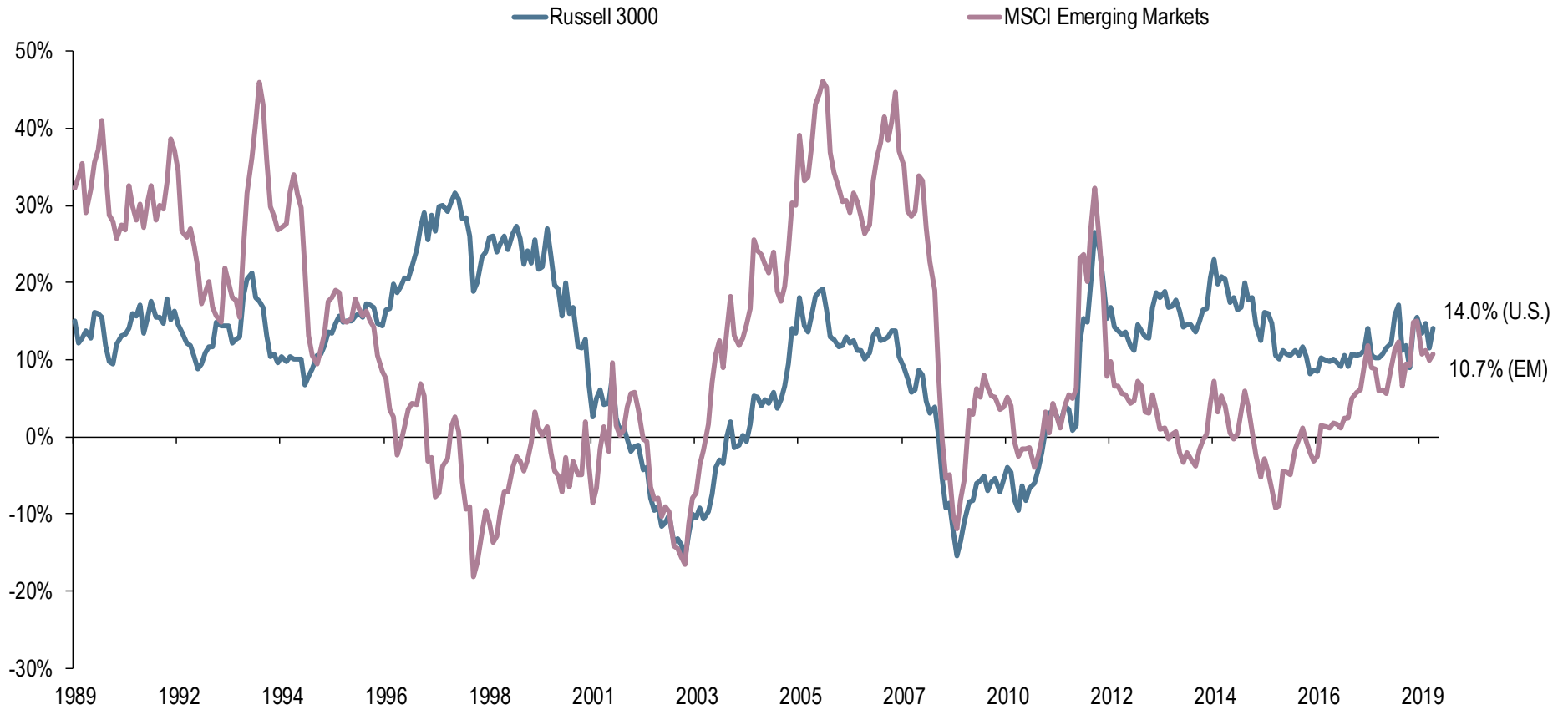
U.S. and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.



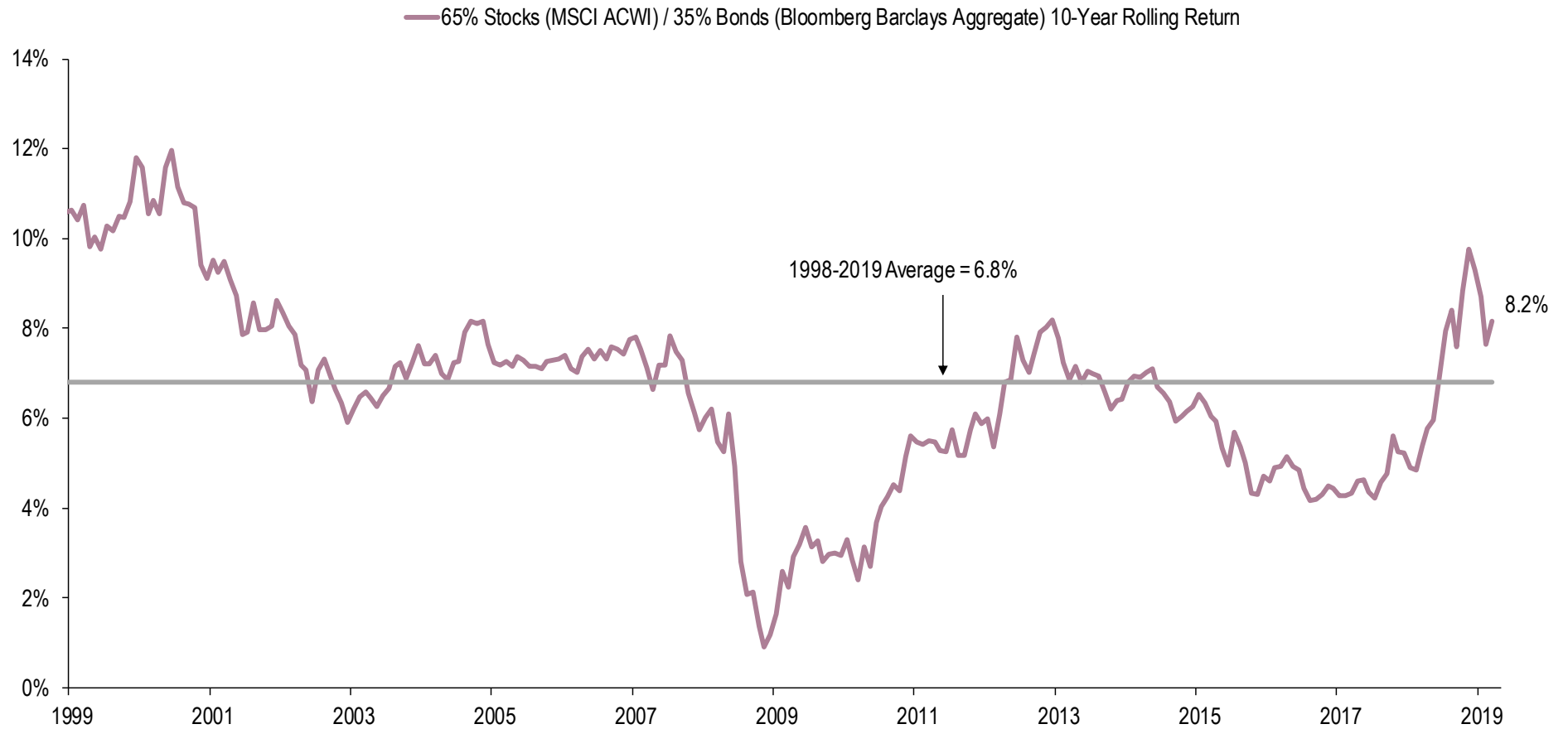
U.S. and Emerging Market Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.



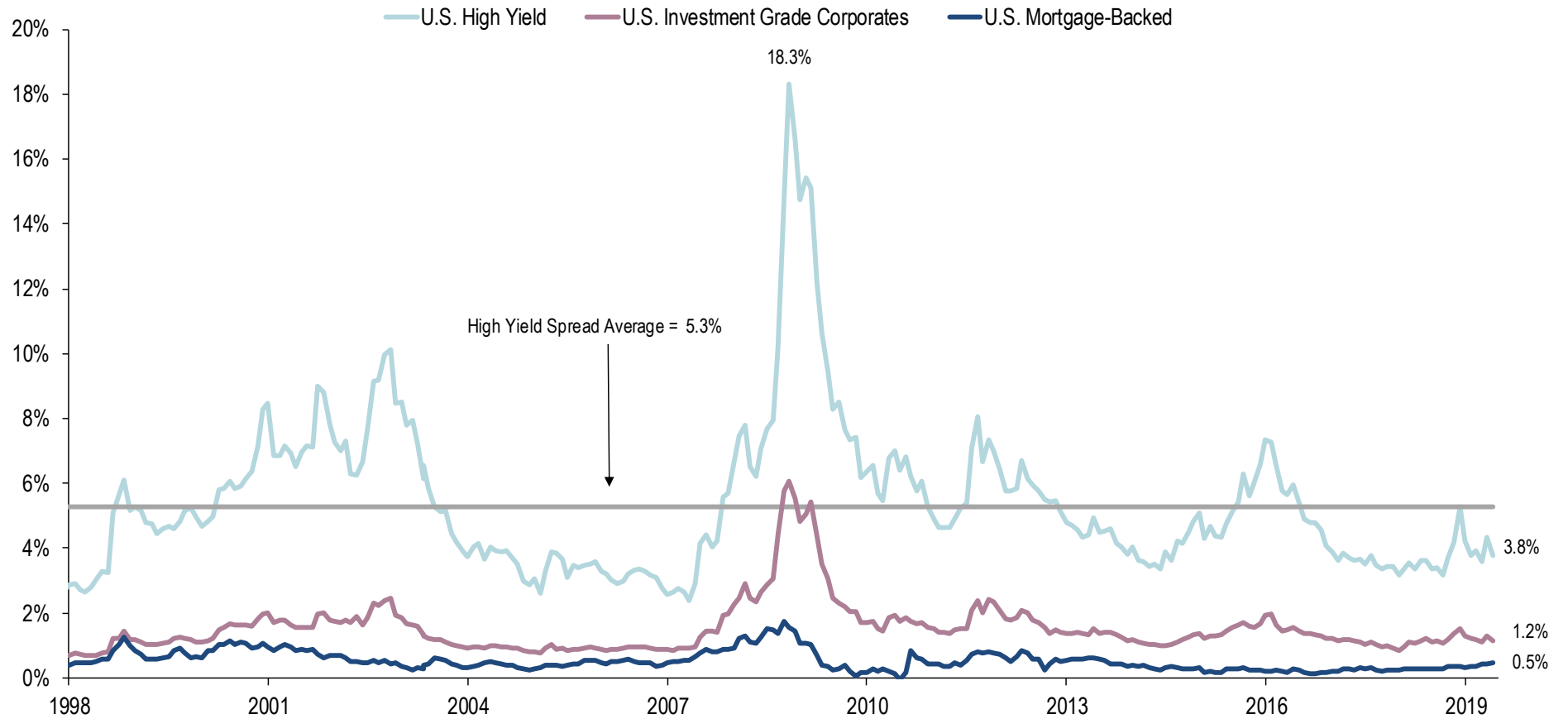
Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹



¹ Source: InvestorForce.



Credit Spreads vs. U.S. Treasury Bonds^{1,2}

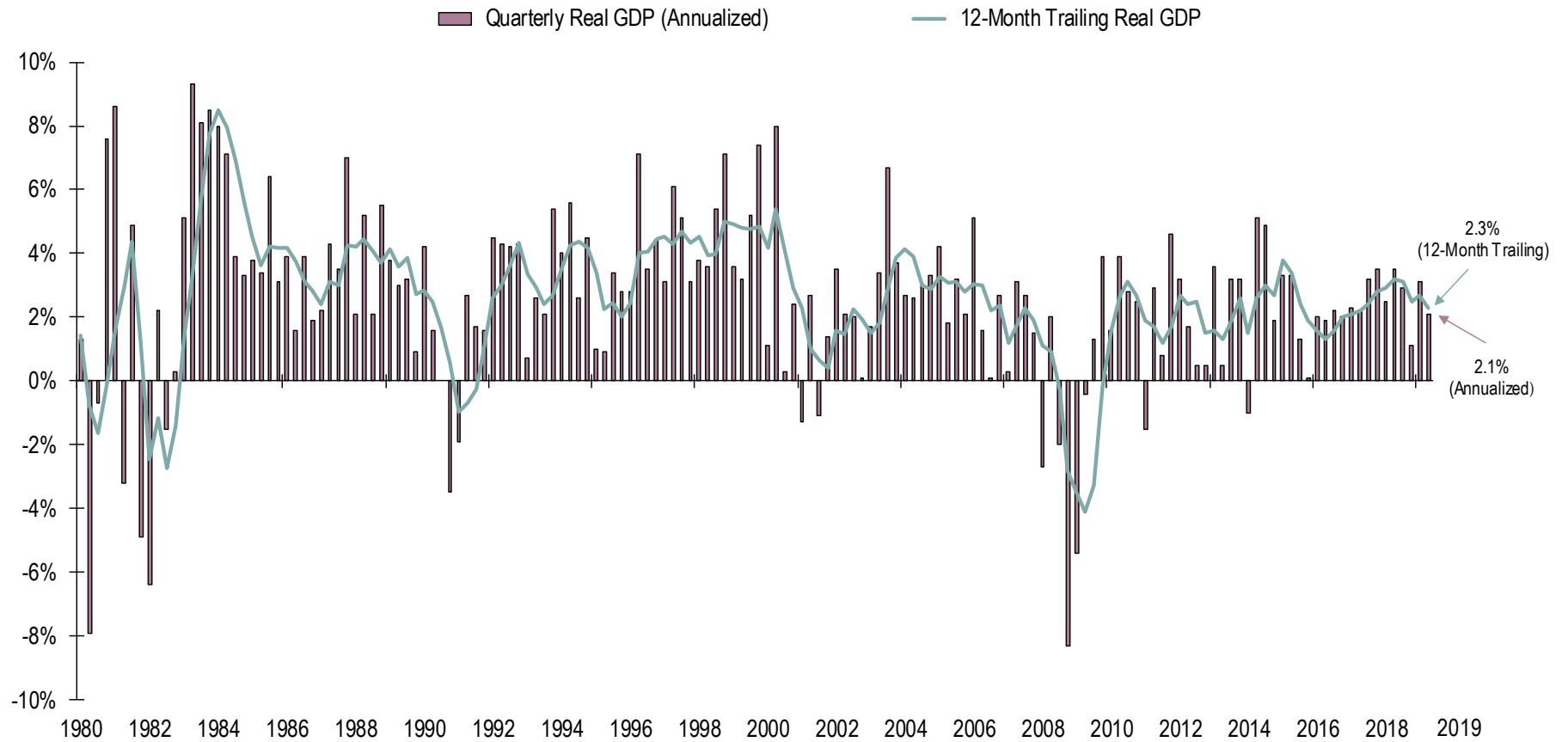


¹ Source: Barclays Live.

² The median high yield spread was 4.8% from 1997-2019.



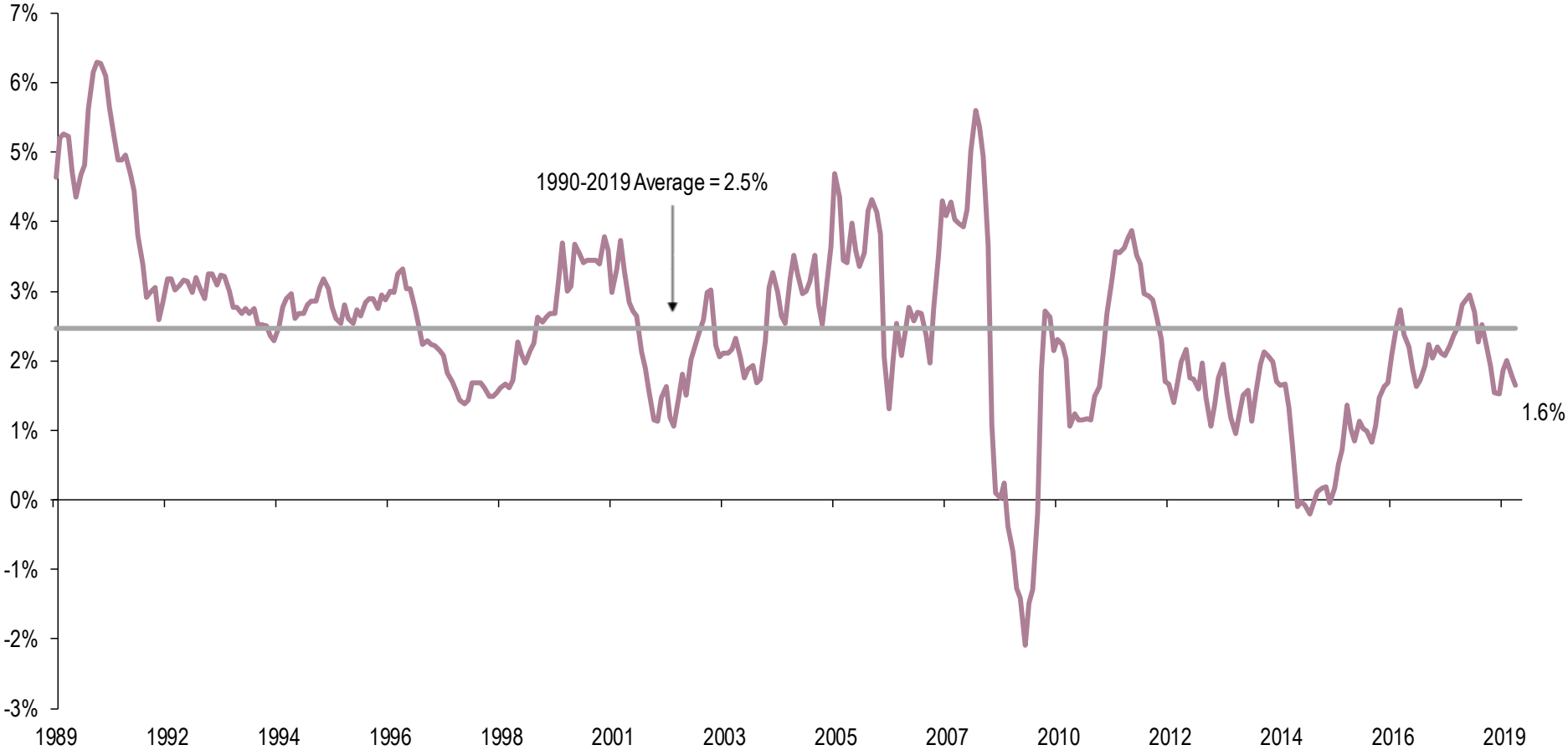
U.S. Real Gross Domestic Product (GDP) Growth¹



¹ Source: Bureau of Economic Analysis. Data is as of Q2 2019 and represents the first estimate.



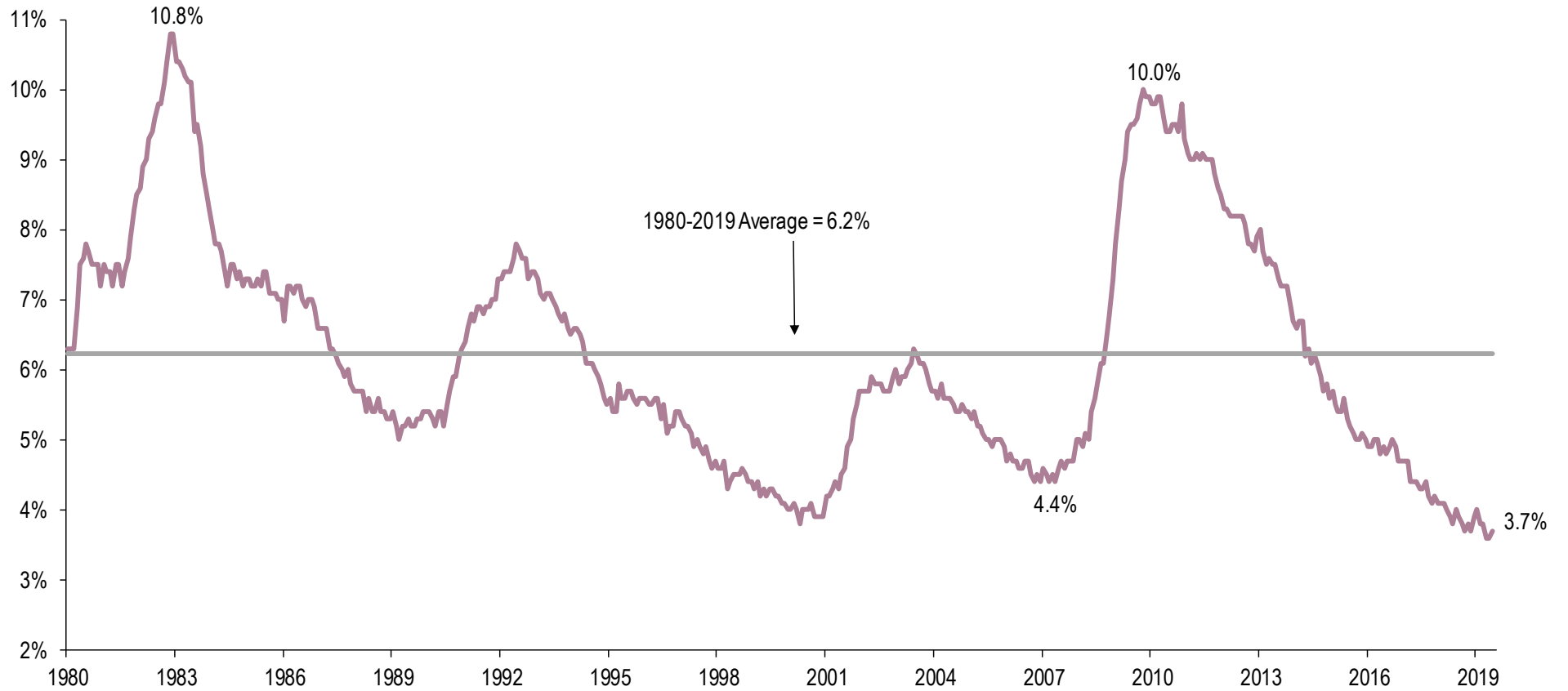
U.S. Inflation (CPI) Trailing Twelve Months¹



¹ Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of June 30, 2019.



U.S. Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of June 30, 2019.





Capital Markets Outlook & Risk Metrics

As of June 30, 2019

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781.471.3500 fax 781.471.3411 www.meketagroup.com

Capital Market Outlook - Takeaways

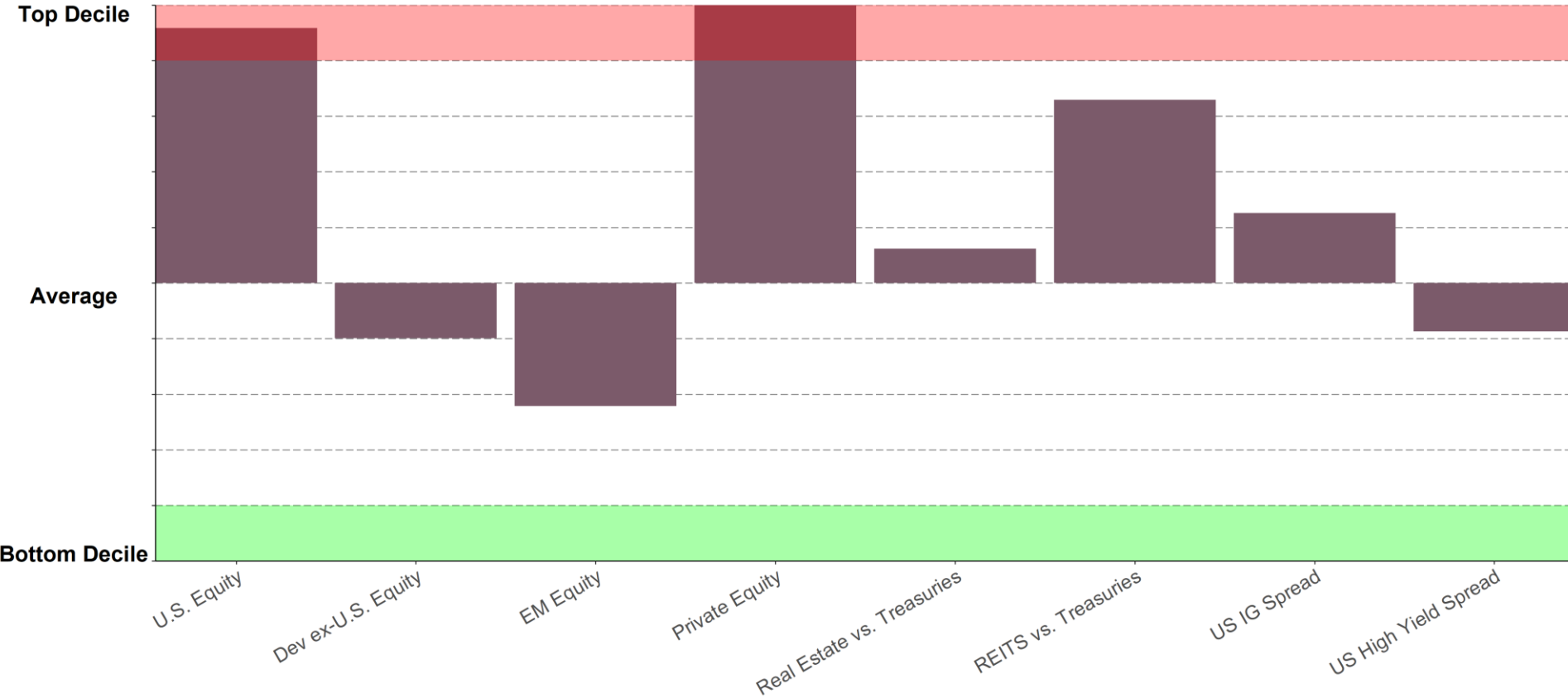
- If equity performance during May reminded investors of the fourth quarter of 2018, then June performance resembled Q1 2019, as most equity markets produced returns of positive 4-7%. June returns bring YTD returns above double digits for most major equity markets.
- The rally in equities may have been fueled by subdued concerns about trade wars, as the U.S. and China agreed upon a truce at the G20 summit that, for the moment, at least delays the imposition of additional tariffs. Global economic growth worries are still present, however, which may have supported further reductions in interest rates across the curve.
- The Federal Reserve left rates steady during its June meeting and added more cautionary language about the state of the U.S. and global economies. While the central bank predicted no rate cuts during the year, it did leave the door open for cuts in the future, starting in 2020.
- U.S. equity markets remain expensive whereas Non-U.S. equity markets remain reasonably valued, relative to their history.
- Implied market volatility¹ remains below its historical average (~19), staying below 17 throughout June, and pushing below 13 near the end of the month.
- The Market Sentiment Indicator² returned to positive (green) supported by the rebound in equity markets.
- Market uncertainty as measured by Systemic Risk remains low, but there is potential for negative surprises, as global economies navigate their respective “late-cycle” dynamics.

¹ As measured by VIX Index.

² See Appendix for the rationale for selection and calculation methodology used for the risk metrics.



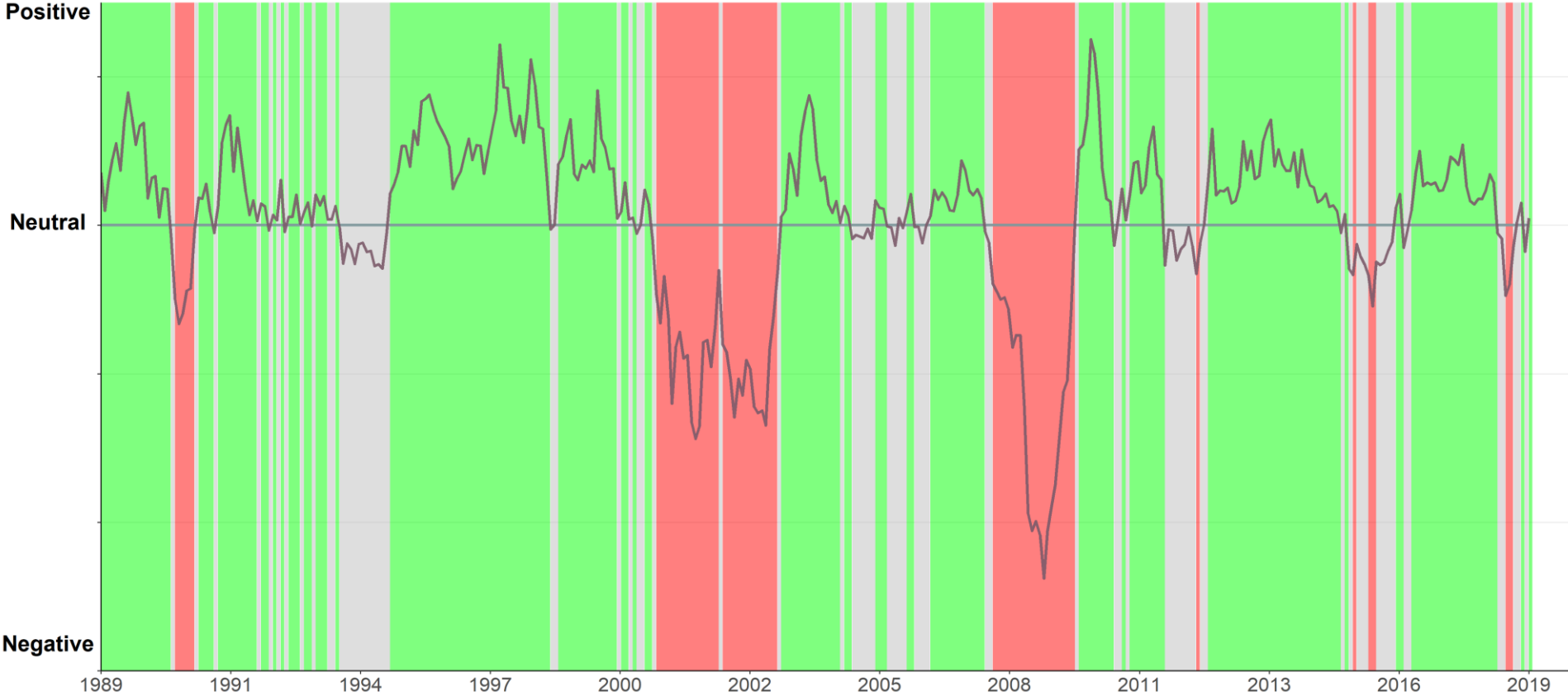
Risk Overview/Dashboard (1)



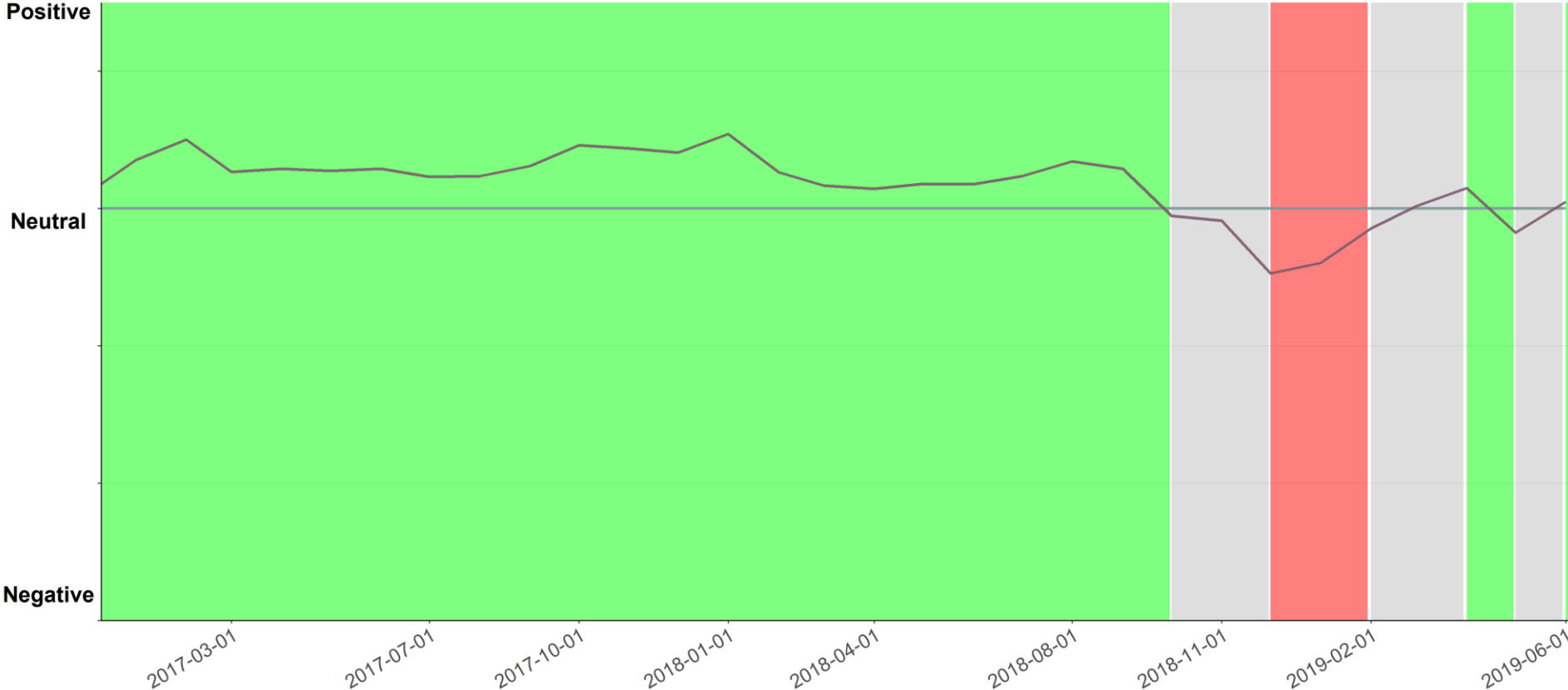
Risk Overview/Dashboard (2)



Market Sentiment Indicator (All History)



Market Sentiment Indicator (Last Three Years)



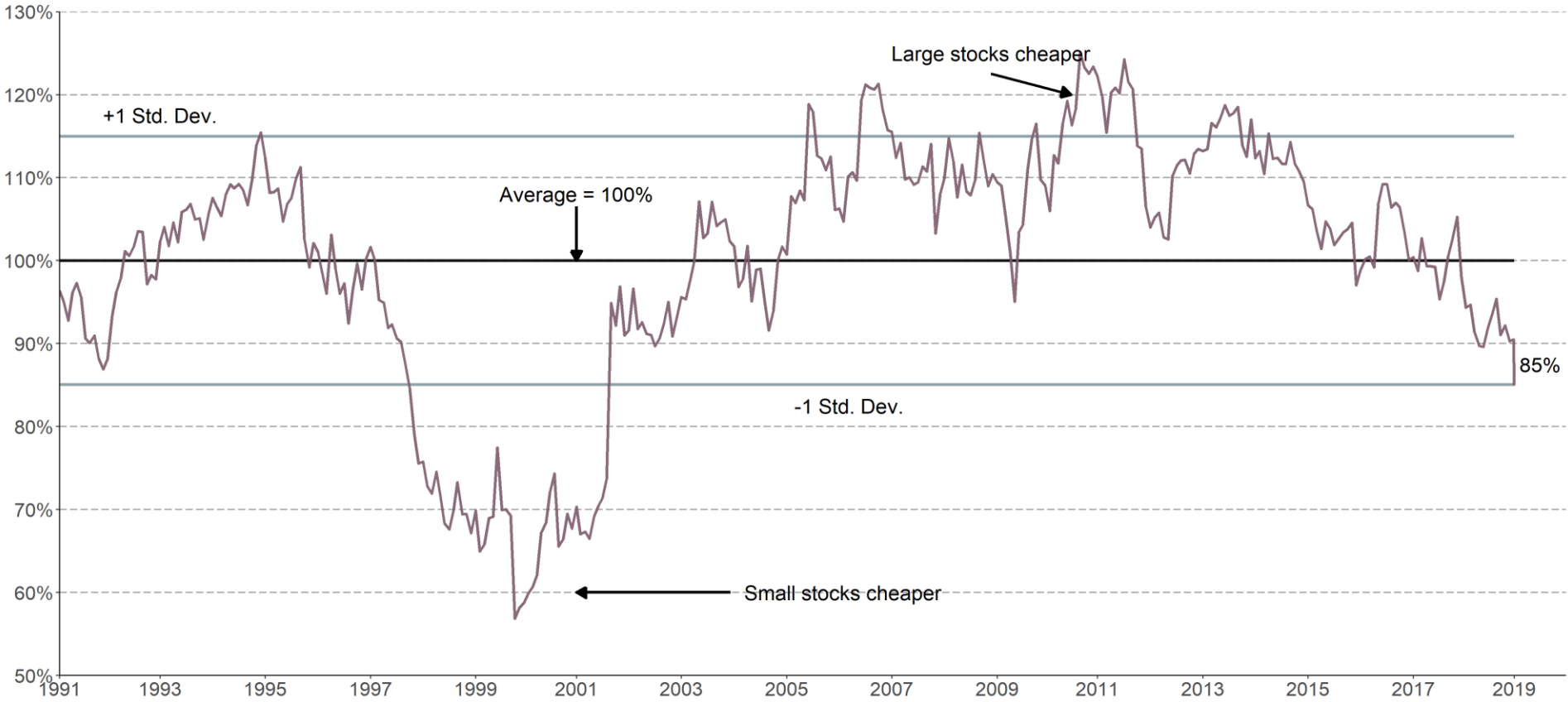
U.S. Equity Cyclically Adjusted P/E¹



¹ U.S. Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.



Small Cap P/E vs. Large Cap P/E¹



¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.



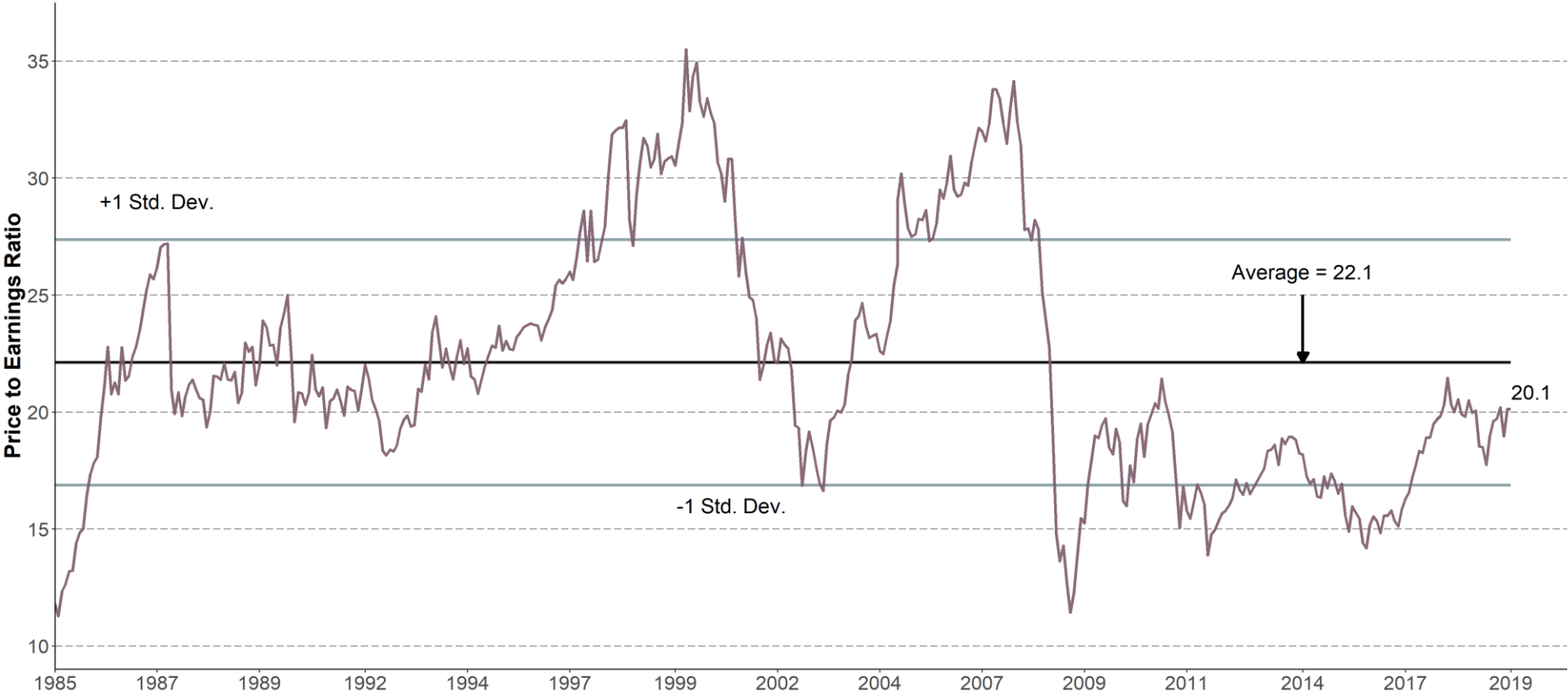
Growth P/E vs. Value P/E¹



¹ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.



Developed International Equity Cyclically Adjusted P/E¹



¹ Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.



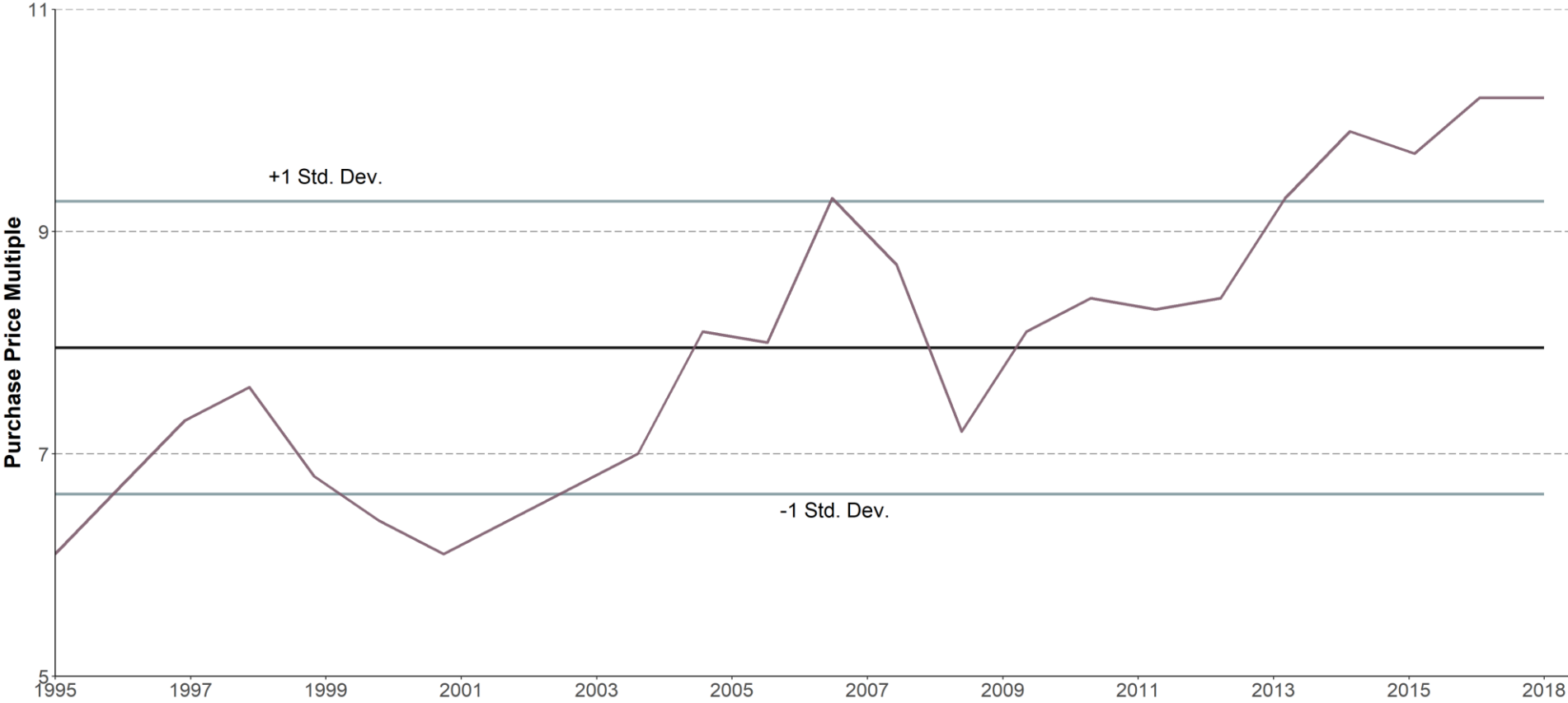
Emerging Market Equity Cyclically Adjusted P/E¹



¹ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years



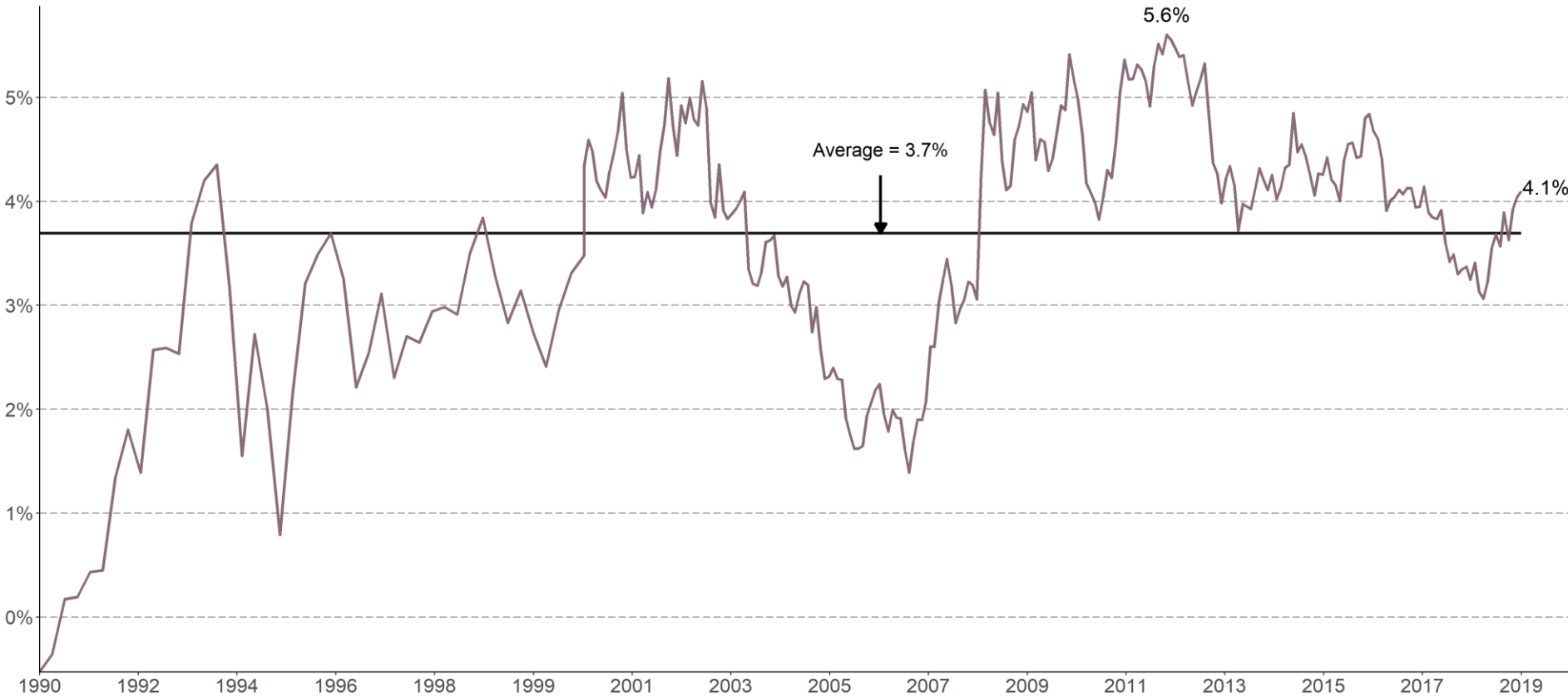
Private Equity Multiples¹



¹ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs



Core Real Estate Spread vs. Ten-Year Treasury¹



¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, U.S. Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.



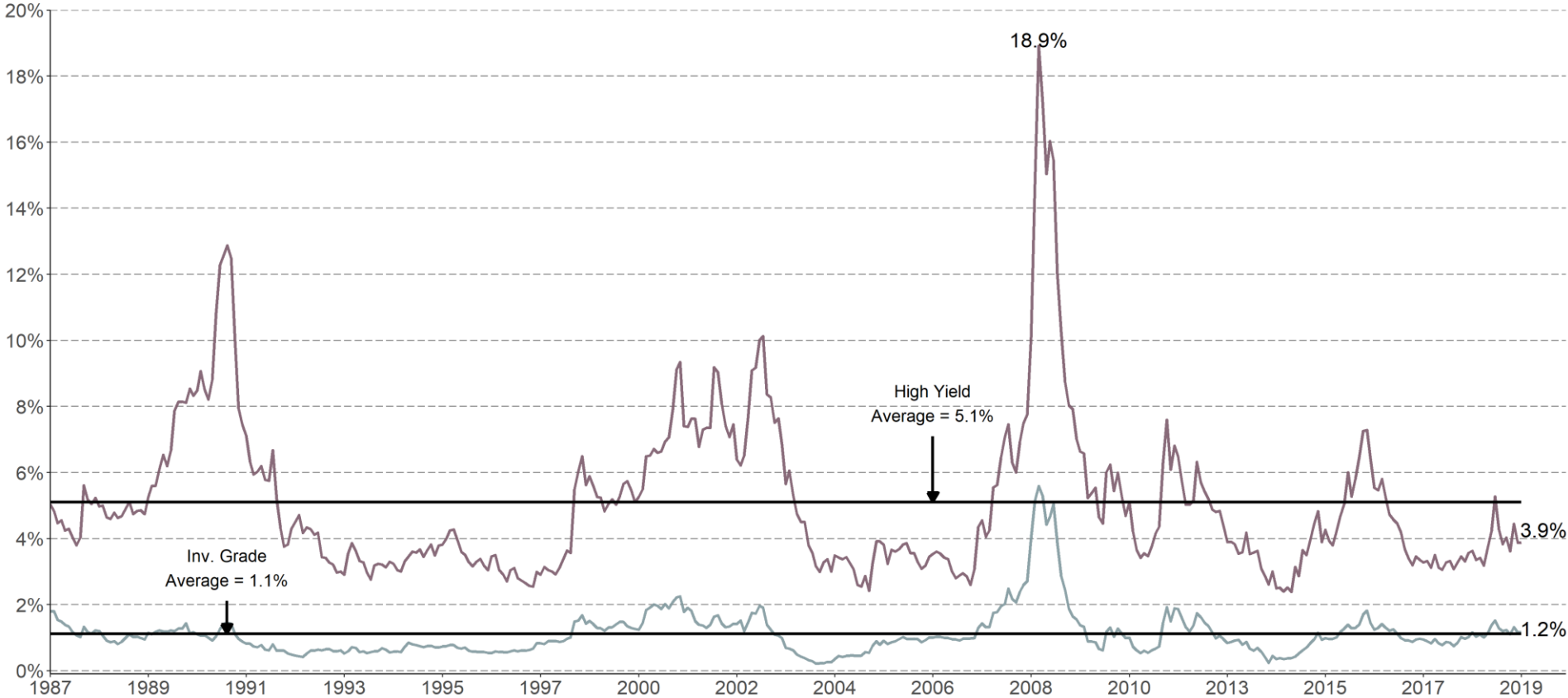
REITs Dividend Yield Spread vs. Ten-Year Treasury¹



¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, U.S. Treasury. REITs are proxied by the yield for the NAREIT Equity index.



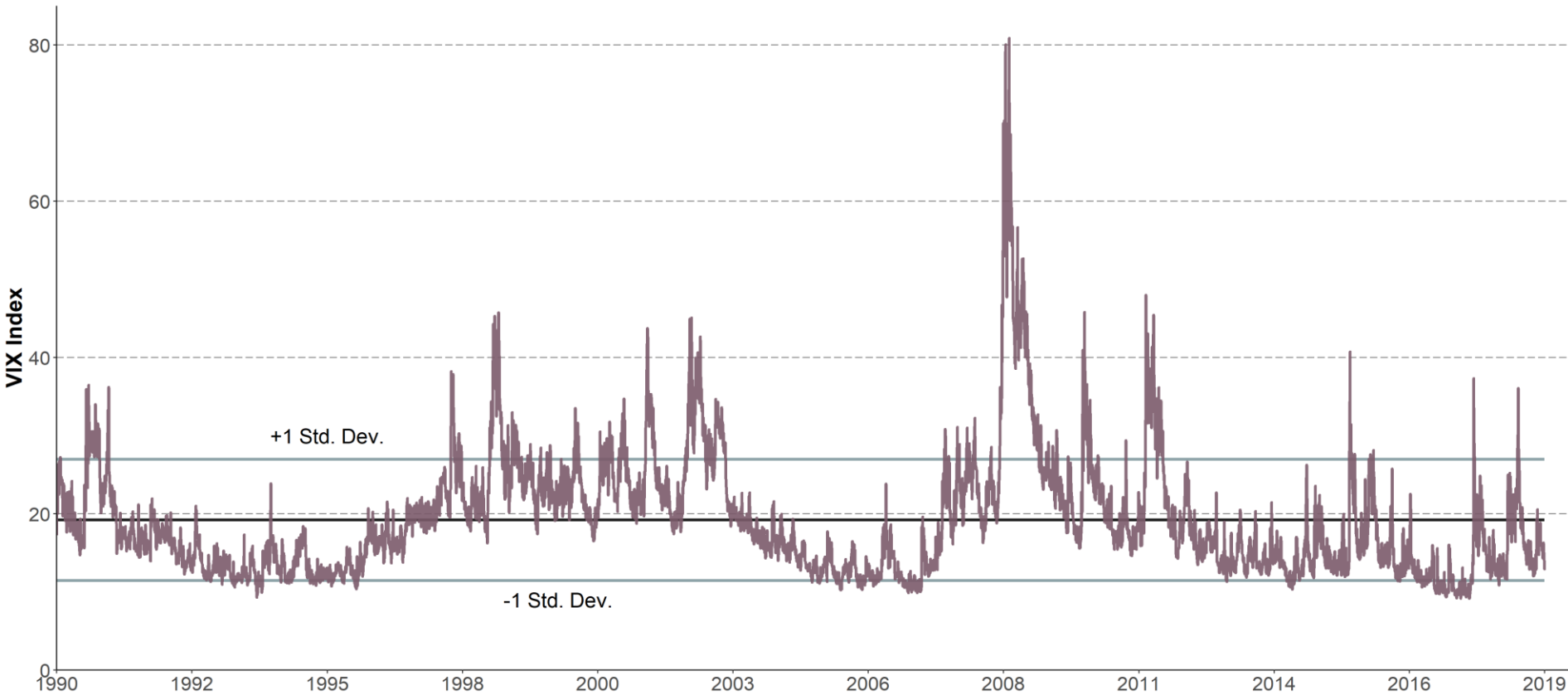
Credit Spreads¹



¹ Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays U.S. Corporate Investment Grade index.



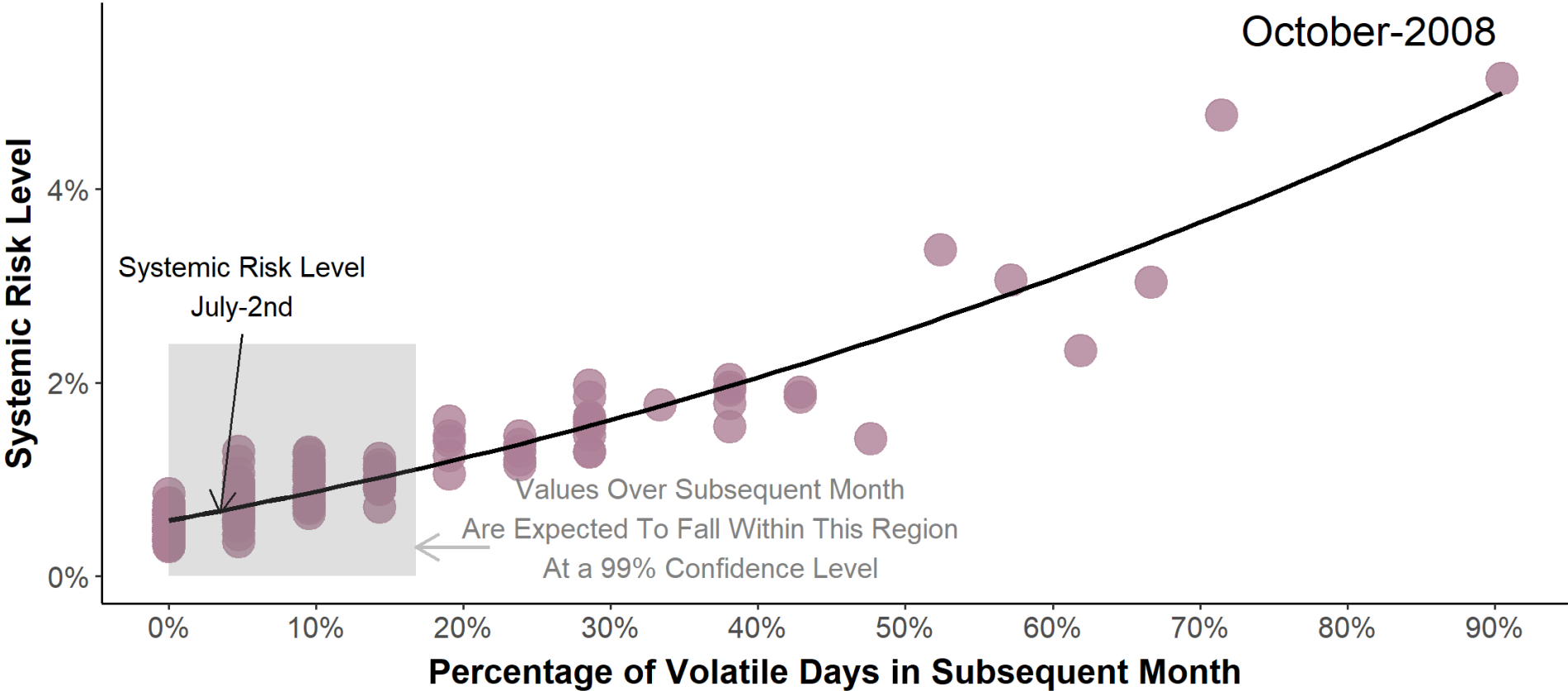
Equity Volatility¹



¹ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for U.S. equity markets.



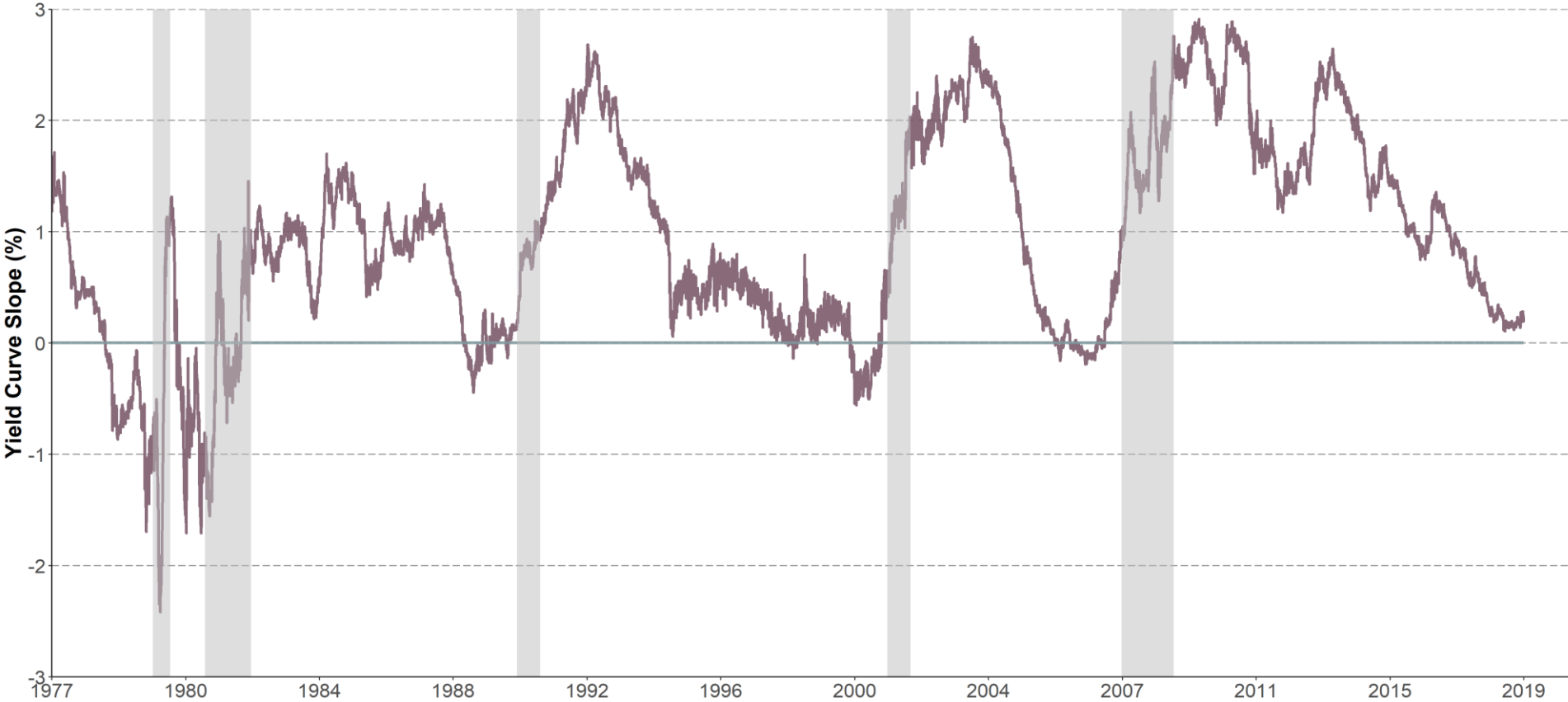
Systemic Risk and Volatile Market Days¹



¹ Source: Meketa Investment Group, as of July 2, 2019. Volatile days are defined as the top 10 percent of realized turbulence which is a multivariate distance between asset returns.



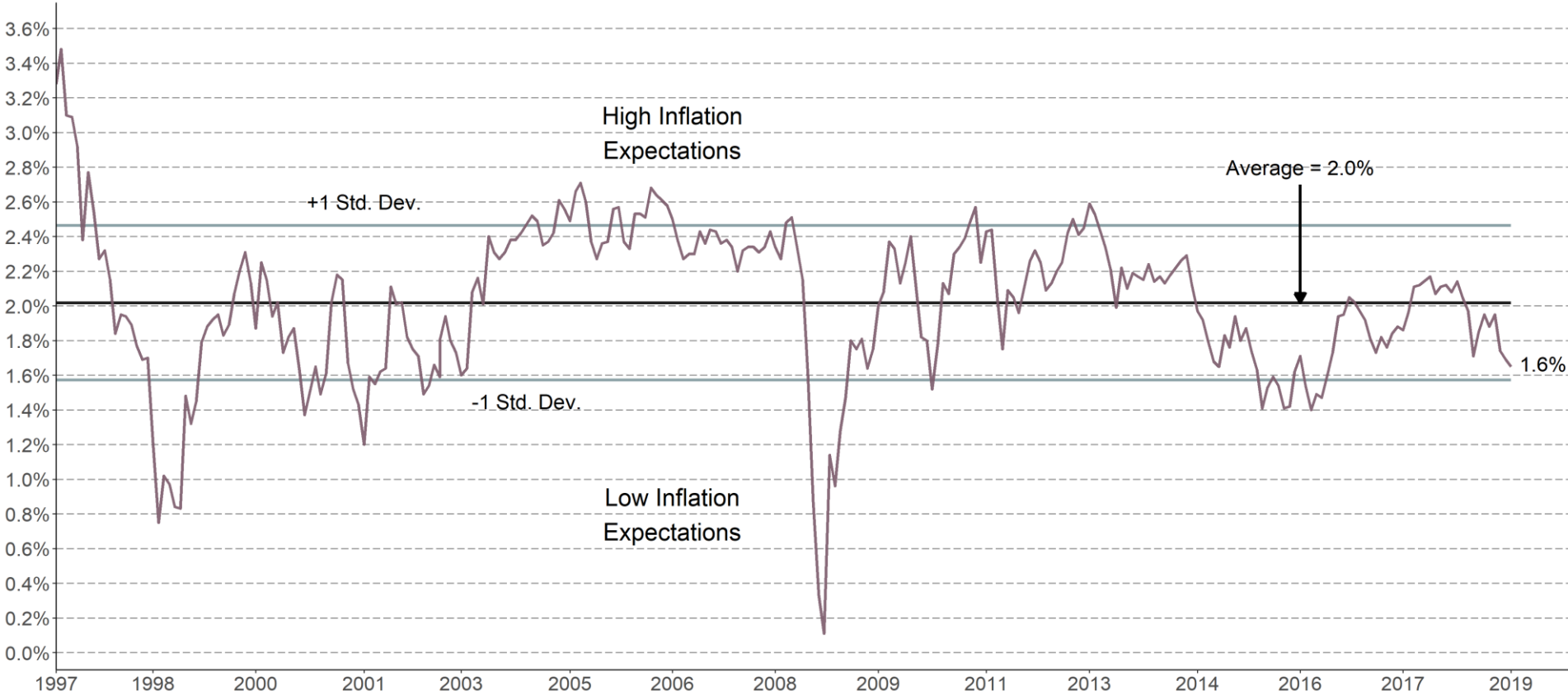
Yield Curve Slope (Ten Minus Two)¹



¹ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year U.S. Treasury Yield and 2-Year U.S. Treasury Yield.



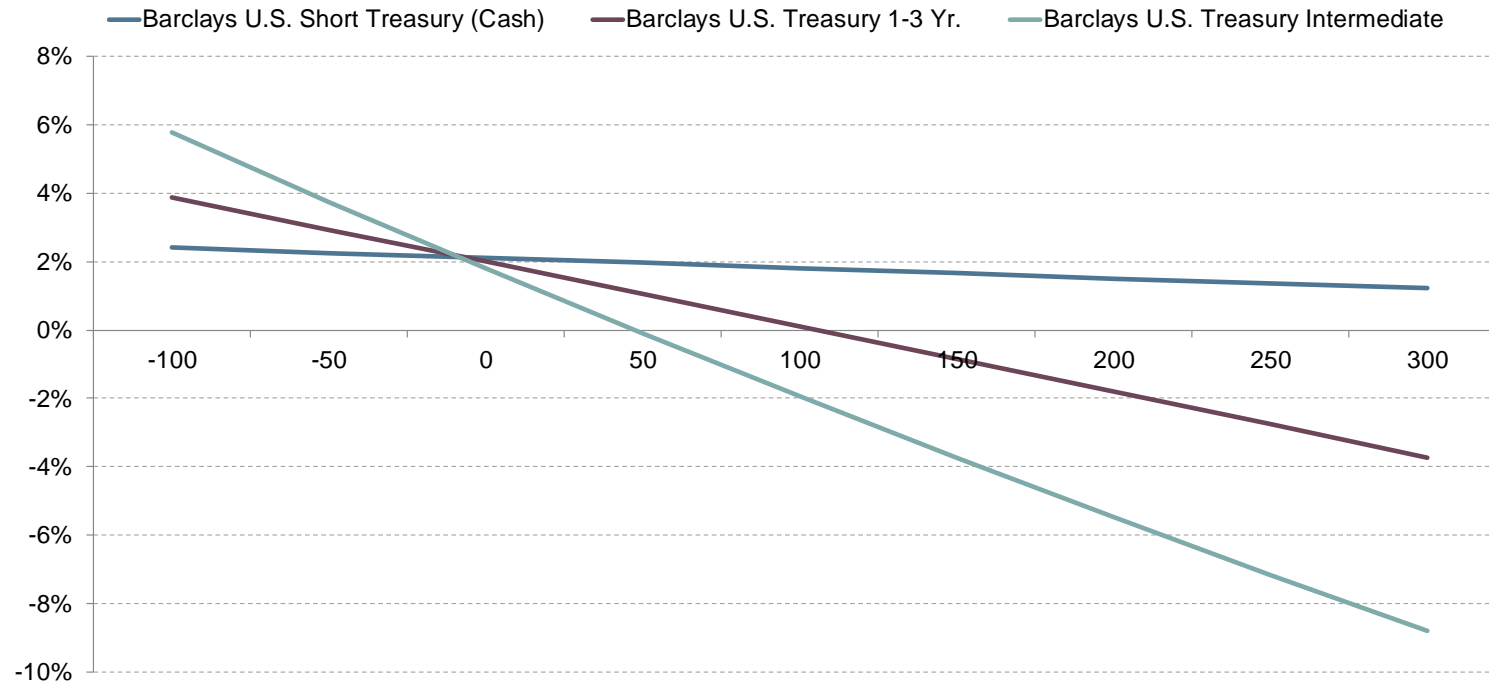
Ten-Year Breakeven Inflation¹



¹ Ten-Year Breakeven Inflation – Source: U.S. Treasury and Federal Reserve. Data is as of June 30, 2019 for TIPS and Treasuries. Inflation is measured by the Consumer Price Index (CPI-U NSA).



Total Return Given Changes in Interest Rates (bps)¹

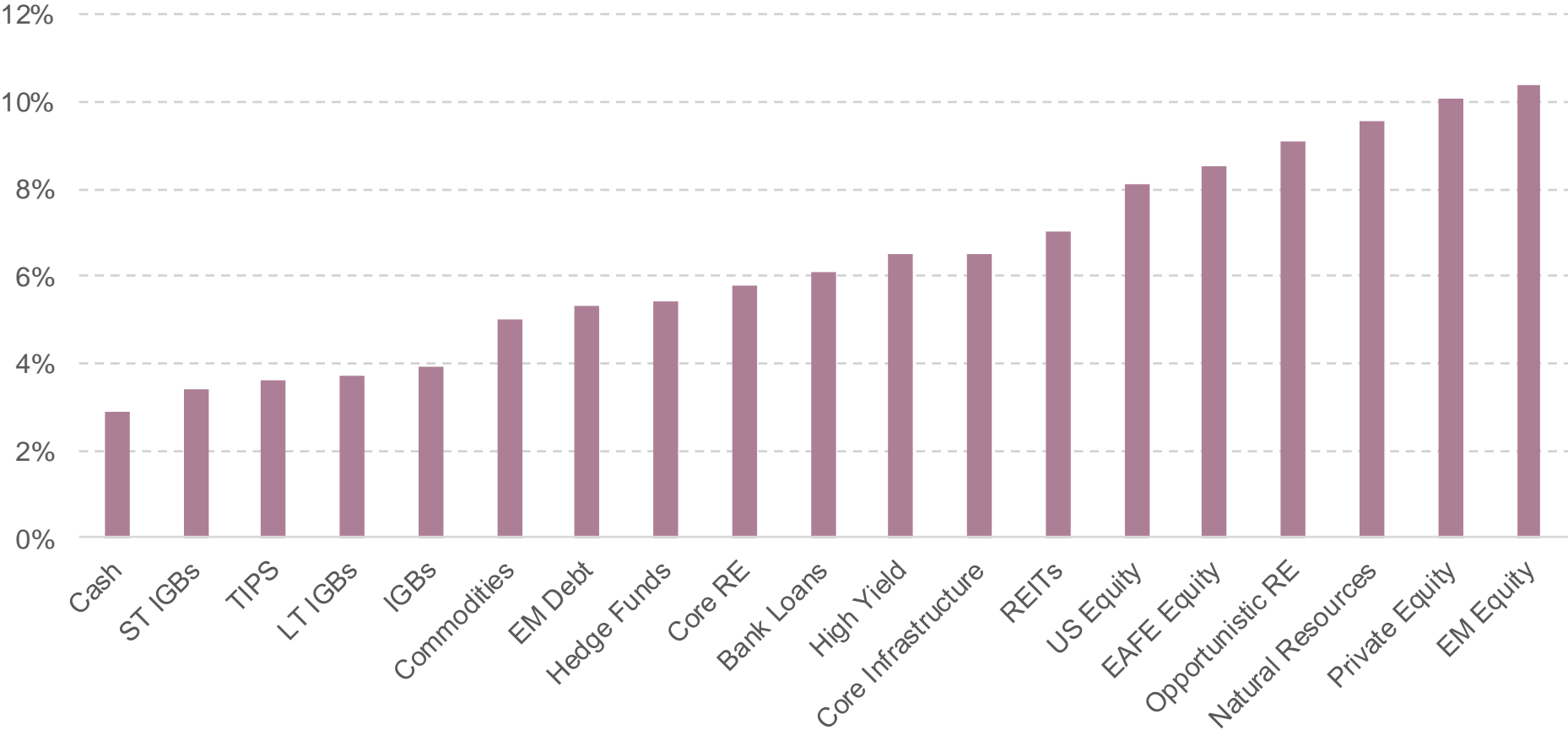


	Total Return for Given Changes in Interest Rates (bps)										Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW	
Barclays U.S. Short Treasury (Cash)	2.4%	2.3%	2.1%	2.0%	1.8%	1.7%	1.5%	1.4%	1.2%	0.3	2.11%	
Barclays U.S. Treasury 1-3 Yr.	3.9%	2.9%	2.0%	1.1%	0.1%	-0.8%	-1.8%	-2.8%	-3.7%	1.88	2.00%	
Barclays U.S. Treasury Intermediate	5.8%	3.8%	1.8%	-0.1%	-2.0%	-3.7%	-5.5%	-7.2%	-8.8%	3.86	1.80%	
Barclays U.S. Treasury Long	22.5%	12.0%	2.4%	-6.0%	-13.5%	-19.9%	-25.3%	-29.6%	-32.9%	17.99	2.44%	

¹ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Data is as of June 30, 2019 via Barclays, Bloomberg, and Meketa Investment Group.



Long-Term Outlook¹



¹ Twenty-year expected returns based upon Meketa Investment Group's 2019 Annual Asset Study.



Appendix – Data Sources and Explanations

All Data as of June 30, 2019

- U.S. Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month “as reported” earnings.
- Developed International Equity (MSCI EAFE ex Japan Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, U.S. Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.
- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, U.S. Treasury. REITs are proxied by the yield for the NAREIT Equity index.
- Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays U.S. Corporate Investment Grade index.

Appendix – Data Sources and Explanations (Continued)
All Data as of June 30, 2019

- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for U.S. equity markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
 - Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.
- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year U.S. Treasury Yield and 2-Year U.S. Treasury Yield.
- Ten-Year Breakeven Inflation – Source: U.S. Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa’s Risk Metrics.

Meketa’s Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market corrections take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

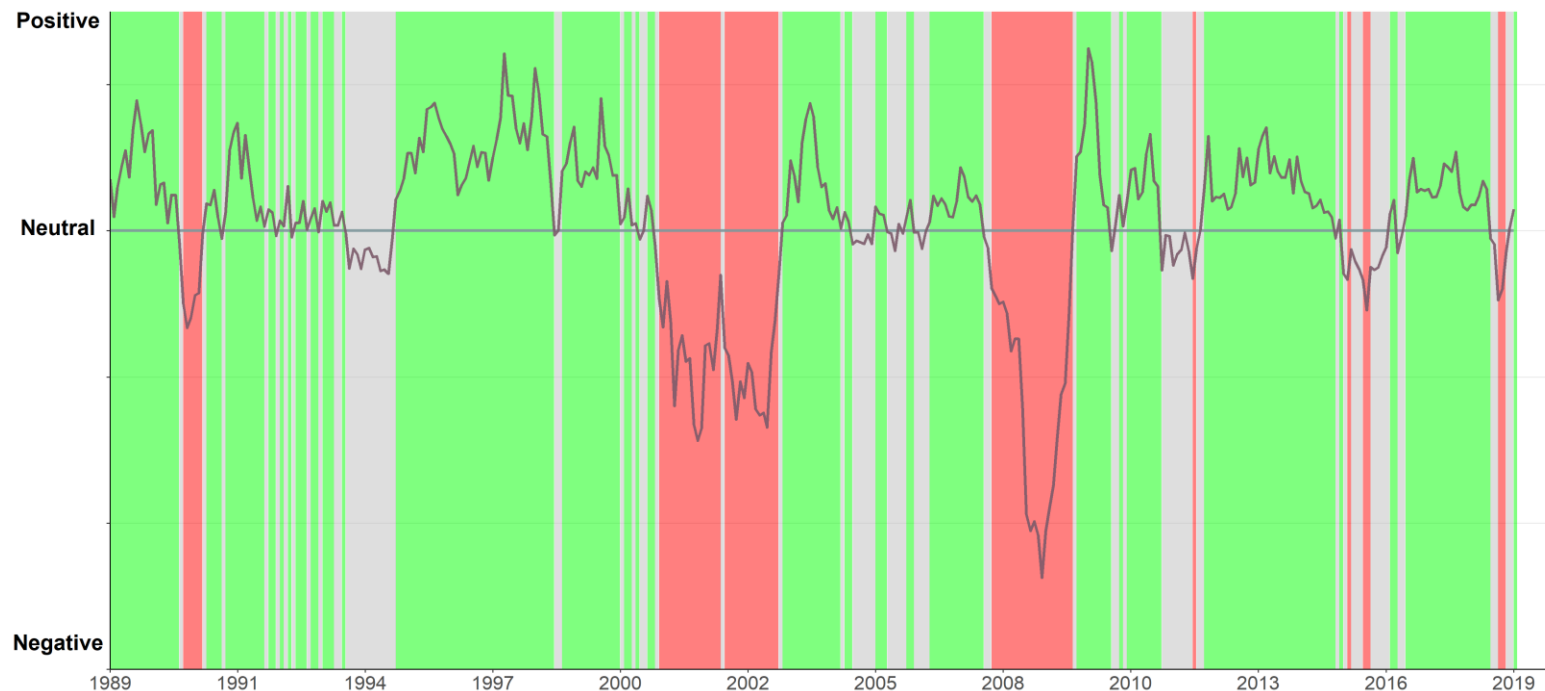
What is the Meketa Market Sentiment Indicator (MIG-MSI)?

The MIG-MSI is a measure meant to gauge the market’s sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.

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



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

- Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
- Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration U.S. Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
- Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.

The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure.¹ The color reading on the graph is determined as follows:

- If both stock return momentum and bond spread momentum are positive = GREEN (positive)
- If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
- If both stock return momentum and bond spread momentum are negative = RED (negative)

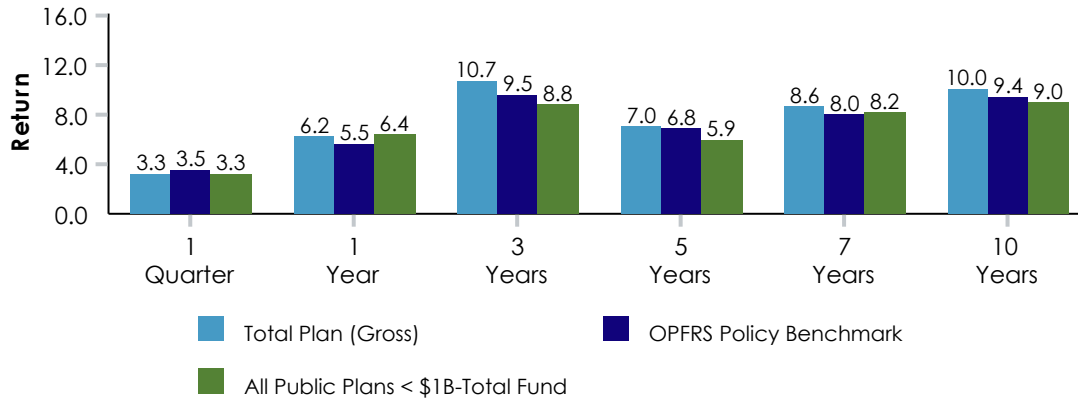
¹ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.
“Time Series Momentum” Moskowitz, Ooi, Pedersen, August 2010. <http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

Total Portfolio Performance & Market Value As of June 30, 2019

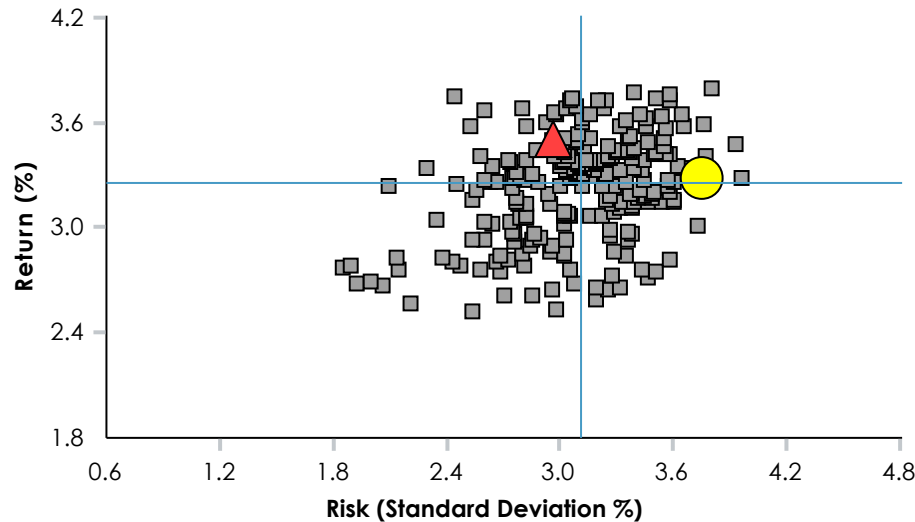
Investment Performance



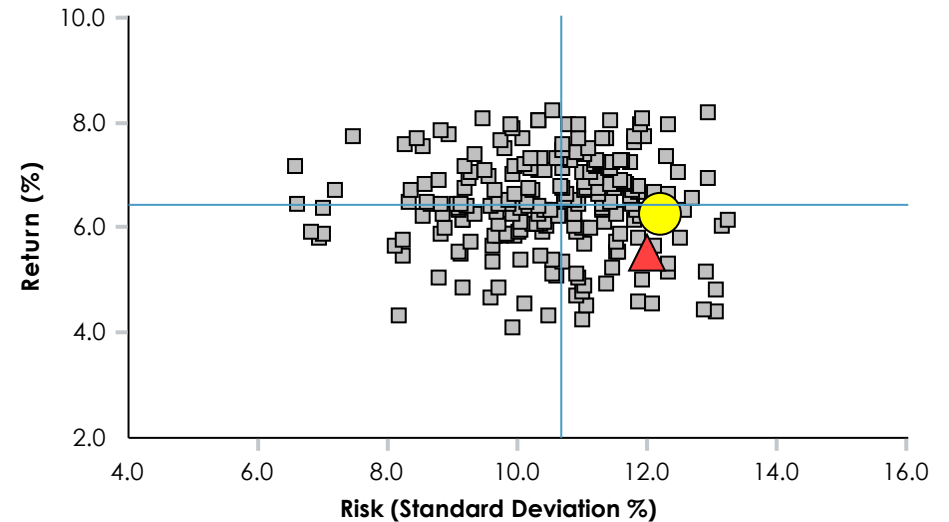
Portfolio Valuation (000's)

	1 Quarter	1 Year
OPFRS Total Plan		
Beginning Market Value	380,733	379,203
Net Contributions	-4,148	-13,188
Gain/Loss	12,155	22,725
Ending Market Value	388,740	388,740

Quarterly Risk/Return



1-Year Risk/Return



	Return	Standard Deviation
● OPFRS Total Plan	3.3	3.8
▲ OPFRS Policy Benchmark	3.5	3.0
— Median	3.3	3.1

	Return	Standard Deviation
● OPFRS Total Plan	6.2	12.2
▲ OPFRS Policy Benchmark	5.5	12.0
— Median	6.4	10.7

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



Asset Class Performance As of June 30, 2019

Investment Performance

Asset Class Performance (gross of fees)

	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
OPFRS Total Plan	3.3	6.2	10.7	7.0	8.6	10.0
<i>OPFRS Policy Benchmark*</i>	3.5	5.5	9.5	6.8	8.0	9.4
Excess Return	-0.2	0.7	1.2	0.2	0.6	0.6
Domestic Equity	3.9	7.1	14.3	10.1	13.8	14.9
<i>Russell 3000 (Blend)**</i>	4.1	9.0	14.0	10.2	13.8	14.7
Excess Return	-0.2	-1.9	0.3	-0.1	0.0	0.2
International Equity	5.0	2.6	11.2	4.2	8.0	7.6
<i>MSCI ACWI Ex US (Blend)^</i>	3.2	1.8	9.9	2.6	6.9	7.0
Excess Return	1.8	0.8	1.3	1.6	1.1	0.6
Fixed Income	3.0	8.0	3.7	3.7	3.3	4.8
<i>Bloomberg Barclays Universal (Blend)^^</i>	3.1	8.1	2.8	3.2	3.0	4.4
Excess Return	-0.1	-0.1	0.9	0.5	0.3	0.4
Crisis Risk Offset	-1.5	-	-	-	-	-
<i>SG Multi Alternative Risk Premia</i>	-0.5	-	-	-	-	-
Excess Return	-1.0	-	-	-	-	-
Covered Calls	3.3	6.9	9.9	7.8	-	-
<i>CBOE BXM</i>	3.3	3.2	7.4	6.0	-	-
Excess Return	0.0	3.7	2.5	1.8	-	-
Cash	0.8	2.4	1.5	1.0	0.7	-
<i>FTSE 3 Month T-Bill</i>	0.6	2.3	1.4	0.8	0.6	-
Excess Return	0.2	0.1	0.1	0.2	0.1	-

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

** Domestic Equity Benchmark consists of S&P 500 thru 3/31/98, 10% R1000, 20% R1000V, 5% RMC from 4/1/98 - 12/31/04, and Russell 3000 from 1/1/05 to present

^ International Equity Benchmark consists of MSCI EAFE thru 12/31/04, and MSCI ACWI x US thereafter.

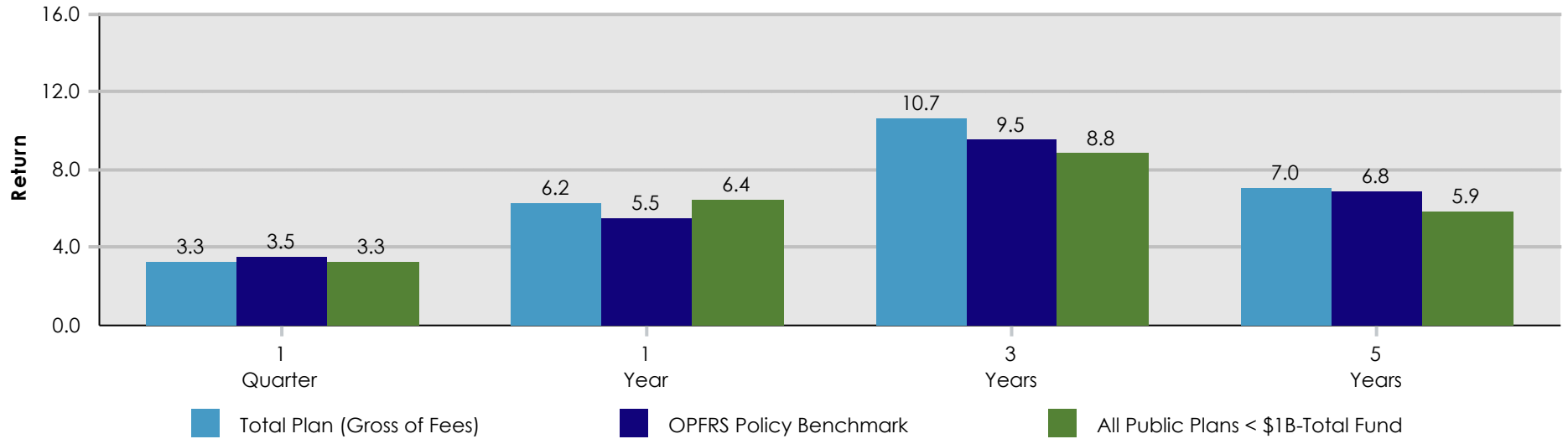
^^ Fixed Income Benchmark consists of Bbg BC Aggregate prior to 4/1/06, and Bbg BC Universal thereafter.



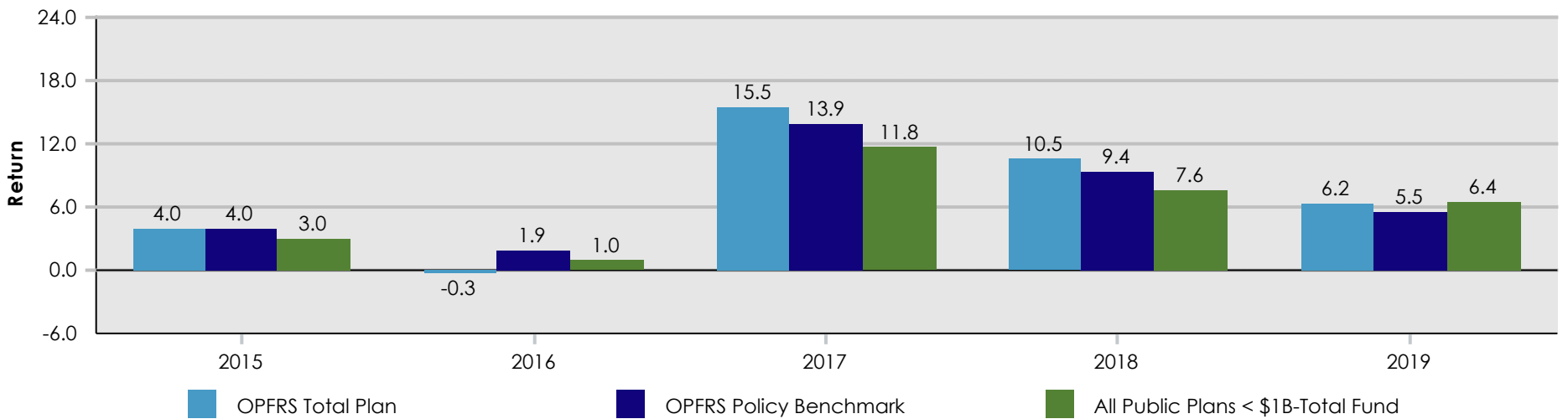
OPFRS Portfolio Relative Performance Results

As of June 30, 2019

Trailing Period Performance (annualized)



12-month Performance- As of June 30, 2019



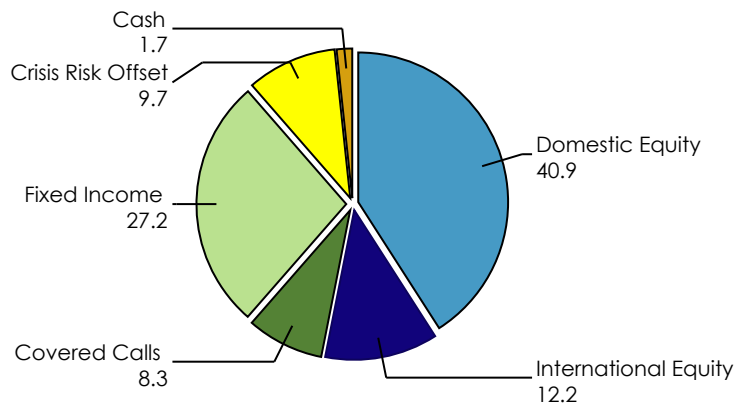
Actual vs. Target Allocation
As of June 30, 2019

	Asset Allocation (\$'000)	Asset Allocation (%)	Target Allocation* (%)	Variance (%)
OPFRS Total Plan	388,740	100.0	100.0	0.0
Domestic Equity	159,118	40.9	40.0	0.9
International Equity	47,351	12.2	12.0	0.2
Total Fixed Income	105,644	27.2	33.0	-5.8
Covered Calls	32,346	8.3	5.0	3.3
Crisis Risk Offset	37,722	9.7	10.0	-0.3
Cash	6,558	1.7	0.0	1.7

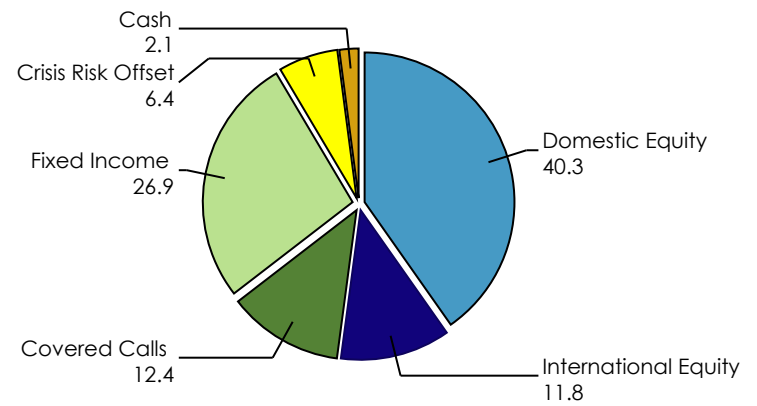
*Target weightings reflect the Plan's evolving asset allocation (effective 5/31/2017).

Actual Asset Allocation Comparison

June 30, 2019 : \$388,739,954



March 31, 2019 : \$380,733,117



Manager Performance - Gross of Fees

As of June 30, 2019

Domestic Equity

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception*	Inception Date
Large Cap Core							
Northern Trust Russell 1000 Index	86,712	4.2	10.1	14.2	10.5	13.9	06/2010
<i>Russell 1000 Index</i>		4.2	10.0	14.1	10.5	13.9	
Excess Return		0.0	0.1	0.1	0.0	0.0	
Mid Cap Core							
EARNEST Partners - Active	32,591	5.7 (12)	12.0 (12)	17.1 (14)	11.8 (14)	9.9 (21)	04/2006
<i>Russell Midcap Index</i>		4.1	7.8	12.2	8.6	8.6	
Excess Return		1.6	4.2	4.9	3.2	1.3	
Small Cap Value							
NWQ - Active	9,446	2.2 (55)	-10.7 (90)	8.9 (62)	5.5 (65)	6.9 (83)	02/2006
<i>Russell 2000 Value Index</i>		1.4	-6.2	9.8	5.4	6.2	
Excess Return		0.8	-4.5	-0.9	0.1	0.7	
Small Cap Growth							
Rice Hall James - Active	12,534	2.9 (80)	-7.1 (93)	---	---	9.4 (80)	07/2017
<i>Russell 2000 Growth Index</i>		2.7	-0.5	---	---	10.1	
Excess Return		0.2	-6.6	---	---	-0.7	
Defensive Equity							
SPI - Active	17,835	---	---	---	---	---	07/2019
<i>S&P 500 Index</i>		---	---	---	---	---	
Excess Return		---	---	---	---	---	

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

OPFRS's passive Domestic Equity mandate performed in-line with its respective benchmark.

Northern Trust, the Plan's passive large cap core transition account, continues to perform in-line with its benchmark over all time periods measured. This performance is within expectations for a passive mandate.



Manager Performance - Gross of Fees

As of June 30, 2019

Domestic Equity

EARNEST Partners, the Plan's active mid cap core manager, outperformed its Russell Midcap benchmark by 1.6%, placing it in the 12th percentile of its peer group. The portfolio has also outperformed its benchmark over the 1-year period by 4.2% and continues to outperform over the 3- and 5-year periods by 4.9% and 3.2% respectively. The portfolio also ranks in the top quartile of its peer group over all time periods measured.

NWQ, the Plan's active small cap value manager, outperformed the Russell 2000 Value Index by 0.8% over the latest quarter, placing the portfolio in the 55th percentile of its peer group. NWQ continues to underperform over the 1- and 3-year periods by (4.5%) and (0.9%), respectively. NWQ continues to outperform its benchmark over the 5-year period by 0.1% with an annualized return of 5.5%. It should be noted that NWQ was terminated as OPFRS's active small cap value manager at the July meeting.

Rice Hall James, the Plan's active small cap growth manager, outperformed its Russell 2000 Growth benchmark over the most recent quarter by 0.2%, placing the portfolio in the 80th percentile of its peer group. The portfolio has underperformed its benchmark over the 1-year period by (6.6%).

SPI, the Plan's new active Defensive Equity manager, was funded in early June and thus does not yet have a full month of performance.

Manager Performance - Gross of Fees

As of June 30, 2019

International Equity

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Active International							
Fisher Investments	16,891	4.5 (21)	3.8 (13)	11.2 (18)	4.2 (21)	4.8 (74)	04/2011
<i>MSCI AC World ex USA</i>		3.2	1.8	9.9	2.6	3.9	
Excess Return		1.3	2.0	1.3	1.6	0.9	
Hansberger	16,776	6.3 (20)	2.2 (46)	12.8 (23)	5.6 (30)	4.8 (75)	02/2006
<i>MSCI AC World ex USA</i>		3.2	1.8	9.9	2.6	4.1	
Excess Return		3.1	0.4	2.9	3.0	0.7	
Passive International							
SSgA	13,684	3.9	1.4	9.5	2.6	7.1	08/2002
<i>MSCI EAFE Index</i>		4.0	1.6	9.6	2.7	7.2	
Excess Return		-0.1	-0.2	-0.1	-0.1	-0.1	

Over the latest three-month period ending June 30, 2019, both of OPFRS's two active International Equity managers outperformed their respective benchmark.

The **SSgA** account has performed roughly in-line with its benchmark over all time periods measured. This performance is within expectations for a passive mandate. It should also be noted the SSgA was terminated as the Developed International portfolio manager during OPFRS's July meeting.

Hansberger, one of OPFRS' active international equity managers, outperformed the MSCI ACWI x US Index during the quarter by 3.1%, placing the fund in the 20th percentile of its peer group. Over the 12-month period, Hansberger outperformed its benchmark by 0.4% with an absolute return of 2.2%. Hansberger continues to outperform over the 3- and 5-year periods with excess returns of 2.9% and 3.0%, respectively.

Fisher, one of OPFRS' active international equity managers, outperformed the MSCI ACWI x US Index by 1.3% during the quarter, ranking the fund in the 21st percentile of its peer group. Over the most recent 1- and 3-year periods, Fisher has outperformed its benchmark by 2.0% and 1.3%, respectively, and continues to outperform by 1.6% over the five year period.

Manager Performance - Gross of Fees

As of June 30, 2019

Fixed Income

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Core Fixed Income							
Ramirez	73,338	3.3 (16)	8.5 (21)	---	---	4.8 (11)	01/2017
<i>Bloomberg Barclays U.S. Aggregate Index</i>		3.1	7.9	---	---	3.8	
Excess Return		0.2	0.6	---	---	1.0	
Core-Plus Fixed Income							
Reams	24,345	3.0 (82)	8.1 (60)	2.8 (85)	3.4 (62)	5.6 (55)	02/1998
<i>Bbg Barclays Universal (Hybrid)</i>		3.1	8.1	2.8	3.2	5.0	
Excess Return		-0.1	0.0	0.0	0.2	0.6	
High Yield / Bank Loans							
DDJ Capital	7,960	0.4 (99)	3.1 (97)	9.0 (8)	---	6.2 (20)	02/2015
<i>ICE BofAML High Yield Master II</i>		2.6	7.6	7.5	---	5.9	
Excess Return		-2.2	-4.5	1.5	---	0.3	

Over the latest three-month period, ending June 30, 2019, one of OPFRS's three active Fixed Income managers outperformed their respective benchmarks.

Ramirez, the Plan's core fixed income manager, returned 3.3% compared to the benchmark return of 3.1% during the quarter, ranking the portfolio in the 16th percentile of its peer group. Over the 1-year period, Ramirez has outperformed its benchmark by 06% and ranked in the 21st percentile of its peer group.

Reams, the Plan's core plus fixed income manager, underperformed its benchmark by (0.1%) during the quarter and ranked in the 82nd percentile of its peer group. Over the most recent 12-month period, Reams matched its benchmark with a return of 8.1%, earning a 60th percentile ranking. Reams also matched its benchmark over the 3-year period and outperformed over the 5-year period by 0.2%.

DDJ, the Plan's High Yield & Bank Loan manager, returned 0.4% during the most recent quarter but was unable to keep up with the benchmark's 2.6% return. A string of underperforming quarters has left DDJ trailing its benchmark by (4.5%) over the most recent 12-month period and ranking in the 97th percentile of its peer group. DDJ's returns over the 3-year period remain strong, outperforming its benchmark by 1.5% and ranking in the 8th percentile of its peer group.

Manager Performance - Gross of Fees

As of June 30, 2019

Covered Calls

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Covered Calls Composite							
Covered Calls	32,346	3.3	6.9	9.9	7.8	8.2	04/2014
CBOE BXM		3.3	3.2	7.4	6.0	6.3	
Excess Return		0.0	3.7	2.5	1.8	1.9	
CC - Passive Allocation							
Parametric BXM	15,679	2.1	5.1	8.0	6.6	6.9	04/2014
CBOE BXM		3.3	3.2	7.4	6.0	6.3	
Excess Return		-1.2	1.9	0.6	0.6	0.6	
CC - Active Allocation							
Parametric DeltaShift	16,668	4.5	8.8	11.8	9.5	10.0	04/2014
CBOE BXM		3.3	3.2	7.4	6.0	6.3	
Excess Return		1.2	5.6	4.4	3.5	3.7	

During the latest three-month period ending June 30, 2019, OPFRS' aggregate Covered Calls portfolio matched its benchmark with a 3.3% return.

Parametric BXM Portfolio, the Plan's passive covered calls allocation underperformed its CBOE BXM index by (1.2%) over the most recent quarter. Over the most recent 1-year period the portfolio has outperformed by 1.9% and has outperformed over both the 3- and 5-year periods by 0.6%.

Parametric Delta Shift Portfolio, the Plan's active covered calls allocation has outperformed the CBOE BXM benchmark by 1.2% over the most recent quarter and has outperformed by 5.6% over the 1-year period. The portfolio outperformed over the 3-year period by 4.4% and has earned an annualized 9.5% over the most recent 5-year period, outperforming its benchmark by 3.5%.

Manager Performance - Gross of Fees

As of June 30, 2019

Crisis Risk Offset

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Crisis Risk Offset Composite							
Crisis Risk Offset	37,722	-1.5	---	---	---	-3.1	09/2018
<i>CRO Composite Benchmark</i>		-0.5	---	---	---	1.3	
Excess Return		-1.0	---	---	---	-4.4	
CRO - Risk Premia / Trend Following							
Parametric S.A.R.P.	24,300	-0.7	---	---	---	-2.3	09/2018
<i>SG Multi Alternative Risk Premia</i>		-0.5	---	---	---	1.3	
Excess Return		-0.2	---	---	---	-3.6	
CRO - Long Duration							
Vanguard Long-Term Treasury ETF	13,422	---	---	---	---	---	07/2019
<i>Bloomberg Barclays U.S. Gov Float Adjusted: Long</i>		---	---	---	---	---	
Excess Return		---	---	---	---	---	

During the latest three-month period ending June 30, 2019, OPFRS's partially funded aggregate Crisis Risk Offset portfolio underperformed its benchmark by (1.0%).

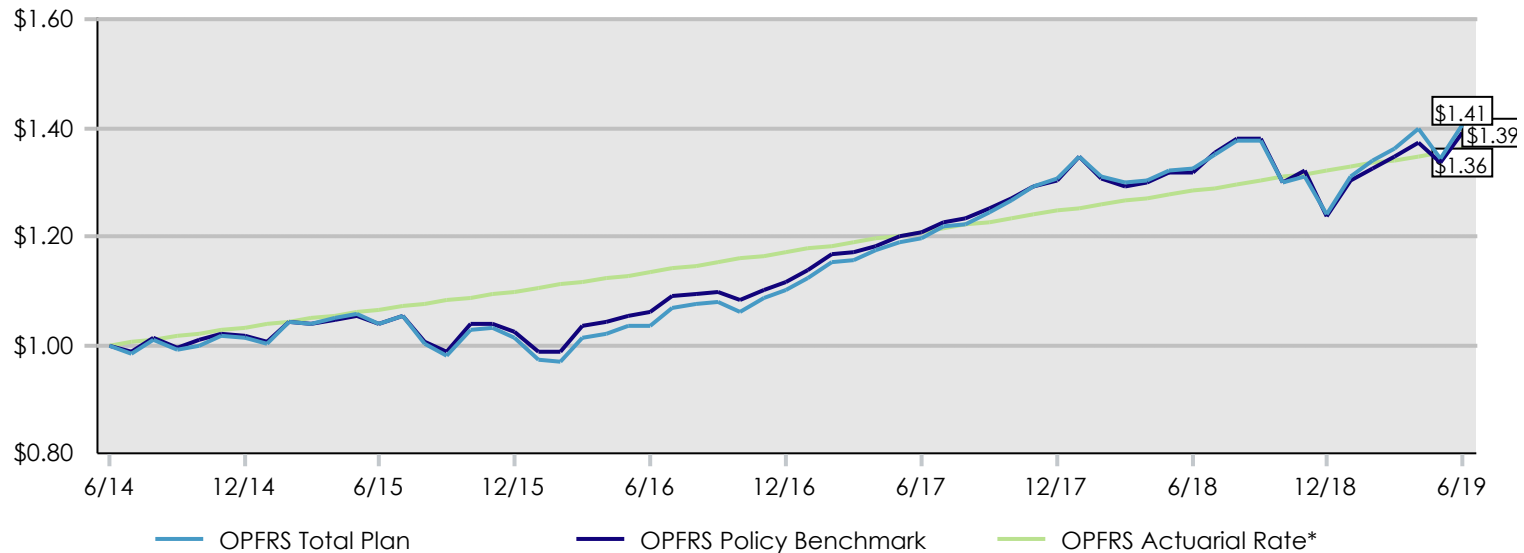
Parametric Systematic Alternative Risk Premia, the Plan's Risk Premia / Trend Following manager underperformed its benchmark by (1.0%) during its second full quarter in the portfolio. Due to a poor first few months after funding, the portfolio continues to trail its benchmark by (4.4%) since its funding in September 2018.

Temporary Long Duration ETF, the Plan's Long Duration allocation was funded in early June through the use of the Vanguard Long-Term Treasury ETF until a permanent manager can be selected. As the portfolio has not yet had a full month of performance as of the end of June there is currently no since inception performance data.

OPFRS Total Portfolio 5-Year Performance

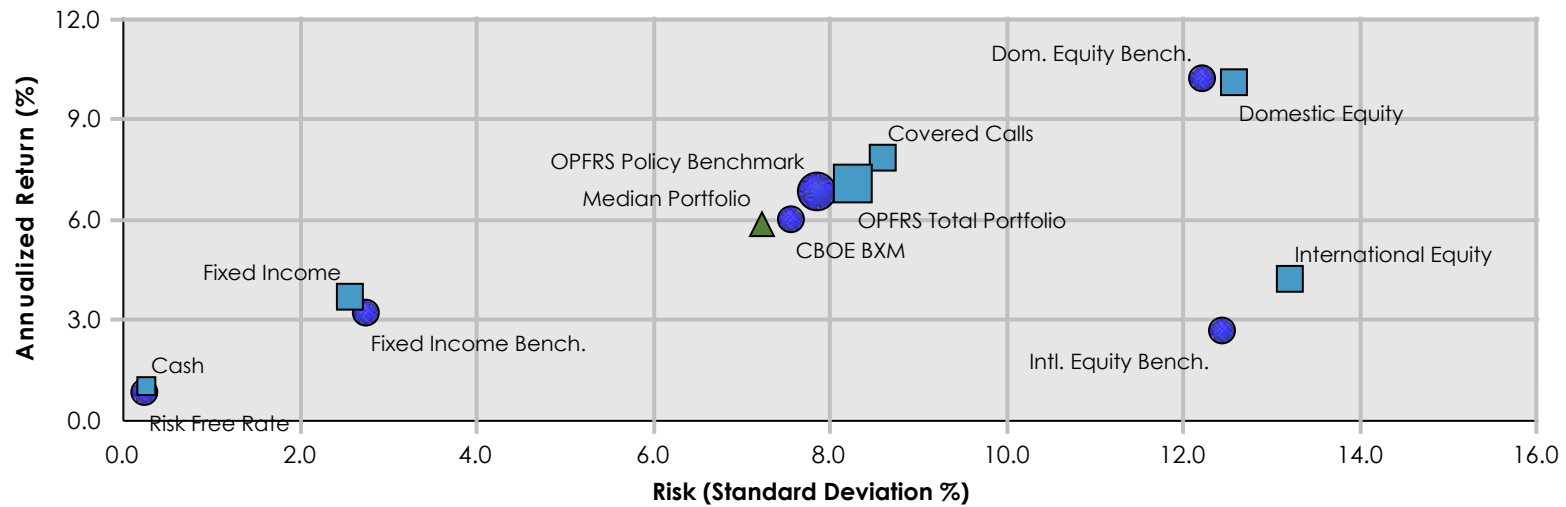
As of June 30, 2019

Growth of \$1 (5-year)

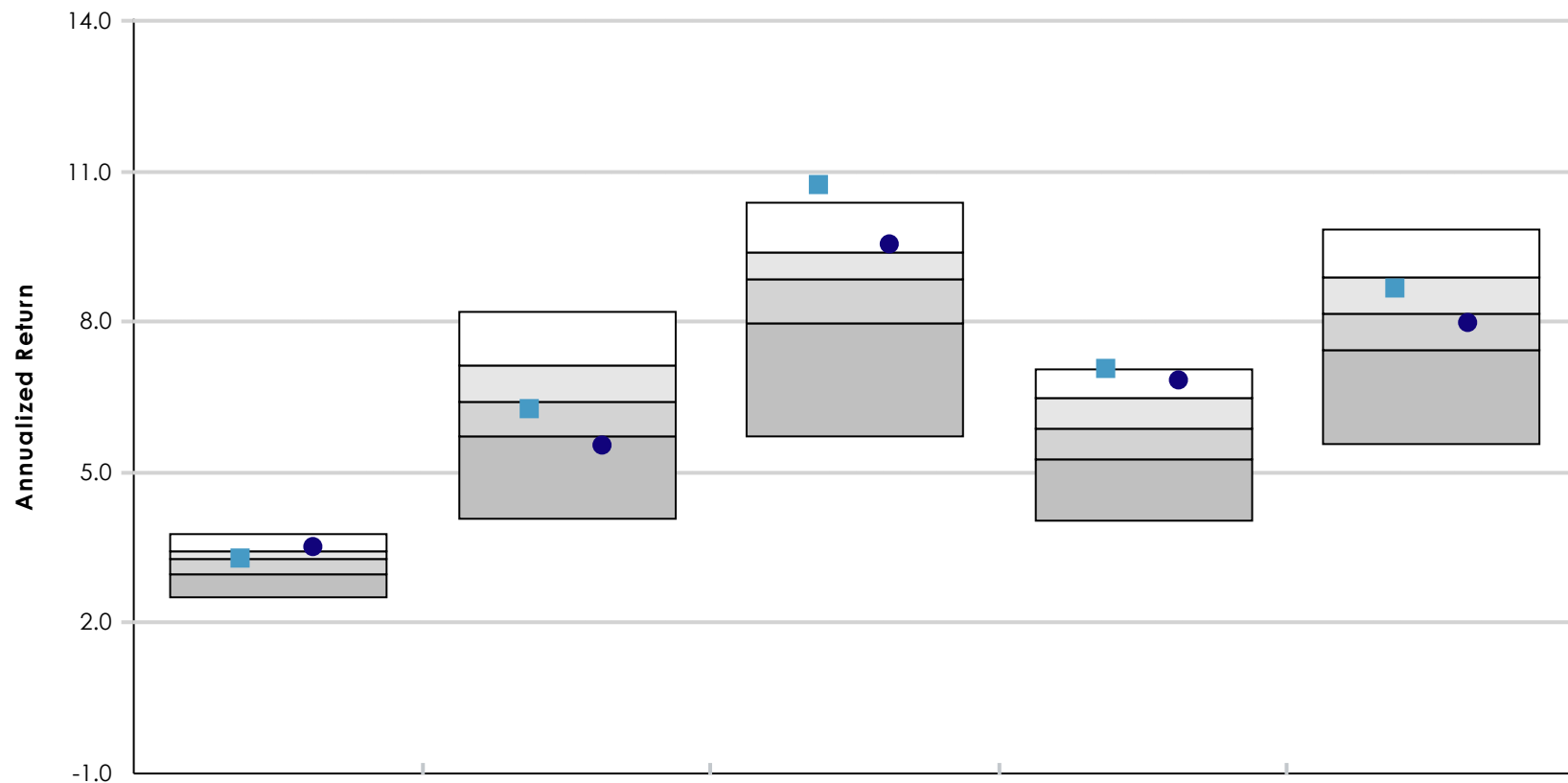


* The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, 6.5% through 12/31/2017 and 6.0% currently

Risk/Return Performance (5-year)



Plan Sponsor Peer Group Analysis
As of June 30, 2019

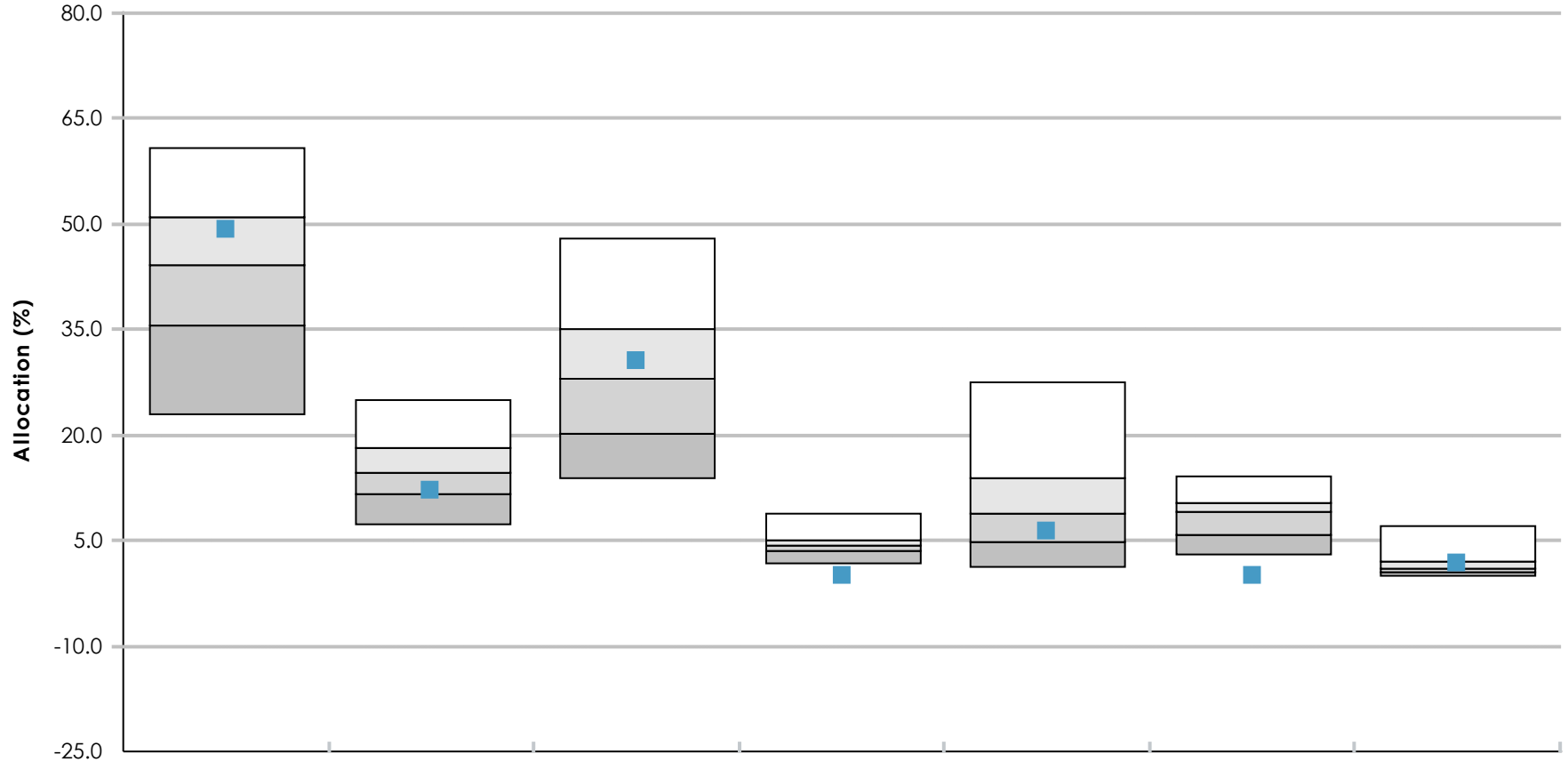


	1 Quarter	1 Year	3 Years	5 Years	7 Years
■ OPFRS Total Plan	3.3 (48)	6.2 (58)	10.7 (3)	7.0 (6)	8.6 (34)
● OPFRS Policy Benchmark	3.5 (20)	5.5 (78)	9.5 (19)	6.8 (11)	8.0 (57)
5th Percentile	3.8	8.2	10.4	7.1	9.8
1st Quartile	3.4	7.1	9.4	6.5	8.9
Median	3.3	6.4	8.8	5.9	8.2
3rd Quartile	3.0	5.7	8.0	5.3	7.4
95th Percentile	2.5	4.1	5.7	4.0	5.6
Population	281	272	252	245	234

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



**Plan Sponsor TF Asset Allocation
As of June 30, 2019**



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ OPFRS Total Plan	49.3 (33)	12.2 (72)	30.6 (40)	0.0	6.3 (60)	0.0	1.7 (34)
5th Percentile	60.7	25.0	47.9	8.7	27.6	14.1	7.1
1st Quartile	50.9	18.2	35.0	5.0	13.9	10.3	2.1
Median	44.2	14.5	28.0	4.4	8.7	9.1	1.1
3rd Quartile	35.6	11.5	20.1	3.5	4.7	5.7	0.5
95th Percentile	22.9	7.4	13.9	1.8	1.3	3.1	0.1
Population	486	449	449	152	104	275	362

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Monitoring/Probation Status

As of June 30, 2019
Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern	Months Since Corrective Action	Performance [^] Since Corrective Action (Gross)	Peer Group Percentile Ranking	Date of Corrective Action*
Hansberger	On Watch	Organizational	19	1.0	62	11/30/2017
MSCI ACWI ex-USA	---	---	---	0.3		
NWQ	Terminated	Organizational	17	-5.4	84	1/31/2018
Russell 2000 Value	---	---	---	-1.7		
DDJ Capital	On Watch	Performance	1	0.1	100	5/29/2019
Ice BofAML US High Yield			---	2.5		
Rice Hall James	On Watch	Performance	1	6.6	74	5/29/2019
Russell 2000 Growth	---	---	---	7.7		

[^]. Annualized performance if over one year.

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

Investment Performance Criteria
For Manager Monitoring/Probation Status

Asset Class	Short-term (rolling 12 mth periods)	Medium-term (rolling 36 mth periods)	Long-term (60 + months)
Active Domestic Equity	Fd return < bench return – 3.5%	Fd annlzd return < bench annlzd return – 1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Active International Equity	Fd return < bench return – 4.5%	Fd annlzd return < bench annlzd return – 2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive International Equity	Tracking Error > 0.50%	Tracking Error > 0.45% for 6 consecutive months	Fd annlzd return < bench annlzd return – 0.40% for 6 consecutive months
Fixed Income	Fd return < bench return – 1.5%	Fd annlzd return < bench annlzd return – 1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months

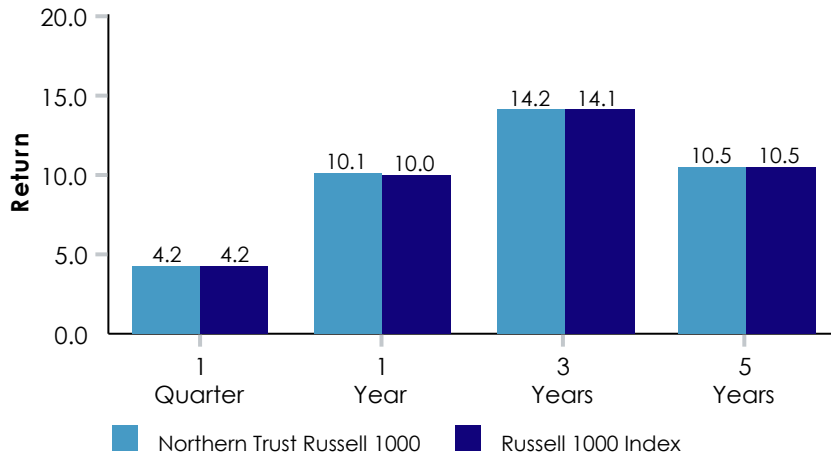
VRR – Value Relative Ratio – is calculated as: manager cumulative return / benchmark cumulative return.

Northern Trust Russell 1000 - gross of fees

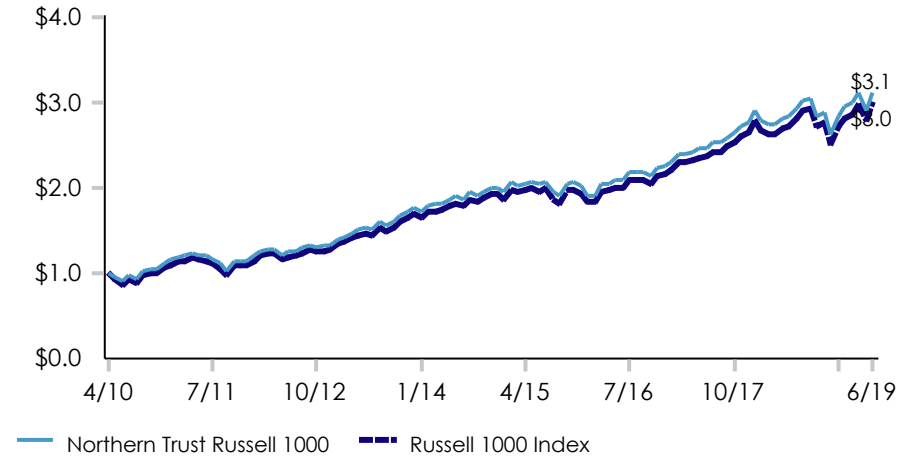
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Northern Trust Russell 1000	0.80	0.97	0.32	1.02	1.32	0.99	99.58	95.50	05/01/2010
Russell 1000 Index	0.00	1.00	-	0.96	0.00	1.00	100.00	100.00	05/01/2010

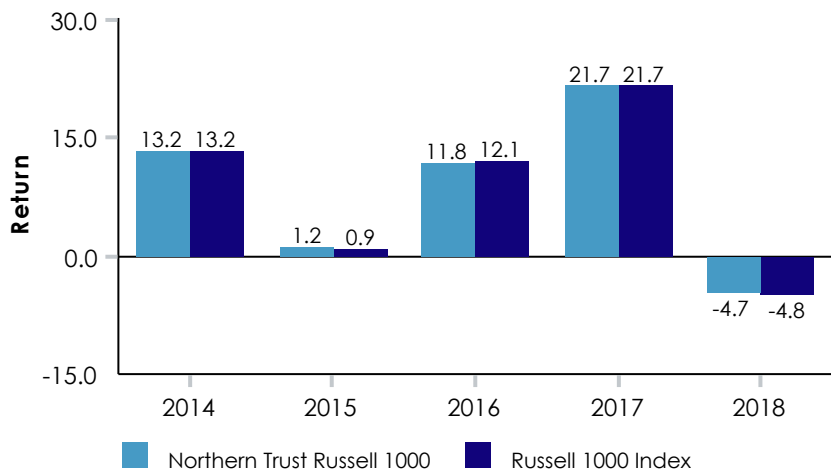
Trailing Period Performance



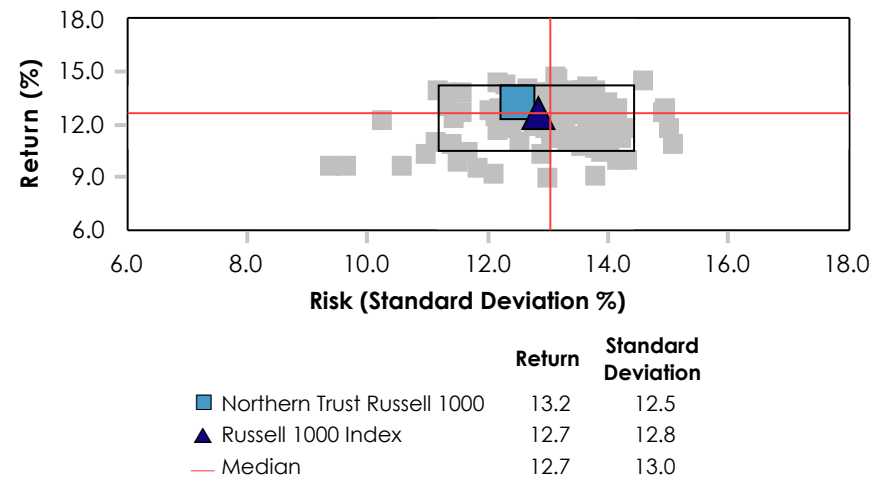
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

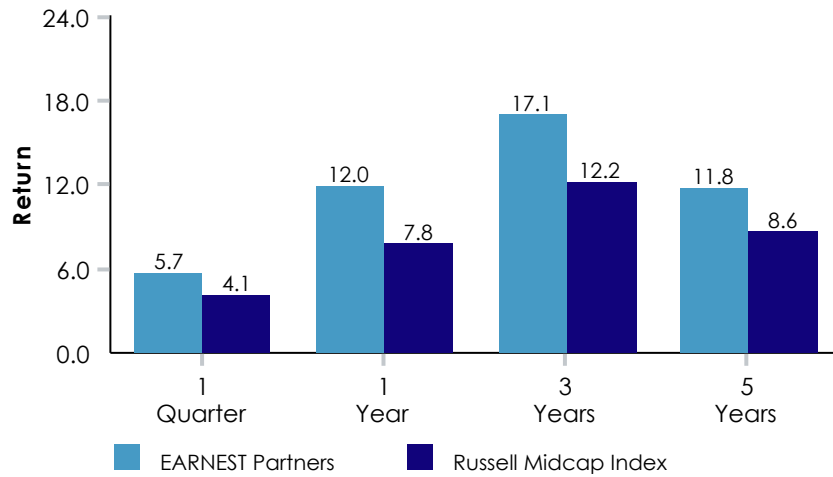


EARNEST Partners - gross of fees

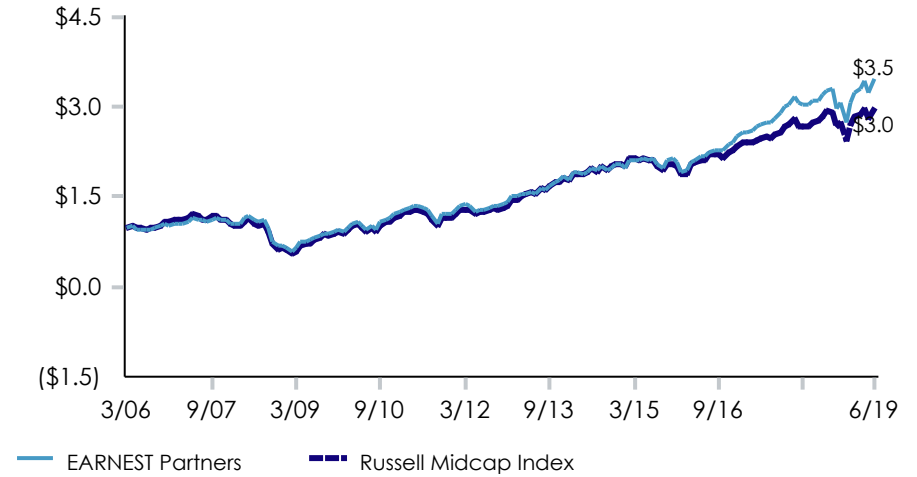
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
EARNEST Partners	1.21	1.00	0.38	0.57	3.29	0.96	101.67	95.35	04/01/2006
Russell Midcap Index	0.00	1.00	-	0.51	0.00	1.00	100.00	100.00	04/01/2006

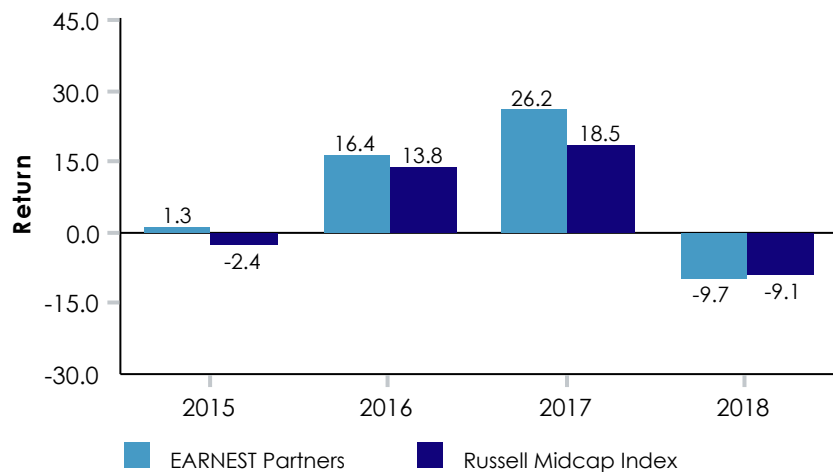
Trailing Period Performance



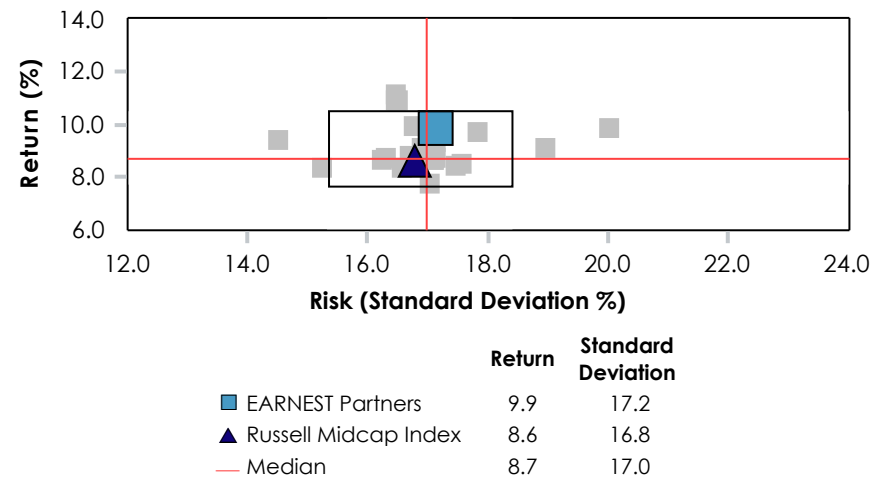
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

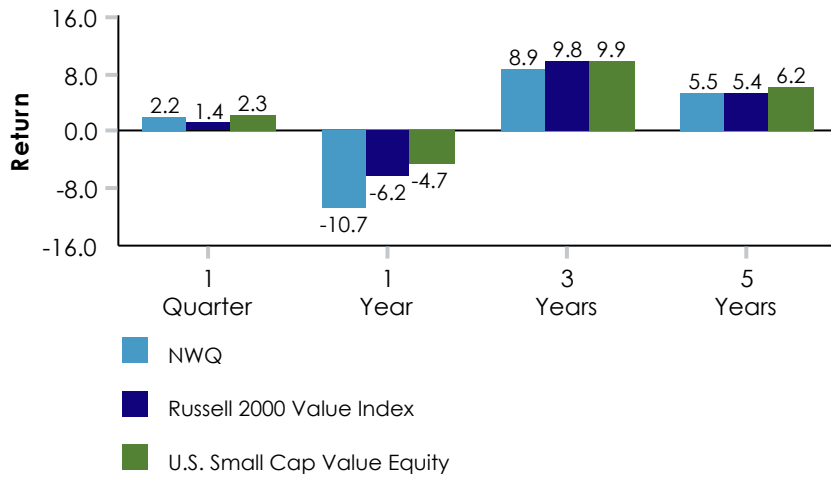


NWQ - gross of fees

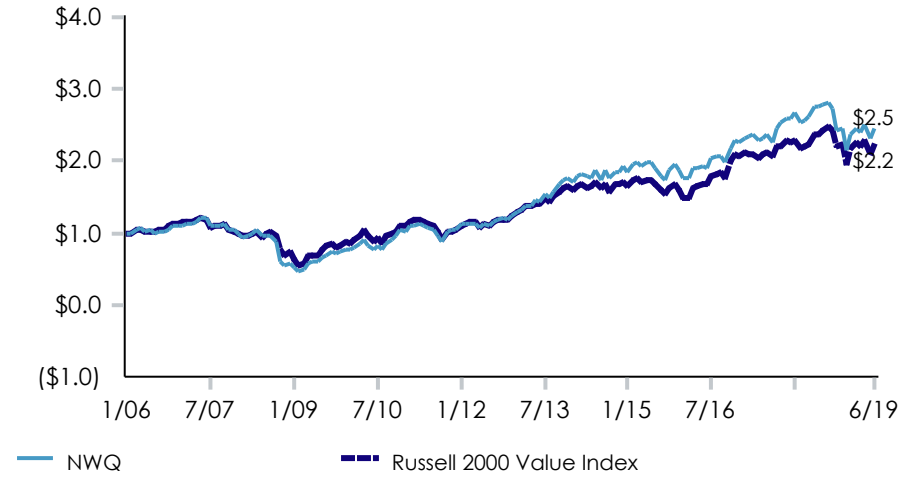
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
NWQ	0.89	1.02	0.17	0.38	6.35	0.90	103.74	100.07	02/01/2006
Russell 2000 Value Index	0.00	1.00	-	0.35	0.00	1.00	100.00	100.00	02/01/2006
U.S. Small Cap Value Equity Median	-	-	-	-	-	-	-	-	-

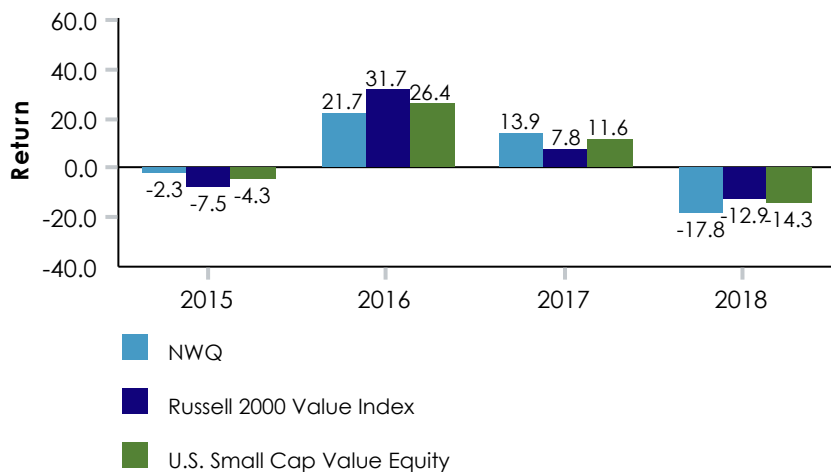
Trailing Period Performance



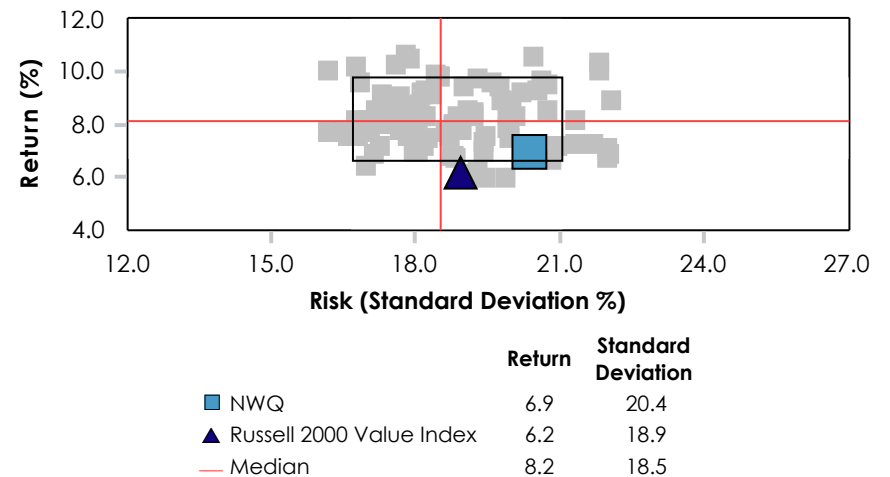
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

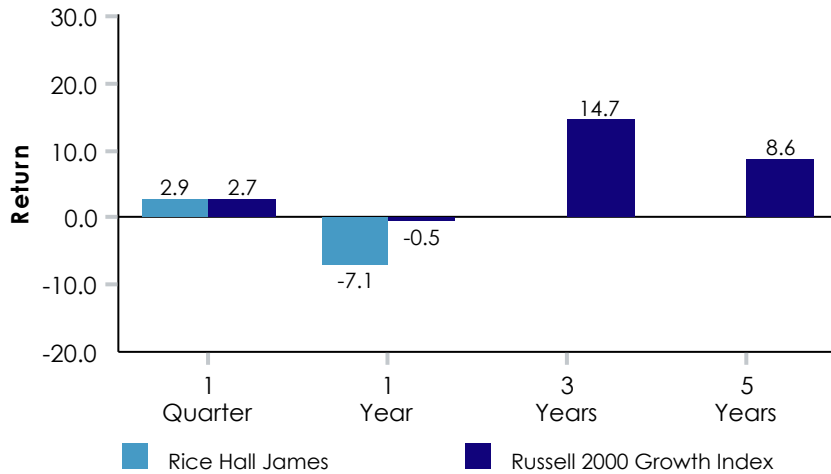


Rice Hall James - gross of fees

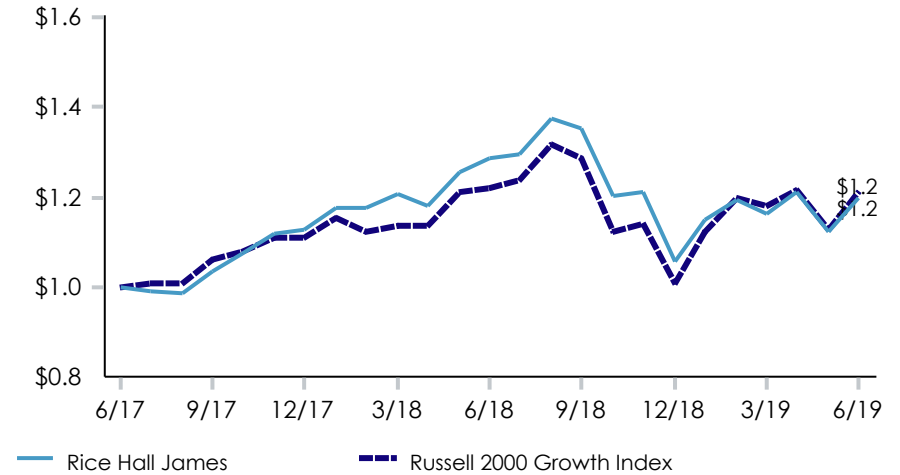
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Rice Hall James	0.10	0.92	-0.17	0.49	5.10	0.93	92.99	93.27	07/01/2017
Russell 2000 Growth Index	0.00	1.00	-	0.51	0.00	1.00	100.00	100.00	07/01/2017

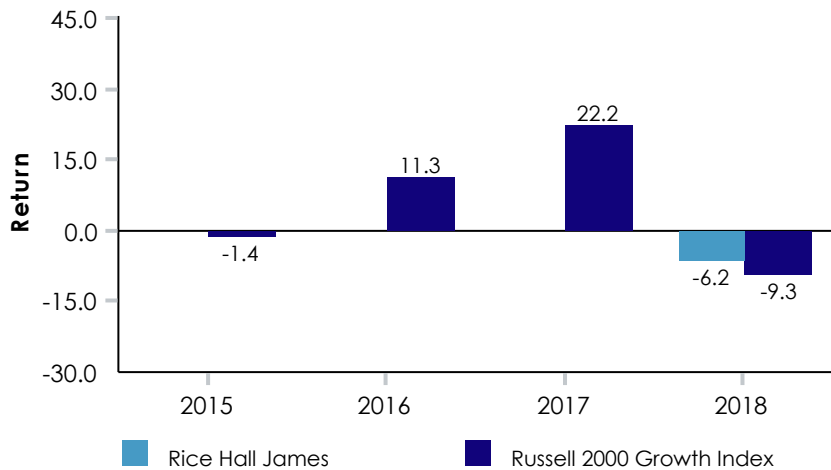
Trailing Period Performance



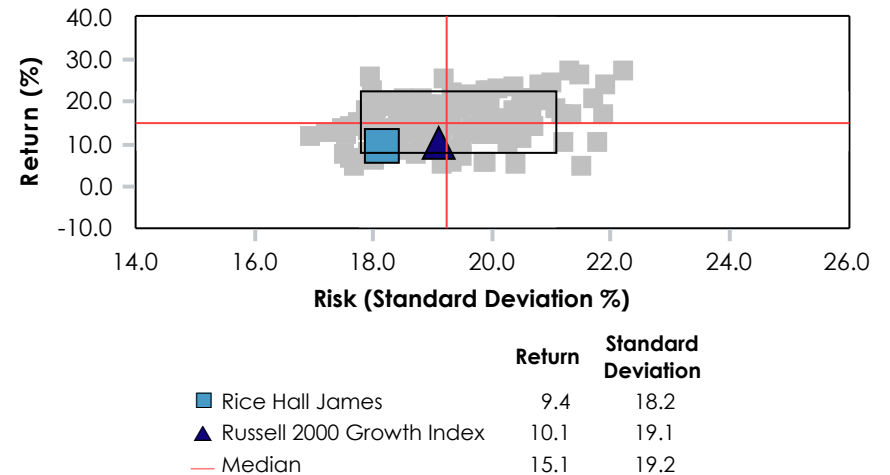
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

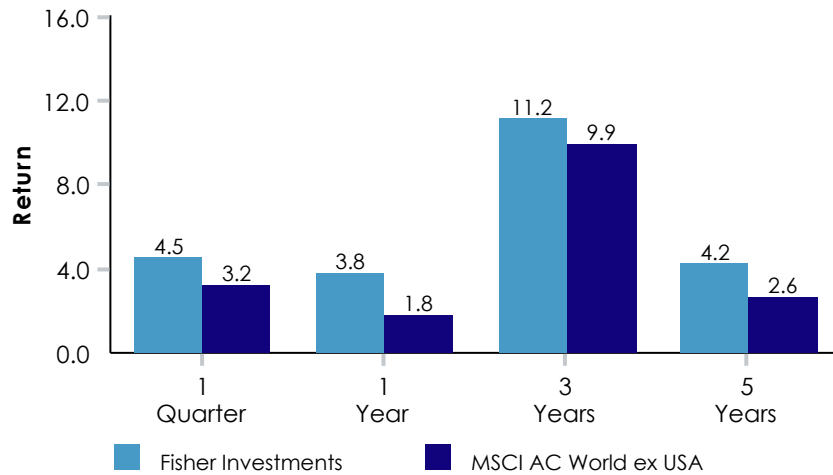


Fisher Investments - gross of fees

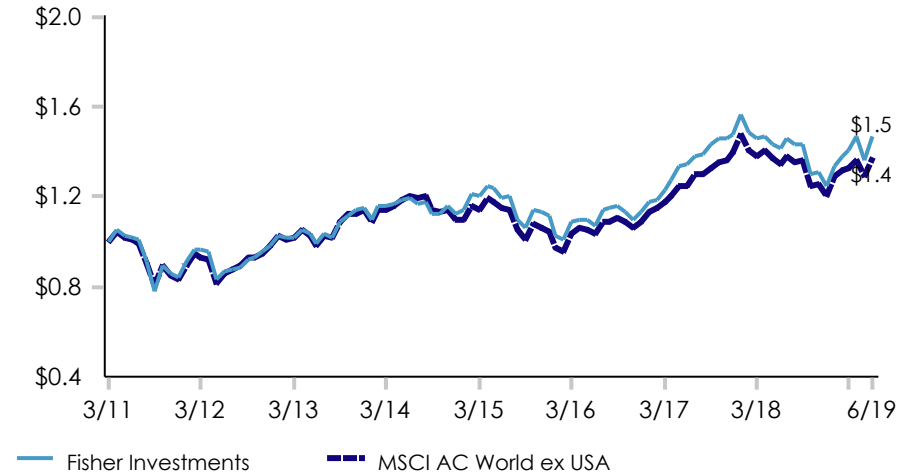
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Fisher Investments	0.63	1.10	0.31	0.34	3.59	0.96	108.41	104.24	04/01/2011
MSCI AC World ex USA	0.00	1.00	-	0.31	0.00	1.00	100.00	100.00	04/01/2011

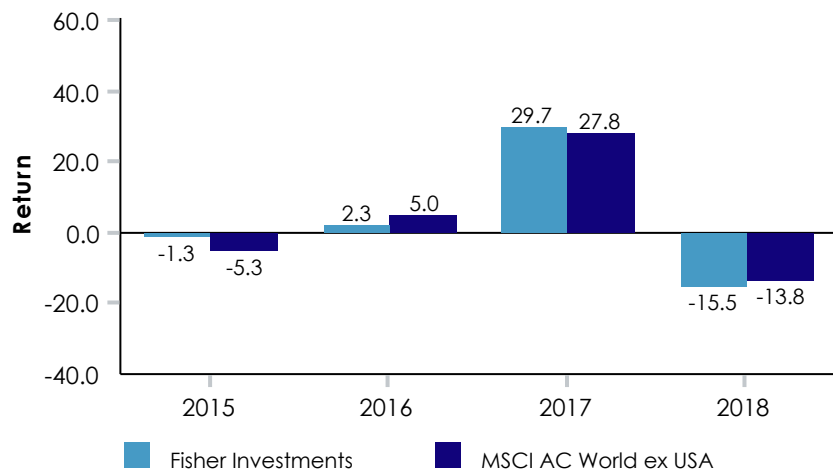
Trailing Period Performance



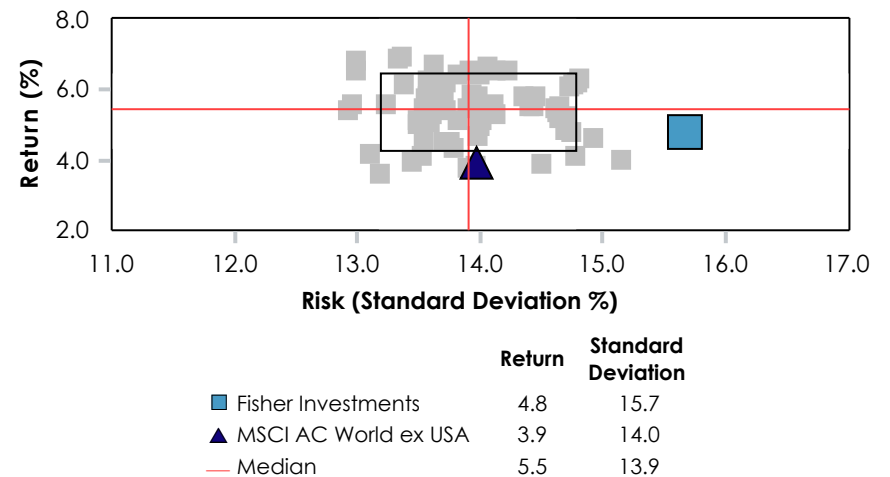
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

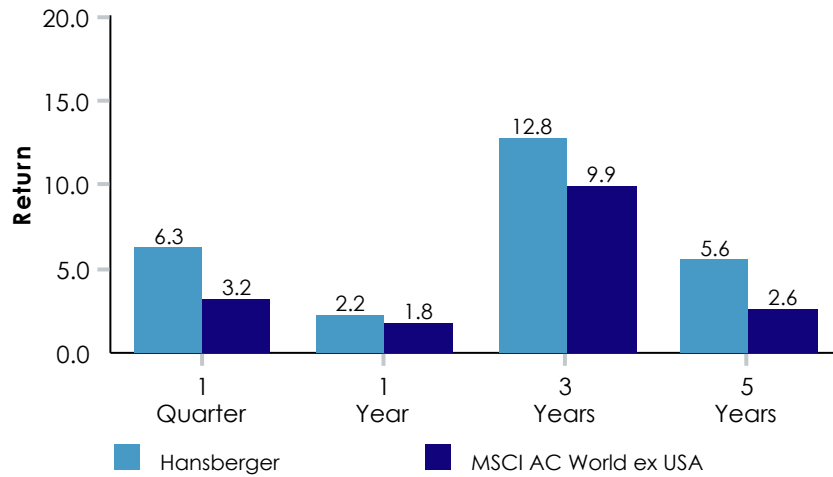


Hansberger - gross of fees

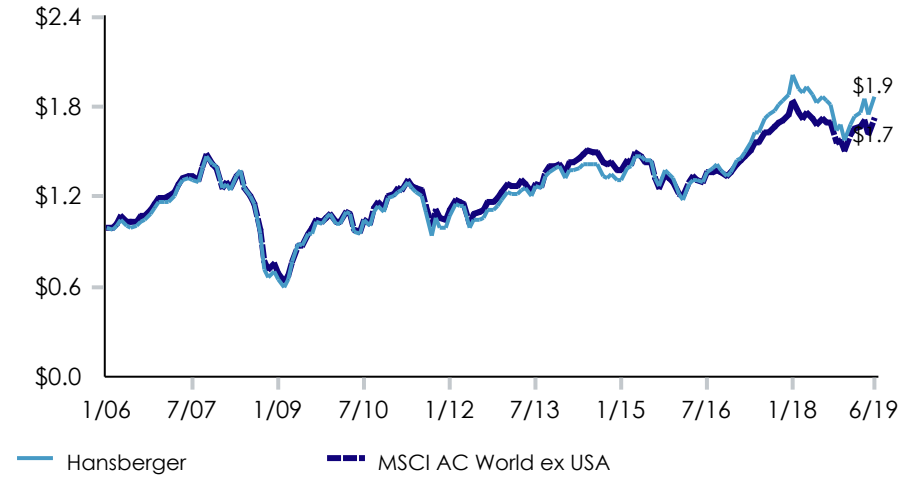
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Hansberger	0.49	1.09	0.25	0.28	4.00	0.96	108.41	105.71	02/01/2006
MSCI AC World ex USA	0.00	1.00	-	0.26	0.00	1.00	100.00	100.00	02/01/2006

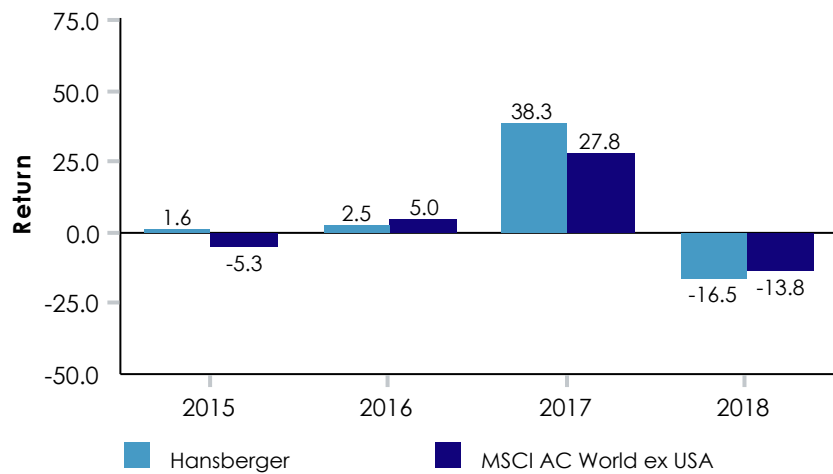
Trailing Period Performance



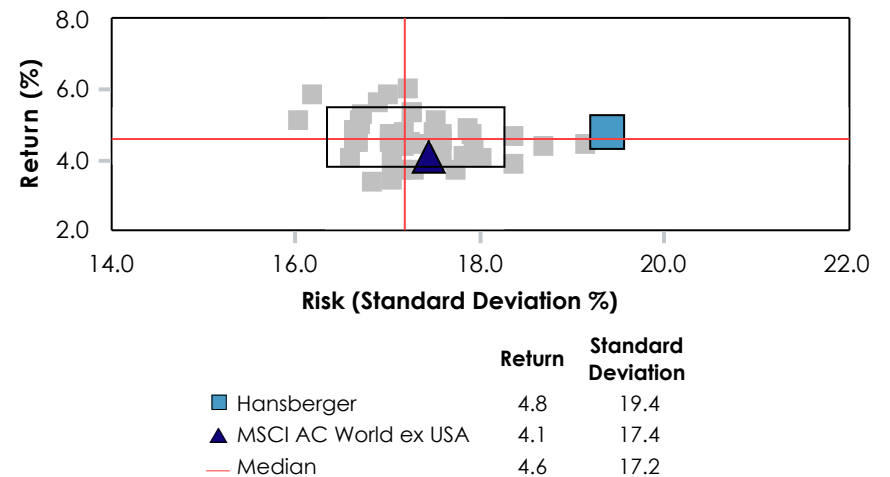
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

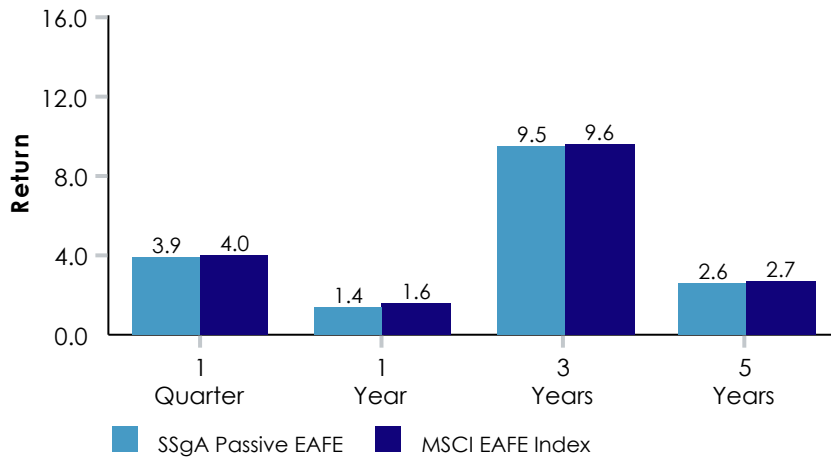


SSgA Passive EAFE - gross of fees

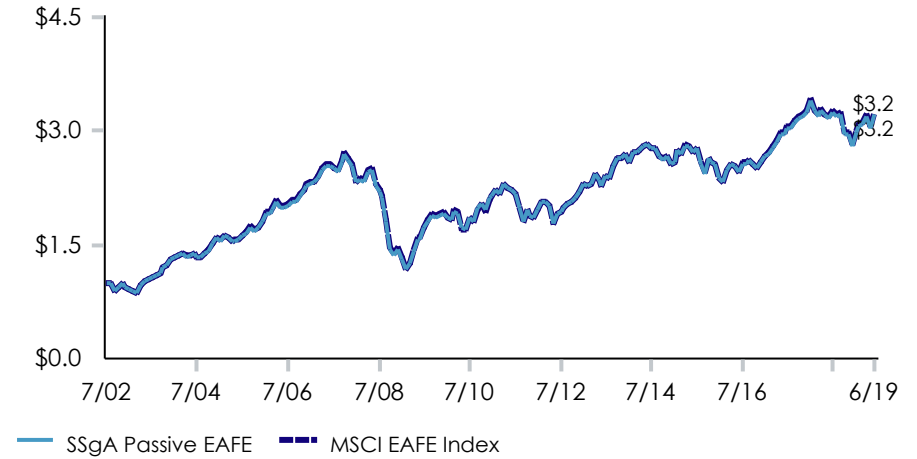
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
SSgA Passive EAFE	-0.01	0.99	-0.17	0.43	0.43	1.00	99.29	99.36	08/01/2002
MSCI EAFE Index	0.00	1.00	-	0.43	0.00	1.00	100.00	100.00	08/01/2002

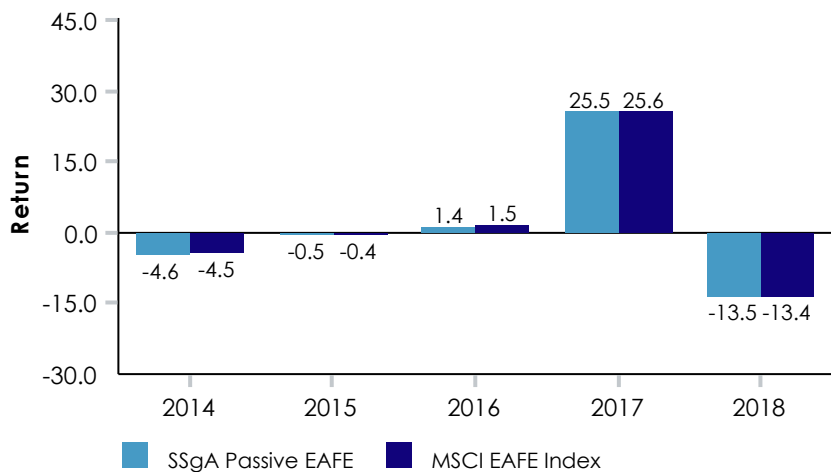
Trailing Period Performance



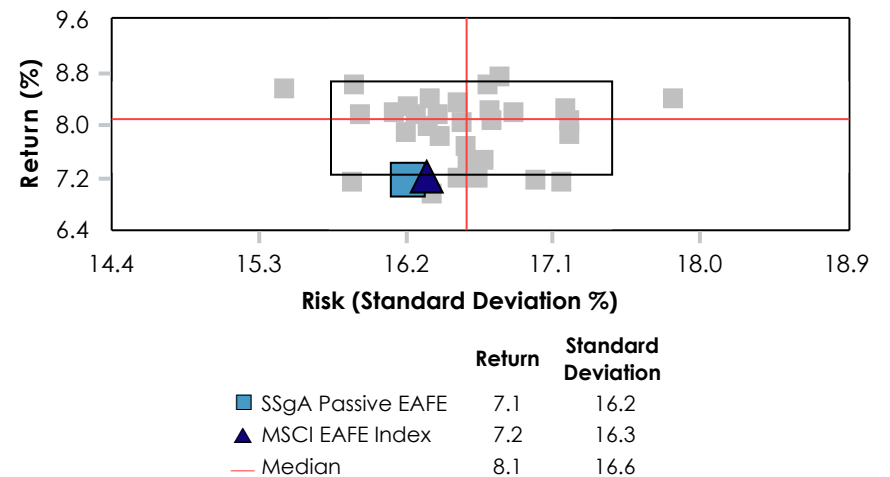
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

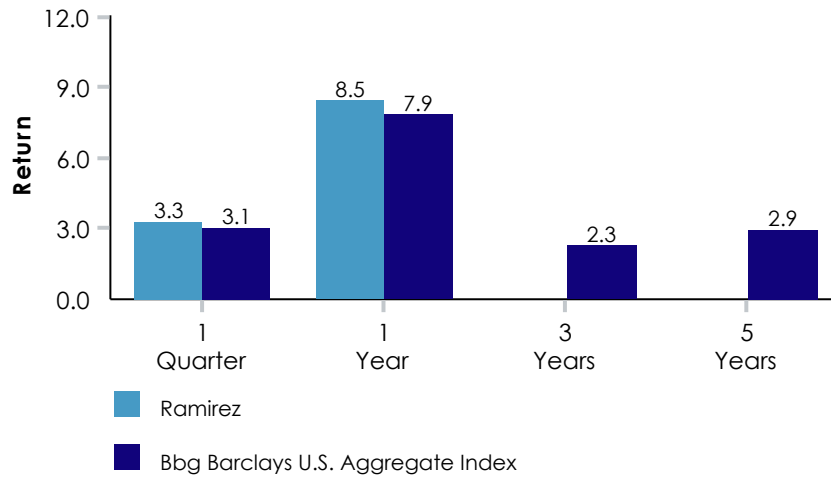


Ramirez - gross of fees

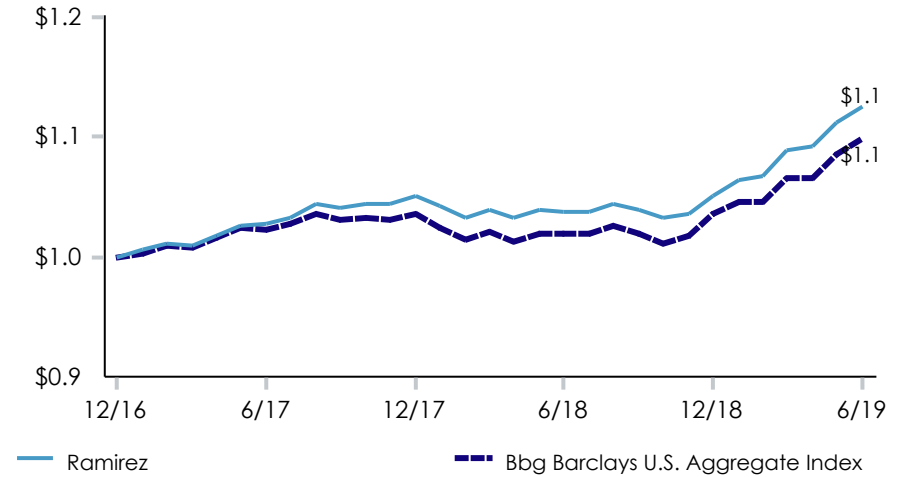
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Ramirez	1.29	0.91	1.53	1.28	0.61	0.95	106.07	72.28	01/01/2017
Bbg Barclays U.S. Aggregate Index	0.00	1.00	-	0.84	0.00	1.00	100.00	100.00	01/01/2017

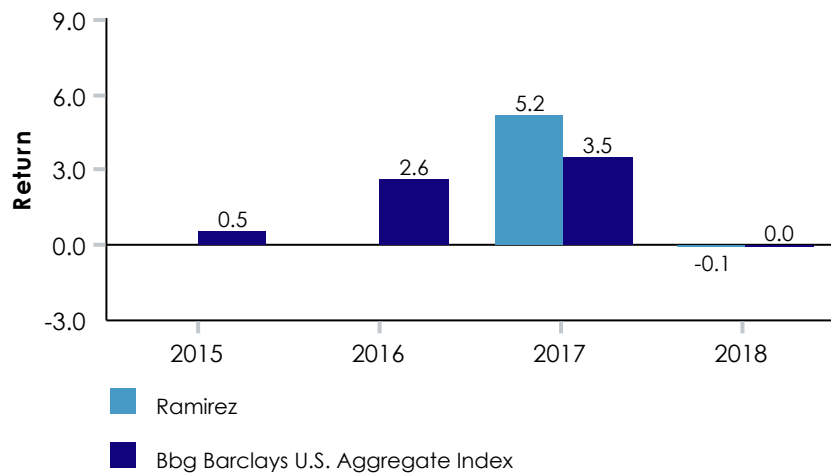
Trailing Period Performance



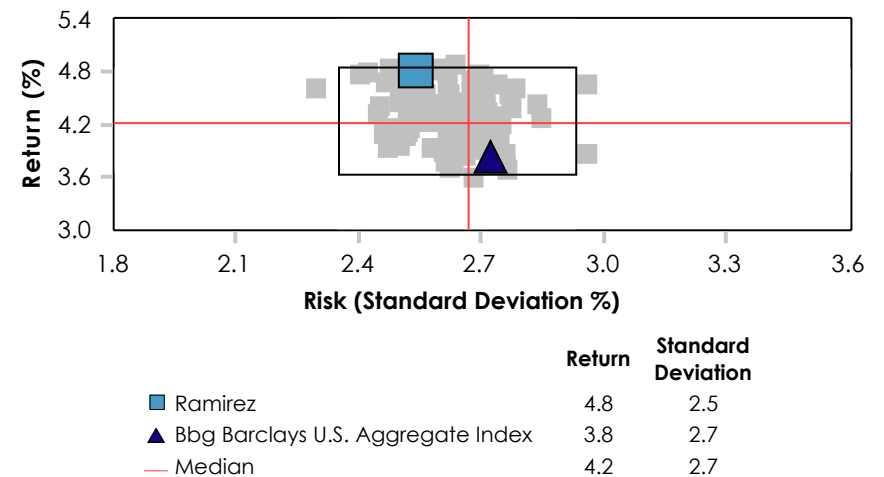
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

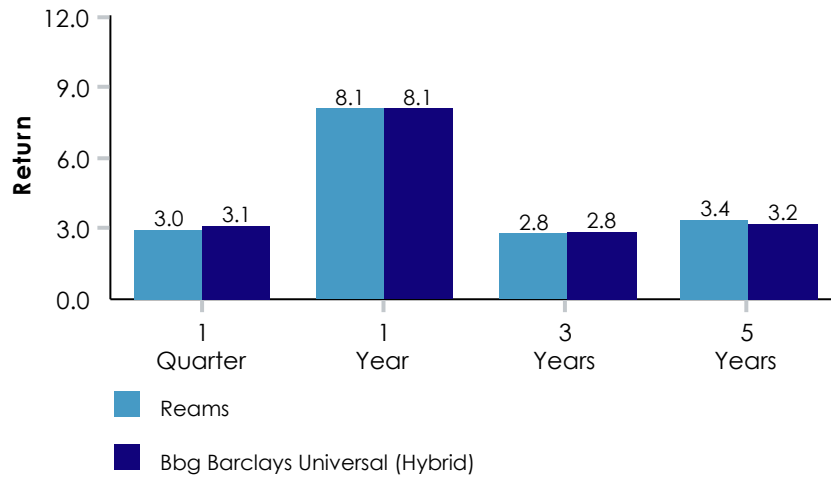


Reams - gross of fees

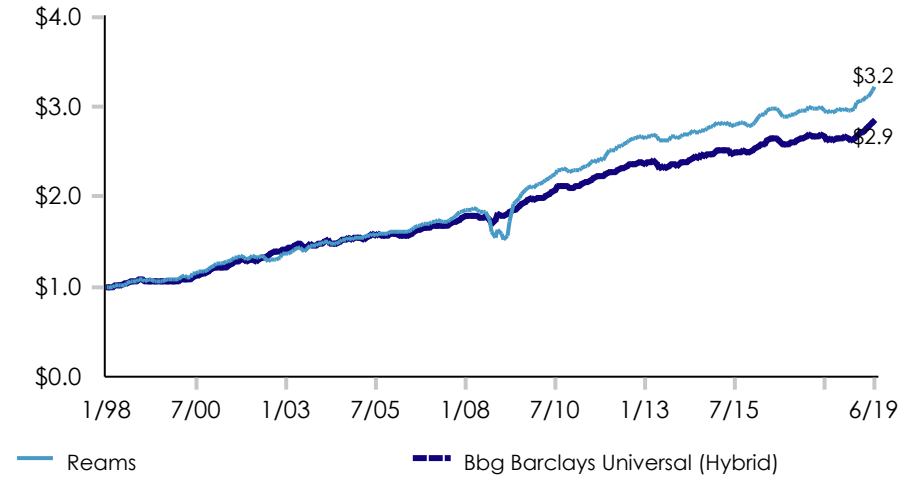
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Reams	0.33	1.06	0.16	0.69	3.96	0.45	109.66	103.42	02/01/1998
Bbg Barclays Universal (Hybrid)	0.00	1.00	-	0.90	0.00	1.00	100.00	100.00	02/01/1998

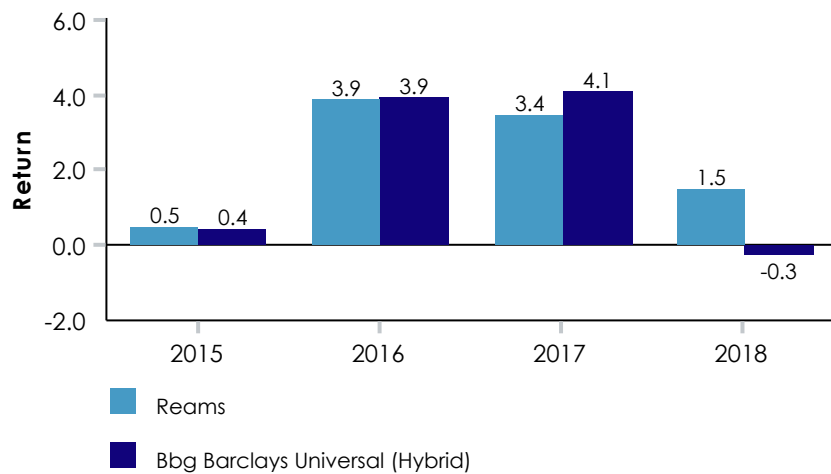
Trailing Period Performance



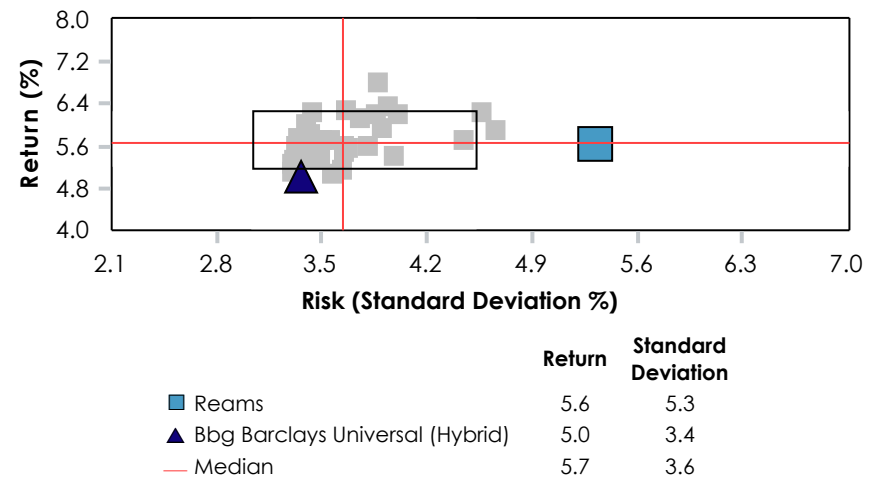
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

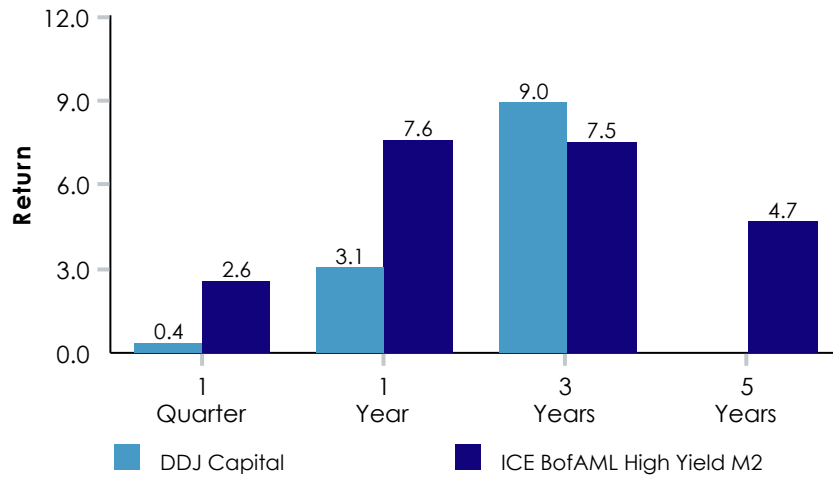


DDJ Capital - gross of fees

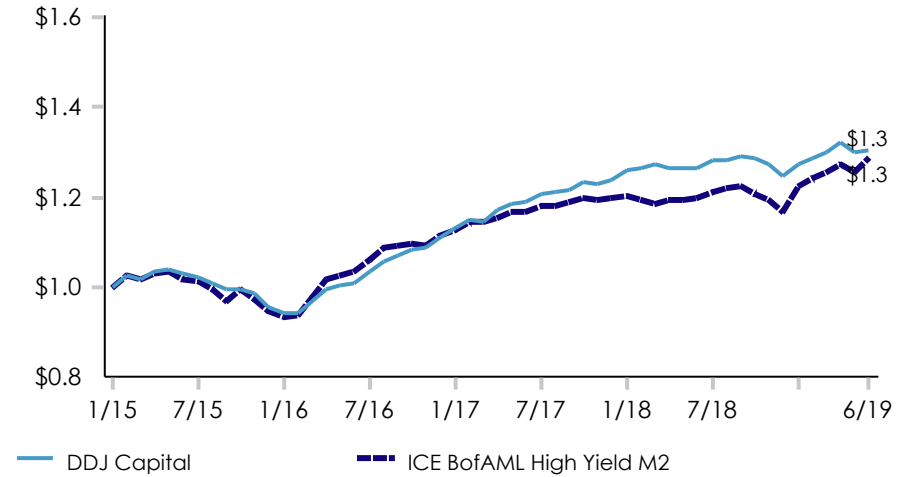
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
DDJ Capital	2.14	0.67	0.07	1.12	3.14	0.68	87.64	68.77	02/01/2015
ICE BofAML High Yield M2	0.00	1.00	-	0.88	0.00	1.00	100.00	100.00	02/01/2015

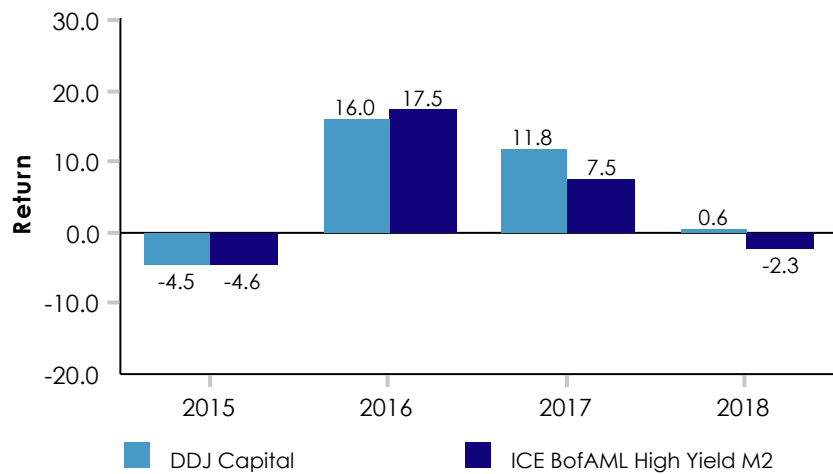
Trailing Period Performance



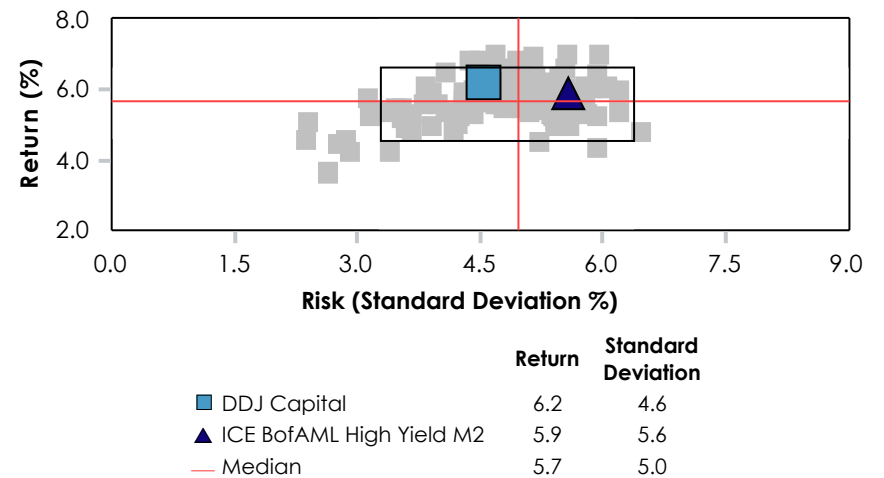
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

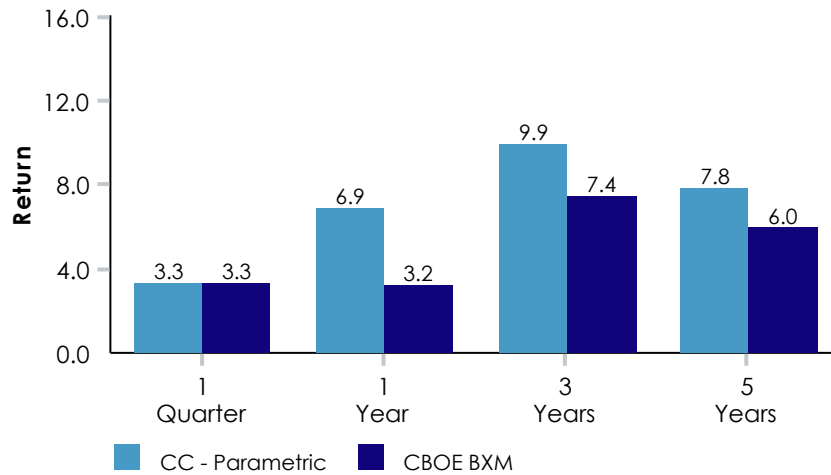


CC - Parametric - gross of fees

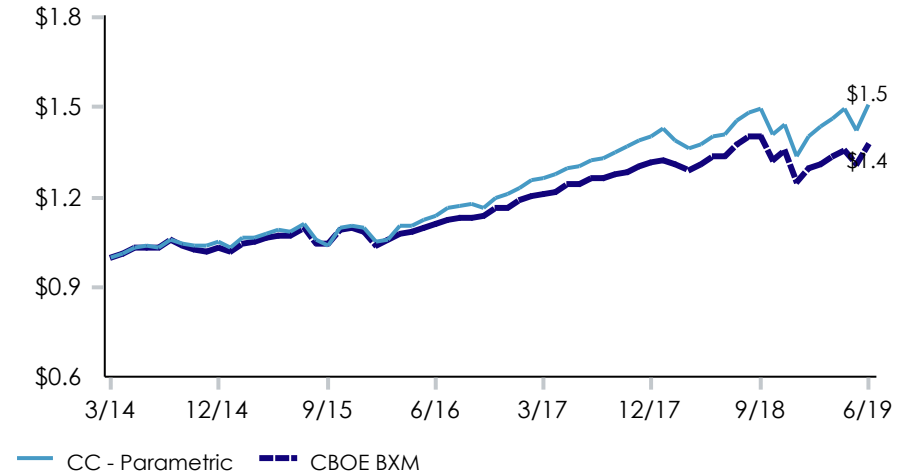
As of June 30, 2019

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
CC - Parametric	1.22	1.09	0.77	0.88	2.34	0.93	118.93	109.94	04/01/2014
CBOE BXM	0.00	1.00	-	0.76	0.00	1.00	100.00	100.00	04/01/2014

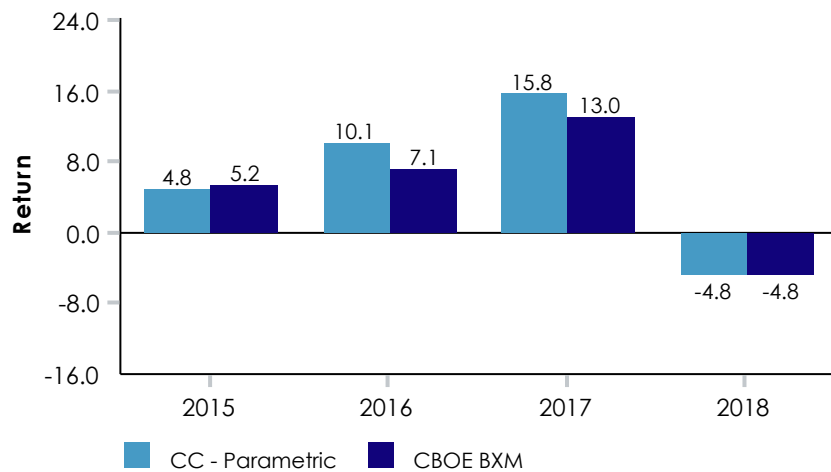
Trailing Period Performance



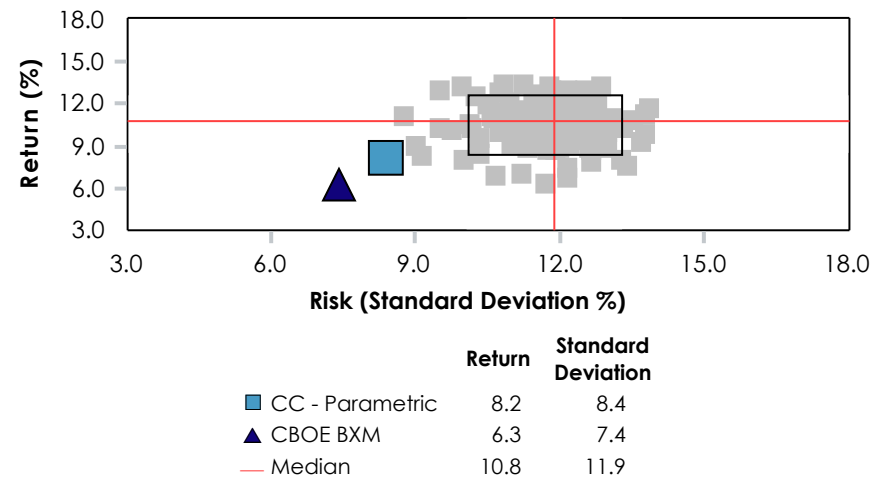
Growth of \$1 - Since Inception



Calendar Year Performance

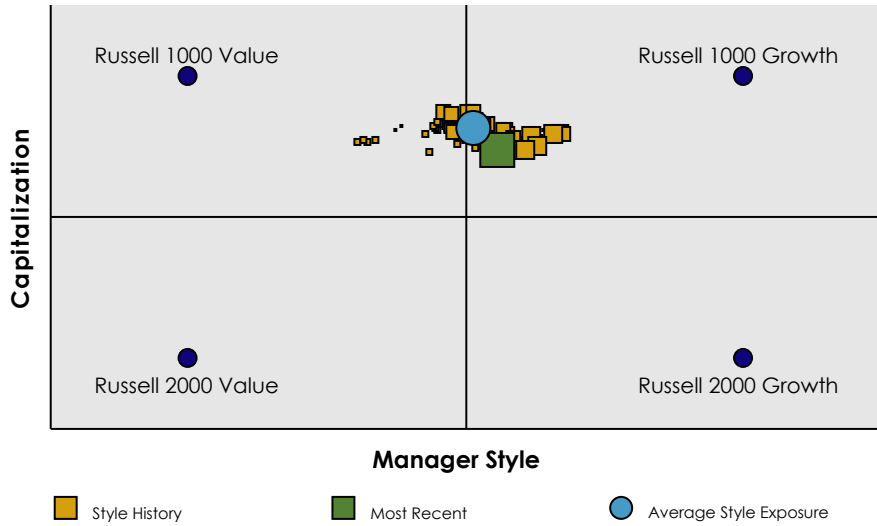


Risk/Return - Since Inception

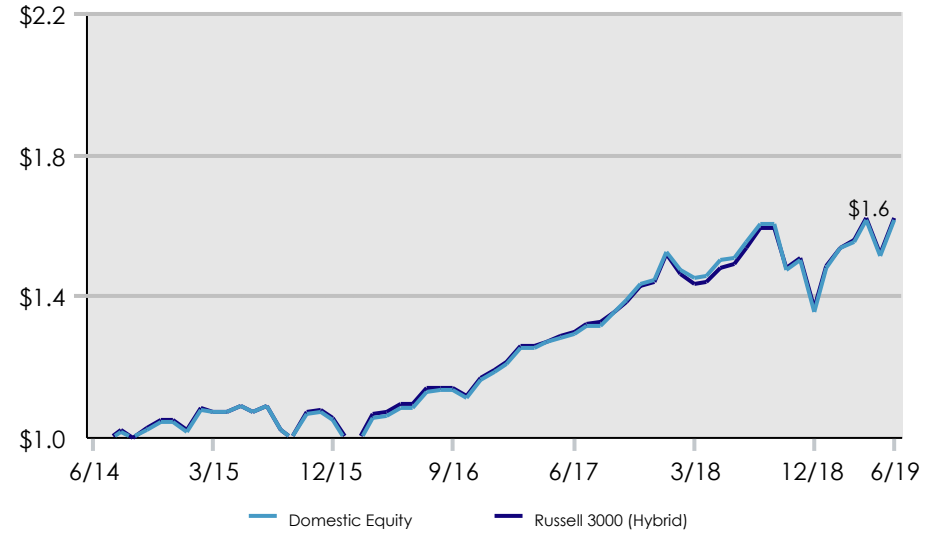


Domestic Equity Analysis As of June 30, 2019

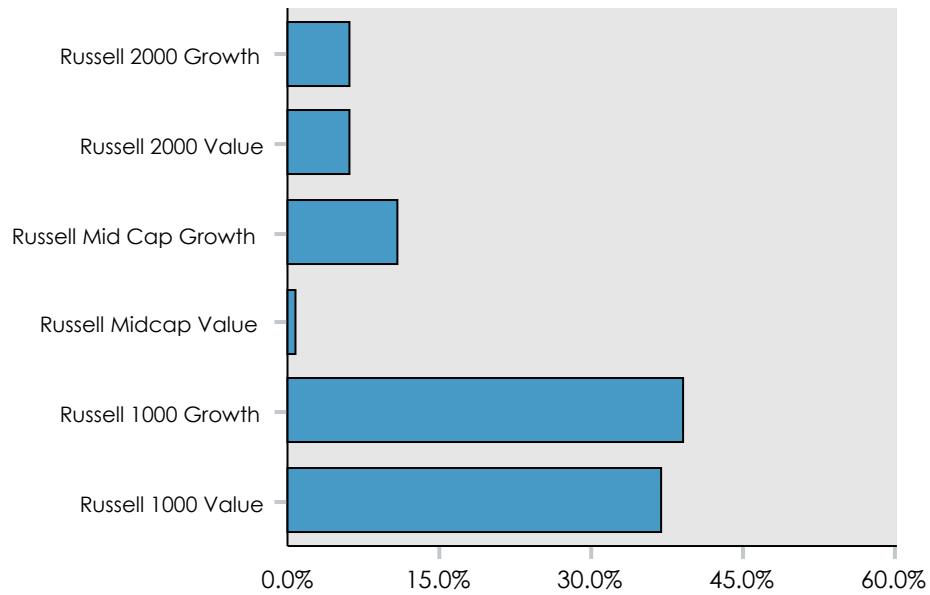
Style Map (5-Year)



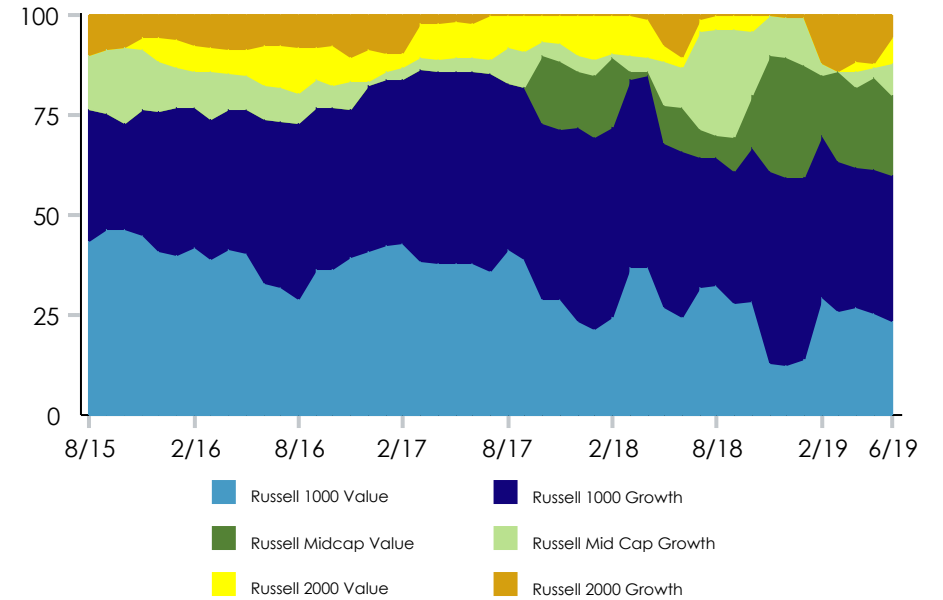
Growth of \$1 (5-Year)



Style Exposure



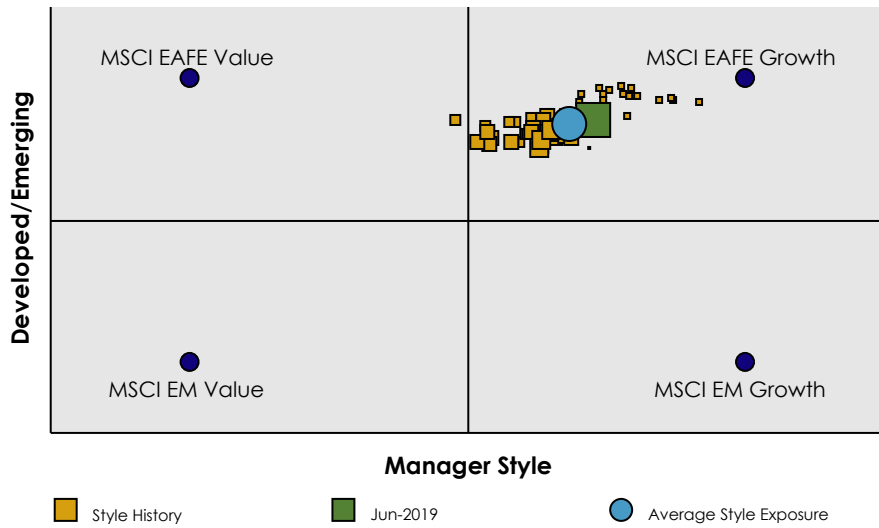
Style History (5-Year)



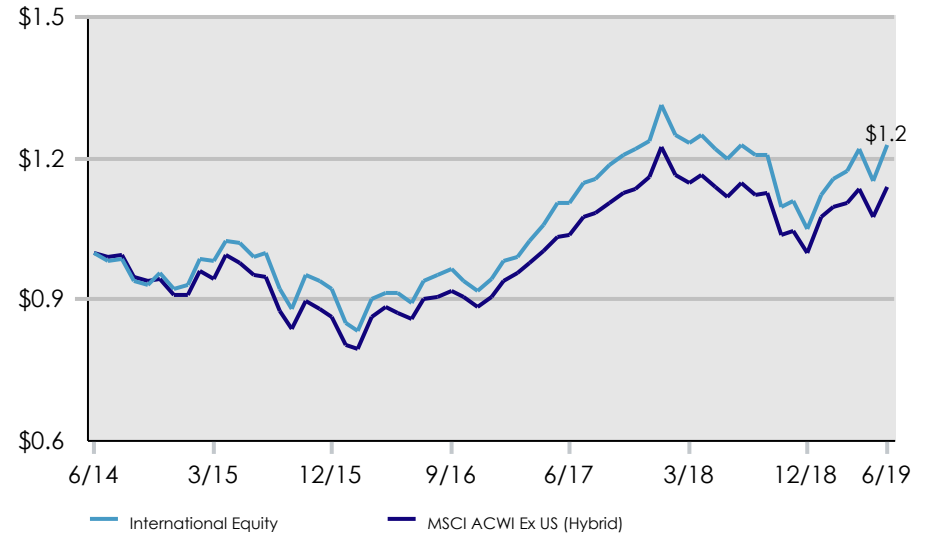
International Equity Analysis

As of June 30, 2019

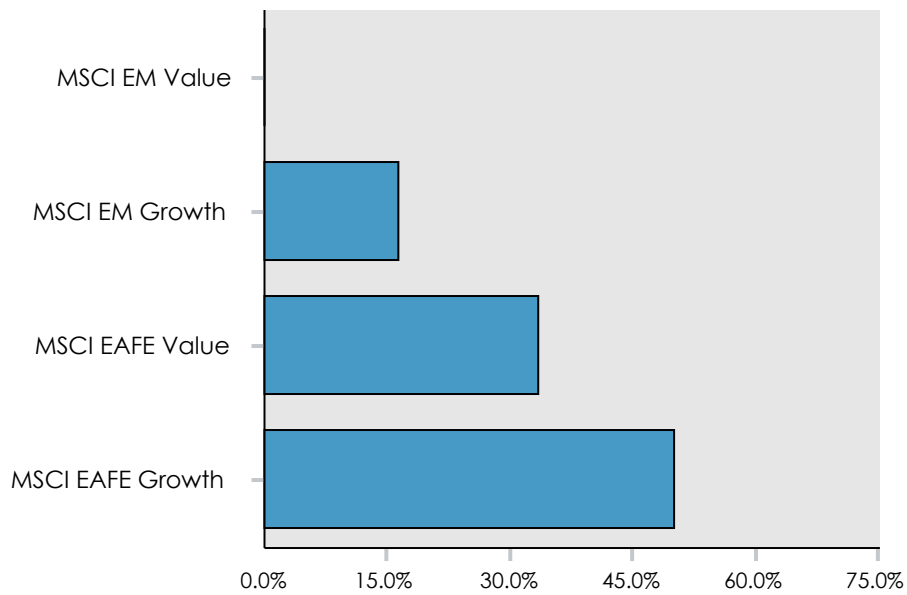
Style Map (5-Year)



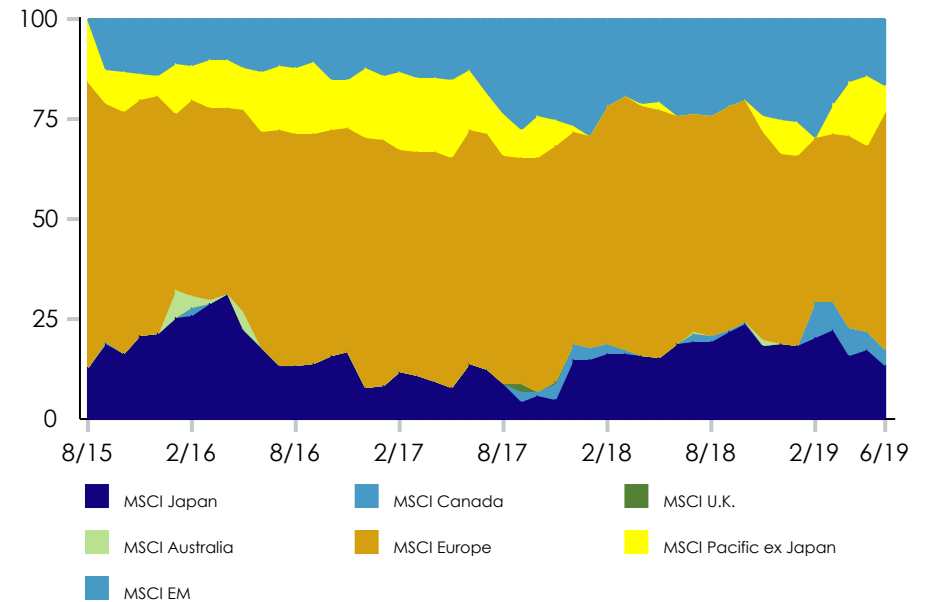
Growth of \$1 (5-Year)



Style Exposure

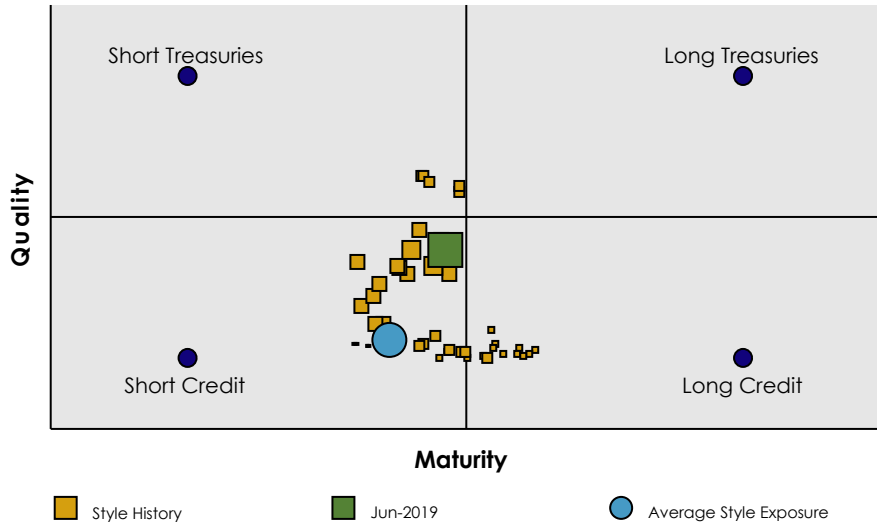


Style History (5-Year)

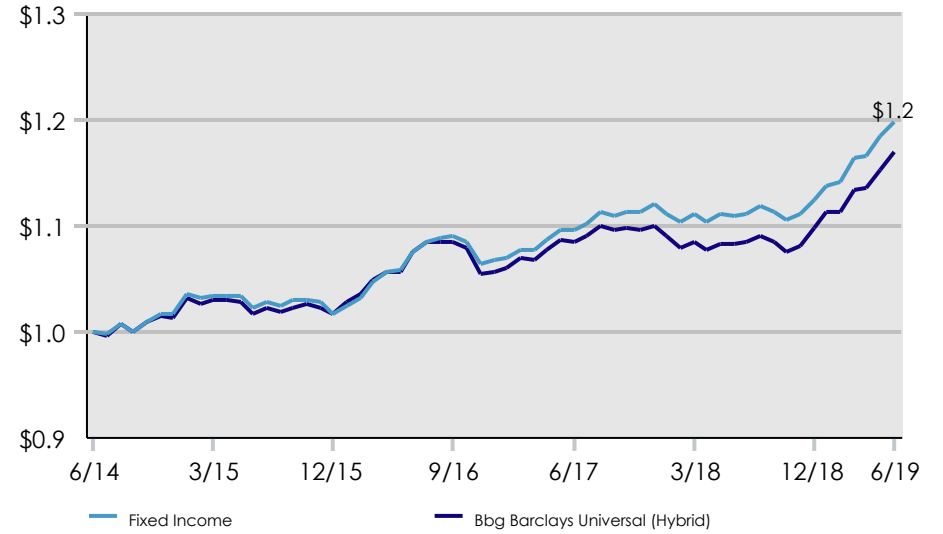


Fixed Income Analysis As of June 30, 2019

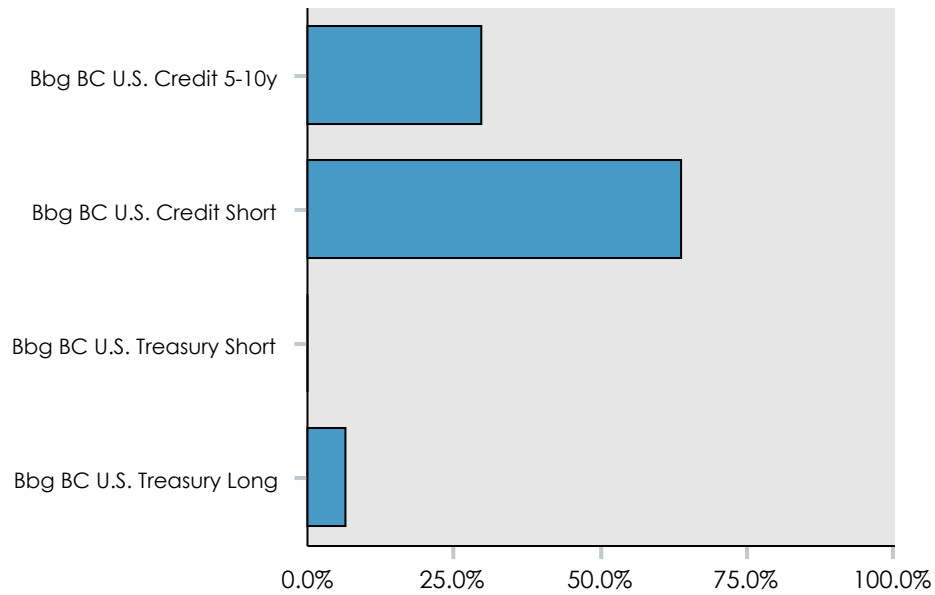
Style Map (5-Year)



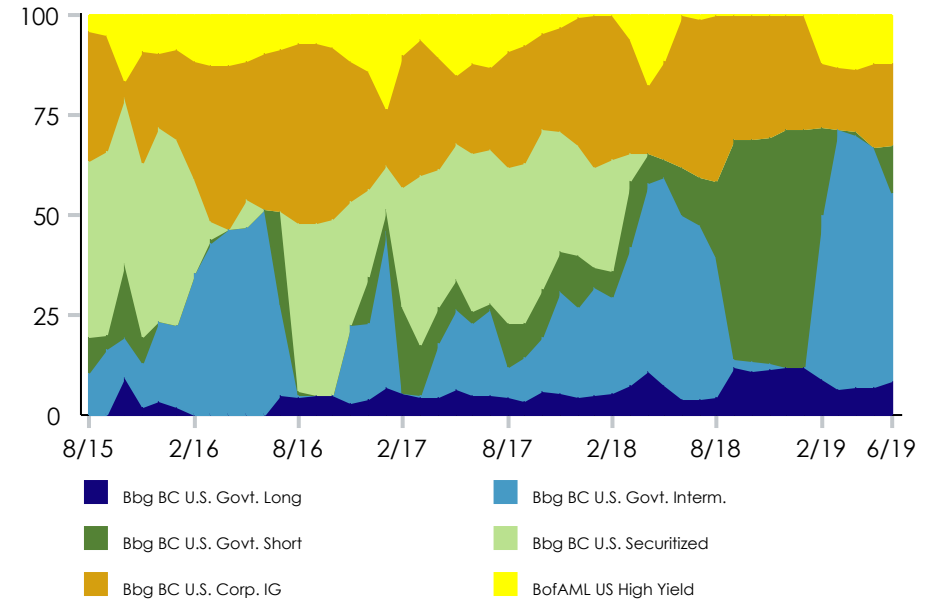
Growth of \$1 (5-Year)



Style Exposure



Style History (5-Year)



Glossary

Alpha

The premium an investment earns above a set standard. This is usually measured in terms of a common index (i.e., how the stock performs independent of the market). An Alpha is usually generated by regressing excess return on the S&P 500 excess return.

Annualized Performance

The annual rate of return that when compounded (t) times generates the same (t) period holding return as actually occurred from periods (1) to period (t).

Batting Average

Percentage of periods a portfolio outperforms a given index.

Beta

The measure of an asset's risk in relation to the Market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a security with a Beta of 1.5 will have moved, on average, 1.5 times the market return.

Bottom-up

A management style that de-emphasizes the significance of economic and market cycles, focusing instead on the analysis of individual stocks.

Dividend Discount Model

A method to value the common stock of a company that is based on the present value of the expected future dividends.

Growth Stock

Common stock of a company that has an opportunity to invest money and earn more than its opportunity cost of capital.

Information Ratio

The ratio of annualized expected residual return to residual risk. A central measurement for active management, value added is proportional to the square of the information ratio.

R - Squared

Square of the correlation coefficient. The proportion of the variability in one series that can be explained by the variability of one or more other series in a regression model. A measure of the quality of fit. 100% R-square means a perfect predictability.

Standard Deviation

The square root of the variance. A measure of dispersion of a set of data from its mean

Sharpe Ratio

A measure of a portfolio's excess return relative to the total variability of the portfolio.

Style Analysis

A returns-based analysis using a multi-factor attribution model. The model calculates a product's average exposure to particular investment styles over time (i.e., the products normal style benchmark).

Top-Down

Investment style that begins with an assessment of the overall economic environment and makes a general asset allocation decision regarding various sectors of the financial markets and various industries.

Tracking Error

The standard deviation of the difference between the returns of a portfolio and an appropriate benchmark.

Turnover

For mutual funds, a measure of trading activity during the previous year, expressed as a percentage of the average total assets of the fund. A turnover rate of 25% means that the value of trades represented (1/4) of the assets of the fund.

Value Stock

Stocks with low price/book ratios or price/earnings ratios. Historically, value stocks have enjoyed higher average returns than growth stocks (stocks with high price/book or price/earnings ratios) in a variety of countries.

Benchmark Definitions

Bloomberg Barclays Capital Universal: includes market coverage by the Aggregate Bond Index fixed rate debt issues, which are rated investment grade or higher by Moody's, S&P, or Fitch, in that order with all issues having at least one year to maturity and an outstanding par value of at least \$100 million and includes exposures to high yield CMBS securities. All returns are market value weighted inclusive of accrued interest.

MSCI ACWI x US: MSCI ACWI (All Country World Index) Free excluding US (gross dividends): is a free-floating adjusted market capitalization index designed to measure equity performance in the global developed and emerging markets. As of April 2002, the index consisted of 49 developed and emerging market country indices.

MSCI EAFE (Europe, Australasia, Far East): is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada.

Russell 1000: measures the performance of the 1,000 largest securities in the Russell 3000 Index. Russell 1000 is highly correlated with the S&P 500 Index and capitalization-weighted.

Russell 1000 Growth: measures the performance of those Russell 1000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

Russell 1000 Value: measures the performance of those Russell 1000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than the Growth universe.

Russell Mid-Cap: measures the performance of the smallest 800 companies in the Russell 1000 Index, as ranked by total market capitalization.

Russell 2000: measures the performance of the 2,000 smallest securities in the Russell 3000 Index. Russell 2000 is market capitalization-weighted.

Russell 2000 Growth: measures the performance of those Russell 2000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-to-earnings ratios.

Russell 2000 Value: measures the performance of those Russell 2000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-to-earnings ratios.

CBOE BXM: measures the performance of a hypothetical buy-write strategy on the S&P 500 Index.

ICE BofA ML U.S. High Yield Master II: Tracks the performance of US dollar denominated below investment grade rated corporate debt publicly issued in the US domestic market. All securities in index must have a below investment grade rating and an investment grade rated country of risk (based on foreign currency long term sovereign debt ratings). Each securities have > 1 year remaining maturity, fixed coupon schedule, and a minimum amount outstanding of \$100 million.

Societe Generale (SG) Multi-Alternative Risk Premia: Represents risk premia managers with programs diversified across multiple asset classes utilizing multiple risk premia factors. These managers trade multiple asset classes such as equities, fixed income, currencies, and in many cases commodities, and aim to capture a diversity of discrete risk premia, including most prevalently value, carry, and momentum. These multi-asset, multi-risk premia strategies are typically systematic. Single asset class and risk premia programs are excluded. The SG Multi Alternative Risk Premia Index is an equally weighed, non-investable index of funds

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

US Equity Markets:

Metric: P/E 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 <http://www.econ.yale.edu/~shiller/data.htm>. We have used his data as the base for our calculations. Details of the theoretical justification behind the measure can be found in his book *Irrational Exuberance* [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005].

Developed Equity Markets Excluding the US:

Metric: P/E 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.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

US Private Equity Markets:

Metrics: S&P LCD Average EBITDA Multiples Paid in LBOs and US Quarterly Deal Volume

The Average Purchase Price to EBITDA multiples paid in LBOs is published quarterly by S&P in their LCD study. This is the total price paid (both equity and debt) over the trailing-twelve month EBITDA (earnings before interest, taxes, depreciation and amortization) as calculated by S&P LCD. This is the relevant, high-level pricing metric that private equity managers use in assessing deals. Data is published monthly.

US quarterly deal volume for private equity is the total deal volume in \$ billions (both equity and debt) reported in the quarter by Thomson Reuters Buyouts. This metric gives a measure of the level of activity in the market. Data is published quarterly.

U.S Private Real Estate Markets:

Metrics: US Cap rates and Annual US Real Estate Deal Volume

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The date is published by NCREIF. We chose to use current value cap rate. These are capitalization rates from properties that were revalued during the quarter. While this data does rely on estimates of value and therefore tends to be lagging, (estimated prices are slower to rise and slow to fall than transaction prices), the data series goes back to 1979, providing a long data series for valuation comparison. Data is published quarterly.

Annual US real estate deal volume is the total deal transaction volume in \$ billions (both equity and debt) reported by Real Capital Analytics during the trailing-twelve months. This metric gives the level of activity in the market. Data is published monthly.

Measure of Equity Market Fear / Uncertainty

Metric: VIX – Measure of implied option volatility for U.S. equity markets

The VIX is a key measure of near-term volatility conveyed by implied volatility of S&P 500 index option prices. VIX increases with uncertainty and fear. Stocks and the VIX are negatively correlated. Volatility tends to spike when equity markets fall.

Measure of Monetary Policy

Metric: Yield Curve Slope

We calculate the yield curve slope as the 10 year treasury yield minus the 1 year treasury yield. When the yield curve slope is zero or negative, this is a signal to pay attention. A negative yield curve slope signals lower rates in the future, caused by a contraction in economic activity. Recessions are typically preceded by an inverted (negatively sloped) yield curve. A very steep yield curve (2 or greater) indicates a large difference between shorter-term interest rates (the 1 year rate) and longer-term rates (the 10 year rate). This can signal expansion in economic activity in the future, or merely higher future interest rates.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

Definition of “extreme” metric readings

A metric reading is defined as “extreme” if the metric reading is in the top or bottom decile of its historical readings. These “extreme” reading should cause the reader to pay attention. These metrics have reverted toward their mean values in the past.

Credit Markets US Fixed Income:

Metric: Spreads

The absolute level of spreads over treasuries and spread trends (widening / narrowing) are good indicators of credit risk in the fixed income markets. Spreads incorporate estimates of future default, but can also be driven by technical dislocations in the fixed income markets. Abnormally narrow spreads (relative to historical levels) indicate higher levels of valuation risk, wide spreads indicate lower levels of valuation risk and / or elevated default fears. Investment grade bond spreads are represented by the Barclays Capital US Corporate Investment Grade Index Intermediate Component. The high yield corporate bond spreads are represented by the Barclays Capital US Corporate High Yield Index.

Measures of US Inflation Expectations

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

Inflation is a very important indicator impacting all assets and financial instruments. Breakeven inflation is calculated as the 10 year nominal treasury yield minus the 10 year real yield on US TIPS (treasury inflation protected securities). Abnormally low long-term inflation expectations are indicative of deflationary fears. A rapid rise in breakeven inflation indicates acceleration in inflationary expectations as market participants sell nominal treasuries and buy TIPS. If breakeven inflation continues to rise quarter over quarter, this is a signal of inflationary worries rising, which may cause Fed action and / or dollar decline.

Commodity price movement (above the rate of inflation) is an indication of anticipated inflation caused by real global economic activity putting pressure on resource prices. We calculate this metric by adjusted in the Dow Jones UBS Commodity Index (formerly Dow Jones AIG Commodity Index) by US CPI-U. While rising commodity prices will not necessarily translate to higher US inflation, higher US inflation will likely show up in higher commodity prices, particularly if world economic activity is robust.

These two measures of anticipated inflation can, and often are, conflicting.

Measures of US Treasury Bond Interest Rate Risk

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

The expected annualized real yield of the 10 year US Treasury Bond is a measure of valuation risk for US Treasuries. A low real yield means investors will accept a low rate of expected return for the certainty of receiving their nominal cash flows. MIG estimates the expected annualized real yield by subtracting an estimate of expected 10 year inflation (produced by the Survey of Professional Forecasters as collected by the Federal Reserve Bank of Philadelphia), from the 10 year Treasury constant maturity interest rate.

Duration for the 10-Year Treasury Bond is calculated based on the current yield and a price of 100. This is a measure of expected percentage movements in the price of the bond based on small movements in percentage yield. We make no attempt to account for convexity.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

What is the MIG Market Sentiment Indicator (PMSI)?

The PMSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The PMSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the MIG Market Sentiment Indicator (PMSI) graph?

Simply put, the PMSI is a color coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the PMSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the PMSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.

How is the MIG Market Sentiment Indicator (PMSI) Constructed?

The PMSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

1. Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
2. Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration U.S. Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight). The scale of this measure is adjusted to match that of the stock return momentum measure.

The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure. The color reading on the graph is determined as follows:

1. If both stock return momentum and bond spread momentum are positive = GREEN (positive)
2. If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
3. If both stock return momentum and bond spread momentum are negative = RED (negative)

What does the MIG Market Sentiment Indicator (PMSI) mean? Why might it be useful?

There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12 month period. The PMSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

Momentum is defined as the persistence of relative performance. There is a significant amount of academic evidence indicating that positive momentum (e.g., strong performing stocks over the recent past continue to post strong performance into the near future) exists over near-to-intermediate holding periods. See, for example, "Understanding Momentum," *Financial Analysts Journal*, Scowcroft, Sefton, March, 2005.

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Oakland Police and Fire Retirement System

Manager Search Materials: International Equity
August 2019

Interview Schedule
Wednesday, August 28, 2019

Finalist Candidate	Time
Acadian Asset Management	10:05 am – 10:35 am
GQG Partners	10:35 am – 11:05 am
Strategic Growth Advisors	11:05 am – 11:35 am
William Blair	11:35 am – 12:05 pm

Background

- In the second quarter of 2019, an RFP was issued on behalf of OPFRS. As a result of the RFP, Meketa received a total of 57 responses from 54 firms for the International Equity mandate. Meketa evaluated the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms. Based on both qualitative and quantitative analysis, Meketa narrowed the field to a shortlist of ten managers.
- At the June 31st, 2019 OPFRS board meeting, Meketa discussed narrowing the field to finalist candidates to present to the OPFRS Investment Committee.
- This document provides a summary of the search process and highlights four strategies for the Board's consideration.
 - Acadian All Country World ex-U.S. Equity
 - Strategic Global Advisors International ACWI ex-US Equity
 - GQG International Equity
 - William Blair International Leaders

Manager Due Diligence Process Introduction

- Selecting strong and appropriate investment managers is a key determinant of the overall success of the Fund. While they are expected to operate within a client's investment guidelines, investment managers are given a large degree of latitude to achieve the investment objectives.
- Manager selection is a nuanced process and requires extensive due diligence. When selecting prospective active managers, Meketa evaluates the following areas:
 - Organization
 - Investment team
 - Investment philosophy
 - Investment process
 - Investment performance
 - Management fees
- In addition, all managers are evaluated within the context of the Fund's overall investment policy.

Manager Candidates

Manager Overview

	Acadian	GQG	SGA	William Blair
Firm Location	Boston, MA	Fort Lauderdale, FL	Newport Beach, CA	Chicago, IL
Firm Inception	1986	2016	2005	1935
Ownership Structure	100% Owned by BrightSphere Investment Group (NYSE:BSIG)	95% Employee Owned	57% Employee Owned, 43% held by Nile Capital Group	100% Employee-Owned
Total Assets Managed	\$95.0 billion	\$21.4 billion	\$4.8 billion	\$54.5 billion
Strategy Inception	November 1998	June 2016	July 2015	February 2003
Strategy Assets Managed	\$8.8 billion	\$5.6 billion	\$464 million	\$5.1 billion

- Acadian is the largest of all four manager candidates in regard to both firm and strategy assets. In addition, Acadian has the longest standing track record, having incepted the strategy in 1998. William Blair has the longest organizational history, having been in business since 1935 and is the only firm that is 100% employee-owned. Both GQG and SGA have track records post the GFC.

Acadian Asset Management As of March 31, 2019

Manager Overview	
Firm Location	Boston, MA
Firm Inception	1986
Ownership Structure	100% Owned by BrightSphere Investment Group (NYSE:BSIG)
Total Assets Managed	\$95.0 billion
Strategy Inception	November 1998
Strategy Assets Managed	\$8.8 billion

Organization

- Acadian is a large global equity asset management firm headquartered in Boston, MA. Acadian manages a wide range of global quantitative multi-factor and low volatility equity strategies. As of March 2019, the All Country World ex-U.S. Equity strategy had \$8.8 billion in assets under management.
- As of March 2019, the firm managed approximately \$95 billion in assets. Acadian is 100% owned by BrightSphere Investment Group (NYSE: BSIG), which, prior to March 26, 2018, was formerly known as Old Mutual Asset Management (NYSE: OMAM). Though this relationship appears to be symbiotic, Old Mutual has been exploring the sale of Acadian and its other U.S. asset management franchises.

Acadian Asset Management (continued)

Investment Team

- Acadian has a very deep, centralized research team. The firm employs a total of 33 portfolio managers and 50 research analysts. Though portfolio managers and analysts specialize in different aspects of Acadian's approach, the team emphasizes a collective approach to research and investment decision making.
- The team places a strong emphasis on rigor in portfolio construction, and spends a great deal of time on the continual re-evaluation of factors used in their quantitative models. Acadian's investment team is led by co-Chief Investment Officer, John Chisholm, who has worked at Acadian since 1987.

Acadian Asset Management (continued)

Investment Philosophy

- Acadian's philosophy is rooted in behavioral finance and adaptive markets theory and based on three key points: (1) fundamental insights are best captured using quantitative methods, (2) market inefficiencies caused by behavioral errors can be objectively exploited, and (3) investment processes must be highly adaptive to account for changing market dynamics

Investment Process

- The investment team starts by dividing the international equity stock universe into discreet peer groups by both sector and country. Their quantitative models then create forecasts for each stock based on a forecast of a stock's return relative to other stocks in its peer group and a forecast of the peer group's return relative to other global peer groups (i.e. separate bottom-up and top-down forecasts). These models are customized across each individual global country/sector peer group based on historical return patterns.
- The team optimizes portfolios using Axioma with the aim of maximizing risk-adjusted returns relative to the benchmark net of trading costs. The All Country World ex-U.S. Equity portfolio is broadly diversified across roughly 200 to 700 stocks with turnover averaging approximately 50-75%.

Strategic Global Advisors As of March 31, 2019

Firm Overview	
Firm Location	Newport Beach, CA
Firm Inception	2005
Ownership Structure	57% Employee Owned, 43% held by Nile Capital Group
Assets Under Management (Firm)	\$4.8 billion
Strategy Inception	July 2015
Assets Under Management (Strategy)	\$464 million

Organization

- Strategic Global Advisors is a majority employee- and woman-owned asset management firm based in Newport Beach, CA. The firm was founded in November 2005 by Cynthia Tusan and Gary Baierl. As of March 2019, Cynthia Tusan and Gary Baierl own 39% and 15% of the firm, respectively. The remaining balance is held by Senior Portfolio Manager Mark Wimer (3.5%), and Nile Capital Group (43%), a women owned private equity firm.
- The firm manages \$4.8 billion across a variety of equity strategies, with \$464 million in the International ACWI ex-US Equity strategy. The strategy in scope was recently launched in July 2015.

Strategic Global Advisors (continued)

Investment Team

- The investment team is led by CIO Gary Baierl. Prior to starting SGA in 2005 with Cynthia Tusan, Mr. Baierl worked at Causeway Capital Management as the Director of Quantitative Research where he developed the quantitative screens and the risk model used by the firm in their stock selection and portfolio construction process.
- Mr. Baierl is supported by four portfolio managers and four research analysts who average 22 years and 10 years of industry experience, respectively.

Strategic Global Advisors (continued)

Investment Philosophy

- Strategic Global Advisors believes a combination of both quantitative and fundamental analysis is superior to using either in isolation.

Investment Process

- SGA's investment process begins with the use of a proprietary, multi-factor quant model. The model scores the universe of stocks based on a variety of factors, including growth, value, sentiment, and quality.
- The model forms SGA's view on which stocks are most likely to outperform and proposes security weights, which roll up to country, sector, and industry weights.
- SGA uses a fundamental overlay before trades are made. SGA's fundamental analysis is focused on information that could have been missed by the model. Examples of information considered in the fundamental review include, but are not limited to, litigation or political risk, capital structure and refinancing risks, corporate actions, spinoffs, and M&A activity.
- The final portfolio generally holds 145-175 stocks. Portfolio turnover typically ranges between 40%-60%. Position sizes are capped at 6% and industry, sector and country weights are limited to no more than $\pm 5\%$ relative to the benchmark, to ensure a sufficient level of portfolio diversification and reduce the potential for unintended bets within the portfolio. Tracking error is modest and usually ranges between 2%-4%.

GQG Partners As of March 31, 2019

Firm Overview	
Firm Location	Fort Lauderdale, FL
Firm Inception	2016
Ownership Structure	95% Employee Owned
Assets Under Management (Firm)	\$21.4 billion
Strategy Inception	June 2016
Assets Under Management (Strategy)	\$5.6 billion

Organization

- GQG Partners is a boutique asset management firm based in Fort Lauderdale. The firm manages concentrated, benchmark-agnostic global equity portfolios. GQG was founded by Rajiv Jain, former CIO and Co-CEO of Vontobel Asset Management. The firm is 95% employee-owned by 10 current GQG employees. The remaining 5% of the stock is held by Pacific Current Group.
- Though GQG Partners is a relatively new organization, the investment team is fully-staffed and the firm has successfully grown its total assets under management. GQG employs 56 individuals, 12 of whom comprise the investment team. 44 individuals are in non-investment roles. As of March 2019, the firm managed \$21.4 billion in assets across three products, with \$5.6 billion in the International Equity strategy.

GQG Partners (continued)

Investment Team

- The GQG investment team is led by Chairman and CIO Rajiv Jain. Mr. Jain makes all final decisions on the International Equity strategy. He has 28 years of investment experience. During his tenure at Vontobel, Mr. Jain served as lead portfolio manager on the Emerging Markets strategy from 1997 to 2016, and was the lead portfolio manager on the Global and International Equity strategies from 2002 to 2016. Additionally, Mr. Jain served as CIO and Co-CEO at Vontobel Asset Management beginning in January 2002.
- Mr. Jain is supported by nine analysts and two traders. Though analysts are afforded autonomy in the company analysis process, Mr. Jain is involved throughout all stages of research. He considers himself to be an analyst first and portfolio manager second. Mr. Jain also embeds skepticism into the research process by assigning an analyst to act as "devil's advocate" on every stock. By doing so, he promotes a more in-depth and challenging discussion.

GQG Partners (continued)

Investment Philosophy Overview

- GQG Partners believes that long-term, stable, and superior earnings growth drives investment returns and risk-adjusted outperformance.
- The GQG Partners team seeks to invest in businesses that are predictable (strong franchise, low capital intensity, shareholder-oriented management, etc.), sustainable (able to replicate or exceed past success in terms of growth, operating margins, ROE, ROA, etc.), and trade at an attractive margin of safety (at least a 25% discount to the analyst's assessment of intrinsic value). Mr. Jain believes in building concentrated portfolios of high conviction positions with little attention paid to the benchmark.

Investment Process

- The GQG investment process begins with a series of quantitative screens focused on profitability and stability. The team's favored metrics include low amounts of leverage, high ROE/ROA, high free cash flow, and stable earnings.
- Promising companies are then subject to intense fundamental research to assess the quality of the business and its earnings. GQG believes that quality companies should have a defensible franchise, a consistent and durable business, strong pricing power, low capital intensity, and transparent accounting.
- If a company meets these quality criteria, the focus then shifts to valuation. If a company's stock is trading at a significant discount (>25%) to a conservative estimate of its long-term value, it is a candidate for purchase.
- The team manages a concentrated portfolio of approximately 40-60 positions. Emerging markets exposure within the portfolio has ranged between 10% and 30%. The strategy is benchmarked to the MSCI ACWI ex-U.S. index which currently has a 26% weight to emerging markets stocks.

William Blair Investment Management As of March 31, 2019

Manager Overview	
Firm Location	Chicago, IL
Firm Inception	1935
Ownership Structure	100% Employee-Owned
Assets Under Management (Firm)	\$54.5 billion
Strategy Inception	February 2003
Assets Under Management (Strategy)	\$5.1 billion

Organization

- William Blair was founded in 1935 by William McCormick Blair and is an independent, employee-owned investment banking and asset management firm. The firm has 316 employees within their investment management business, of which 96 are investment professionals.
- As of March 2019, William Blair & Company managed \$54.5 billion across domestic and international equity, fixed income, balanced, and alternative strategies, with \$5.1 billion in the International Leaders strategy.

William Blair Investment Management (continued)

Investment Team Overview

- Kenneth McAtamney and Simon Fennel serve as the co-portfolio managers and final decision makers on the strategy. Mr. McAtamney joined William Blair in 2005, and has 29 years of investment experience. He previously worked as an analyst, and subsequently as the firm's co-director of research, before becoming a global and international equity portfolio manager. He originally joined the International Leaders portfolio management team in 2012, alongside George Greig, who retired in 2013. Mr. Fennel first joined William Blair as an analyst in 2011. He became a portfolio manager alongside Mr. McAtamney on International Leaders in 2013. Mr. Fennel has 27 years of experience in the investment industry.
- The co-portfolio managers are supported by William Blair's Fundamental Research Team, which is shared across the firm's global and international equity strategies. The team consists of 16 global sector-focused research analysts and 6 traders. The co-portfolio managers and analysts work closely together to manage idea generation.

William Blair Investment Management (continued)

Investment Philosophy Overview

- William Blair believes that strong corporate performance is the foundation of superior long-term investment returns. They believe this strong performance arises when firms build intrinsic strengths in the management of human capital, financial resources, and stakeholder relationships, while delivering quality, innovation, service, and value to customers.
- William Blair also believes that the market fails to distinguish between average growth companies, which experience declines in growth over time, and quality growth companies, which can achieve sustained high growth above market expectations. These high quality business often differentiate themselves with experienced, motivated management teams, unique business models, distinctive products/services, and compelling financial characteristics.

William Blair Investment Management (continued)

Investment Process

- William Blair's investment process begins with a series of screens to identify companies that best fit the team's quality and growth criteria. The team screens for high, stable return on equity, high earnings quality and financial strength, high, consistent earnings and revenue growth, and strong future growth expectations. These screens reduce the opportunity set of international stocks (12,000+ companies) to approximately 1,800 to 2,400 companies.
- The team's analysts are then tasked with assessing all of the companies on this Eligibility List continuously. William Blair places an emphasis on management meetings; analysts and portfolio managers spend an estimated 30-40% of their time visiting and interviewing management. From this large opportunity set of stocks, any member of the team can flag interesting ideas for additional research based on meetings with management, ongoing evaluation of particular stocks as fundamentals and prices change, or information sources. Stocks are assigned to sector-focused analysts and tracked on a weekly basis through ongoing fundamental research. Analysts focus on quality, growth, operating performance, valuation, and thematic criteria. Analysts are responsible for evaluating company fundamentals, paying particular attention to the quality and durability of earnings growth. In general, buy candidates exhibit the strongest current fundamentals, a well-defined path to maintain that growth, and reasonable valuations.
- Messrs. McAtamney and Fennel are jointly responsible for portfolio construction and stock selection decisions. They draw input from the analyst team; analysts must vet each stock before it can be purchased in portfolios. The team manages a relatively concentrated portfolio of 40-70 stocks, with turnover ranging from 50-70% per year. Individual positions are typically capped at a weight of 5%.

Manager Candidate Portfolio Characteristics

Historical Performance and Management Fees

Portfolio Characteristics¹
As of March 31, 2019

	Acadian		GQG		SGA		William Blair		MSCI ACWI ex-U.S. IMI		MSCI ACWI ex-U.S.	
Trailing Price-Earnings Ratio	10.9x		24.7x		11.3x		21.3x		14.0x		13.9x	
Price-Book Value Ratio	1.5x		3.8x		1.7x		3.7x		1.6x		1.6x	
Dividend Yield	3.3%		2.0%		1.7%		1.9%		3.1%		3.2%	
Weighted Average Market Cap	\$25.4 billion		\$84.7 billion		\$32.0 billion		\$62.4 billion		\$44.7 billion		\$51.9 billion	
Median Market Cap	\$1.5 billion		\$33.4 billion		\$12.8 billion		\$22.3 billion		\$788 million		\$3.9 billion	
Number of Holdings	507		52		150		59		6,264		2,140	
Typical Holdings Range	200-700		40-60		145-175		40-70		NA		NA	
Annual Expected Turnover Rate	50-75%		30-50%		40-60%		50-70%		NA		NA	
Top 3 Country Weightings (%):	Emg. Mkts.	33	U.K.	15	Emg. Mkts	25	U.K.	15	Emg. Mkts.	25	Emg. Mkts.	26
	Canada	11	France	12	Japan	18	Emg. Mkts.	14	Japan	17	Japan	16
	Japan	11	U.S.	10	U.K.	11	France	11	U.K.	12	U.K.	12
Top 3 Sector Weightings (%):	Financials	25	Financials	22	Financials	20	Industrials	21	Financials	20	Financials	22
	Health Care	15	Cons. Stap.	19	Industrials	14	Info. Tech.	18	Industrials	13	Industrials	12
	Info. Tech.	12	Health Care	17	Cons. Disc.	13	Financials	18	Cons. Disc.	11	Cons. Disc.	11
Market Cap Weightings:												
>\$50 billion (%)	20		60		20		40		32		37	
\$15-50 billion (%)	29		32		48		46		30		35	
\$1.5-15 billion (%)	44		8		32		14		32		27	
<\$1.5 billion (%)	7		0		0		0		6		0	
% of Portfolio in Top 10 Holdings (%)	17		39		17		26		9		10	

¹ Source: eVestment Alliance Database, MSCI, FactSet. Characteristics may differ from those reported by investment managers due to differences in data sources.



Portfolio Characteristics (continue)

- Acadian and SGA both manage a relatively diversified portfolios with 150 and 507 holdings, respectively. Both GQG and William Blair manage a more concentrated portfolios, with 52 and 59 holdings, respectively.
- Acadian's portfolio trades at a valuation discount to the MSCI ACWI ex-U.S. IMI index on a price-earnings and price-book basis, and tilts down cap relative to the index.
- SGA's portfolio trades at a valuation discount versus the MSCI ACWI ex-U.S. IMI index on a price-earnings and price-book basis, with a significant active weight within the mid-cap segment of the market capitalization spectrum. The top three country and sector names and weights of the index are relatively similar to SGA's portfolio.
- GQG's portfolio trades at a price-earnings and price-book premium relative to the MSCI ACWI ex-U.S. IMI index due to GQG's emphasis on high-quality businesses, with superior and sustainable earnings growth prospects. GQG utilizes a benchmark-agnostic investment approach, resulting in significant active country and sector weights relative to the index. GQG will opportunistically invest in U.S.-domiciled stocks not included in the benchmark. These investments are limited to companies that derive the majority of their revenues from outside the United States and are limited to 20% of the portfolio.
- William Blair's emphasis on quality-growth characteristics, and other measures of business quality, typically results in a portfolio that trades at a price-earnings and price-book premium relative to the MSCI ACWI ex-U.S. IMI index. As evidenced by the portfolio's active country and sector weights, William Blair utilizes benchmark-agnostic portfolio construction process.

Historical Risk versus MSCI ACWI ex-U.S. IMI (net of fees)¹
July 2015 – March 2019

	Acadian	SGA	GQG Partners ²	William Blair	MSCI ACWI ex-U.S. IMI
Common Period Performance:					
Common Period Performance (%)	6.8	3.3	10.4	7.5	3.7
Best 3 Months (%)	10.5	10.7	12.7	14.2	10.3
Worst 3 Months (%)	-13.4	-12.6	-9.3	-14.8	-11.9
Risk Measures:					
Standard Deviation (%)	14.0	13.3	12.9	14.8	13.2
Tracking Error (%)	3.4	2.7	6.5	4.5	-
Beta	0.99	0.98	0.80	1.03	1.00
Correlation to Benchmark	0.97	0.98	0.87	0.95	-
Downside Deviation (%)	7.2	6.6	6.6	7.9	6.3
Upside Capture (%)	104	96	98	110	-
Downside Capture (%)	84	98	62	89	-
Risk-Adjusted Performance:					
Jensen's Alpha (%)	3.1	-0.4	7.2	3.7	-
Sharpe Ratio	0.41	0.17	0.73	0.44	0.20
Information Ratio	0.92	-0.15	1.03	0.84	-

Historical Risk (continued)

¹ Net of fees returns assume the manager fee schedules stated herein. Common period is from July 2015, the inception date of Strategic Global Advisor's (SGA) International ACWI ex-US Equity strategy, to March 2019.

² GQG's performance prior to June 2016 is from the Vontobel International Equity strategy. Rajiv Jain was the lead portfolio manager on the Vontobel Asset Management International Equity strategy from January 2002 to May 2016.



- Acadian, GQG and William Blair all outperformed the index on both an absolute and risk-adjusted basis, net of fees, over the common period. The three managers have favorable upside/downside capture statistics and have outperformed in down markets, on average, over the common period. Each manager has shown the ability to protect capital in down markets, while participating with market performance during up-market, resulting in strong risk-adjusted outperformance. William Blair potentially offers a higher upside during rising markets, as evidenced by its higher upside capture of 110% compared to 98% for GQG and 10% for Acadian.
- GQG has had a lower standard deviation and beta than its peers and the MSCI ACWI ex-U.S. index. The portfolio's Jensen's alpha of 7.2% and information ratio of 1.03 indicate risk-adjusted returns have been strong.
- Over the common period, SGA underperformed the index on both an absolute and risk-adjusted basis, net of fees. The manager trailed the index by 0.4%, with less appealing risk/reward profile, as indicated by the strategy's slightly higher volatility and downside deviation relative to the index.

Historical Risk versus MSCI ACWI ex-U.S. IMI (net of fees)¹ February 2003 – March 2019

	Acadian	GQG Partners ²	William Blair	MSCI ACWI ex-U.S. IMI
Common Period Performance:				
Common Period Performance (%)	9.5	11.1	9.3	8.3
Best 3 Months (%)	35.6	20.4	29.6	40.2
Worst 3 Months (%)	-42.7	-32.8	-48.3	-38.1
Risk Measures:				
Standard Deviation (%)	19.9	15.9	19.6	18.4
Tracking Error (%)	3.5	7.0	5.4	-
Beta	1.05	0.77	1.00	1.00
Correlation to Benchmark	0.98	0.92	0.95	-
Downside Deviation (%)	10.5	8.8	10.9	9.5
Upside Capture (%)	107	83	99	-
Downside Capture (%)	102	70	95	-
Risk-Adjusted Performance:				
Jensen's Alpha (%)	0.9	4.4	1.0	-
Sharpe Ratio	0.41	0.62	0.41	0.38
Information Ratio	0.34	0.41	0.18	-

¹ Net of fees returns assume the manager fee schedules stated herein. Common period is from February 2003, the inception date of William Blair International Leaders, to March 2019.

² GQG's performance prior to June 2016 is from the Vontobel International Equity strategy. Rajiv Jain was the lead portfolio manager on the Vontobel Asset Management International Equity strategy from January 2002 to May 2016.

- Over the longer common period, Acadian, GQG and William Blair have each outperformed the index; however, each manager has done so using varying levels of absolute and relative risk. Historically, GQG has produced a more defensive return profile relative to both Acadian and William Blair, as evidenced by its lower downside capture of 70%, which compares to 102% for Acadian and 95% for William Blair. Additionally, over the common period, GQG has had a lower standard deviation and beta. GQG's Jensen's alpha of 4.4% and information ratio of 0.41 indicate risk-adjusted returns have been strong over the long-term.

Trailing and Calendar Year Performance (net of fees) ¹
As of March 31, 2019

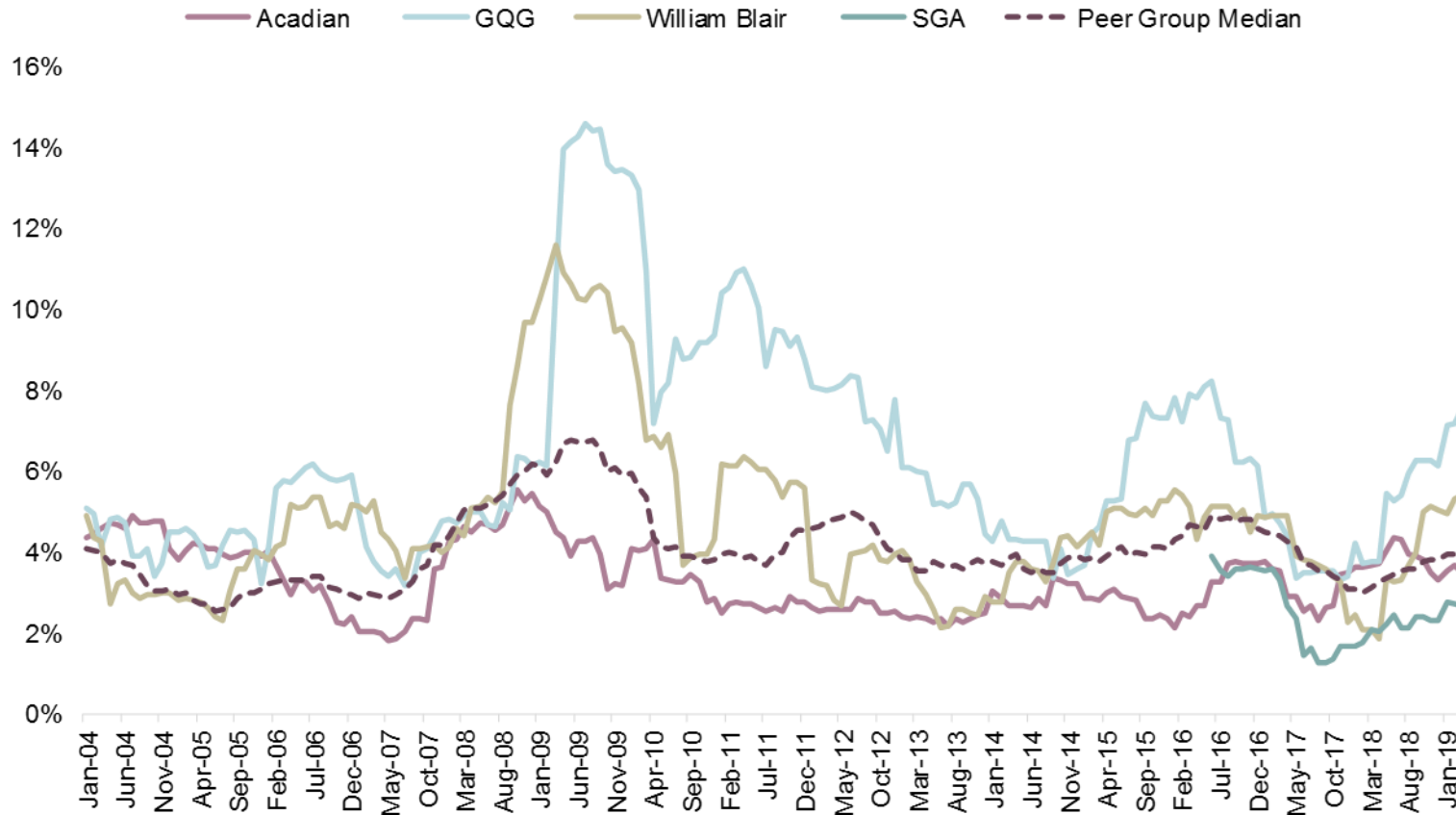
	Acadian	GQG Partners ²	SGA	William Blair	MSCI ACWI ex-U.S. IMI
Trailing Period Returns (%):					
1 Year	-6.9	3.6	-4.8	0.2	-5.0
3 Years	10.2	12.5	7.8	10.5	7.9
5 Years	4.3	8.0	-	7.0	2.7
7 Years	6.6	8.6	-	7.9	4.9
10 Years	10.6	12.4	-	13.2	9.2
Calendar Year Returns (%):					
2018	-15.5	-6.2	-15.3	-12.3	-14.8
2017	34.7	31.6	28.7	30.8	27.8
2016	8.7	4.8	0.9	1.3	4.4
2015	-4.6	2.9	-	6.2	-4.6
2014	-2.0	3.3	-	-1.7	-3.9
2013	17.6	7.2	-	18.4	15.8
2012	17.7	20.3	-	19.7	17.0
2011	-13.0	1.0	-	-8.5	-14.3
2010	17.1	12.6	-	23.7	12.7
2009	33.7	25.4	-	41.8	43.6
2008	-50.8	-42.0	-	-54.1	-46.0

¹ Net of fees returns assume the manager fee schedules stated herein.

² GQG's performance prior to June 2016 is from the Vontobel International Equity strategy. Rajiv Jain was the lead portfolio manager on the Vontobel Asset Management International Equity strategy from January 2002 to May 2016.



Rolling One-Year Tracking Error vs. MSCI ACWI ex-U.S. IMI¹ As of March 31, 2019

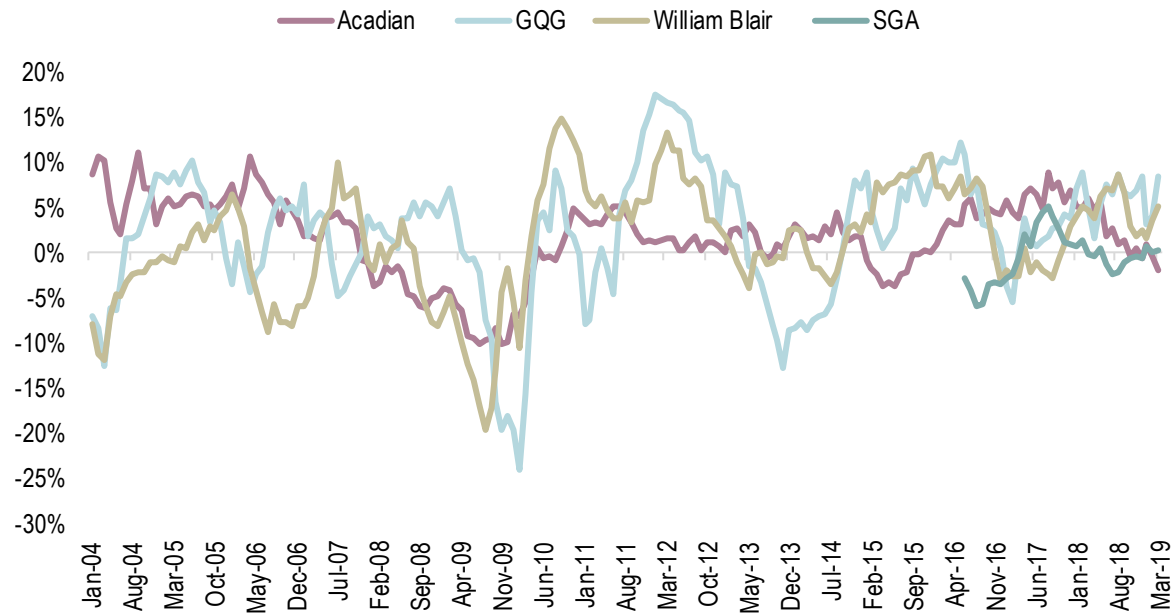


¹ GQG's performance prior to June 2016 is from the Vontobel International Equity strategy. Rajiv Jain was the lead portfolio manager on the Vontobel Asset Management International Equity strategy from January 2002 to May 2016. Peer group is the eVestment All ACWI ex-U.S. Equity.



- As evidenced by rolling one-year tracking error, GQG and William Blair both manage a more benchmark agnostic portfolio than Acadian and SGA. Since inception, GQG's and William Blair's rolling one year tracking error has averaged 6.3% and 4.8%, respectively. As a result, we would expect GQG and William Blair's performance to deviate significantly versus the index over the short- to medium-term, both positively and negatively. Therefore, a long-term investment horizon is required when investing in GQG or William Blair.
- Acadian's tracking error has been consistently below the peer group and has averaged 3.3%. The average tracking error for the peer group median has been 4.1%, over the common period.
- Since inception, SGA's rolling one year tracking error has averaged 2.5%. The strategy's active risk is modest and typically ranges between 2%-4%.

Rolling One-Year Excess Returns vs. MSCI ACWI ex-U.S. IMI¹ As of March 31, 2019

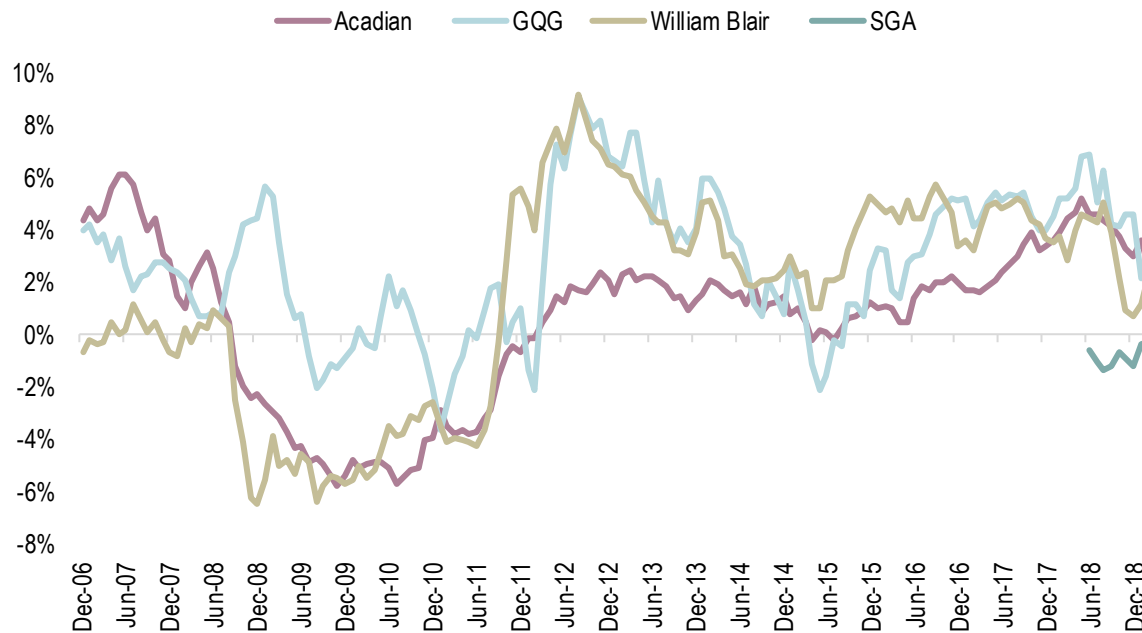


As of 03/31/2019	Total Periods	Periods Outperformed	Percentage (%)	Average Ann. Excess Return (%)	Median Ann. Excess Return (%)	Max (%)	Min (%)	Range (%)
Acadian	183	134	73	1.8	2.1	11.0	-10.2	21.2
GQG	183	129	70	2.3	3.6	17.5	-24.1	41.6
SGA	34	15	44	-0.5	-0.4	5.1	-5.9	11.0
William Blair	183	110	60	1.4	1.9	15.0	-19.7	34.6

¹ Net of fees returns assume the manager fee schedules stated herein.



Rolling Three-Year Excess Returns vs. MSCI ACWI ex-U.S. IMI¹ As of March 31, 2019



As of 03/31/2019	Total Periods	Periods Outperformed	Percentage (%)	Average Ann. Excess Return (%)	Median Ann. Excess Return (%)	Max (%)	Min (%)	Range (%)
Acadian	148	104	70	0.6	1.5	6.2	-5.8	12.0
GQG	148	123	83	2.8	2.8	9.1	-3.6	12.8
SGA	10	0	0	-0.8	-0.8	-0.2	-1.4	1.2
William Blair	148	103	70	1.5	2.3	9.2	-6.5	15.7

¹ Net of fees returns assume the manager fee schedules stated herein.



Management Fees¹ - Commingled Funds

	Acadian	GQG	SGA	William Blair
Vehicle Name	Acadian All Country World ex-US Fund	GQG International Equity	SGA International ACWI ex-US Equity	International Leaders
Investment Vehicle	Commingled Fund	Commingled Fund	Commingled Fund	Commingled Fund
Minimum Account Size	\$1 million	\$1 million	\$5 million	\$5 million
Liquidity	Daily	Daily	Daily	Daily
Management Fee	0.70%	0.50%	0.70% on all assets	0.68%
Other Expenses	0.06%	0.08%	-	0.05%
All-In Fee ²	0.76%	0.58%	0.70%	0.73%
Peer Ranking	36 th Percentile	16 th Percentile	36 th percentile	31 st Percentile

- The median fee for a \$50 million International equity commingled fund in the eVestment All ACWI ex-U.S. Equity peer group is 0.75%
- Commingled fund operating expenses are typically not incorporated when investment managers list commingled fund fee schedules. As such, peer group median fees should be compared using management fees, excluding operating expenses.

¹ Subject to change as a result of negotiation, fee adjustment decisions, operating expense changes, and other factors.

² Assumes mandate size of \$50 million. Peer group is the eVestment All ACWI ex-U.S. Equity.

Management Fees¹ - Separate Account

	Acadian	GQG	SGA	William Blair
Vehicle Name	Acadian All Country World ex-US Fund	GQG International Equity	SGA International ACWI ex-US Equity	International Leaders
Investment Vehicle	Separate Account	Separate Account	Separate Account	Separate Account
Minimum Account Size	\$50 million	\$100 million	\$25 million	\$20 million
Liquidity	Varies	Varies	Varies	Varies
Management Fee	0.75% on the first \$25 mil 0.65% on the next \$25 mil 0.50% on the next \$100 mil 0.40% thereafter	0.80% on the first \$50 mil 0.70% on the next \$50 mil 0.50% thereafter	0.70% on all assets	First \$20 million: 0.80% Next \$30 million: 0.60% Next \$50 million: 0.50% Next \$50 million: 0.45% Next \$50 million: 0.40% Over \$200 million: 0.30%

¹ Subject to change as a result of negotiation, fee adjustment decisions, operating expense changes, and other factors.





City of Oakland Police and Fire Retirement System

ALL-COUNTRY WORLD EX-U.S. EQUITY

AUGUST 28, 2019

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ACADIAN PRESENTATION TEAM



Scott J. Brymer, CFA — Senior Vice President, Portfolio Manager

Scott joined Acadian in 2006 and is a member of the Portfolio Management Team, focusing primarily on portfolio oversight and portfolio-related research. He previously served as a member of the Portfolio Construction Group, where he specialized in simulation-based research, portfolio analytics, optimization, and trading. He earned a B.B.A. in finance from the University of Massachusetts at Amherst. Scott is a CFA charterholder and a member of CFA Society Boston.



Thomas N. Obaseki — Vice President, Business Development

Thomas joined Acadian in 2018 and is a member of the firm's Global Client Group, focusing on public pension and Taft-Hartley funds. Before joining Acadian, Thomas was a multi-asset investment specialist at Wellington Management Company. He also previously held positions at Fidelity and J.P. Morgan. Thomas is a member of numerous public pension associations including NASRA, NCPERS, and SACRS. Prior to business school, Thomas served as a Captain in the United States Army, commanding a combat unit in Iraq. Thomas received an M.B.A. from the University of Virginia and a B.S. in engineering management from the United States Military Academy at West Point.



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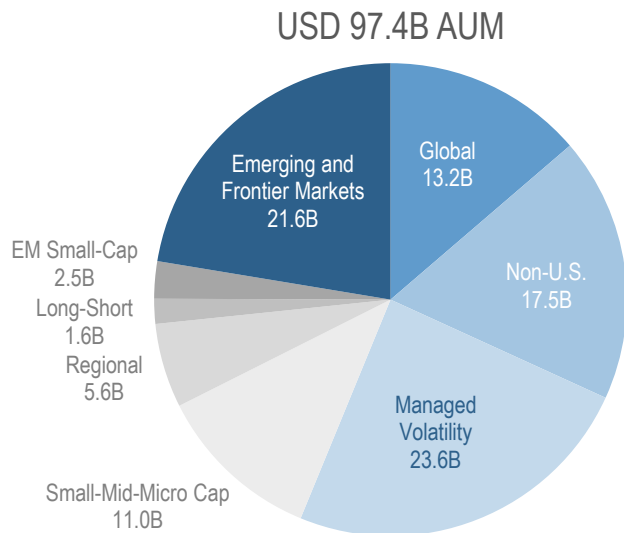
AGENDA

- Organization
- Investment Philosophy and Process
- Performance and Portfolio Characteristics
- Questions and Answers

ACADIAN ORGANIZATIONAL OVERVIEW

July 31, 2019

- Founded in 1986 in Boston, MA, Acadian is a pioneer in quantitative international equity investing.
- We believe a systematic, multi-factor investment approach can deliver consistent, risk-adjusted returns.
- Our culture of innovation and transparency fosters enduring client partnerships.



Worldwide Presence



There is no rounding applied to the total firm AUM which includes \$1023.0 million in model advisory contracts where Acadian does not have trading authority. The individual strategy level assets under management (AUM) are rounded to the nearest decimal point and do not include model advisory assets. For complete details regarding office locations please refer to affiliate office disclosures on the Legal Disclaimer page.



REPRESENTATIVE INVESTOR LIST

Acadian invests on behalf of some of the world's largest and most sophisticated institutions.

Public

Employees' Retirement Fund of the City of Dallas
Florida State Board of Administration
Los Angeles County Employees Retirement Association
Massachusetts Pension Reserves Investment Management Board
Municipal Employees' Retirement System of Michigan
New York City Employees Retirement System
Ohio Public Employees Retirement System
Oregon Public Employees
Public School & Education Employee Retirement Systems of Missouri
Tennessee Consolidated Retirement System
Virginia Retirement System
West Virginia Investment Management Board

Corporate

3M Company
Altria Group
JM Family Enterprises, Inc.
Pfizer

Endowment/Foundation

American Cancer Society
Carnegie Mellon University
Cornell University
Georgia Tech Foundation
W.K. Kellogg Foundation

Sub-Advisory

Integra Capital Management Corporation
SEI

Taft-Hartley

New England Carpenters Benefit Funds
Producer-Writers Guild of America Pension Plan

Australia

Catholic Superannuation Fund
Colonial First State Investments Ltd.
StatePlus

Canada

DGIA
Mouvement Desjardins
University of Guelph
Ville de Montréal

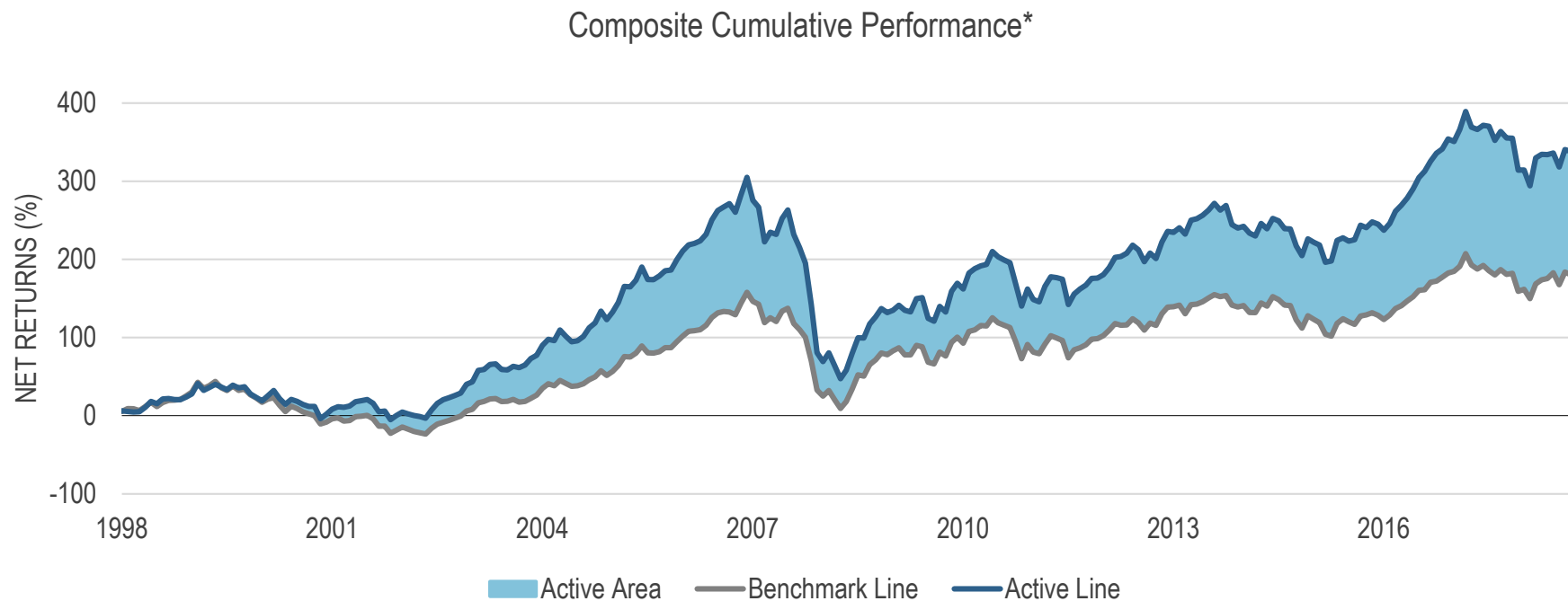
Europe

European Patent Office
Fidelity International
Hampshire County Council
Ireland Strategic Investment Fund
Janus Henderson Global Investors
Kempen Capital Management
LGT Capital Partners
Oxford University Staff Pension Scheme
PKA A/S
The Church of England Pensions Board

 = Denotes individual All-Country World ex-U.S., Non-U.S., and Non-U.S. Small-Cap Equity investors

WHY ACADIAN FOR ALL-COUNTRY WORLD EX-U.S.?

- Focus on international equities since inception of firm 30 years ago.
- Fundamentally driven, diversified, highly disciplined approach.
- Core orientation – consistent value add outperformed benchmark in 16 of 21 calendar years.¹



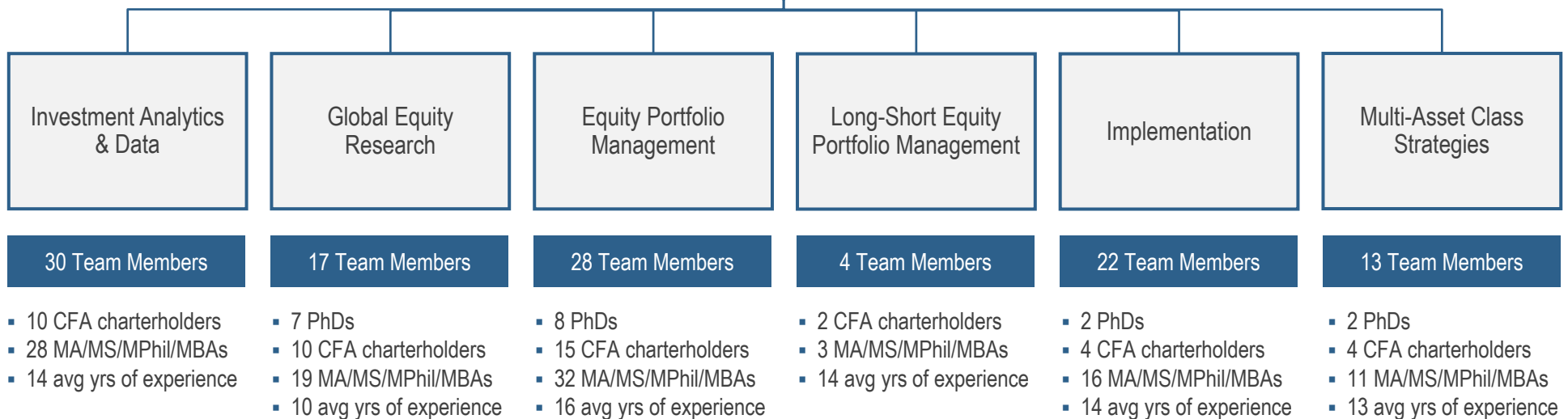
¹ The All-Country World ex-U.S. Equity strategy outperformed the MSCI All-Country World ex-U.S. benchmark 16 out of 21 years since inception November 1, 1998 (gross of management fees).

*Returns that include the most recent month are preliminary.

Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. The complete performance disclosures can be found in the composite performance disclosure pages attached. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

INVESTMENT TEAM OVERVIEW

Brendan Bradley, Ph.D.
Executive Vice President,
Chief Investment Officer



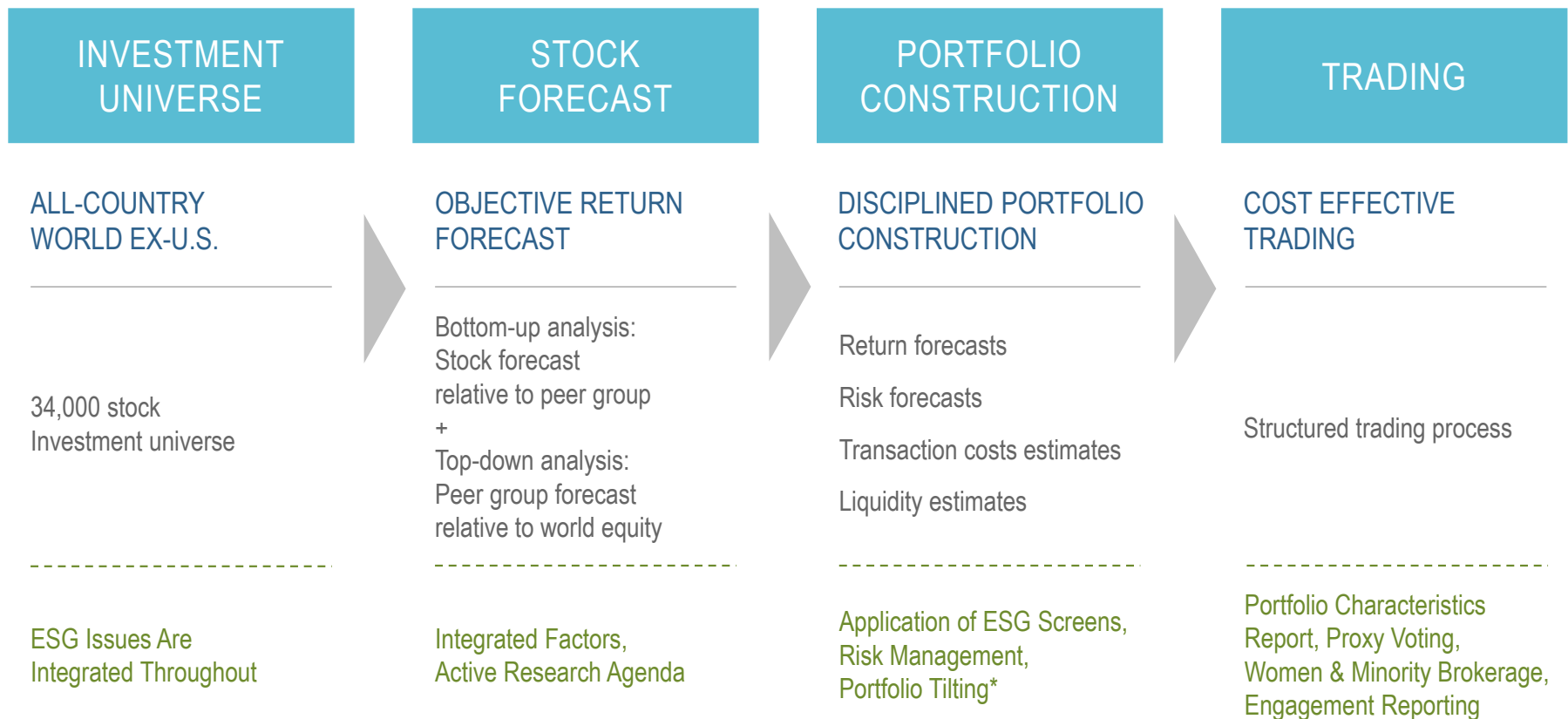
Over 100 investment professionals with an average of 14 years experience per team member



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INVESTMENT PROCESS

Acadian's process is systematic, objective and consistent.



STOCK FORECAST EXAMPLE

	GROUP	SAMPLE FACTORS	FORECAST
BOTTOM-UP ANALYSIS	VALUE	Price to Intrinsic Income Value Price to Intrinsic Asset Value	+1.32
	GROWTH	Media Effect Earnings Surprise Recommendation Change	+0.64
	QUALITY	Asset Quality Cash Flow Quality Management Behavior	+0.17
	TECHNICAL	Momentum Smart Reversal Industry Leadership	+0.11
TOP-DOWN ANALYSIS	GERMANY	Global Drivers Risk Macro Environment	+0.04
	CAPITAL GOODS	Price Momentum Adjusted Valuation Peer Momentum	+0.09
	GERMAN CAPITAL GOODS	Adjusted Valuation Quality Technical	0.00

Company: Kloeckner & Co SE

Market Cap: USD 1B

Country: Germany

Industry: Capital Goods

Description: Steel and metal producer and distributor

TOTAL FORECAST
+2.21

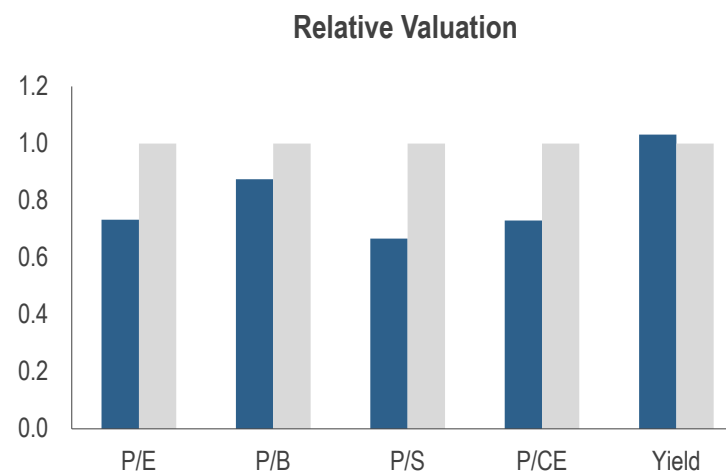
Source: Acadian Asset Management LLC.

The information provided is for illustrative purposes only based on proprietary models. There can be no assurance that the forecasts will be achieved. The selected stock is intended to be an example of the process and is not a recommendation to buy or sell this specific security.

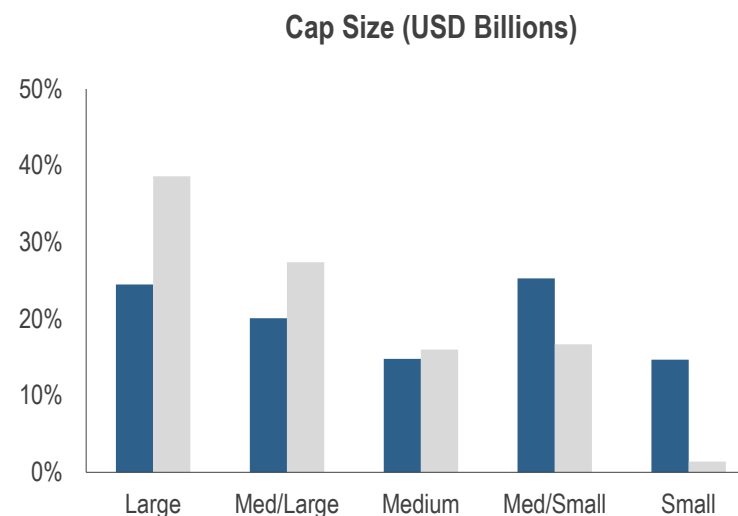
ALL-COUNTRY WORLD EX-U.S. EQUITY

Key Characteristics – July 31, 2019*

Valuation	Portfolio	Benchmark
Price/Earnings	10.7	14.6
Price/Book	1.4	1.6
Price/Sales	0.8	1.2
Price/Cash Earnings	6.5	8.9
Yield	3.3%	3.2%
Total Securities	592	2205



Cap Size (USD Billions)	Portfolio	Benchmark
Large > \$50B	24.5%	38.6%
Med/Large \$20-\$50	20.1%	27.4%
Medium \$10-\$20	14.8%	16.0%
Med/Small \$3-\$10	25.3%	16.7%
Small < \$3	14.7%	1.4%
Median	1.5	8.0
Weighted Average	42.8	71.9



Portfolio: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S..

*Preliminary. The data presented here is for a representative portfolio and is supplemental to the composite performance disclosure page attached. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

ALL-COUNTRY WORLD EX-U.S. EQUITY COMPOSITE

Performance (Returns in USD – Before Management Fees)

Time Period	Composite*	Benchmark	Value-Added vs. Benchmark
1998 (Inception: Nov 1, 1998)	5.5%	9.0%	(3.5)%
1999	34.9	30.9	4.0
2000	(10.5)	(15.1)	4.6
2001	(10.4)	(19.7)	9.3
2002	(7.5)	(14.9)	7.4
2003	55.5	40.8	14.7
2004	26.0	20.9	5.1
2005	24.8	16.6	8.2
2006	31.1	26.7	4.4
2007	15.9	16.7	(0.8)
2008	(50.4)	(45.5)	(4.9)
2009	34.7	41.4	(6.7)
2010	18.0	11.2	6.8
2011	(12.3)	(13.7)	1.4
2012	18.6	16.8	1.8
2013	18.5	15.3	3.2
2014	(1.2)	(3.9)	2.7
2015	(3.9)	(5.7)	1.8
2016	9.5	4.5	5.0
2017	35.7	27.2	8.5
2018	(14.8)	(14.2)	(0.6)
2019 through July	11.6	12.2	(0.6)
One Year Annualized Return	(4.8)	(2.3)	(2.5)
Three Year Annualized Return	9.2	7.2	2.0
Five Year Annualized Return	4.6	2.1	2.5
Seven Year Annualized Return	8.4	6.0	2.4
Ten Year Annualized Return	8.1	5.4	2.7
Since-Inception Annualized Return	8.2	5.1	3.1
Since-Inception Annualized Standard Deviation	17.6	16.7	
Since-Inception Active Risk			4.1
Since-Inception Information Ratio			0.8

Composite: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S. (net) 2001-01-01 To 2019-07-31, MSCI AC World ex-USA (gross) 1998-11-01 To 2001-01-01.

*Returns that include the most recent month are preliminary. Acadian Asset Management LLC has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®). Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future returns. The complete performance disclosure can be found in the composite performance disclosure page attached. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.



CONCLUSION

- Focus on international equities since inception of firm 30 years ago.
- Fundamentally driven, diversified, highly disciplined approach.
- Deep, stable and experienced investment organization with over 100 investment team members.
- Core orientation – consistent value add outperformed benchmark in 16 of 21 calendar years.¹

¹ The All-Country World ex-U.S. Equity strategy outperformed the MSCI All-Country World ex-U.S. benchmark 16 out of 21 years since inception November 1, 1998 (gross of management fees). Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. The complete performance disclosures can be found in the composite performance disclosure pages attached.



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ACADIAN ALL-COUNTRY WORLD EX-U.S. FUND

Commingled Fund Summary of Terms

Name	Acadian All-Country World ex-U.S. Fund
AUM as of 7/31/2019	\$520 million
Inception Date	4/22/05
Benchmark	MSCI All-Country World ex-U.S.
Organizational Structure	DE LLC
Registration Exemption	3(c)(7)
Eligible Investors	ERISA & Non-ERISA
Minimum Investment	\$1 Million
Subsequent Investments	\$50,000
Valuation	Daily
Notice for Contributions/Withdrawals	30 Days
Custodian	BNY Mellon
Administrator	BNY Mellon
Auditor	PWC

ALL-COUNTRY WORLD EX-U.S. EQUITY COMPOSITE

Performance (Returns in USD – Before Management Fees)

Time Period	Composite*	Benchmark	Value-Added vs. Benchmark
1998 (Inception: Nov 1, 1998)	5.5%	8.3%	(2.8)%
1999	34.9	38.0	(3.1)
2000	(10.5)	(19.3)	8.8
2001	(10.4)	(19.8)	9.4
2002	(7.5)	(12.9)	5.4
2003	55.5	42.3	13.2
2004	26.0	21.9	4.1
2005	24.8	17.7	7.1
2006	31.1	26.5	4.6
2007	15.9	16.1	(0.2)
2008	(50.4)	(46.0)	(4.4)
2009	34.7	43.6	(8.9)
2010	18.0	12.7	5.3
2011	(12.3)	(14.3)	2.0
2012	18.6	17.0	1.6
2013	18.5	15.8	2.7
2014	(1.2)	(3.9)	2.7
2015	(3.9)	(4.6)	0.7
2016	9.5	4.4	5.1
2017	35.7	27.8	7.9
2018	(14.8)	(14.8)	0.0
2019 through July	11.6	12.0	(0.4)
One Year Annualized Return	(4.8)	(3.0)	(1.8)
Three Year Annualized Return	9.2	7.0	2.2
Five Year Annualized Return	4.6	2.2	2.4
Seven Year Annualized Return	8.4	6.2	2.2
Ten Year Annualized Return	8.1	5.7	2.4
Since-Inception Annualized Return	8.2	5.4	2.8
Since-Inception Annualized Standard Deviation	17.6	16.7	
Since-Inception Active Risk			4.1
Since-Inception Information Ratio			0.7

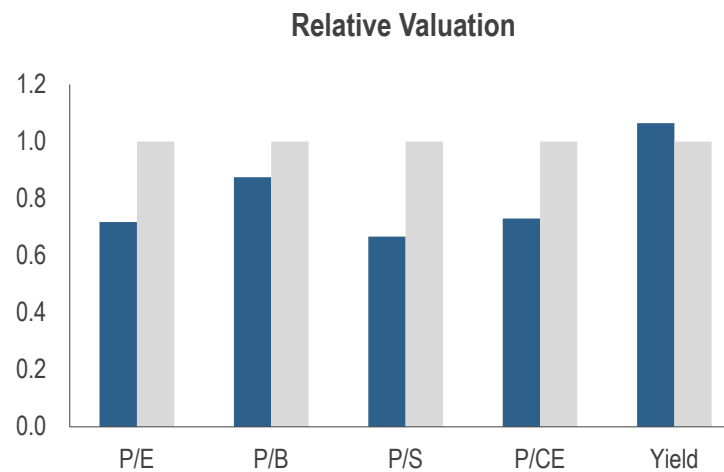
Composite: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S. IMI (net) 2001-01-01 To 2019-07-31, MSCI AC World ex-USA IMI (gross) 1998-11-01 To 2001-01-01.

*Returns that include the most recent month are preliminary. Acadian Asset Management LLC has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®). Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future returns. The complete performance disclosure can be found in the composite performance disclosure page attached. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

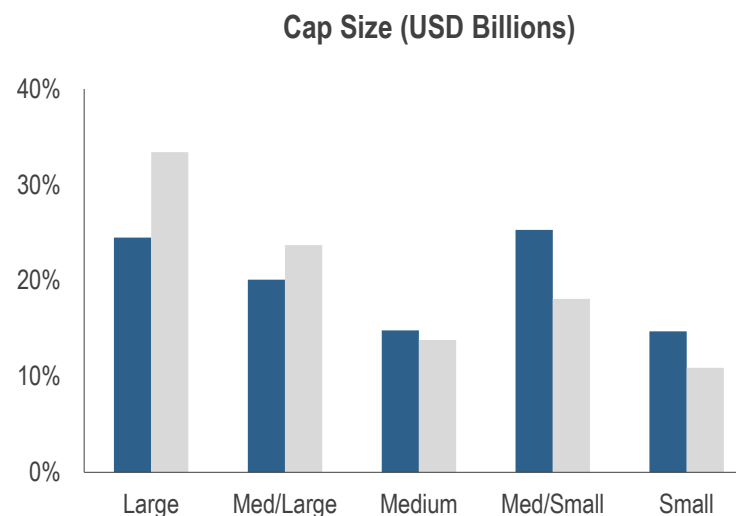
ALL-COUNTRY WORLD EX-U.S. EQUITY

Key Characteristics – July 31, 2019*

Valuation	Portfolio	Benchmark
Price/Earnings	10.7	14.9
Price/Book	1.4	1.6
Price/Sales	0.8	1.2
Price/Cash Earnings	6.5	8.9
Yield	3.3%	3.1%
Total Securities	592	6403



Cap Size (USD Billions)	Portfolio	Benchmark
Large > \$50B	24.5%	33.4%
Med/Large \$20-\$50	20.1%	23.7%
Medium \$10-\$20	14.8%	13.8%
Med/Small \$3-\$10	25.3%	18.1%
Small < \$3	14.7%	10.9%
Median	1.5	1.6
Weighted Average	42.8	62.6



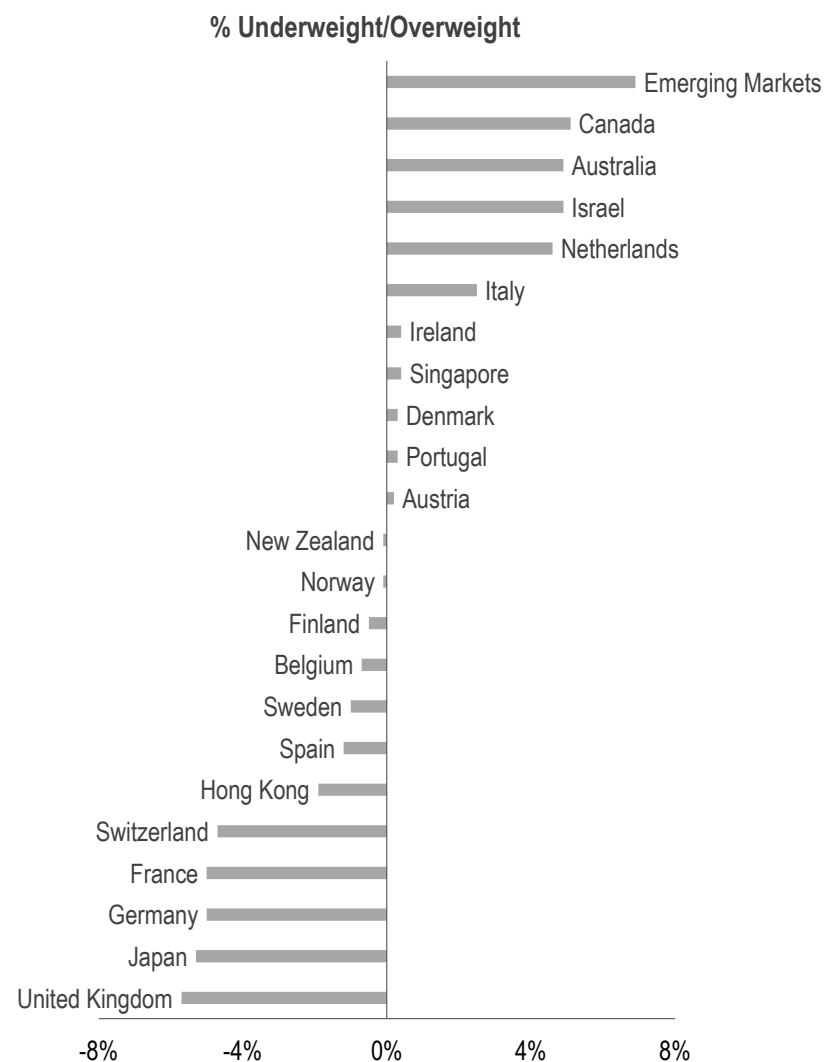
Portfolio: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S. IMI.

*Preliminary. The data presented here is for a representative portfolio and is supplemental to the composite performance disclosure page attached. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

ALL-COUNTRY WORLD EX-U.S. EQUITY

Regional Allocations – July 31, 2019*

	Portfolio	Benchmark	Difference
Continental Europe	20.8%	30.7%	-9.9%
Austria	0.4	0.2	0.2
Belgium	0.0	0.7	-0.7
Denmark	1.4	1.1	0.3
Finland	0.1	0.7	-0.5
France	2.6	7.5	-5.0
Germany	0.8	5.8	-5.0
Ireland	0.8	0.4	0.4
Italy	4.0	1.5	2.4
Netherlands	7.0	2.5	4.6
Norway	0.4	0.4	-0.1
Portugal	0.4	0.1	0.3
Spain	0.7	1.9	-1.2
Sweden	0.7	1.7	-1.0
Switzerland	1.6	6.2	-4.7
United Kingdom	5.4%	11.1%	-5.7%
Australia/New Zealand	9.9%	5.0%	4.8%
Australia	9.8	4.8	4.9
New Zealand	0.1	0.2	-0.1
Hong Kong/Singapore	2.0%	3.5%	-1.5%
Hong Kong	0.7	2.6	-1.9
Singapore	1.3	0.9	0.4
Japan	10.7%	16.0%	-5.3%
North America	12.0%	6.9%	5.1%
Canada	12.0	6.9	5.1
Middle East	5.3%	0.4%	4.9%
Israel	5.3	0.4	4.9
Emerging Markets	33.2%	26.3%	6.9%
Cash	0.7		



Portfolio: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S..

*Preliminary. The data presented here is for a representative portfolio and is supplemental to the composite performance disclosure page attached. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

ALL-COUNTRY WORLD EX-U.S. EQUITY

Emerging Markets Allocations – July 31, 2019*

	Portfolio	Benchmark	Difference
Europe/Mid East/Africa	5.5%	4.1%	1.4%
Czech Republic	0.2	0.0	0.1
Egypt	0.0	0.0	0.0
Greece	0.0	0.1	-0.1
Hungary	0.7	0.1	0.6
Poland	0.0	0.3	-0.2
Qatar	0.1	0.3	-0.2
Russia	1.3	1.1	0.2
Saudi Arabia	0.6	0.4	0.3
South Africa	0.6	1.5	-0.9
Turkey	1.9	0.2	1.8
United Arab Emirates	0.0	0.2	-0.2
Latin America	3.5%	3.3%	0.1%
Argentina	0.0	0.1	-0.1
Brazil	1.9	2.1	-0.2
Chile	0.2	0.2	-0.1
Colombia	0.3	0.1	0.2
Mexico	1.1	0.7	0.5
Peru	0.0	0.1	-0.1
Asia	24.2%	18.9%	5.3%
China	12.8	8.4	4.4
India	0.2	2.3	-2.1
Indonesia	0.0	0.6	-0.5
Malaysia	0.2	0.6	-0.4
Pakistan	0.0	0.0	0.0
Philippines	0.0	0.3	-0.3
South Korea	7.1	3.1	4.0
Taiwan	3.0	2.9	0.1
Thailand	0.9	0.8	0.1



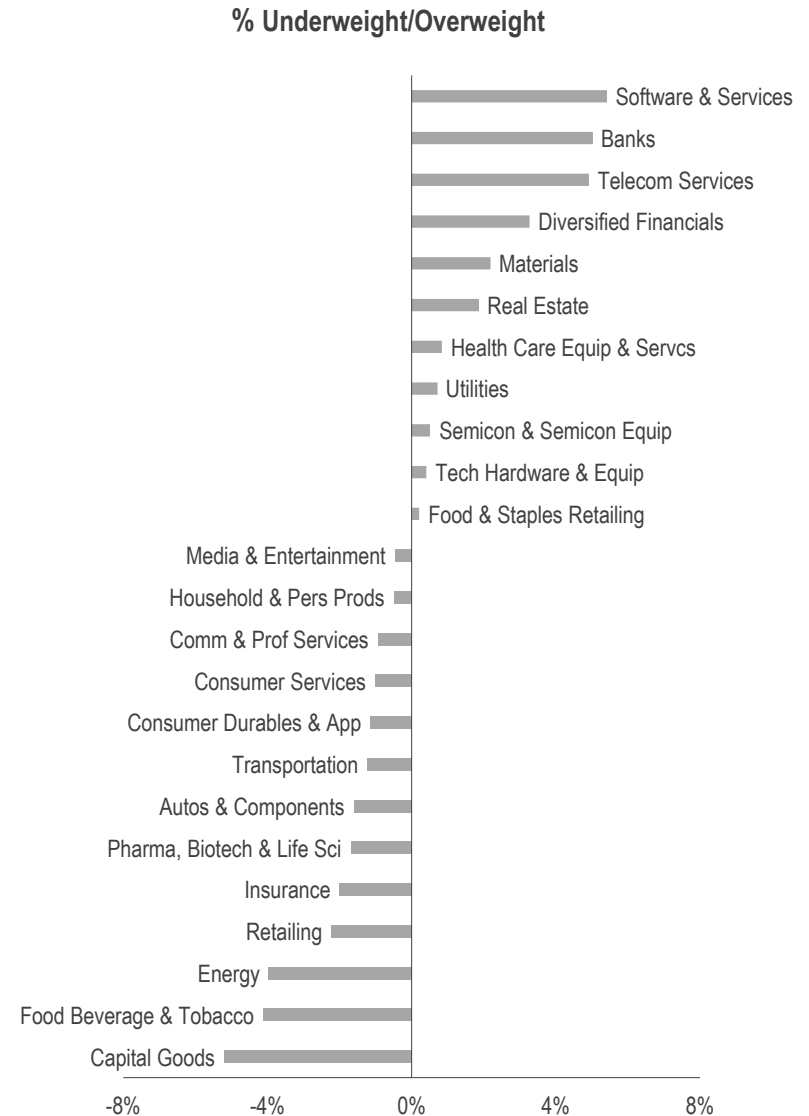
Portfolio: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S..

*Preliminary. The data presented here is for a representative portfolio and is supplemental to the composite performance disclosure page attached. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

ALL-COUNTRY WORLD EX-U.S. EQUITY

Industry Allocations – July 31, 2019*

	Portfolio	Benchmark	Difference
Communication Services	11.5%	7.0%	4.5%
Media & Entertainment	2.5	3.0	-0.5
Telecommunication Services	8.9	4.0	4.9
Consumer Discretionary	5.4%	11.4%	-6.0%
Automobiles & Components	1.8	3.4	-1.6
Consumer Durables & Apparel	1.9	3.1	-1.1
Consumer Services	0.4	1.5	-1.0
Retailing	1.2	3.5	-2.2
Consumer Staples	5.6%	10.0%	-4.4%
Food & Staples Retailing	1.9	1.7	0.2
Food, Beverage & Tobacco	1.9	6.0	-4.1
Household & Personal Products	1.9	2.4	-0.5
Energy	2.9%	6.9%	-4.0%
Financials	27.9%	21.6%	6.3%
Banks	18.3	13.3	5.0
Diversified Financials	6.3	3.0	3.3
Insurance	3.4	5.4	-2.0
Health Care	7.5%	8.4%	-0.8%
Health Care Equipment & Services	2.6	1.7	0.8
Pharmaceuticals, Biotechnology & Life Sciences	4.9	6.6	-1.7
Industrials	4.5%	11.9%	-7.4%
Capital Goods	2.5	7.7	-5.2
Commercial & Professional Services	0.6	1.5	-0.9
Transportation	1.5	2.7	-1.2
Information Technology	15.0%	8.7%	6.3%
Semiconductors & Semiconductor Equipment	3.0	2.5	0.5
Software & Services	8.1	2.7	5.4
Technology Hardware & Equipment	3.9	3.5	0.4
Materials	9.6%	7.4%	2.2%
Real Estate	5.1%	3.2%	1.9%
Utilities	4.1%	3.4%	0.7%
Cash	0.7		



Portfolio: All-Country World ex-U.S. Equity. Benchmark: MSCI All-Country World ex-U.S..

*Preliminary. The data presented here is for a representative portfolio and is supplemental to the composite performance disclosure page attached. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

ALL-COUNTRY WORLD EX-U.S. EQUITY

Top Ten Portfolio Holdings – July 31, 2019*

Name	Country	Industry	Portfolio (%)
ROYAL BANK OF CANADA	Canada	Banks	2.1
TORONTO-DOMINION BANKTHE	Canada	Banks	2.0
BHP GROUP LTD	Australia	Materials	1.9
UNILEVER NV	Netherlands	Household & Personal Products	1.9
BANK OF MONTREAL	Canada	Banks	1.7
ENEL SPA	Italy	Utilities	1.7
CANADIAN IMPERIAL BANK OF COMMERCE	Canada	Banks	1.7
NTT DOCOMO INC	Japan	Telecommunication Services	1.7
NICE LTD	Israel	Software & Services	1.6
SAMSUNG ELECTRONICS CO LTD	South Korea	Technology Hardware & Equipment	1.6

Summary	Portfolio	Benchmark	Active Weight
% of Portfolio for Top 10 Active Weights	17.7	2.6	15.0
% of Portfolio for Top 20 Current Holdings	32.3	6.4	25.9
% of Non-Benchmark Portfolio Holdings	19.6		
Active Share of Portfolio	85.3		

Portfolio: All-Country World ex-U.S. Equity. **Benchmark:** MSCI All-Country World ex-U.S..

*Preliminary. Portfolio holdings are subject to change and should not be considered a recommendation to buy or sell individual securities. The data presented here is for a representative portfolio and is supplemental to the composite performance disclosure page attached. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Index Source: MSCI Copyright MSCI 2019. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI.

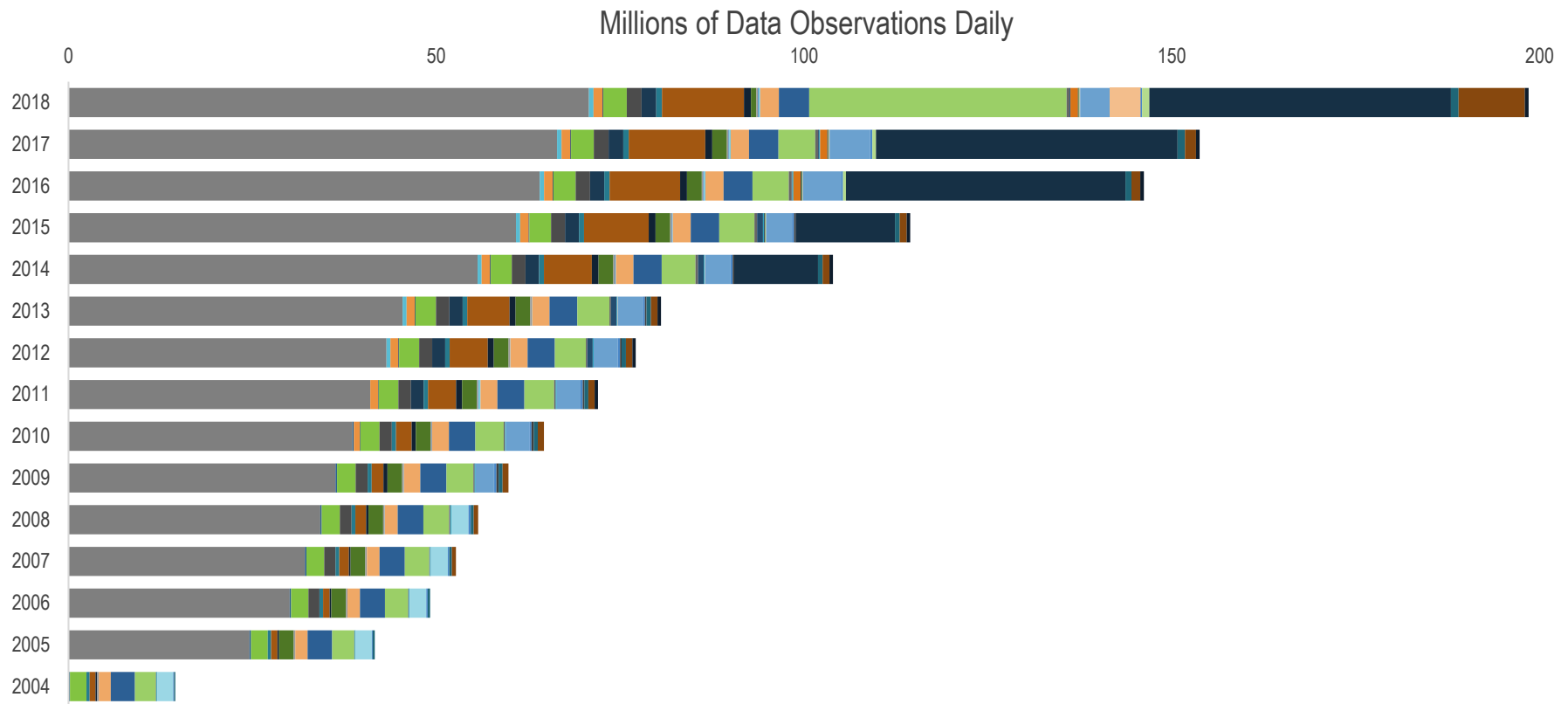
ACADIAN GLOBAL DATA

42,500 COMPANIES
100 COUNTRIES

199 MILLION DAILY
OBSERVATIONS

21 TERABYTE
DATABASE

Daily data from over 40 sources including regulatory authorities, company websites, media sources, and industry trade organizations not available in standard vendor offerings:





ACADIAN INVESTMENT TEAM*

John R. Chisholm, CFA – Co-Chief Executive Officer

- 33 years of investment experience
- Member of the Acadian Executive Committee
- M.S. in business/finance from MIT
- B.S. in engineering from MIT
- CFA charterholder and a member of the CFA Society Boston
- Member of the editorial board of the Journal of Investment Strategies

Brendan O. Bradley, Ph.D. – Executive Vice President, Chief Investment Officer

- 19 years of investment experience
- Member of the Acadian Executive Committee
- Ph.D. in applied mathematics from Boston University
- B.A. in physics from Boston College

Malcolm P. Baker, Ph.D. – Director, Research

- 15 years of investment experience
- Research consultant since 2006
- Member of the Acadian Executive Committee
- Robert G. Kirby Professor of Finance, Harvard Business School
- Ph.D. from Harvard University
- M.Phil. from Cambridge University; B.A. from Brown University

Jean Christophe (J.C.) De Beaulieu, CFA – Senior Vice President, Head of Investments, Australia

Acadian Asset Management (Australia) Limited

- 20 years of investment experience
- Advanced Master in financial techniques from ESSEC Business School
- D.E.A. in numerical analysis from Pierre and Marie Curie University and Ecole Polytechnique
- M.S. in mathematics from Pierre and Marie Curie University
- CFA Charterholder and member of CFA Society Boston

Brian Buzzelli – Senior Vice President, Head of Data Governance

- 26 years of professional experience
- M.B.A. from Katz Graduate School of Business, University of Pittsburgh
- M.S. in management of information systems from Katz Graduate School of Business, University of Pittsburgh
- B.S. in information and decision systems from Carnegie Mellon University

James Dufort, CFA – Senior Vice President, Director, Investment Analytics & Data

- 16 years of Investment experience
- M.B.A. from Indiana University, Kelley School of Business
- B.S. in electrical engineering from Tufts University
- CFA charterholder

Joel Feinberg – Senior Vice President, Head of Trading

- 12 years of investment experience
- MSIM from Boston University
- B.B.A. in finance from the University of Massachusetts

Ilya A. Figelman, CFA – Senior Vice President, Director, Multi-Asset Class Strategies

- 17 years of investment experience
- M.S. in mathematics of finance from New York University
- B.S. in systems engineering from Washington University
- CFA charterholder

Michael Gleason – Senior Vice President, Director, Long/Short Strategies

- 22 years of investment experience
- MSF from Northeastern University
- BS in management science from Bridgewater State University

Ryan D. Taliaferro, Ph.D. – Senior Vice President, Director, Equity Strategies

- 16 years of professional experience
- Ph.D. in Business Economics (Finance) from Harvard University
- A.M. in economics from Harvard University
- A.M. and A.B. in physics from Harvard University
- M.B.A. in finance and economics from the University of Chicago

Alexandre N. Voitenok – Senior Vice President, Director, Implementation

- 17 years of investment experience
- Director of Long/Short strategies
- M.Sc. in software engineering from Minsk Radio Engineering Institute

Boris I. Kovtunenok, Ph.D. – Senior Vice President, Lead Portfolio Manager, Portfolio Research and Oversight

- 14 years of investment experience
- Ph.D. in economics from Harvard University
- M.A. in economics from New Economics School
- M.S. in physics from Moscow State University

Mark J. Birmingham, CFA – Senior Vice President, Lead Portfolio Manager, Managed Volatility

- 23 years of investment experience
- A.B. in computer science from Princeton University
- CFA charterholder and member of CFA Society Boston

Harry Gakidis, Ph.D. – Senior Vice President, Lead Portfolio Manager, Core

- 17 years of investment experience
- Ph.D. in economics from MIT
- A.B. in economics from Harvard University



ACADIAN INVESTMENT TEAM*

Asha Mehta, CFA – Senior Vice President, Lead Portfolio Manager

- 19 years of investment experience
- M.B.A. with Honors from the Wharton School, University of Pennsylvania
- A.B. and B.S. from Stanford University
- CFA charterholder and a member of CFA Society Boston

Brian K. Wolahan, CFA – Senior Vice President, Senior Portfolio Manager

- 35 years of investment experience
- M.S. from MIT, B.S. from Lehigh University
- CFA charterholder and a member of CFA Society Boston

Scott J. Brymer, CFA – Senior Vice President, Portfolio Manager

- 21 years of professional experience
- B.B.A. in finance from the University of Massachusetts Amherst
- CFA charterholder and a member of CFA Society Boston

Stella M. Hammond – Senior Vice President, Portfolio Manager, Implementation

- 44 years of experience in institutional investing
- M.Phil. in mathematics from Yale University
- B.S. in mathematics from Stanford University

Ron Hirsch – Senior Vice President, Portfolio Manager, Implementation

- 23 years of professional experience
- Member of Acadian's Portfolio Construction and Trading Team
- Postgraduate diploma in computer science, Tel Aviv University, Israel
- B.Sc. in mechanical engineering, Tel Aviv University, Israel

Katrina Khouponsy, CFA – Senior Vice President, Portfolio Management and Research

Acadian Asset Management (Australia) Limited

- 23 years of professional experience
- Bachelor's in mathematics and finance (Hons) from the University of Technology, Sydney
- Graduate Diploma in applied finance and investments from the Securities Institute of Australia
- CFA charterholder

Kurt Livermore, CFA – Senior Vice President, Portfolio Manager

- 22 years of investment experience
- B.S. in business administration from University of Arizona
- CFA charterholder

Michael D. McCart, CFA – Senior Vice President, Portfolio Manager, Implementation

- 21 years of investment experience
- B.S. in engineering and economics, University of Pennsylvania
- CFA charterholder and a member of CFA Society Boston

John F. O'Leary, CFA – Senior Vice President, Portfolio Manager, Research

- 11 years of investment experience
- A.M. in statistics from Harvard University
- B.S. in mathematics from Harvard University
- CFA charterholder

Dmitry S. Olevsky, CFA – Senior Vice President, Portfolio Manager, Research

- 17 years of investment experience
- M.B.A. from Harvard Business School
- B.S. in structural engineering from Michigan Technological University
- FRM designation and CFA charterholder

Bin Shi, Ph.D., CFA – Senior Vice President, Portfolio Manager, Research

- 13 years of investment experience
- Ph.D. in engineering statistics from Georgia Institute of Technology
- M.S. in operations research from Georgia Institute of Technology
- B.S. in mechanical engineering from Southeast University, China
- CFA charterholder

Caroline X. Shi, CFA – Senior Vice President, Portfolio Manager, Research Analyst

- 15 years of investment experience
- M.B.A. and M.S. in finance from Boston College
- B.S. and M.S. in engineering from Donghua University, China
- CFA charterholder and a member of CFA Society Boston

Jian Pan, CFA – Senior Vice President, Lead Analyst, Integration

- 25 years of professional experience
- M.S. in computer science from the University of Massachusetts
- B.S. industrial automation control from Nanjing University of Technology, China

Rob Ricciarelli, CFA – Senior Vice President, Lead Analyst, IPD

- 24 years of professional experience
- M.B.A from Suffolk University
- B.S. in management and B.A. in psychology from the University of Massachusetts, Boston
- CFA charterholder

Mark P. Roemer – Senior Vice President, Portfolio Manager

Acadian Asset Management (U.K.) Limited

- 21 years of professional experience
- M.S. in finance from London Business School
- M.S. in engineering from Stanford University
- B.S. in mechanical engineering from Virginia Polytechnic Institute & State University



ACADIAN INVESTMENT TEAM*

Yury Tsitkou, Ph.D. – Senior Vice President, Lead Analyst, Implementation

- 19 years of investment experience
- Ph.D. in mathematics from Belarus National University
- M.A. in economics from Binghamton University

Deborah B. Waters – Senior Vice President, Senior Trader, Implementation

- 28 years of professional experience
- Senior member of the Acadian Portfolio Construction Team
- B.S. in finance from Northeastern University

Joseph M. Bacchi – Vice President, Head of Trading & Investment Operations, Multi Asset Class Strategies

- 23 years of investment experience
- M.B.A. in international/executive management from St. John's University
- B.S. in finance from St. John's University

Pavel Bandarchuk, Ph.D, CFA – Vice President, Portfolio Manager, Research

- 12 years of investment experience
- Ph.D. in international economics and finance from Brandeis University
- M.S. in finance from Brandeis University
- diploma in international economics from Belarusian State University
- Certified FRM and CFA charterholder

Heidi Chen, CFA – Vice President, Portfolio Manager

- S.M. in computational science and engineering from Harvard University
- B.A. with Honors in mathematics from Williams College
- CFA charterholder and member of CFA Society Boston

Sean Geary, CFA – Vice President, Portfolio Manager

- 11 years of professional experience
- M.B.A. from Boston College
- M.S. in mechanical engineering from Boston University
- B.S. in physics from James Madison University
- CFA charterholder and member of CFA Society Boston

Denys Glushkov, Ph.D. – Vice President, Portfolio Manager, Research

- 13 years of professional experience
- Ph.D. in finance, University of Texas at Austin
- M.S. in economic Cybernetics, Dnipropetrovsk State University (Ukraine)
- M.A. in economics, Central European University (Hungary)

Maxim Golts – Vice President, Portfolio Manager, Multi Asset Class Strategies

- 14 years of investment experience
- Ph.D. in mathematics from Yale University

Clifton D. Hill – Vice President, Portfolio Manager, Multi-Asset Class Strategies

- 20 years of investment experience
- B.A. in political science from Brown University

Dan M. Le, CFA – Vice President, Portfolio Manager

- 14 years of professional experience
- B.A. in psychology from Brown University
- CFA charterholder and a member of CFA Society Boston

James Li, CFA – Vice President, Portfolio Manager, Research – Dynamic Strategies

- 8 years of investment experience
- M.S. in operations research from Columbia University
- B.E. in industrial engineering from Tsinghua University
- CFA charterholder

Joanna Nash, Ph.D., CFA – Vice President, Portfolio Manager Acadian Asset Management (Australia) Limited

- 13 years of professional experience
- Ph.D. in economics from Yale University
- M.Phil. in economics from Yale University
- M.A. in economics from Yale University
- Bachelor of Economics (Honours) from the University of New South Wales, University Medal
- Bachelor of Laws from the University of New South Wales
- CFA charterholder

Devin Nial – Vice President, Portfolio Manager, Research

- 15 years of professional experience
- M.S. in finance from Boston College
- M.A. in computer science from Boston University
- B.A. in English literature from SUNY Albany

Shailesh Parmar – Vice President, Portfolio Manager, Multi Asset Class Strategies

- 13 years of investment experience
- M.B.A. in finance and economics from Columbia Business School
- B.A. in chemistry from Columbia University

Matthew Picone, CFA – Vice President, Portfolio Manager Acadian Asset Management (Australia) Limited

- 13 years of professional experience
- Bachelor of Commerce in finance and econometrics from the University of Sydney
- CFA charterholder
- Member of the PRI Australian Advisory Committee

David E. Purdy – Vice President, Portfolio Manager

- 19 years of professional experience
- M.B.A. with a concentration in investments from Northeastern University
- M.S. in finance from Northeastern University
- B.A. in economics from Wheaton College



ACADIAN INVESTMENT TEAM*

Michael Robillard, CFA – Vice President, Portfolio Manager

- 13 years of investment experience
- Graduate Diploma in Financial Professions (DESS) from HEC Montreal
- Bachelor of Commerce from McGill University
- CFA and CAIA charterholder

Francis Seah, CFA – Vice President, Portfolio Manager

Acadian Asset Management (Singapore) Pte Ltd

- 15 years of investment experience
- B.S. and M.S. from Nanyang Technological University
- CPA, Institute of Certified Public Accountants Singapore
- CFA charterholder and a member of CFA Singapore
- Computational Finance Certificate from Carnegie Mellon University

Mark Webster – Vice President, Portfolio Manager

Acadian Asset Management (U.K.) Limited

- 28 years of investment experience
- B.A. (Hons) in financial services from Bournemouth University
- Member of the CFA Society United Kingdom

Hiroaki Yamazaki, CFA, CMA – Vice President, Portfolio Manager

Acadian Asset Management (Japan)

- 27 years of investment experience
- M.A. in Social Engineering from Tokyo Institute of Technology
- B.A. in Social Engineering from Tokyo Institute of Technology
- Chartered Member of the Security Analysts Association of Japan (CMA)
- CFA charterholder

Christopher R. Zani, CFA – Vice President, Portfolio Manager

- 18 years of professional experience
- B.A. in management with a minor in finance from Providence College
- CFA charterholder and member of CFA Society Boston
- Certified Financial Risk Manager and member of the Global Association of Risk Professionals

Daniel P. Adamson – Vice President, Associate Portfolio Manager, Implementation

- 14 years of professional experience
- Member of Acadian's Portfolio Construction and Trading Team
- M.B.A. from Boston College
- B.A. in accountancy and management information systems from Miami University

Giuliano Amantini, Ph.D. – Vice President, Associate Portfolio Manager

- 13 years of professional experience
- Ph.D. in engineering and applied sciences from Yale University
- M.S. in mathematical finance from Bocconi University
- M.S. in mechanical engineering from Yale University
- M.S. in aerospace engineering from La Sapienza University
- B.S. in mechanical engineering from Tor Vergata University

Zhe Chen, Ph.D. – Vice President, Associate Portfolio Manager, Research

Acadian Asset Management (Australia) Limited

- 10 years of professional experience
- Ph.D. in empirical finance from Macquarie University
- Bachelor of Engineering (bioinformatics), First Class Honours and University Medal, from UNSW
- Bachelor of Commerce (finance) from UNSW

Katherine Glass-Hardenbergh – Vice President, Associate Portfolio Manager, Research

- 8 years of professional experience
- M.S. in mathematics in finance from New York University
- B.S. in information & systems engineering from Lehigh University
- B.S. in integrated business & engineering from Lehigh University

Charles V. Johnson – Vice President, Associate Portfolio Manager

- 16 years of professional experience
- M.S. in finance from Northeastern University
- M.B.A. from Northeastern University
- B.S. in finance from the University of Massachusetts at Dartmouth

Sam Mavandadi, CFA – Vice President, Associate Portfolio Manager, Research

- 5 years of investment experience
- M.B.A. from INSEAD
- Ph.D. in electrical engineering from the University of Toronto
- M.A.Sc. in computer engineering from the University of Toronto
- B.A.Sc. in engineering science from the University of Toronto
- CFA charterholder and member of CFA Society Boston

Michael Ponikiewicz – Vice President, Associate Portfolio Manager, Multi Asset Class Strategies

- 9 years of investment experience
- M.B.A. with concentration in asset management from Boston College
- M.S. in finance from Boston College
- B.S. in industrial engineering from Pennsylvania State University

Wan Hua Tan, CFA – Vice President, Associate Portfolio Manager

- 8 years of investment experience
- M.S.E. in biomedical engineering from John Hopkins University
- B.A.Sc in engineering science from the University of Toronto
- CFA charterholder

Ravi Agrawal – Vice President, Senior Analyst, Implementation

- 11 years of investment experience
- M.S. in financial mathematics from the University of Chicago
- M.Tech in computer science and engineering from Indian Institute of Technology, India
- B.Tech in computer science and engineering from Indian Institute of Technology, India



ACADIAN INVESTMENT TEAM*

Ferdous Alam – Vice President, Senior Analyst, IPD

- 14 years of professional experience
- M.A. in economics from Texas Tech University
- B.B.A. in economics from Texas Tech University

Gary Artinian – Vice President, Senior Analyst, Integration

- 8 years of investment experience
- M.B.A. with a dual concentration in investment and corporate finance from Duke University
- M.S. in industrial engineering from Rensselaer Polytechnic Institute
- B.S. in electrical and computer engineering (dual degree) from Rensselaer Polytechnic Institute

Charles D. Augello, CFA – Vice President, Senior Analyst, Integration, Multi-Asset Class Strategies

- 16 years of professional experience
- B.A. in engineering sciences and economics from Dartmouth College
- CFA charterholder

Ioannis Baltopoulos – Vice President, Senior Analyst, Integration

- 10 years of professional experience
- M.Sc. in advanced computing from Imperial College London
- B.Sc. in computer science from the University of Kent

James Coder, CFA – Vice President, Senior Analyst, IPD, Multi Asset Class Strategies

- 8 years of investment experience
- B.S. in finance from the University of Kansas
- CFA charterholder

Bhaskar Edara, CFA – Vice President, Senior Analyst, Integration

- 24 years of professional experience
- M.S. in finance from Boston College
- B.Tech. in mechanical engineering from the National Institute of Technology, India
- Certified FRM and CFA charterholder

Anton S. Kapliy, Ph.D., CFA – Vice President, Senior Analyst, Implementation

- Ph.D. in high energy physics from University of Chicago
- B.A. in physics from University of Pennsylvania
- CFA charterholder and a member of CFA Society Boston

John King – Vice President, Senior Analyst, Integration

- 19 years of professional experience
- Associate's degree in computer technology from Southern Maine Community College

Karthik Kumar – Vice President, Senior Analyst, Integration

- 8 years of Investment experience
- M.S. in quantitative and computational finance from Georgia Institute of Technology
- Bachelor of Technology, major in mechanical engineering from Indian Institute of Technology - Roorkee

Marc W. Lowenthal – Vice President, Senior Analyst, Integration

- 36 years of professional experience
- M.B.A. in finance and information systems from Pace University
- B.S. in information systems and accounting from Syracuse University

Christopher Stevens – Vice President, Senior Analyst, Integration

- 10 years of investment experience
- B.A. in computer science from Boston University

Michael Vashevko – Vice President, Senior Analyst, Implementation

- 23 years of professional experience
- Member of Acadian's Portfolio Construction and Trading Team
- M.S. in applied mathematics and computer science from Belarusian State University

Michael Moy – Vice President, Lead Analyst, Implementation

- 20 years of professional experience
- Member of Acadian's Portfolio Construction and Trading Team
- B.S. in finance from Suffolk University

Jeffrey A. Sutthoff, CFA – Vice President, Lead Analyst, Integration

- 25 years of professional experience
- M.B.A. in finance from Boston College
- B.S. in mathematics from Stetson University

Mark D. Weissman – Vice President, Lead Analyst, Research

- 13 years of investment experience
- B.S. and B.A. in engineering and computer science, SUNY at Buffalo

Xiaoting Zhang, CFA – Vice President, Lead Analyst, Integration

- 9 years of investment experience
- M.B.A. from the University of Chicago
- M.S. in financial mathematics from the University of Chicago
- M.S. in computer science from Loyola University Chicago
- B.A. in architecture from Tianjin University, China
- Certified FRM and CFA charterholder

Jun Fan – Vice President, Trader, Implementation

- 16 years of professional experience
- M.B.A. with Honors from the Wharton School, University of Pennsylvania
- M.S. in electrical engineering from Columbia University
- B.S. in computer science from Shenzhen University

Benjamin R. Hutchens – Vice President, Trader, Implementation

- 12 years of professional experience
- M.S. in investment management from Boston University
- B.A. in international affairs and political science from Northeastern University



ACADIAN INVESTMENT TEAM*

Dominique Abdi – Assistant Vice President, Associate Portfolio Manager, Multi Asset Class Strategies

- 8 years of investment experience
- M.S. in mathematics from New York University
- B.S. in mathematics with a minor in economics from University of Miami
- B.B.A in finance with a minor in accounting from the University of Miami

Kyle McCarthy, CFA – Assistant Vice President, Associate Portfolio Manager, Implementation

- 12 years of professional experience
- B.S. in finance from Bentley University
- CFA charterholder and member of CFA Society Boston

Brendan O’Leary – Assistant Vice President, Associate Portfolio Manager, Research

- 6 years of professional experience
- B.S.E. in mechanical & aerospace engineering from Princeton University

Aditya Panda – Assistant Vice President, Associate Portfolio Manager, Multi Asset Class Strategies

- 11 years of investment experience
- Master of financial engineering from UCLA
- Bachelor of engineering from the School of Electrical and Electronic Engineering, Nanyang Technical University, Singapore

Alexander Rikun – Assistant Vice President, Associate Portfolio Manager

- 9 years of professional experience
- Ph.D. in operations research from Massachusetts Institute of Technology
- B.S. in applied mathematics with a minor in economics from Columbia University

Louis Seng – Assistant Vice President, Associate Portfolio Manager, Implementation Acadian Asset Management (Singapore) Pte Ltd

- 10 years of investment experience
- B.B.M in finance from Singapore Management University

Chetan Shinde, CFA – Assistant Vice President, Associate Portfolio Manager, Implementation

- 12 years of professional experience
- M.S. in materials science and engineering from MIT
- B.Tech. in materials science and engineering from the Indian Institute of Technology
- CFA charterholder

Linda Wang - Assistant Vice President, Associate Portfolio Manager, Research

- 6 years of investment experience
- Master of Finance from MIT’s Sloan School of Management
- B.S. in finance and accounting from Drexel University

Jason J. Withrow – Assistant Vice President, Senior Analyst, Integration

- 22 years of professional experience
- B.A. in computer science from the University of Rhode Island

Patrick Burek – Assistant Vice President, Trader, Multi-Asset Class Strategies

- 16 years of professional experience
- B.A. in government from Cornell University

Ruta Gadgil – Assistant Vice President, Analyst, Implementation

- Member of Acadian’s Portfolio Construction and Trading Team
- M.S. in computer science from Northeastern University
- B.E. in computer engineering from University of Pune, India

Michele Goe, Ph.D. – Assistant Vice President, Analyst, Research

- 2 years of investment experience
- Ph.D. in material science from Rochester Institute of Technology
- M.S.E. in operations research from the University of Michigan
- B.S.E. in mechanical engineering from the University of Michigan

Matthew D. Gunn, Assistant Vice President, Analyst, Global Equity Research

- Ph.D. in finance from the University of Chicago
- M.B.A. with a dual concentration in economics and analytical finance from the University of Chicago
- B.A.S. in economics and symbolic systems with a concentration in artificial intelligence from Stanford University

Jackie Jin – Assistant Vice President, Analyst, Implementation

- 4 years of investment experience
- M.S. in quantitative and computational finance from Georgia Institute of Technology
- B.S. in math and economics from the Ohio State University

Michael Kelsey – Assistant Vice President, Analyst, Implementation

- 17 years of professional experience
- 10 years of compliance experience
- M.B.A. from Northeastern University
- B.S. from Babson College

Leonid Kritz – Assistant Vice President, Analyst, Multi-Asset Class Strategies

- 4 years of investment experience
- M.S. in finance from the University of Texas—Dallas
- B.S. in mathematics and financial economics from the University of Maryland—Baltimore County
- Certified FRM

Jason D. Littlefield – Assistant Vice President, Trader, Implementation

- 14 years of professional experience
- M.S. in finance from Northeastern University
- B.S. in business administration, with a dual concentration in accounting and marketing, from Northeastern University



ACADIAN INVESTMENT TEAM*

Mengxi Liu – Assistant Vice President, Analyst, Research

- 4 years of professional experience
- Ph.D. in physics from Northeastern University
- B.Sc. in physics and economics from Peking University

Leon Lu – Assistant Vice President, Trader, Implementation

Acadian Asset Management (Australia) Limited

- 8 years of professional experience
- Master of Commerce in actuarial studies from Macquarie University
- Bachelor of Actuarial Studies and Finance from Australian National University
- Actuary, Institute of Actuaries of Australia

Shivani Patnaik – Assistant Vice President, Analyst

- 8 years of professional experience
- M.S. in mathematical finance from Boston University
- B.S. in chemical engineering from University of Maryland

William Pearce, CFA – Assistant Vice President, Analyst, Implementation

- 9 years of professional experience
- M.B.A. from Northeastern University
- B.S. in business/finance from Salve Regina University
- CFA charterholder and member of CFA Society Boston

Jessica Song – Assistant Vice President, Analyst, Research

- 7 years of professional experience
- B.E. in engineering mechanics, Jilin University, Changchun, China
- M.S. in computer science, SUNY Stony Brook
- M.S. in mathematics in finance, Courant Institute of Mathematical Sciences, NYU

Michael Szrom – Assistant Vice President, Analyst, Implementation

- B.S. in computer science and computer engineering from Northeastern University



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ANNUAL PERFORMANCE DISCLOSURE

All-Country World ex-U.S. Equity Composite

	Composite Return (%)	Composite Return (%)	Benchmark Return (%)	Dispersion of Returns Within Composite (%)	Three-Year ex-Post Standard Deviation of Absolute Returns		Number of Portfolios in Composite	Assets In Composite (\$MMs)	Total Firm Assets Under Management (\$MMs)
	Gross-of-Fees	Net-of-Fees			Composite	Benchmark			
2009	34.7	33.7	41.4	1.5	27.5	25.2	13	5,131	49,314
2010	18.0	17.1	11.2	1.4	29.2	27.3	12	5,829	49,032
2011	-12.3	-13.0	-13.7	1.3	22.1	22.7	13	6,058	42,200
2012	18.6	17.8	16.8	1.1	19.1	19.3	11	6,037	51,903
2013	18.5	17.6	15.3	1.2	16.1	16.2	10	6,353	65,153
2014	-1.2	-2.0	-3.9	0.7	13.1	12.8	9	5,676	70,339
2015	-3.9	-4.6	-5.7	1.0	11.7	12.1	9	5,004	66,834
2016	9.5	8.7	4.5	1.3	12.2	12.5	9	5,388	74,174
2017	35.7	34.7	27.2	1.2	11.6	11.9	9	6,207	96,765
2018	-14.8	-15.5	-14.2	0.7	12.0	11.4	11	5,682	85,338

Performance Inception: November 1, 1998. This composite was created on: December 1, 1998. All figures stated in USD.

Acadian Asset Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Acadian Asset Management has been independently verified for the periods January 1, 1994 through December 31, 2018¹. A copy of the verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation. Reference to the benchmark is for comparative purposes only and is not intended to indicate that the composite will contain the same investments as the benchmark. Investors have the opportunity for losses as well as profits. Past performance is no guarantee of future results. Acadian Asset Management is an investment adviser specializing in global equity management. Acadian Asset Management is defined to include assets managed by Acadian Asset Management LLC, an investment adviser registered with and regulated by the United States Securities and Exchange Commission, as well as assets managed by its four wholly-owned affiliates, Acadian Asset Management (Australia) Limited (ABN 41 114 200 127), Acadian Asset Management (Japan), registered with the Kanto Local Financial Bureau, Acadian Asset Management Singapore Pte Ltd, (Registration Number: 199902125D) is licensed by the Monetary Authority of Singapore, and Acadian Asset Management (UK) Limited, authorized and regulated by the Financial Conduct Authority of the United Kingdom. On June 30, 2015, Acadian acquired the assets of Acadian's Australian office.

Methodology: Returns are net of estimated foreign withholding taxes on dividends, interest, and capital gains. As of January 1, 2010 Acadian's methodology was augmented to produce a more accurate gross return figure by eliminating modest cash flows such as securities lending income and custodial fees which are regarded as independent of the investment management process; the reinvestment of all income and trading expenses continue to be included. Gross returns will be reduced by investment advisory fees and other expenses. Monthly composite results are asset-weighted by beginning-of-month asset values of member portfolios which are geometrically linked to arrive at the annual composite return. Net-of-fee performance is accrued on a monthly basis and is calculated using the highest management fee as described in section 2A of the firm's Form ADV for the investment process utilized to manage this strategy; such form is available upon request. Net-net-of-fees additionally include incentive fees which, when applicable, are also accrued on a monthly basis. The standard fee schedule for accounts managed with this product is 0.75% on the first \$25 million, 0.65% on the next \$25 million, 0.5% on the next \$100 million, and 0.4% thereafter. Management fees may vary according to the range of services provided, investment performance, and the amount of assets under management. Constituent portfolios are included from the first full month after inception to the present or the last full month prior to cessation of the client relationship with the firm. For example, an account that opened January 15, 2010 will be included beginning February 1, 2010. An account that terminated February 12, 2010 will be included through January 31, 2010. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

Dispersion: Acadian's broad definitions are mainly the product of a highly customized process that may result in modest differences with regards to portfolio characteristics among constituents. All accounts managed with directly comparable investment objectives are included, though it's possible for members to utilize slightly different benchmarks in optimization and reporting. Although at times dispersion among constituents may be high, the long-term forecast for each portfolio is consistent with the overall composite. The 'Dispersion' statistic presented above is an annual, asset-weighted standard deviation calculation performed only on those portfolios who have been members for the entire calendar year. Thirty-six months are required to calculate the 'Three Year ex-Post Standard Deviation' statistic. These figures are not shown if the requirements necessary to perform the calculations are unavailable.

Composite Description: This composite focuses on broad exposure to developed and emerging equity markets excluding the United States. A complete list of the firm's composites and their descriptions is available upon request.

Benchmark Description: The benchmark for the composite is MSCI All-Country World ex-U.S. (net of dividend withholding taxes). The MSCI All-Country World ex-U.S. Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets excluding the United States.

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¹Ashland Partners verified Acadian's GIPS Compliance claim through March 31, 2017. ACA Compliance Group acquired Ashland's GIPS Verification unit and provided subsequent verifications.



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Boston London Singapore Sydney Tokyo

ACADIAN-ASSET.COM



City of Oakland Police and Fire Retirement System (OPFRS)

GQG Partners LLC

PRESENTERS



James Anders, CFA
Senior Investment Analyst



Meredith Richardson
Director,
Business Development



Your Presenters

James Anders, CFA, Senior Investment Analyst

James joins GQG Partners from Mercator Asset Management where he was a Senior VP and research analyst. His regional research responsibilities were Benelux as well as Latin America. He has extensive experience in the international equity arena, including developed Europe, emerging markets in Asia and Latin America, and frontier markets in Africa and the Middle East. He previously served as a research analyst at Consilium Investment Management in Ft. Lauderdale from 2008 to 2013, where he focused most recently on emerging and frontier markets equities. James began his career in 1993, serving in a variety of investment roles with several boutique investment firms in the NYC area. From 2002 to 2008, he served as Senior Analyst with SGS Asset Management in Boca Raton, FL and Hong Kong. James completed his MBA at Columbia Business School and earned a BA degree in Economics from Hamilton College. He is also a CFA® charterholder.

Meredith Richardson, Director, Business Development

Meredith serves as Director, Business Development at GQG Partners where she primarily focuses on business development and client service in the Midwest and Western regions of the US. Previously, Meredith served as Director, Business Development at Pacific Current Group, where she was responsible for new business development and consultant relations efforts for Pacific Current Group's portfolio of boutique investment managers. Prior to Pacific Current, Meredith held similar roles with WHV Investments, Northern Lights Capital Group, and Harbor Funds based in Chicago. Meredith earned her MBA from the Daniels College of Business at the University of Denver, and her BS in Finance from the University of Colorado at Boulder.



Our Story

GQG Partners

GLOBAL The breadth of our investment strategies and the diversity of our clients.

QUALITY The conviction of our investment philosophy and our commitment to client service.

GROWTH Foremost, the objective of compounding client capital.

We believe that investment knowledge is cumulative, grown collectively over the years like the rings of a tree. Our performance track record, like the rings of a tree, will show the various environments in which we have operated, as well as our own maturity and evolution. Just as each tree's rings tell its unique story, GQG Partners is ours.

OUR OBJECTIVE IS THE GROWTH OF OUR CLIENTS' ASSETS THROUGH POSITIVE COMPOUNDING





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Firm Overview

Chapter I

Firm Overview

About GQG Partners

FIRM FACTS

AS OF JUNE 30, 2019

Year Founded

2016

Founders

CIO, Rajiv Jain, 25 years' experience

CEO, Tim Carver, 23 years' experience

Research Mosaic

10 analysts, traditional and non-traditional

Independent and Majority Employee-Owned

Regulatory AUM[†]

US\$25.1 billion

Number of Associates

55

Headquarters

Fort Lauderdale, FL

Additional Offices

New York, NY

Seattle, WA

Sydney, Australia

Investment Vehicles

Australian Funds

Collective Investment Trusts (CITs)

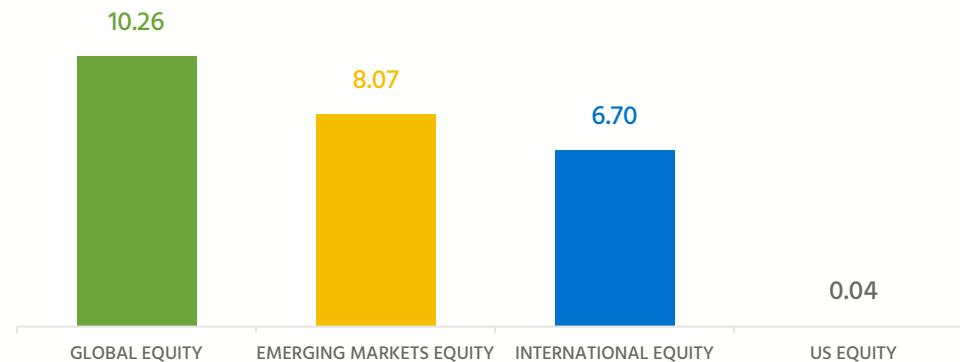
Private Funds

Separate Accounts

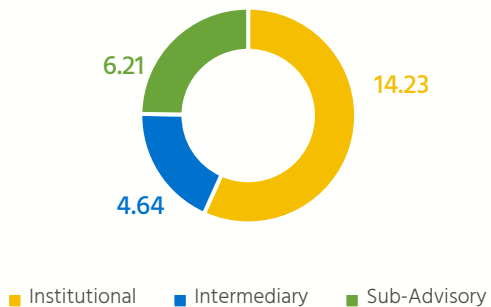
UCITS Funds

US Mutual Funds

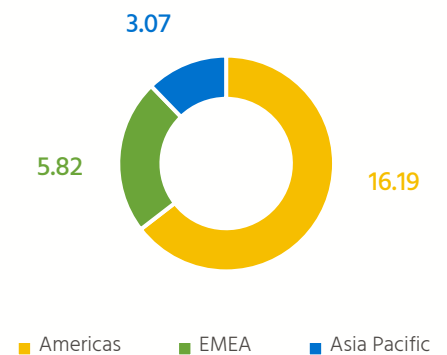
REGULATORY AUM[†] BY STRATEGY US\$ BILLIONS



REGULATORY AUM[†] BY CHANNEL US\$ BILLIONS



REGULATORY AUM[†] BY GEOGRAPHY US\$ BILLIONS



[†] Regulatory assets under management (AUM) represent both discretionary and non-discretionary funds.



CLIENT ALIGNMENT

GQG Partners strives to be a benchmark of client alignment for the industry.

- The majority of our CIO's (Rajiv Jain) and CEO's (Tim Carver) net worth are invested in GQG and alongside clients in the firm's strategies
- Employees are invested in shares of GQG Partners funds
- GQG Partners is a fully independent and **majority employee-owned firm**
- We restrict personal securities trading by employees
- We believe our fees are fair and reasonable, and offer performance-based fees that adjust as a function of alpha generation



FORWARD-LOOKING QUALITY

We build upon an enduring investment philosophy managed by an experienced team.

- Rajiv Jain has 25+ years of global investing experience in seeking quality companies selling at reasonable prices
- He developed *forward-looking quality* as his proprietary approach to quality investing
- *Forward-looking quality* focuses on the compounding potential of a company versus a value-growth style box framework



RESEARCH MOSAIC

The research mosaic seeks an insight advantage versus an information advantage.

- Traditional and non-traditional analysts help to develop a differentiated and comprehensive view on some of the world's most well-known companies
- Non-traditional analyst backgrounds include investigative journalism, specialized accounting, and credit and disruptive technology analysis



Investing Overview

Chapter II

Investing Overview

The investment team








Our CIO, Rajiv Jain, serves as Portfolio Manager for each investment strategy.



The investment team is comprised of seasoned investment analysts from the traditional buy-side, and non-traditional backgrounds, such as investigative journalism.

All analysts, including Rajiv Jain, function as generalists and are involved in every stage of the idea generation and research process.

The team is a flat structure built to foster independent thinking and devil's advocacy.

LEGEND

	Portfolio Manager
	Accounting Specialist
	Business Analyst
	Capital Structure Specialist
	Domain Expertise Specialist
	Investigative Specialist
	Trader

Rajiv Jain^P  



25 years of professional experience

Vontobel Asset Management
Swiss Bank Corporation

James Anders, CFA  



25 years of professional experience

Mercator Asset Management
Consilium Investment Management

Carolyn R. Cui  

18 years of professional experience

The Wall Street Journal
Dow Jones & Company

Polyana da Costa^P  


14 years of professional experience

Daily Business Review
Bankrate.com

Chulantha De Silva 



19 years of professional experience

Credit Suisse
Citigroup

Brian Kersmanc^P 



11 years of professional experience

Jennison Associates
Brown Brothers Harriman

Phil LoGrasso, PhD  



27 years of professional experience

Senzar Asset Management

Sudarshan Murthy, CFA^P  

15 years of professional experience

Matthews International Capital
Sanford C. Bernstein

Steve Smigie  


21 years of professional experience

Raymond James
Needham & Company

Ling Zhang, CFA 


18 years of professional experience

DSM Capital Partners
Basso Capital Management

David Tuthill 

14 years of professional experience

Port Meadow Capital Management
SAC Capital Advisors (Point72)

Kyle Salmon 

19 years of professional experience

Artisan Partners
Strong Capital Management

INVESTMENT SUPPORT TEAM

Rob Mathai, CFA^P
Chief of Staff

Josh Snyder, CFA

Note: Traders report to the Chief Operating Officer but are considered an integral part of the investment team.

Professional experience refers to experience in investment and non-investment sectors. Any previous experience identified may not be a comprehensive representation of an associate's entire professional history.

^P Principal



Investing Overview

Alpha proposition

INVESTMENT OBJECTIVE

Annualized outperformance of 200-300 bps over a full market cycle with less risk.

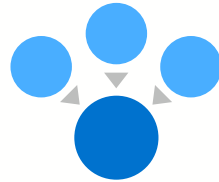
FORWARD-LOOKING QUALITY

- Many 'quality' investors emphasize historical metrics as indicators of quality.
- Driven by behavioral biases, these investors focus on the most recent past, too often causing them to dramatically underestimate how quality is changing and over/underprice the long-term value of many companies.
- *Forward-looking quality* is less reliant on backward-looking statistical measures and places a heavy emphasis on qualitative assessments of barriers to entry, sustainability and overall industry dynamics.
- We believe this view of quality allows us to strip away labels like *value* and *growth* in favor of long-term compounding.
- Our differentiated research mosaic focuses on gaining clarity on future (longer term) projected earnings and allows us to become comfortable with the durability/sustainability of a company's competitive advantage.



Investing Overview

Our investment process



IDEA GENERATION

Process: Proprietary screen (involving ROE/ROA, gross and operating margins, and market cap) combined with organic idea generation from the research team

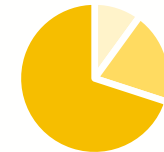
Result: Generates 350-400 potential opportunities for forward-looking quality from a universe of ~50,000 global securities



ANALYZE & PRICE

Process: Analyze past results, research future growth opportunities, assess risk and estimate a reasonable price

Result: Reduce pool of ~350 quality companies to a small subset



PORTFOLIO CONSTRUCTION

Process: Build a concentrated, unconstrained and diversified portfolio

Result: Portfolio of 15-80 holdings with a high alpha proposition over a full market cycle

350-400 QUALITY COMPANIES

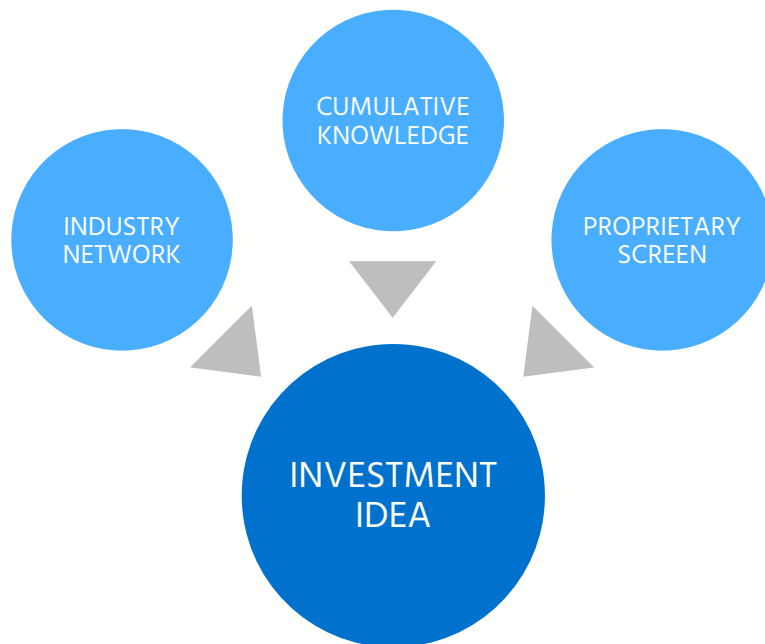
120-150 DURABLE COMPANIES

15-80 PORTFOLIO COMPANIES*

*Per strategy

Idea Generation

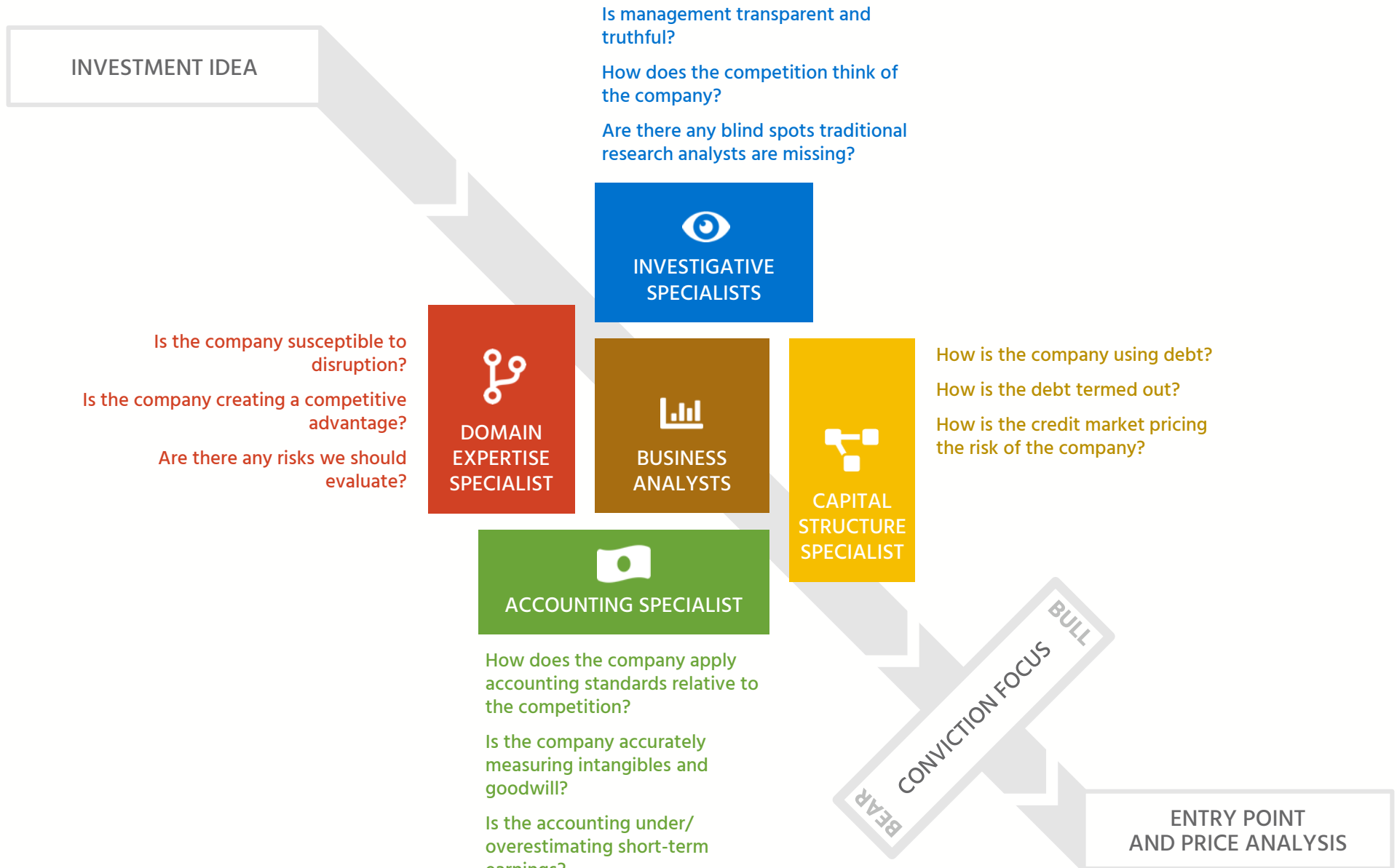
Knowledge is cumulative



- Broad-based idea generation
- Insight-driven process
- Capitalizes on cumulative knowledge
- Not screen-dependent

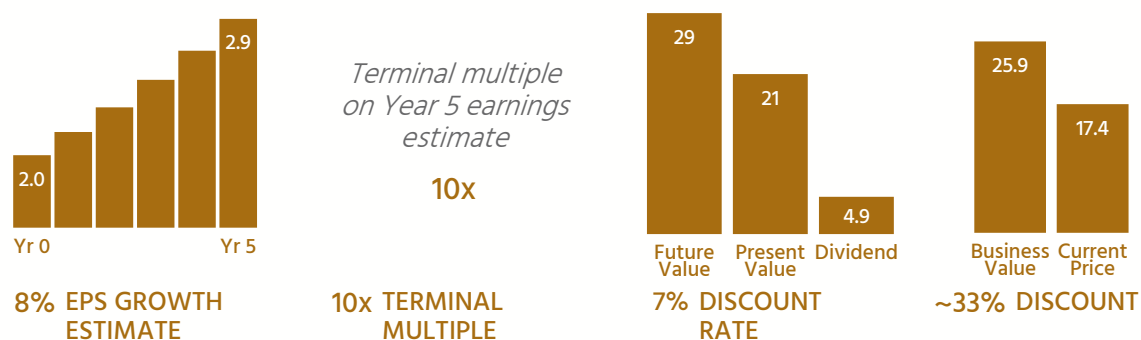
Analyze

Our research mosaic



VALUATION SENSITIVITY

A good company may not provide a good investment return if you pay too much for it. In looking at any company, we seek to remove the labels of value and growth in favor of compounded return. Our valuation model has the ability to find attractive returns in companies that would traditionally wear both the value and growth monikers.



US MEDICAL TECHNOLOGY	17%	35x	7%	~30%
EUROPEAN CONSUMER STAPLES	8%	20x	7%	~20%
EMERGING MARKETS UTILITIES	6%	10x	7%	~10%

Note: All values are hypothetical and for illustrative purposes only.



Portfolio Construction

A focus on end consumer risk

- All of our portfolios are constructed with an absolute mindset, but remain fully invested at all times.
- We follow broad portfolio guidelines (see below) that we believe provide sensible diversification parameters.
- One of the key aspects of our portfolio construction is the idea of end consumer risk. While difficult to quantify, our portfolio construction considers how much exposure to certain end consumer risks are present with the addition or removal of any name.

CHARACTERISTIC	PARAMETER	RATIONALE
Cash	Fully invested	Quality companies have strong balance sheets
Position Size	Maximum 7%	High Active Share focus
Number of Holdings	~40-60	High-conviction portfolios
Sector	At least five sectors at all times	Manage sector concentration risks
Country	Maximum 20% overweight relative to the benchmark, zero underweight relative to the benchmark	Avoid extreme country and currency risks
Market Capitalization	No restrictions	Larger cap focus, but opportunistic
Volatility	No tracking error restrictions	Avoid closet indexing
Key Risk Management Considerations	<ul style="list-style-type: none">— The greatest risk is “getting the business wrong”— Diversify across risk factors impacting companies in the portfolio— Focus on absolute volatility, not relative volatility	<ul style="list-style-type: none">— Focus on end consumer risks across companies in the portfolio— Focus on headroom and market share growth — avoid ‘value traps’— Focus on attractive entry points, manage liquidity



Investing Overview

Sell discipline

We endeavor to be long-term investors.

- We seek high quality companies that we believe will compound capital at a reasonable rate.
- As objective investors, we are data-driven.
- Turnover is a byproduct of our sell discipline.

SELL REASON

ILLUSTRATION

A more attractive opportunity has been identified

Maintain a portfolio of high-quality companies

Meaningful deterioration of the firm's long-term earnings growth prospects

Addressable market share has been reduced and financial metrics are indicating a slow down

Loss of long-term competitive advantage

Technology disruption

Transformative merger/acquisition-related activity

Management no longer in control

Inability to reconcile data points (i.e. something is amiss)

Red flag accounting issues or change in management direction

Our price target has been met relative to the current growth of the company

The company's risk and return trade-off is no longer attractive

The stability of the country impacts the liquidity and price appreciation of a company

Quality companies are susceptible to unstable governments and policy changes



Investing Overview

In conclusion



CLIENT ALIGNMENT

Independent, majority employee-owned,
and invested alongside you.



FORWARD- LOOKING QUALITY

Emphasizing barriers to entry,
sustainability, and headroom.



RESEARCH MOSAIC

Seeking a distinctive insight advantage.

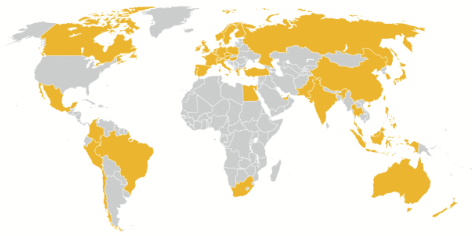


Portfolio Overview

Chapter III

Portfolio Overview

GQG Partners International Equity



GQG PARTNERS INTERNATIONAL EQUITY

TOTAL RETURNS AS OF JUNE 30, 2019	1 MO	3 MOS	YTD	1 YR	3 YRS	SINCE INCEPTION (1-DEC-14)	2018	2017	2016	2015	2014*
Composite gross of fees %	6.34	8.00	20.17	10.75	16.16	10.45	-5.64	32.40	5.44	3.90	-4.13
Composite net of fees %	6.28	7.81	19.76	9.98	15.34	9.67	-6.29	31.43	4.70	3.18	-4.19
MSCI ACWI ex USA (Net) %	6.02	2.98	13.60	1.29	9.39	3.64	-14.20	27.19	4.49	-5.66	-3.61
Difference net versus benchmark bps	+26	+483	+616	+869	+595	+603	+791	+424	+21	+884	-58

GQG Partners claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this performance information in compliance with the GIPS standards. Performance data is based on the firm's Composite for the strategy. The Composite was created in June 2016. Performance presented prior to June 1, 2016 was achieved prior to the creation of the firm. The prior track record has been reviewed by Ashland Partners & Company, LLP and conforms to the portability requirements of the GIPS standards. On June 28, 2017, ACA Performance Services, LLC acquired the investment performance service business of Ashland Partners & Company, LLP. For periods after June 1, 2016, the Composite consists of accounts managed by GQG pursuant to the strategy.

The US dollar is the currency used to express performance. Returns are presented both gross and net of management fees and include the reinvestment of all income. Gross and Net performance are calculated after the deduction of actual trading expenses and other administrative fees (custody, legal, admin, audit and organization fees). Net returns are calculated using the highest/model rack rate fee. Gross and Net performance are net of foreign withholding taxes. **PAST PERFORMANCE MAY NOT BE INDICATIVE OF FUTURE RESULTS.**

Please see the Appendix for additional disclosures regarding the Composite. Returns for periods greater than one year are annualized.

*Partial-year return since Composite inception, December 1, 2014.

RISK INDICATORS	3 YRS VERSUS MSCI ACWI ex USA
Alpha	7.70
Beta	0.83
Information Ratio	1.21
R-Squared	0.76
Sharpe Ratio	1.38
Standard Deviation	10.67
Tracking Error	5.62
Upside Capture	109.52
Downside Capture	65.39

Source: Northern Trust. Risk indicators are calculated with monthly gross of fees returns of the Composite and the MSCI ACWI ex USA (Net) for the three years ending June 30, 2019.

STRATEGY INFORMATION

Regulatory AUM [†]	US\$6.70 billion
Composite Inception Date	December 1, 2014
Fee Schedule	
Private Fund	50 bps
Benchmark	MSCI ACWI ex USA (Net)

[†]Regulatory assets under management (AUM) represent both discretionary and non-discretionary funds.

Portfolio Overview

GQG Partners International Equity

CHARACTERISTICS	GQG IE	MSCI ACWI ex USA
Number of Securities	48	2,206
Market Capitalization US\$ millions		
Weighted Average	106,444.54	62,912.61
Median	71,507.53	32,389.89
Dividend Yield %	1.9	3.2
Price/Earnings	28.6	14.6
P/E using FY1 Est.	21.7	12.7
Est. 3-5 Yr. EPS Growth	12.4	7.9
Hist. 5 Yr. EPS Growth	9.8	10.6
Price/Cash Flow	16.2	8.9
Price/Book	4.0	1.6
Price/Sales	3.9	1.1
Return on Equity %	23.8	11.0

TOP TEN HOLDINGS	GQG IE %
HDFC Bank Ltd	6.0
SAP SE	5.0
Novartis AG	4.0
Deutsche Boerse AG	4.0
Air Liquide SA	4.0
AstraZeneca PLC	3.6
Mastercard Inc	3.6
Nestle SA	3.4
Unilever NV	3.3
London Stock Exchange Group PLC	3.2
Total	40.1

SECTOR WEIGHTS %	GQG IE	MSCI ACWI ex USA	UNDER/OVER
Consumer Staples	17.7	9.8	
Health Care	14.9	8.3	
Information Technology	12.9	8.5	
Cash	2.1	0.0	
Utilities	5.2	3.3	
Communication Services	7.8	6.9	
Financials	21.3	21.9	
Materials	6.6	7.6	
Real Estate	1.6	3.2	
Energy	1.4	7.1	
Industrials	5.1	11.9	
Consumer Discretionary	3.6	11.3	
Total	100.0	100.0	-15 0 15

TOP TEN COUNTRY WEIGHTS %	GQG IE	MSCI ACWI ex USA	UNDER/OVER
France	12.5	7.6	
United States	12.3	0.0	
United Kingdom	11.1	11.2	
Switzerland	10.0	6.2	
Germany	9.0	5.9	
India	7.8	2.4	
Canada	7.2	6.8	
Netherlands	4.8	2.4	
Hong Kong	4.6	2.7	
Australia	4.5	4.7	
Total	83.9	49.9	-15 0 15

Sources: Bloomberg and Northern Trust. The data presented is based upon a representative portfolio, which is an account in the Composite that GQG believes most closely reflects current portfolio management style for this strategy. Portfolio statistics exclude cash and cash equivalents. Portfolio holdings are subject to change, and the holdings of actual client portfolios may differ from the representative portfolio. Country allocations shown reflect the country of risk of the securities in the portfolio as assigned by NT; however, GQG constructs portfolios based upon GQG's assessment of each issuer's country of risk exposure, which may not be the same as NT's country assignment. Please see the Appendix for additional important information.



Contact Us

For more information about GQG Partners and our investment strategies, please contact your GQG Partners representative or [email](mailto:clientservices@gqgpartners.com) clientservices@gqgpartners.com.

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+61 2 9238 8093



Additional Information

Appendix

As a firm, we are committed to improving the lives of our clients, our associates and our communities. **GQG GIVES** has been established to honor our commitment to our communities and support our associates in both their own charitable endeavors and directing those of the firm at large. The program consists of three main components:

1. CHARITABLE CONTRIBUTION MATCHING

In support and encouragement of associate philanthropy, GQG Partners commits that each associate's charitable donations to qualified non-profits will be matched dollar for dollar, up to US\$5,000 per calendar year per associate.

2. GQG PARTNERS COMMUNITY EMPOWERMENT FOUNDATION

The Jain family has founded and graciously funded the **GQG Partners Community Empowerment Foundation** to help us impact our associates' communities in the name of GQG Partners. Charitable giving from the Foundation focuses on three core areas dear to our Chairman's heart: education for first-generation students, women's rights and education, and access to food and healthcare for the extremely impoverished. The foundation is funded and operated entirely independent of GQG Partners LLC.

3. COMMUNITY ENGAGEMENT

GQG GIVES will support events and projects that engage associates with their local communities. The program will explore, organize and oversee activities like 2018's Riverwalk Run in Fort Lauderdale, holiday adopt-a-family drive, and development of community volunteer projects and similar initiatives to facilitate community involvement.



Appendix

Investment team biographies



RAJIV JAIN, Chairman & Chief Investment Officer^P

Rajiv is the Chairman and Chief Investment Officer of GQG Partners and also serves as the portfolio manager for all GQG Partners strategies. He commenced investment operations at GQG Partners in June 2016 with over 25 years of investment experience. Previously, Rajiv served as a Co-Chief Executive Officer (from July 2014) and Chief Investment Officer and Head of Equities (from February 2002) at Vontobel Asset Management. He was the sole portfolio manager of the International Equities strategy (since 2002) and Emerging Markets Equities strategy (since 1997), and the lead portfolio manager for the Global Equities strategy (since 2002). Rajiv built the business from less than US\$400 million under management to just under US\$50 billion in 2016. He joined Vontobel Asset Management as a co-portfolio manager of Emerging Markets Equities and International Equities in November 1994. Prior to that, he was an International Equity Analyst at Swiss Bank Corporation. Rajiv earned an MBA in Finance and International Business from the University of Miami. He also has a master's degree from the University of Ajmer and undergraduate degree in accounting with honors.



JAMES ANDERS, CFA, Senior Investment Analyst

James joins GQG Partners from Mercator Asset Management where he was a Senior VP and research analyst. His regional research responsibilities were Benelux as well as Latin America. He has extensive experience in the international equity arena, including developed Europe, emerging markets in Asia and Latin America, and frontier markets in Africa and the Middle East. He previously served as a research analyst at Consilium Investment Management in Ft. Lauderdale from 2008 to 2013, where he focused most recently on emerging and frontier markets equities. James began his career in 1993, serving in a variety of investment roles with several boutique investment firms in the NYC area. From 2002 to 2008, he served as Senior Analyst with SGS Asset Management in Boca Raton, FL and Hong Kong. James completed his MBA at Columbia Business School and earned a BA degree in Economics from Hamilton College. He is a CFA charterholder.



CAROLYN R. CUI, Senior Investment Analyst

Carolyn is a senior investment analyst on the firm's investment team. She joins GQG Partners after almost 15 years at The Wall Street Journal, where she was a Research Analyst for the China Bureau before becoming a staff correspondent covering emerging markets, commodities, and US Treasuries. She began her career as a Copy Editor for Shanghai Daily before joining Dow Jones & Company, the WSJ's parent company, as a translator. Carolyn earned an MA from Columbia University Graduate School of Journalism and a BS in English and Economics from Shanghai Jiao Tong University.

 Portfolio Manager  Accounting Specialist  Business Analyst  Capital Structure Specialist  Domain Expertise Specialist  Investigative Specialist  Trader ^P Principal

Appendix

Investment team biographies



POLYANA DA COSTA, Senior Investment Analyst^P

Polyana is a senior investment analyst on the firm's investment team. Prior to joining GQG Partners, Polyana served as editorial director at ABUV Media, helping oversee the launch of personal finance site MoneyGeek.com. Before that, she served as Bankrate.com's senior mortgage reporter and analyst for four years, where she wrote about real estate and mortgages. Polyana has over a decade of experience as a business journalist, writing about a variety of financial topics including the mortgage market, commercial real estate and public companies. Polyana has won several journalism awards and has been cited by CNN Money, Forbes, Fiscal Times and other news outlets. Polyana, who speaks English, Spanish, and Portuguese, holds a BA in Journalism from San Francisco State University.



CHULANTHA DE SILVA, Senior Investment Analyst

Chulantha is a senior investment analyst on the firm's investment team. Prior to joining GQG Partners, he spent 10 years at Credit Suisse on the Asia Pacific Equities Research sales desk. Chulantha started his career at HSBC Securities and worked in New York and Asia. Then he joined Citigroup on the Asian Equities Research sales desks. He comes with more than 15 years of experience in international equities. Chulantha holds a BA in Economics from Washington College.



BRIAN KERSMAN, Senior Investment Analyst^P

Brian is a senior investment analyst on the firm's investment team. Prior to joining GQG Partners, Brian spent six years at Jennison Associates, where he served most recently as an analyst on the Small/Midcap Equity Research team, focusing on a wide array of sectors from real estate equities including building products manufacturers, title insurers, and homebuilders to industrials competing in the aerospace and automotive end markets. Prior to Jennison, Brian began his career at Brown Brothers Harriman in 2008. Brian earned his MBA at Rutgers University and his BA in Economics from the University of Connecticut.



PHIL LOGRASSO, PhD, Senior Investment Analyst

Phil is a senior investment analyst on the firm's investment team. Prior to joining GQG Partners, he spent six years at Senzar Asset Management where he was a senior research analyst. Phil spent 12 years doing drug discovery and development within the pharmaceutical industry with the bulk of that time being spent at Merck. After his industrial career, he spent one year as a program officer at the National Institutes of Health and moved to academia where he was a Professor of Molecular Therapeutics and Neuroscience at The Scripps Research Institute for 11 years. Phil did postdoctoral training in cardiovascular disease at the Sandoz Research Institute after receiving a PhD in Pharmacology from the University of Florida, an MS in Biochemistry from Florida State University, and a BA in Chemistry from New York University.

 Portfolio Manager  Accounting Specialist  Business Analyst  Capital Structure Specialist  Domain Expertise Specialist  Investigative Specialist  Trader ^P Principal

Appendix

Investment team biographies



SUDARSHAN MURTHY, CFA, Senior Investment Analyst^P

Sudarshan is a senior investment analyst on the firm's investment team. Prior to joining GQG Partners, he spent five years as a generalist analyst in Asian equities at Matthews International Capital. Sudarshan's previous experience also includes working as a sell-side research associate at Sanford C. Bernstein. Earlier in his career, Sudarshan held various operational roles in the IT services industry including five years at Infosys where he was assistant to the Chairman of the Board and was instrumental in starting the company's life sciences business. Sudarshan graduated as a Palmer Scholar (top 5% of graduating class) in the Wharton MBA program. He also received a Post Graduate Diploma in Management from the Indian Institute of Management, Calcutta and a Bachelor of Engineering from the National Institute of Technology, Surathkal in India. He is a CFA charterholder.



STEVE SMIGIE, Senior Investment Analyst

Steve is a senior investment analyst for GQG Partners with over 20 years of investment experience. Prior to joining GQG Partners in 2017, he was a Managing Director covering semiconductors as an Equity Research Analyst at Raymond James. Steve was at Raymond James for 16 years. Prior to Raymond James, he worked at Needham & Company in Investment Banking and Equity Research for a total of four years. Steve received an MBA from Duke University, the Fuqua School of Business, and a BA with honors from Bucknell University.



LING ZHANG, CFA, Senior Investment Analyst

Ling is a senior investment analyst on the firm's investment team. She started her career on the buy-side as a Senior Analyst at Forest Investment in 2004. She then worked as a Senior International Analyst at Basso Capital Management and as a Portfolio Manager and Equity Analyst at DSM Capital Partners. Prior to her buy-side experience, Ling worked with the Global M&A Group at Lehman Brothers and at KBC Financial Products. Ling graduated summa cum laude from Smith College with a BA in Economics and earned her MBA from the Massachusetts Institute of Technology Sloan School of Management. She was a Senior Analyst at Cambridge Economics before attending MIT. Ling is a CFA charterholder.

Appendix

Investment team biographies



DAVID TUTHILL, Trader

David is a trader on the firm's investment team. Prior to joining GQG Partners, he resided in the UK based between Oxford and Singapore where he ran global trading and capital markets for Port Meadow Capital Management (Dymon Asia Equity, Division of Temasek) from 2014 through 2017. Prior to this, David headed Asian trading for SAC Capital Advisors (now Point72, Steven Cohen) from 2008 through 2014 across the region. David was a member of the initial launch of SAC Capital in Asia. He launched SAC Capital's first Asia-based trading desk and was responsible for all Asia-related trading, capital markets and trading operations functions. David started his career in New York for Cantor Fitzgerald as a sales trader covering both US equities and derivatives. David graduated from Fordham University with a Bachelor of Science (Business Administration).



KYLE SALMON, Trader

Kyle is a trader for GQG Partners with 19 years of investment industry experience. Prior to joining GQG Partners in 2018, Kyle was an Equity and Currency Trader for Artisan Partners and spent time working for Artisan's global investment teams in both Milwaukee, WI and San Francisco, CA. Prior to Artisan, he worked on technology solutions for Strong Capital Management in Menomonee Falls, WI. Kyle received his BA from the University of Wisconsin-Milwaukee.

Appendix

Leadership team biographies



RAJIV JAIN, Chairman & Chief Investment Officer^P

Rajiv is the Chairman and Chief Investment Officer of GQG Partners and also serves as the portfolio manager for all GQG Partners strategies. He commenced investment operations at GQG Partners in June 2016 with over 25 years of investment experience. Previously, Rajiv served as a Co-Chief Executive Officer (from July 2014) and Chief Investment Officer and Head of Equities (from February 2002) at Vontobel Asset Management. He was the sole portfolio manager of the International Equities strategy (since 2002) and Emerging Markets Equities strategy (since 1997), and the lead portfolio manager for the Global Equities strategy (since 2002). Rajiv built the business from less than US\$400 million under management to just under US\$50 billion in 2016. He joined Vontobel Asset Management as a co-portfolio manager of Emerging Markets Equities and International Equities in November 1994. Prior to that, he was an International Equity Analyst at Swiss Bank Corporation. Rajiv earned an MBA in Finance and International Business from the University of Miami. He also has a master's degree from the University of Ajmer and undergraduate degree in accounting with honors.



TIM CARVER, Chief Executive Officer^P

Tim is responsible for firm leadership and management of the firm's non-investment related functions. Tim has experience building a variety of boutique investment firms, as well as investing in India, China, and Australia. Prior to joining GQG Partners, Tim co-founded Northern Lights Capital Group (now Pacific Current Group), and was central to building that business over the past decade, eventually serving as CEO of the listed entity. Prior to co-founding Northern Lights, Tim was a co-founder of Orca Bay Partners, a private equity firm where he developed a practice area focused on capitalizing boutique investment firms. While there, he led investments in a variety of firms including Parametric Portfolio Associates and Envestnet (NYSE: ENV). Tim began his career at Morgan Stanley in their New York analyst program. Tim graduated with honors from Harvard College.



JERI ANDREWS, Managing Director — Global Head of Diversity, Inclusion, and Human Capital Development

Jeri leads the firm's diversity and inclusion efforts, as well as training and development of employees. Prior to joining GQG Partners, Jeri served as Global Head of Sales at Intellectual Ventures, working closely with the firm's founders and investors, focused on the technology sector. Jeri has 25 years of experience in the technology and financial services industries, including her tenure at Russell Investments, where she was Head of EMEA Sales, focused on building the Russell Global Index franchise throughout the region, based in London. Prior to Russell Investments, Jeri spent a decade at Xerox Corporation in a variety of leadership roles creating and leading high performance teams. Jeri graduated from Boston University.

^P Principal

Appendix

Leadership team biographies



MARK BARKER, Managing Director — Head of International

Mark leads the firm's international business development efforts. Prior to GQG Partners, Mark was Managing Director and Chief Investment Officer at Strategic Capital Investors, a boutique investment company he founded, focused on providing acceleration capital to early stage asset managers. Mark has over 30 years' experience in the asset management industry, including Chief Investment Officer and Co-Chief Investment Officer experience at Hermes BPK Partners and Pioneer Alternative Investments. Mark also served as Director of Momentum Asset Management, where he was responsible for portfolio management, asset allocation and business development.



SCOTT BLANKENSHIP, Managing Director — Head of Intermediary^P

Scott is responsible for the firm's sales and distribution of products offered through financial intermediaries. Prior to joining GQG Partners, Scott was Head of Intermediary Sales at WHV Investments. Scott has also held sales and leadership roles at SteelPath, ALPS, Lincoln Financial Group and Janus Capital. Scott served as a Counterintelligence Agent in the US Army and received an MBA from Webster University and a BA from the University of Maryland.



SUZANNE CHMURA, Chief Compliance Officer

Suzanne is responsible for the firm's compliance functions. Suzanne began her career at State Street Global Advisors, where she acted as its first dedicated Compliance Officer covering all asset classes. She spent ten years with JPMorgan in a variety of compliance roles across several areas of the company and was then recruited to Macquarie Holdings where she was head of Compliance Operations Americas and acted as deputy Chief Compliance Officer for Macquarie's largest US broker/dealer. Most recently she served as Risk Officer at Bessemer Trust and additionally engaged in the implementation of an enterprise-wide operational risk program. Suzanne received a BA and Executive MBA from Northeastern University.



MATT CROWE, Managing Director — US Client Services

Matt is responsible for leading and continuing to develop a world-class client experience for the firm. Prior to joining GQG Partners, he served as the Director of Marketing & Investor Relations at Proprietary Capital, responsible for marketing, investor relations and communications activities. Prior to joining Proprietary Capital in 2012, Matt was a Principal of Anchor Point Capital, LLC, a Coral Gables, FL-based fund-of-funds hedge fund. He also worked on the US-based sales & client services team at Fjord Seafood ASA, a global commodity company based in Oslo after starting his career in the publishing industry. Matt holds a BA in Business Administration from Western State Colorado University. He served as a board member on the Association of Investment Management Sales Executives (AIMSE) from 2011-2017.

^P Principal

Appendix

Leadership team biographies



STEVE FORD, CAIA, Managing Director of Business Development^P

Steve leads the firm's global business development and marketing efforts. Prior to joining GQG Partners, Steve was a Managing Director at Pacific Current Group. In this role, he worked with the founders of GQG Partners to develop and implement the firm's institutional business development strategy. Steve has over 16 years of industry experience, including positions at Northern Lights Capital Group, Rydex Investments and Strong Investments. Steve graduated from Westminster College, is a CAIA charterholder, and holds Series 7, 24 and 63 licences.



GREG LYONS, General Counsel^P

Greg's legal experience includes serving as US General Counsel for Russell Investments. Additionally, he created and launched an investment advisor and proprietary mutual funds for Symetra Life Insurance Company, and has provided legal and compliance services to a number of registered investment advisors. Greg began his legal career with the law firms of Ropes & Gray and Sutherland. Greg earned his JD/MBA from Georgetown University, a Diploma of Chinese Law from Beijing University, and his undergraduate degree from Wheaton College.



ROB MATHAI, CFA, Chief of Staff^P

Rob is responsible for coordinating the firm's analysts. Prior to joining GQG Partners, Rob co-founded Stellate Partners where he was responsible for sourcing new managers and helping them grow their businesses. With over 30 years of industry experience, Rob has also held portfolio management, compliance, trading, and sales and marketing roles throughout his tenure. Rob received his MBA from Wharton Business School and his BS in Mechanical Engineering from Bucknell University. He is a CFA charterholder.



MELODIE ZAKALUK, Chief Operating Officer^P

Melodie is responsible for managing the firm's operational functions. Prior to joining GQG Partners, Melodie served as Chief Operating Officer at Rainier Investment Management where she provided daily and strategic management of the firm's advisory and mutual fund platforms. She was also a member of Rainier's corporate board and a management trustee for the Rainier Funds' board. Melodie has over 28 years of experience in the financial services industry, including her tenure at Russell Investments where she held the role of Managing Director, focusing on leading the daily operations, compliance monitoring, distributor servicing and information management for internal and external customers. Melodie earned a Bachelor of Science degree in Accounting from Boston College, and she holds the CPA designation, as well as the Series 7, 24, 27 and 63 licences.

^P Principal

GQG PARTNERS LLC INTERNATIONAL EQUITY COMPOSITE ANNUAL DISCLOSURE PRESENTATION

YEAR END	TOTAL FIRM ASSETS (USD) (MILLIONS)	COMPOSITE ASSETS (USD) (MILLIONS)	NUMBER OF ACCOUNTS	% OF NON-FEE-PAYING	ANNUAL PERFORMANCE RESULTS COMPOSITE		MSCI ACWI EX USA	COMPOSITE DISPERSION	COMPOSITE 3 YR ST DEV	BENCHMARK 3 YR ST DEV
					GROSS	NET				
2018	15,304	3,529	7	0	-5.64%	-6.29%	-14.20%	NM	10.69%	11.38%
2017	8,696	1,248	2	0	32.40%	31.43%	27.19%	NM	9.61%	11.87%
2016	763	26.20	1	0	5.44%	4.70%	4.49%	NM	NA	NA
2015		7.47	1	100	3.90%	3.18%	-5.66%	NM	NA	NA
2014*		7.19	1	100	-4.13%	-4.19%	-3.61%	NM	NA	NA

* Composite and benchmark performance are for the period December 1, 2014 through December 31, 2014.

NM — Information is not statistically meaningful due to an insufficient number of portfolios in the Composite for the entire year.

NA — The three-year annualized standard deviation measures the variability of the Composite and the benchmark returns over the preceding 36-month period. The Composite track record does not span three years; therefore, this number is not available.

International Equity Composite includes all fully discretionary institutional portfolios, with consistent investment parameters, that invest in equity investments in companies that are domiciled outside the U.S. or whose securities are principally traded in, or whose principal revenues, operations or business risk are attributable to, countries other than the U.S., and that in the aggregate across the entire portfolio comprise at least 3 foreign countries. For comparison purposes, the Composite is measured against the MSCI All Country World Index Ex- US (net of withholding taxes). Returns include the effect of foreign currency exchange rates. The International Equity Composite was created June 1, 2016.

GQG Partners LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. GQG has been independently verified for the periods June 1, 2016 - December, 2018. The verification report(s) is/are available upon request.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

GQG Partners LLC is an investment adviser registered with the U.S. Securities and Exchange Commission. The firm maintains a complete list and description of composites, which is available upon request.

Performance presented prior to June 1, 2016 was achieved prior to the creation of the firm. The account is a personal account of the Portfolio Manager who was the only individual responsible for selecting the securities to buy and sell. The prior track record has been reviewed by Ashland Partners & Company, LLP and conforms to the portability requirements of the GIPS standards. On June 28, 2017, ACA Performance Services, LLC acquired the investment performance service business of Ashland Partners & Company, LLP.

The US dollar is the currency used to express performance. Returns are presented both gross and net of management fees and include the reinvestment of all income. Gross and Net performance are calculated after the deduction of actual trading expenses and other administrative fees (custody, legal, admin, audit and organization fees). Net returns are calculated using the highest/model rack rate fee. Gross and Net performance are net of foreign withholding taxes.

The investment management fee schedule for the composite is 0.70%. Actual investment advisory fees incurred by clients may vary.

Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. GQG Partners calculates asset weighted standard deviation. Past performance is not indicative of future results.

Important information

The information provided in this document does not constitute investment advice and no investment decision should be made based on it. Neither the information contained in this document or in any accompanying oral presentation is a recommendation to follow any strategy or allocation. In addition, neither is a recommendation, offer or solicitation to sell or buy any security or to purchase of shares in any fund or establish any separately managed account. It should not be assumed that any recommendations made by GQG Partners LLC (GQG) in the future will be profitable or will equal the performance of any securities discussed herein. Before making any investment decision, you should seek expert, professional advice, including tax advice, and obtain information regarding the legal, fiscal, regulatory and foreign currency requirements for any investment according to the law of your home country, place of residence or current abode.

This document reflects the views of GQG as of a particular time. GQG's views may change without notice. Any forward-looking statements or forecasts are based on assumptions and actual results may vary.

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GQG is registered as an investment adviser with the U.S. Securities and Exchange Commission. Please see GQG's Form ADV Part II, which is available upon request, for more information about GQG.

Any account or fund advised by GQG involves significant risks and is suitable only for those persons who can bear the economic risk of the complete loss of their investment. There is no assurance that any

account or fund will achieve its investment objectives. Accounts and funds are subject to price volatility and the value of a portfolio will change as the prices of investments go up or down. Before investing in a strategy, you should consider the risks of the strategy as well as whether the strategy is suitable based upon your investment objectives and risk tolerance.

There may be additional risks associated with international and emerging markets investing involving foreign, economic, political, monetary, and/or legal factors. International investing is not for everyone. You can lose money by investing in securities.

Unless otherwise indicated, the performance information shown is unaudited, pre-tax, net of applicable management, performance and other fees and expenses, presumes reinvestment of earnings and excludes any investor-specific charges. All past performance results must be considered with their accompanying footnotes and other disclosures.

Past performance may not be indicative of future results. Performance may vary substantially from year to year or even from month to month. The value of investments can go down as well as up. Future performance may be lower or higher than the performance presented, and may include the possibility of loss of principal. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of securities listed herein.

Actual returns will be reduced by the advisory fees and any other expenses that may be incurred in the management of any investment advisory account or fund. Fees may be modified or waived for certain investors. Please refer to Part 2A of GQG's Form ADV for a complete description of GQG's customary investment advisory fees. Refer to the offering memorandum or prospectus of a fund advised by GQG for a description of fees and expenses associated with it. An investor's actual performance and actual fees may differ from the performance information shown due to, among other factors, capital contributions and withdrawals/redemptions, different fund share classes and eligibility to participate in "new issues." Certain investment strategies and fund share classes may be closed, including any share class from which performance shown has been derived.

Any reference to a partner of GQG Partners LLC is to an individual who holds an indirect beneficial equity ownership in GQG Partners LLC, a Delaware limited liability company.

INFORMATION ABOUT REPRESENTATIVE ACCOUNTS

Portfolio characteristics, top ten holdings, sector allocation, country allocation, ROE and market capitalization are based on a representative portfolio, which is the account in the composite that GQG believes most closely reflects the current portfolio

management style for this strategy. Performance is not a consideration in the selection of the representative portfolio. The information for the representative portfolio shown may differ from that of the composite. The top ten holdings identified and described do not represent all securities purchased, sold, or recommended for clients in the composite and no assumption should be made that such securities or future recommendations were or will be profitable in the future. Portfolio holdings are subject to change without notice. Country allocations shown reflect the country of risk of the securities in the portfolio as assigned by Northern Trust (NT), though GQG's portfolios are constructed based on GQG's assessment of each issuer's country of risk exposure, which may not be the same as NT's country assignment. GQG assesses the country's economic fortunes and risks to which it believes the issuer's assets, operations and revenues are most exposed by considering such factors as the issuer's country of incorporation, actual physical location of its operations, the primary exchange on which its securities are traded and the country in which the greatest percentage of its revenue is generated.

INFORMATION ABOUT BENCHMARKS

MSCI benchmark returns have been obtained from MSCI, a non-affiliated third-party source. Neither MSCI nor any other party involved in or related to compiling, computing or creating the MSCI data makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such data. Without limiting the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in or related to compiling, computing, or creating the data have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

The **MSCI All Country World (Net) Index (MSCI ACWI)** is a global equity index, which tracks stocks from 23 developed and 24 emerging markets countries. Developed countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK, and the US. Emerging markets countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and the United Arab Emirates. With 2,848 constituents (as of June 30, 2019), the index covers approximately 85% of the global investable equity opportunity set.

The **MSCI All Country World ex USA (Net) Index (MSCI ACWI ex USA)** is an international equity index which excludes securities from the United States. The index tracks stocks from 22 developed and 24 emerging markets countries. Developed countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the UK. Emerging markets countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and the United Arab Emirates. With 2,205 constituents (as of June 30, 2019), the index covers approximately 85% of the international equity opportunity set outside of the US.

The **MSCI Emerging Markets (Net) Index** is a free float-adjusted market capitalization index that consists of indices in 24 emerging economies: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and the United Arab Emirates. With 1,194 constituents (as of June 30, 2019), the index covers about 85% of the free float-adjusted market capitalization in each country.

The **S&P 500[®]** Index is a widely used stock market index that can serve as barometer of US stock market performance, particularly with respect to larger capitalization stocks. It is a market-weighted index of stocks of 500 leading companies in leading industries and represents a significant portion of the market value of all stocks publicly traded in the United States. The S&P 500 Index is a product of S&P Dow Jones Indices LLC, a division of S&P Global, or its affiliates (SPDJ) and has been licensed for use by GQG Partners LLC. Standard & Poor's[®] and S&P[®] are registered trademarks of Standard & Poor's Financial Services LLC, a division of S&P Global (S&P); Dow Jones[®] is a registered trademark of Dow Jones Trademark Holdings LLC (Dow Jones). GQG Partners US Equity is not sponsored, endorsed, sold or promoted by SPDJ, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the S&P 500 Index.

Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to nonresident institutional investors who do not benefit from double taxation treaties.

Information about benchmark indices is provided to allow you to compare it to the performance of GQG strategies. Investors often use these well-known and widely recognized indices as one way to gauge the investment performance of an investment manager's strategy compared to investment sectors that correspond to the strategy. However, GQG's investment strategies are actively managed and not intended to replicate the performance of the indices; the performance and volatility of GQG's investment strategies may differ materially from the performance and volatility of their benchmark indices, and their holdings will differ significantly from the securities that comprise the indices. You cannot invest directly in indices, which do not take into account trading commissions and costs.

NOTICE TO CANADIAN INVESTORS

This document has been prepared solely for information purposes and is not an offering memorandum nor any other kind of an offer to buy or sell or a solicitation of an offer to buy or sell any security, instrument or investment product or to participate in any particular trading strategy. It is not intended and should not be taken as any form of advertising, recommendation or investment advice. This information is confidential and for the use of the intended recipients only. The distribution of this document in Canada is restricted to recipients in certain Canadian jurisdictions who are eligible "permitted clients" for purposes of National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*.

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GQG Partners is not an authorised person for the purposes of the Financial Services and Markets Act 2000 of the United Kingdom ("FSMA") and the distribution of this document in the United Kingdom is restricted by law. Accordingly, this document is provided only for and is directed only at persons in the United Kingdom reasonably believed to be of a kind to whom such promotions may be communicated by a person who is not an authorised person under FSMA pursuant to the FSMA (Financial Promotion) Order 2005 (the "FPO"). Such persons include: (a) persons having professional experience in matters relating to investments; and (b) high net worth bodies corporate, partnerships, unincorporated associations, trusts, etc. falling within Article 49 of the FPO. The services provided by GQG Partners and the investment opportunities described in this document are available only to such persons, and persons of any other description may not rely on the information in it. All, or most, of the rules made under the FSMA for the protection of retail clients will not apply, and compensation under the United Kingdom Financial Services Compensation Scheme will not be available.

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IE 0619PB (exp. 31-AUGUST-19)



International Equity Presentation to:

City of Oakland Police and Fire Retirement System

August 28, 2019

Firm Overview

Strategic Global Advisors is an independent, employee-owned international and global equity boutique founded in 2005 and based in Newport Beach, California.

Strategic Global Advisors
Total AUM*: \$5.6 billion
as of 06/30/2019

Global Equity
Assets: \$380M
Inception: 2013

International Equity
Assets: \$3,693M
Inception: 2005

International Small Cap Equity
Assets: \$1,223M
Inception: 2010

U.S. Large Cap Equity
Assets: \$51M
Inception: 2007

International All Cap Equity
Assets: \$202M
Inception: 2008

International SMID Cap Equity
Assets: \$30M
Inception: 2006

The data listed is supplemental to the information contained in the Annual Disclosure Presentation, which is located at the end of this presentation.

*Assets Under Management (AUM) includes Assets Under Advisement (AUA) where SGA performs investment advisory services to model portfolios and platforms. Approximately 8.0% of AUM is represented by AUA.

Representative Client List

Public

- Chicago Teachers' Pension Fund
- City of Memphis Retirement System
- City of Philadelphia Board of Pension and Retirement
- Massachusetts Pension Reserves Investment Management
- Ohio Public Employees Retirement System
- State Universities Retirement System of Illinois
- Teachers' Retirement System of the State of Illinois

Foundation, Endowment, and Family Office

- 5 undisclosed clients

Corporate

- Delta Air Lines, Inc.
- Prudential Investments LLC

Taft Hartley

- 2 undisclosed clients*

Sub-Advisory

- Northern Trust Global Advisors
- Scotia Asset Management

The above information is a sample list of current SGA institutional clients, which were chosen based on the direct and sub-advisory clients providing permission to SGA to publish their name. This should not be considered a complete list of client accounts or an endorsement by any client on the list of SGA or the investment advisory services provided by SGA. It is not known whether the listed clients approve or disapprove of SGA or the services the clients received from SGA.

*Some of the clients may be participants in a pooled vehicle where SGA serves as investment adviser.

SGA Diversity Overview

- Commitment to promoting diversity within SGA
 - SGA is a WBENC Certified business, with a hiring process designed to seek diversity of thought, experience, background and beliefs, which is evident across SGA team ranks and responsibilities.
- Commitment to promoting diversity in the industry
 - SGA has historically placed at least 15% of total firm level brokerage with MWDBE firms and strives to utilize minority and women-owned firms as suppliers of professional services where feasible.
 - SGA participates and sponsors diversity programs within the industry including the Toigo Foundation and CalPERS & CalSTRS Diversity Forum, both of which “seek to assist underrepresented talent by creating mechanisms for greater inclusion from the classroom to the boardroom.”
- Commitment to promoting diversity in the community
 - SGA seeks to encourage employee engagement with the community through our SGA Cares Initiative, which supports the Hidden Genius Project through our participation in the National Day of Racial Healing and the Neighborhood Youth Association via Investors in Education, to name a few.

Organizational Composition

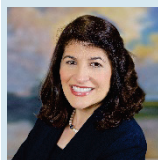
Diversity Within SGA

- Commitment to diversity within the organization
 - Fundamental belief that better outcomes can be achieved with diversity of backgrounds, thought, experience, and beliefs.
 - SGA works closely with Tracy Lawrence Leadership Advisory to access diverse candidate pools when hiring for new positions at the firm.

Work Group	Total Employees	Total Females	Total Minorities	Total Females and Minorities	Total Females and Minorities
Senior Executives	6	2	0	2	33%
Investment Professionals	9	1	4	5	56%
Sales / Marketing & Client Services	6	2	0	2	33%
Technology Professionals	3	0	1	1	33%
Other Professionals	4	3	2	4	100%
All Employees	28	8	7	14	50%

*Data as of 6/30/2019

Board Members, Executive Management, and Senior Investment Professionals



Cynthia Tusan, CFA
Chief Executive Officer, Chairperson of the Board,
Senior Portfolio Manager
BA Bryn Mawr, MBA UCLA



Melvin Lindsey, CFA
Board Member
MBA UCLA



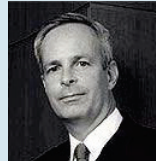
Gary Baierl, PhD
Chief Investment Officer, Board Member
BA Boston University,
PhD Northwestern University



Edele Hovnanian
Board Member
BS University of Pennsylvania,
MBA Columbia University



Mark Wimer, CFA
Senior Portfolio Manager
BS Purdue University,
MBA Cornell University



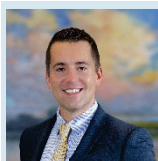
Brett Gallagher
President, Board Member
BA University of Virginia,
MBA University of Virginia



Cherie Badri, CFA
Director of Fundamental Research,
Senior Portfolio Manager
BA Northwestern,
MBA, MS University of Illinois



Joel Reynolds
Chief Compliance Officer
BS University of Utah, MBA Babson College,
JD Suffolk University Law School



Brendan Skarra-Corson, CFA
Senior Portfolio Manager
BA UC San Diego,
MFE University of California, Berkeley



Elyse Waldinger
Chief Operating Officer
BS Tulane University



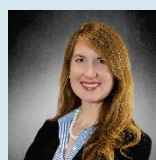
David Cai, CFA
Director of Quantitative Research
BBA University of Wisconsin, Madison,
MFE University of California, Berkeley



Sam King, CFA
Director of Marketing
BA University of North Carolina,
MBA Georgia State



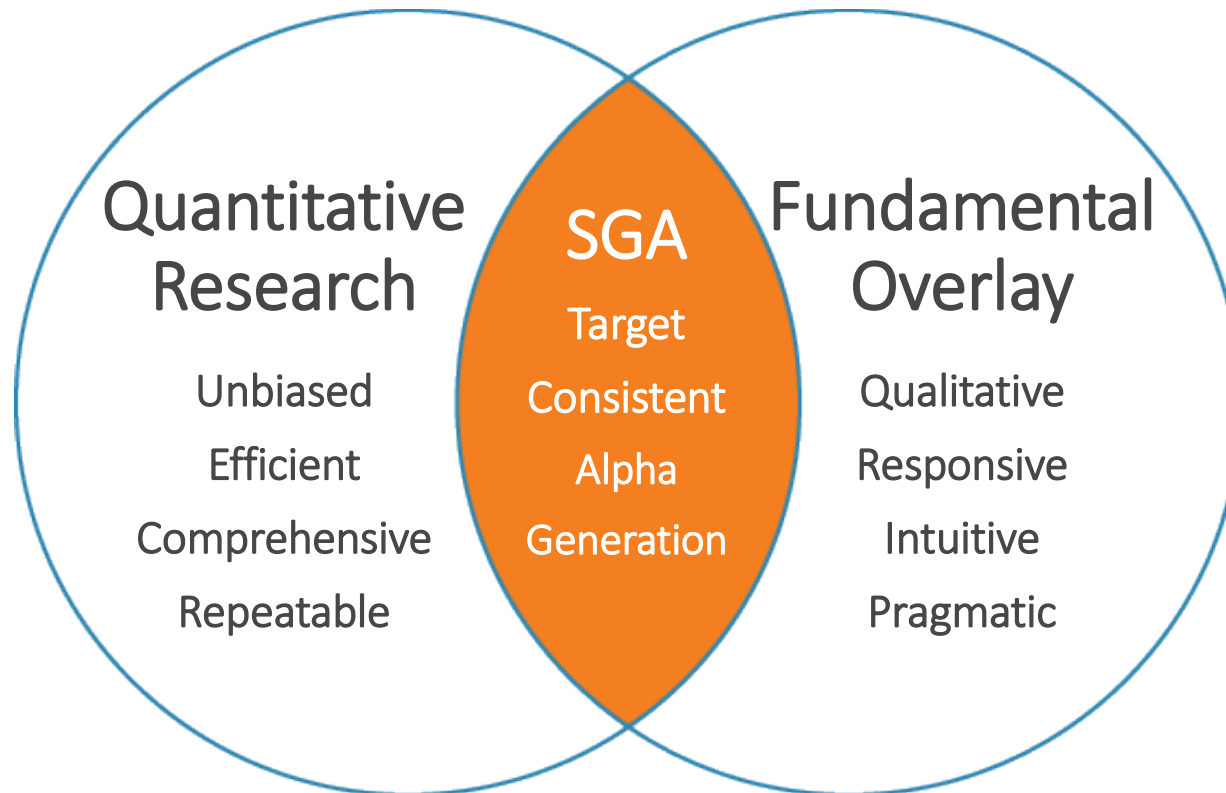
John Dewey
Director of Institutional Investments
BA UCLA,
MBA Santa Clara University



Susan Bandy, CFA
Director of Client Service
BA University of Oregon,
MA Boston University

Quantitatively Driven and Analyst Verified

SGA believes that a quantitative investment process can deliver consistent outperformance by identifying mispriced companies within each global industry through a diverse set of fundamental and behavioral factors. SGA also believes a fundamental overlay is critical as not all relevant information can be modeled.



Four Step Investment Process

Step 1: Quantitative Research

Global Universe: Approximately 10,000 Publicly Traded Companies

Alpha Model		Risk Model		
Factor Weights	Valuation (4) – 30%	Sector	Growth	Crude Oil Beta
	Quality (5) – 28%	Currency	Value	Volatility
	Growth (3) – 22%	Region	Momentum	Residual
	Sentiment (3) – 20%	Size	Beta	Liquidity

Output delivers company's expected industry relative return per unit of risk

Step 2: Daily Screening Optimization

Geographic Weights

Sector/Industry Weights

Currency Weights

Targeted Tracking Error

Identifies suggested buy/sell candidates*

Step 3: Fundamental Review



Refinancing Risk



Macro/Political Risk



Competitive Forces



Business Risk



Corporate Actions



Corp. Governance & ESG

A confirmation process that seeks to avoid false-positives*

Step 4: Final Optimization & Rebalance

Limited to Approved Stocks - Rebalance a Function of Accrued Alpha - Measured Turnover Strategy - Active Risk at Stock Level

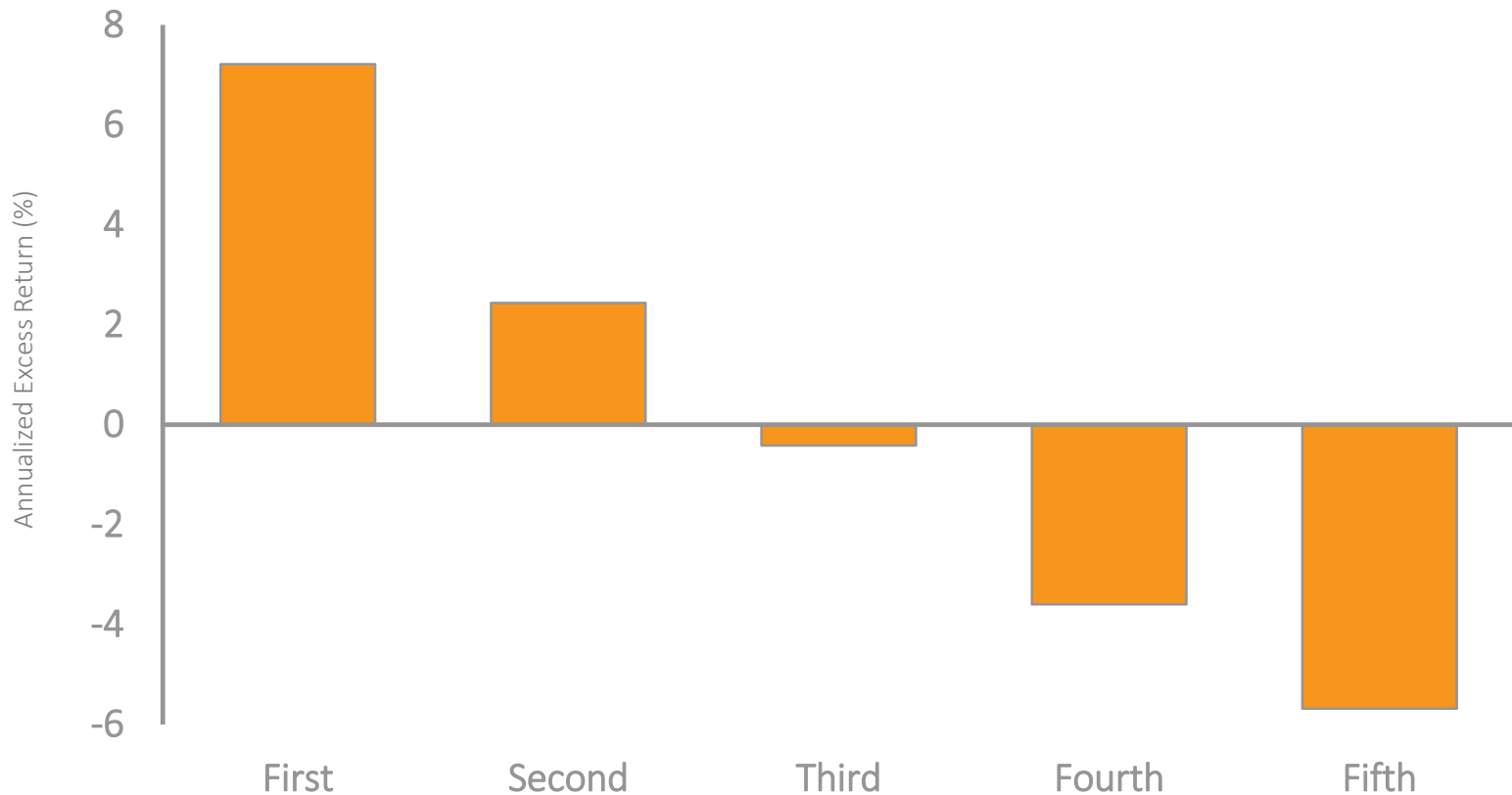
Final Portfolio

*Typically 1-2 new buy universe candidates per day, 10-20% of which are removed from investment universe. Please see Appendix for additional information contained in the Investment Process Disclosure.

The Power of the Stock Selection Model

SGA Stock Selection Model Quintile Performance in International ACWI ex-U.S. Equity Universe

Average Annualized Excess Returns over Equal-Weighted International ACWI ex-U.S. Equity Universe
(Quarterly Rebalancing, January 1988 – June 2019)



Source: FactSet, SGA

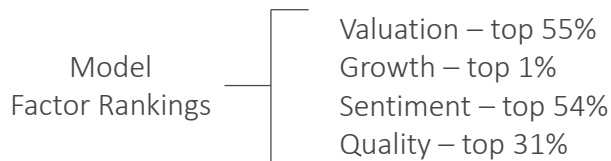
Returns are presented gross of fees. Past performance is not indicative of future results. The data listed is supplemental to the information contained in the Annual Disclosure Presentation, which is located at the end of this presentation.

Process – Stock Example

Global Leader in Education Publishing and Assessment Services Textbooks, Higher Education, Testing, Publishing

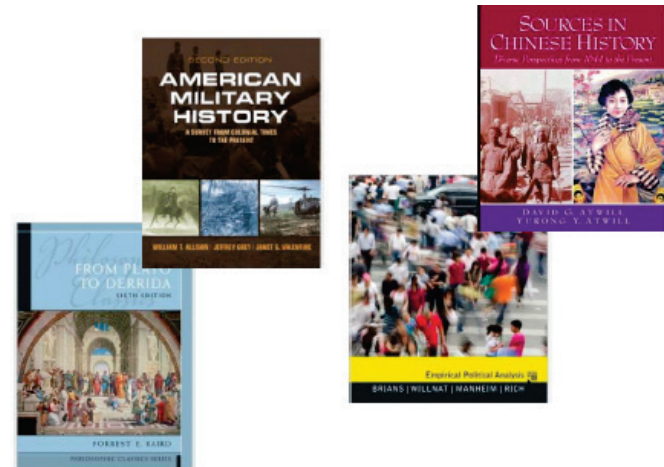
Stock Selection Model (August 2016)

Industry Relative Expected Return Ranked in the top 15%









Fundamental Analysis

1. Continued structural business issues
2. For-profit colleges under federal scrutiny
3. Shift away from standardized testing



Fundamental Analysis

 Debt Levels & Refinancing Risk	 Macro/Political Risk	 Competitive Forces	 Business Risk	 Data Quality	 Corporate Governance & Actions
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Failed Fundamental Analysis: Business Risk

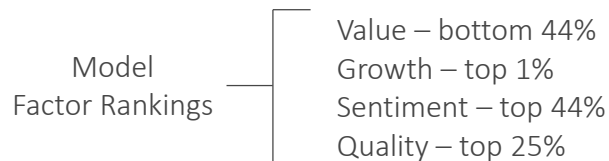
Please see Appendix for additional information contained in the Investment Process Disclosure.

Process – Stock Sale Example

Leading Manufacturer of Luxury Sports Cars
Iconic brand, pricing power from scarcity, least impacted by autonomous vehicles

Stock Selection Model (May 2016)

Ranked in the top 2% of Automobile industry



Stock Selection Model (April 2018)

Thesis played out, and returns were strong



Holding History

1. Purchased May 2016
2. The model suggested to sell in April 2018
3. Sold as valuation premium widened and growth slowed

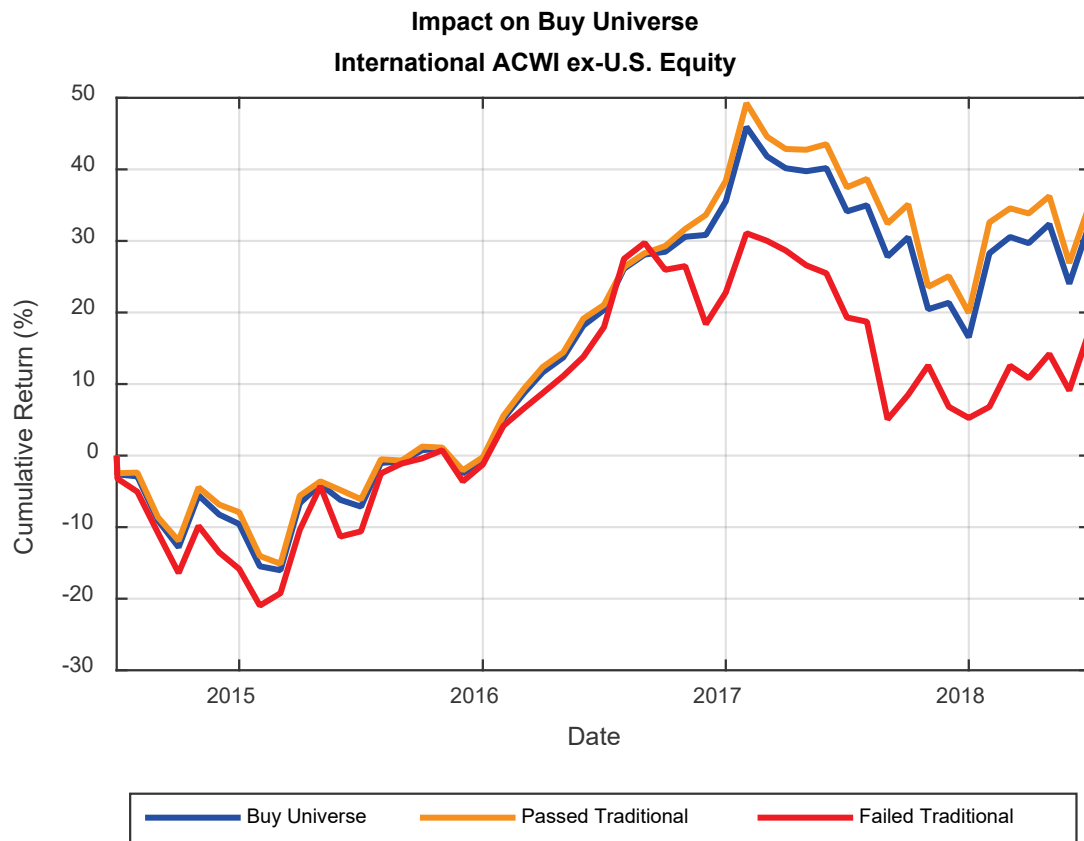


Sale proceeds redeployed to improve portfolio's risk/return profile

Please see Appendix for additional information contained in the Investment Process Disclosure.

Fundamental Analysis – International ACWI ex-U.S. Equity

Impact of SGA Fundamental Analysis on Buy Universe, 06/2015 – 06/2019



Buy Universe includes securities up for review as new buys in the past six months in the SGA strategy.

Source: FactSet, SGA. Past performance is not indicative of future results. Returns are presented gross of fees. Please see Appendix for additional information regarding “Fundamental Analysis and Process Performance Attribution Charts.”

SGA International ACWI ex-U.S. Equity

Portfolio Characteristics

	SGA INTL ACWI EX-U.S. EQUITY	MSCI ACWI EX USA NET
Number of Stocks	153	2,206
Active Share	82%	0%
Price/Earnings (1-Year Forecast)	11.1x	13.6x
Price/Book	1.7x	1.6x
Dividend Yield	3.4%	3.2%
Historical 3-Year EPS Growth	28.6%	16.7%
Weighted Average Market Cap	\$50.5B	\$70.9B
Median Market Cap	\$20.0B	\$8.1B
12-Month Trailing Turnover	54.8%	---

Characteristics are calculated as of June 30, 2019. The data listed is supplemental to the information contained in the Annual Disclosure Presentation, which is located at the end of this presentation. Based on gross of fees returns. Past performance is not indicative of future results.

Designed For Consistent Alpha Generation

Significant Active Share with Controlled Tracking Error

Risk Model/Optimization and country, sector, and industry constraints force active share to come from stock selection.

Higher Growth at Lower Valuation

Consistently higher trailing EPS growth and lower P/E than benchmark.

Disciplined

Typically 40-60% annualized turnover. Stocks sold when displaced by more attractive candidates.

All Weather Portfolio

Core strategy diversified across the value-growth spectrum.

Long-Term Investment Performance

Annualized Performance

Inception through June 30, 2019

			Annualized Return	Information Ratio
International Large Cap Equity				
International Equity (11/30/2005)	4.21%	1.87%	6.08%	0.65
International ACWI ex-U.S. Equity (06/30/2015)	4.11%	0.46%	4.57%	0.16
International ADR Equity (06/30/2006)	3.27%	1.61%	4.88%	0.55
International Small Cap Equity				
International Small Cap Equity (03/31/2010)	6.88%	3.63%	10.51%	1.09
International SMID Cap Equity (09/30/2006)	4.24%	2.16%	6.40%	0.63
International All Cap Equity				
International All Cap Equity (04/30/2008)	2.16%	2.46%	4.62%	0.90
Global Equity				
Global Equity (10/31/2013)	7.66%	1.36%	9.02%	0.49

■ Benchmark Return
 ■ Annualized Excess Return (Gross of Fees)

Performance is gross of fees over ten years ending June 30, 2019. Inception dates for each product are listed in parenthesis. Information Ratio data is calculated over the trailing ten years ending June 30, 2019 and is supplemental to the information contained in the Annual Disclosure Presentation. Please see the Annual Disclosure Presentation for information on each product's individual benchmark and additional information regarding product composition and performance. The Annual Disclosure Presentation is located at the end of this presentation. Past performance is not indicative of future results.

Conclusion

Why SGA?

Privately Held Investment Boutique

Focused on international investing for institutional clients

Process Refined to Seek Maximized Risk-Adjusted Returns

Attribution supports alpha generation from stock selection

Consistency of Team and Process

Team has remained intact since inception

Appendix

Portfolio Allocations

Region Weights (06/30/2019)

	INTL ACWI EX-U.S. EQUITY	MSCI ACWI EX USA NET
Dev Europe ex-U.K.	28.59	31.33
United Kingdom	11.08	11.20
Dev PAC RIM ex-Japan	6.66	8.55
Japan	17.86	15.81
North America	8.74	6.82
Emerging Markets	26.04	26.20
Cash	1.04	0.00
Total	100.00%	100.00%

Sector Weights (06/30/2019)

	INTL ACWI EX-U.S. EQUITY	MSCI ACWI EX USA NET
Communication Services	5.09	6.91
Consumer Discretionary	11.94	11.27
Consumer Staples	9.36	9.84
Energy	5.47	7.15
Financials	20.06	21.91
Health Care	10.83	8.27
Industrials	13.64	11.94
Information Technology	10.94	8.53
Materials	8.56	7.64
Real Estate	1.60	3.25
Utilities	1.48	3.29
Cash	1.04	0.00
Total	100.00%	100.00%

The data listed is supplemental to the information contained in the Annual Disclosure Presentation, which is located at the end of this presentation.

Portfolio Top 10 Holdings

Top 10 Holdings (06/30/2019)

	INTL ACWI EX- U.S. EQUITY	MSCI ACWI EX USA NET
3i Group plc	2.13	0.07
Royal Ahold Delhaize N.V.	1.77	0.13
Samsung Electronics Co., Ltd.	1.77	0.93
Anhui Conch Cement Company Limited Class H	1.75	0.04
HOYA CORPORATION	1.74	0.14
Roche Holding AG	1.72	0.95
NXP Semiconductors NV	1.71	0.14
Shionogi & Co., Ltd.	1.63	0.07
Thales SA	1.39	0.06
Peugeot SA	1.37	0.07
Top 10 Holdings	16.98%	2.60%

Country Weights (06/30/2019)

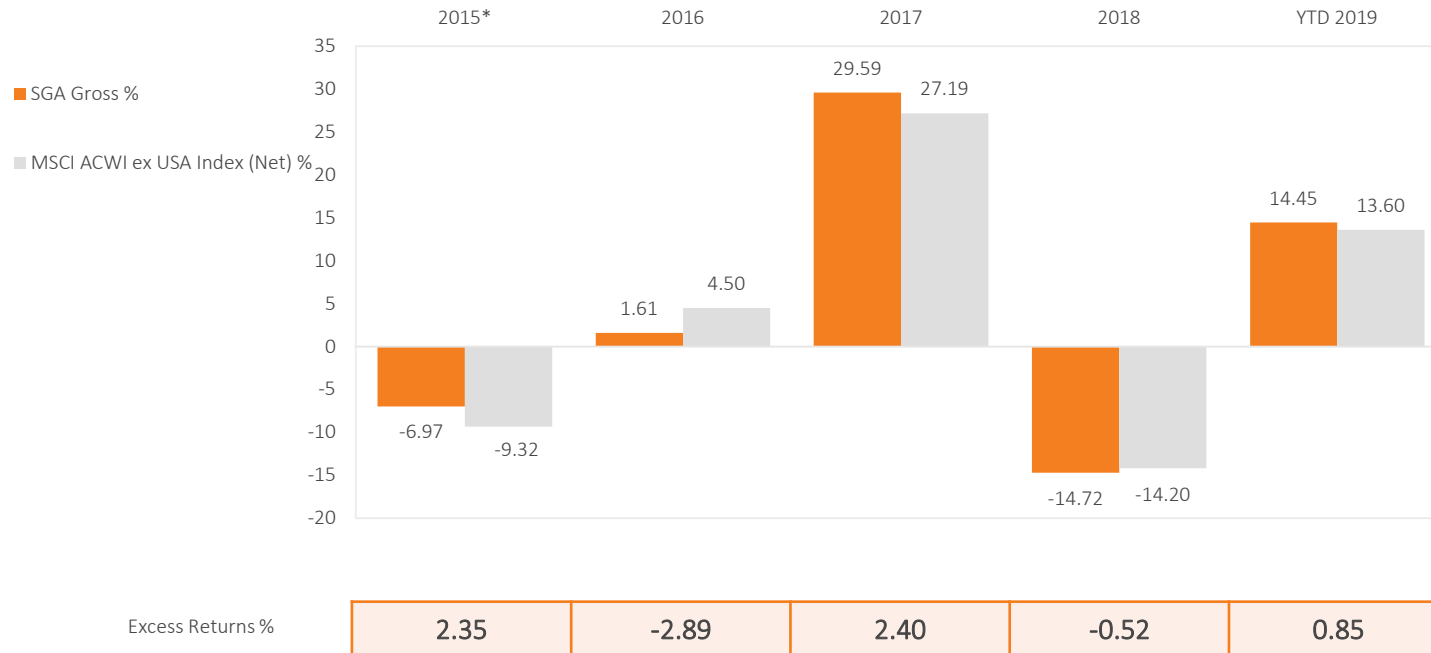
	INTL ACWI EX-U.S. EQUITY	MSCI ACWI EX USA NET
Australia	2.03	4.75
Austria	0.23	0.15
Belgium	1.59	0.65
Brazil	2.89	2.02
Canada	8.74	6.82
China	8.88	8.31
Colombia	0.46	0.11
Finland	0.84	0.67
France	5.86	7.62
Germany	3.26	5.89
Hong Kong	3.04	2.67
India	0.39	2.37
Indonesia	0.68	0.56
Ireland	1.12	0.36
Israel	0.71	0.39
Italy	1.82	1.55
Japan	17.86	15.81
Luxembourg	0.48	0.00
Mexico	1.69	0.67
Netherlands	4.13	2.41
Russia	0.73	1.06
Singapore	1.59	0.90
South Africa	2.22	1.57
South Korea	3.98	3.26
Spain	1.17	1.98
Sweden	2.79	1.77
Switzerland	4.59	6.20
Taiwan	2.29	2.86
Thailand	1.03	0.79
Turkey	0.80	0.13
United Kingdom	11.08	11.20
Cash	1.04	0.00
Total	100%	95.50%*

*Remaining benchmark weight is allocated to the following countries Argentina, Chile, Czech Republic, Denmark, Egypt, Greece, Hungary, Malaysia, New Zealand, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Qatar, Saudi Arabia, and the United Arab Emirates. The data listed is supplemental to the information contained in the Annual Disclosure Presentation, which is located at the end of this presentation.

SGA International ACWI ex-U.S. Equity

Calendar Year Performance

Period Ending June 30, 2019



*2015 represents partial year return starting June 30, 2015.

Please see Appendix for additional information contained in the Annual Disclosure Presentation. Based on gross of fees returns. Past performance is not indicative of future results.

People – Portfolio Management and Research

Cynthia Tusan, CFA (30 years of Investment Experience)

Ms. Tusan is Chief Executive Officer and a Senior Portfolio Manager of SGA. Her investment career spans three decades, including 16 years with Wells Fargo where she began in 1989 as a Senior Portfolio Manager. In 1996, Ms. Tusan started the Risk Management Group for Wells Capital Management, and eventually led their international equity team in running close to \$1.5 billion in international equity assets. Ms. Tusan earned her BA in Economics from Bryn Mawr College and her MBA from the Anderson School at UCLA. She is a CFA charter holder and is a member of the CFA Society of Los Angeles and the CFA Society of Orange County.

Gary Baierl, PhD (21 years of Investment Experience)

Dr. Baierl is the Chief Investment Officer of SGA. Previously, he served as the Director of Quantitative Research at Causeway Capital Management where he developed the quantitative screens and the risk model used by the firm in their stock selection and portfolio construction processes. In addition, he launched and managed their quantitative market neutral international equity hedge fund. Prior to Causeway, Dr. Baierl was Head of Quantitative Research at Hotchkis and Wiley and also was a Senior Consultant in the Research Group at Ibbotson Associates. Dr. Baierl earned his PhD in Managerial Economics and Decision Science from Northwestern University and BA in Mathematics and Economics from Boston University.

Mark Wimer, CFA (24 years of Investment Experience)

Mr. Wimer joined SGA in 2008 and is a Senior Portfolio Manager. Prior to joining the firm, he was a Portfolio Manager for both quantitatively-driven domestic and international equity strategies at BMO Global Asset Management in Chicago. Previously, he developed quantitative stock selection models for Chicago Investment Analytics. Prior to that,

Mr. Wimer performed investment research in the areas of stock selection, asset allocation, and manager selection at Ibbotson Associates. He also spent three years at Barra RogersCasey, an institutional investment consulting firm. Mr. Wimer earned his BS in Computer and Electrical Engineering from Purdue University, MBA from the Johnson School at Cornell University, and is a member of the Chicago Quantitative Alliance.

Cherie Badri, CFA (24 years of Investment Experience)

Ms. Badri joined SGA in 2006 and is the firm's Director of Fundamental Research and a Senior Portfolio Manager. Her responsibilities include portfolio management, fundamental company analysis and due diligence. Ms. Badri spent over eight years as a Senior Associate Research Analyst at William Blair & Company in Chicago. Previously, she was an Analyst at Picoco in Newport Beach where she co-managed a fund focused on small-cap companies. Ms. Badri earned her BA in Economics from Northwestern University and both her MBA and MS in Finance from the University of Illinois at Urbana-Champaign. She is a CFA charter holder and is a member of the CFA Society of Orange County.

Brendan Skarra-Corson, CFA (12 years of Investment Experience)

Mr. Skarra-Corson joined SGA in 2012 and is a Senior Portfolio Manager. His responsibilities include portfolio management and stock selection factor research. He joined the firm in 2012 after completing a Master of Financial Engineering (MFE) degree at the University of California, Berkeley. Mr. Skarra-Corson worked at INDATA Services, LLC where he led a team that implemented solutions to meet the financial technology needs of asset managers. He also earned his BA in Economics and Mathematics from University of California, San Diego. Mr. Skarra-Corson is a CFA charter holder and member of the Orange County CFA Society.

People – Research

David Cai, CFA (7 years of Investment Experience)

Mr. Cai joined SGA in 2015 and is a Senior Research Analyst. His responsibilities include factor research, programming support, and trading support. Prior to joining the firm, Mr. Cai served as a Trader and Researcher at Henning & Carey Proprietary Trading in Chicago, where he traded U.S. fixed income products, modeled the Treasury yield curve, and researched new strategies. Mr. Cai brings skills that combine quantitative modeling, data analysis, and macroeconomic analysis to SGA. Mr. Cai earned his BBA in Finance and Mathematics from the University of Wisconsin, Madison and Master in Financial Engineering (MFE) from the University of California, Berkeley.

Vaibhav Kumar (9 years of Investment Experience)

Mr. Kumar joined SGA in 2015 and is a Research Analyst. His responsibilities include alpha factor research as well as model and systems development. Prior to joining the firm, he created risk and stress testing models for Goldman Sachs' Market Risk division and co-founded Quark Analytics, a high frequency trading firm, where he developed a low latency trade execution environment for select exchanges. Mr. Kumar spent three years with Microsoft R&D as a software developer where he designed and developed network security modules for Windows 7 in C++ before pursuing a career in finance. He earned his Integrated Master in Mathematics and Computing from IIT Kharagpur and Master in Financial Engineering (MFE) from the University of California, Berkeley.

Adam Hauptman, CFA (13 years of Investment Experience)

Mr. Hauptman joined SGA in 2016 and is a Senior Fundamental Analyst. His responsibilities include performing fundamental reviews of new ideas generated by the quantitative model. Prior to joining the firm, he spent over five years as a Research Analyst at Kayne Anderson Capital

in Los Angeles, primarily focused on large-cap global equities and equity derivatives. Mr. Hauptman was a Portfolio Manager at ASNY Asset Management. He also worked as an Analyst at Solios Asset Management. Mr. Hauptman began his career at Levitan & Associates in Boston as an Energy Economics Management Consultant. He is a CFA charter holder and earned his BSc degrees in Mathematics and Philosophy from the Massachusetts Institute of Technology.

Sylvester Malapas, CFA (11 years of Investment Experience)

Mr. Malapas joined SGA in 2016 and is a Senior Fundamental Analyst. His primary responsibilities include fundamental company analysis and due diligence. Most recently, he was an Analyst at Standard & Poor's Ratings Services in San Francisco where he focused on high yield credits within the software and services technology sector. Prior to business school, he spent four years at Merrill Lynch Bank of America where he supported the trading desk and compliance officer. Mr. Malapas earned his BA in Economics from the University of California, Irvine, and MBA from the Johnson School at Cornell University. He is a CFA charter holder and a member of the CFA Society of San Francisco.

Brett Darragh (3 years of Investment Experience)

Mr. Darragh joined SGA in 2019 and is a Fundamental Analyst. His primary responsibilities include fundamental company analysis and due diligence. Most recently, he was an equity research associate at Northland Securities in Newport Beach, CA where he primarily focused on the energy sector. Prior to Northland Securities, he was an associate financial analyst at TCW and Space Systems Loral. Brett received his BS in Business Administration from Cal Poly San Luis Obispo and is a CFA Level III candidate.

People – Trading

Stephen Smith (25 years of Investment Experience)

Mr. Smith joined SGA in 2016 and is Head Trader, responsible for managing the trading process for all SGA portfolios. Prior to joining the firm, Mr. Smith was Managing Director, Head of Trading for Tradewinds Global Investors, LLC where he oversaw global trading including developed, emerging, and frontier markets. Mr. Smith worked as Head Trader for Morgan Stanley's NYC based Emerging Markets Equity Trading Desk. He started his career with stints trading ASEAN region stocks from Hong Kong and Singapore for Morgan Stanley and trading NASDAQ stocks from New York City for Fleet Securities. He earned his BA from Bucknell University.

Antonio Constandinou (8 years of Investment Experience)

Mr. Constandinou joined SGA in 2019 and is a Global Equity Trader. His responsibilities include the implementation of the trading process for all SGA portfolios and programming support. Prior to joining the firm, Mr. Constandinou was a Portfolio Implementation Associate for Covenant Capital Management where he traded global derivative futures, implemented the firm's quantitative strategies and researched new strategies. Prior to Covenant Capital Management, he traded North American and LATAM equities with Pavilion Global Markets, an agency-only broker-dealer based in Montreal, Canada. He earned his BComm from Concordia University.

People – Academic Advisory Board

Professor Richard Frankel joined SGA’s Advisory Board in April 2007. Professor Frankel is the Beverly and James Hance Chair Professor of Accounting at Washington University in St. Louis and has taught at Olin since 2005. Prior to that, he was a Professor at the MIT Sloan School of Management and the University of Michigan (Ross School). At Michigan and MIT, he received the MBA Student Awards for Teaching Excellence. In 2003, he received the American Accounting Association, Notable Contribution Award with Charles Lee. He received first place awards in the I/B/E/S 25th Anniversary Global Expectation Research Competition (1996) and the Chicago Quantitative Alliance Earnings Expectation Research Competition (1995). His principal teaching interest is financial accounting and reporting. His research focuses on valuation using accounting numbers and on corporate managers’ use of conference calls, earnings forecasts, and pro-forma earnings. Professor Frankel earned his BS, MAS, and CPA from University of Illinois and his PhD from Stanford University.

Professor Richard Sloan joined SGA’s Advisory Board in December 2018. Professor Sloan is Accounting Circle Professor of Accounting for the Leventhal School of Accounting at the University of Southern California. Prior to that, he was Chaired Professor of Accounting at the University of California at Berkeley (Haas School of Business). From 2006 to 2009, Professor Sloan was a Managing Director in Equity Research at Barclays Global Investors. He has also held academic positions at the University of Michigan (Ross School) and the University of Pennsylvania (Wharton School). While at the University of Michigan, Professor Sloan was the founding director of the Tozzi Electronic Business and Finance Center.

His expertise has focused on the role of accounting information in investment decisions and he won the 2001 Account Literature Award for his research on earnings quality. Professor Sloan has authored numerous peer-reviewed articles, his own textbook [Equity Valuation and Analysis with eVal](#) and recently received a Lifetime Achievement Award from the American Accounting Association, Financial Accounting and Reporting Section (2018). Professor Sloan earned a Bachelor of Commerce with First Class Honors at the University of Western Australia and his MS and PhD Business Administration (Accounting and Finance) from the W.E. Simon Graduate School of Business at University of Rochester.

People – Management

Brett Gallagher (36 years of investment experience)

Mr. Gallagher is President of SGA. Prior to joining the firm, he was a partner and served as Director of Research and Acquisition at Nile Capital Group, a Los Angeles-based private equity firm. Previously, he served as Deputy CIO at Artio Global Investors/Julius Baer Investment Management where he conducted macro-economic analysis, was Co-Head of the Global Equity team, and worked closely with the risk management and trading teams. Prior to his 14 years at Artio Global Investors, Mr. Gallagher was Head of Investment Management Asia for JP Morgan Private Bank in Singapore and Head of Global Equity for Bankers Trust International Private Bank. His responsibilities included the development of asset management and research processes, global asset allocation strategies, and economic analysis. Earlier in his career, Mr. Gallagher was an Analyst with Irwin Management Company where he was responsible for the selection and evaluation of external managers, as well as financial oversight for Venture Capital investments. Mr. Gallagher has appeared numerous times on CNBC, Bloomberg, and Fox Business News as well as having been quoted in The Wall Street Journal. He was also a guest lecturer at Yale University. Mr. Gallagher received his BA in Economics from the University of Virginia and his MBA from The Darden Graduate School of Business. He is currently a member of the Board of Managers and member of the investment Committee for the University of Virginia Alumni Association.

Joel Reynolds (24 years of Investment Industry Experience)

Mr. Reynolds is Chief Compliance Officer at SGA and responsible for all of the firm's compliance functions. Prior to joining SGA, Mr. Reynolds was Senior Vice President, Senior Compliance Officer at PIMCO for more than eight years, where he was responsible for managing core functions related to regulatory and investment compliance, including personal trading, portfolio compliance, client certifications, and compliance training. Previously, Mr. Reynolds was a vice president in compliance at Income Research & Management and held compliance positions with Geode Capital Management and Fidelity Investments. He has 16 years of compliance experience, holds a JD from Suffolk University Law School, and an MBA from Babson College. He received his undergraduate degree in Economics from the University of Utah. He is admitted to the bar in Massachusetts and Arizona.

Elyse Waldinger (23 years of Investment Industry Experience)

Ms. Waldinger is Chief Operating Officer at SGA and is responsible for the firm's operations and technology functions. Prior to joining SGA, Ms. Waldinger was Partner/Chief Operating Officer/Chief Compliance Officer at R Squared Capital Management. Previously, she was the Head of Trading and Portfolio Support, Equities at Artio Global Management. Prior to joining Artio in 2000, she was a Sales Assistant on the Municipal Bond Trading Desk at Morgan Stanley for three years and a Portfolio Assistant with Burnham Securities for two years. Ms. Waldinger received a BS from AB Freeman School of Business, Tulane University.

People – Client Service

Sam King, CFA (17 years of Investment Industry Experience)

Mr. King is Director of Marketing for SGA. He leads the firm's new business development by calling on plan sponsors and consulting firms throughout the U.S. Previously, he served as Senior Vice President of Marketing for Smith Breeden Associates where he was the relationship manager for consulting firms and large plan sponsors in the Western U.S. Prior to Smith Breeden, Mr. King was first a Marketing Manager, and later Vice President of Consultant Sales, for Trusco Capital Management in Atlanta, GA. Mr. King earned his MBA in Finance from Georgia State University and BA in Journalism from the University of North Carolina. He is a CFA charter holder and is a member of the CFA Society of North Carolina.

Susan Bandy, CFA (21 years of Investment Industry Experience)

Ms. Bandy is Director of Client Service and Distribution, responsible for managing the firm's client relationships and developing new sub-advisory partnerships. Prior to joining the firm, Ms. Bandy served as Director at Pzena Investment Management with responsibility for sub-advisory business development. Previously, Ms. Bandy was Vice President at MSCI, Inc. where she worked closely with institutional clients to support their use of Barra analytical tools for risk management and asset allocation. Ms. Bandy has also held institutional relationship management roles at Deutsche Asset Management and Boston Partners Asset Management. She earned her BA from the University of Oregon and MA from Boston University. Ms. Bandy is a CFA charter holder and is a member of the New York Society of Security Analysts.

R. Barney Walker (26 years of Investment Industry Experience)

Mr. Walker is Director of Institutional Investments, responsible for developing and managing new partnerships in the Northeastern U.S., as well as internationally. Prior to joining the firm, Mr. Walker was a

Partner at Aligned Asset Managers, LLC where they provided growth equity capital and distribution expertise to their member firms. Previously, Mr. Walker was a Senior Vice President at Artio Global Investors, LLC (f/k/a Julius Baer Investment Management, LLC) where he shared leadership for new business and client service from 2002-2012. Mr. Walker started his career at Ark Asset Management, Inc. where he worked from 1996-2002 holding various institutional new business/client service roles after spending two years as a junior member of the portfolio team. He earned his BS from Boston College.

John Dewey (18 years of Investment Industry Experience)

Mr. Dewey is Director of Institutional Investments, responsible for business development efforts with institutional plan sponsors and consulting firms throughout the Western United States. Prior to joining the firm, he led Australia-based Magellan's North American business development and client service team. Mr. Dewey's prior experience also includes serving as a product specialist in both Defined Contribution and Equities while at PIMCO, as well as helping lead the expansion of Capital Guardian's middle market institutional business. Mr. Dewey earned his MBA from Santa Clara University and BA in Political Science from the University of California, Los Angeles.

Douglas McGrath (11 years of Investment Industry Experience)

Mr. McGrath is Associate Director, Institutional Investments, with responsibility for supporting the firm's Northeastern U.S. and international business development initiatives. Prior to joining the firm, Mr. McGrath was an Assistant Vice President at Allianz Global Investors in New York. Previously, Mr. McGrath was a Relationship Manager at MSCI Inc. from 2011-2015 and started his career at PCS Research in New York. He earned his BA in Economics from Hunter College.

Annual GIPS Disclosure Presentation

Strategic Global Advisors, LLC (SGA) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. SGA has been independently verified for the periods December 1, 2005 through December 31, 2018. The verification report(s) is/are available upon request.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firmwide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

SGA's International Equity, International SMID Cap Equity, and U.S. Large Cap Equity composites have been independently verified from the inception of each composite through December 31, 2018. SGA's International Small Cap Equity has been independently verified from January 1, 2014 through December 31, 2018.

SGA is an independently registered investment advisor. The firm maintains a complete list and description of composites, which is available upon request. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. Composite performance is presented net of foreign withholding taxes on dividends, interest income, and capital gains. Withholding taxes may vary according to the investor's domicile. Composite returns represent investors domiciled primarily in the United States.

The U.S. dollar is the currency used to express performance. The following returns are presented gross and net of management fees and include the reinvestment of all income.

The annual composite dispersion presented is an asset weighted standard deviation calculated for the accounts in the composite the entire year and is only presented for periods with more than five accounts in for the entire year. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

Past performance is not indicative of future results.

Systematic Investment Risk

There is potential for shortfall in any investment process due to a variety of factors including, but not limited to, data and system imperfections, analyst judgment, and the complex nature of designing and implementing portfolio construction systems and other quantitative models. Such shortfalls in systematic or quantitative processes in particular pose broader risk because they may be more pervasive in nature.

Furthermore, the Advisor's systems may not necessarily perform in a manner in which they have historically performed or were intended to perform. The Advisor recognizes that such shortfalls are inherent to both fundamental and quantitative processes, and believes that combining both approaches improves the opportunity to reduce these shortfalls. However these efforts may not necessarily result in the identification of profitable investments or the management of risk.

SGA International ACWI ex-U.S. Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (MILLIONS)	COMPOSITE ASSETS		ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION**	
		USD (MILLIONS)	NO. OF ACCOUNTS	COMPOSITE GROSS	COMPOSITE NET	MSCI ACWI EX USA INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI ACWI EX USA INDEX (NET)
2018	3,944	116	2	-14.72%	-15.45%	-14.20%	N/A	11.80%	11.54%
2017	4,085	136	2	29.59%	28.38%	27.19%	N/A	N/A	N/A
2016	3,023	105	2	1.61%	0.60%	4.50%	N/A	N/A	N/A
2015*	2,548	39	1	-6.97%	-7.44%	-9.32%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning on June 30, 2015.

**The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

International ACWI ex-U.S. Equity Composite includes all discretionary, investment restricted, equity only accounts whose primary investment objective is growth, and secondarily yield, and are invested in international large cap securities. The minimum account size for this composite is \$100 thousand. For comparison purposes, the composite is compared to MSCI ACWI ex USA Net Index. The MSCI ACWI ex USA Net Index uses withholding tax rates applicable to Luxembourg holding companies. The International ACWI ex-U.S. Equity Composite was created June 30, 2015. Prior to December 31, 2016, the International ACWI ex-U.S. Equity Composite was known as the International Large Cap Core Equity MSCI All Country World ex-U.S. Composite.

Net of fees performance was calculated using the highest applicable annual management fee of 0.85% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 1.00% applied monthly.

Past performance is not indicative of future results.

Maximum fee is 0.85%; actual investment advisory fees incurred by clients may vary.

SGA International Equity Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (\$MM)	COMPOSITE ASSETS			ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION***	
		USD (\$MM)	# OF ACCTS	% OF WRAP ACCOUNTS	COMPOSITE GROSS**	COMPOSITE NET	MSCI EAFE INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI EAFE INDEX (NET)
2018	3,944	1,603	15	3%	-15.34%	-15.98%	-13.79%	0.21%	11.32%	11.40%
2017	4,085	1,996	13	2%	25.28%	24.13%	25.03%	0.62%	11.37%	12.00%
2016	3,023	955	12	6%	0.43%	-0.57%	1.00%	0.11%	12.14%	12.64%
2015	2,548	792	8	5%	2.11%	1.10%	-0.81%	0.10%	11.99%	12.64%
2014	1,141	88	6	45%	2.59%	1.57%	-4.90%	0.19%	12.26%	13.21%
2013	715	73	5	51%	26.39%	25.16%	22.78%	N/A	15.30%	16.48%
2012	441	58	5	52%	19.97%	18.80%	17.32%	N/A	18.16%	19.65%
2011	313	38	5	66%	-6.39%	-7.32%	-12.14%	N/A	21.11%	22.75%
2010	153	40	5	67%	12.47%	11.36%	7.75%	N/A	26.48%	26.61%
2009	145	35	5	66%	34.60%	33.29%	31.78%	N/A	24.44%	23.91%
2008	128	33	5	73%	-45.58%	-46.15%	-43.38%	N/A	20.99%	19.51%
2007	109	46	5	100%	8.17%	7.10%	11.17%	N/A	N/A	N/A
2006	45	24	3	100%	32.67%	31.38%	26.34%	N/A	N/A	N/A
2005*	7	<1	1	0%	5.49%	5.41%	4.65%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning on November 30, 2005.

**Beginning January 1, 2017, pure gross returns are shown as supplemental information for bundled fee accounts and are stated gross of all fees and transaction costs.

***The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

International Equity Composite includes all discretionary, equity only accounts whose primary investment objective is growth, and secondarily yield, and are invested in international large cap securities. The minimum account size for this composite is \$100 thousand. Beginning January 1, 2017, accounts in this composite may contain client imposed investment restrictions. For comparison purposes, the composite is compared to the MSCI EAFE Net Index. The MSCI EAFE Net Index uses withholding tax rates applicable to Luxembourg holding companies. The International Equity Composite was created November 30, 2005. Prior to December 31, 2016, the International Equity Composite was known as the International Large Cap Core Equity Composite.

Net of fees performance was calculated using the highest applicable annual management fee of 0.75% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 1.00% applied monthly. Bundled fee (or wrap fee) accounts are included in the composite, and those accounts pay a fee based on a percentage of assets under management, which besides brokerage commissions, this fee includes portfolio monitoring, consulting services, and in some cases, custodial services. From November 30, 2005 through December 31, 2016, gross and net returns have been reduced by the fees for these services. Beginning January 1, 2017, pure gross returns are shown as supplemental information for bundled fee accounts and are stated gross of all fees and transaction costs.

From September 30, 2013 to March 31, 2014, composite policy included two scenarios that require the temporary removal of any portfolio due to a client initiated significant cash inflow or outflow: 1) When the cash inflow or outflow represents from over 5% to 10% of portfolio assets and it takes longer than five trading days to reduce cash levels to less than 5%, and 2) When the cash inflow or outflow represents more than 10% of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite at the beginning of the month after the cash level in the portfolio is reduced to less than 5%. Additional information regarding the treatment of significant cash flows is available upon request.

Past performance is not indicative of future results.

Maximum fee is 0.75%; actual investment advisory fees incurred by clients may vary.

SGA International Small Cap Equity Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (MILLIONS)	COMPOSITE ASSETS			ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION***	
		USD (MILLIONS)	NO. OF ACCOUNTS	% OF WRAP ACCOUNTS	COMPOSITE GROSS**	COMPOSITE NET	MSCI WORLD EX USA SMALL CAP INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI WORLD EX USA SMALL CAP INDEX (NET)
2018	3,944	790	8	3%	-21.57%	-22.29%	-18.07%	0.29%	13.66%	12.73%
2017	4,085	579	8	5%	38.54%	36.73%	31.04%	N/A	12.18%	11.69%
2016	3,023	274	4	2%	2.40%	0.88%	4.32%	N/A	12.70%	12.49%
2015	2,548	248	4	2%	11.95%	10.30%	5.46%	N/A	11.60%	11.66%
2014	1,141	67	3	7%	-3.43%	-4.87%	-5.35%	N/A	12.93%	13.53%
2013	715	5	1	100%	37.17%	35.18%	25.55%	N/A	15.17%	16.50%
2012	441	4	1	100%	20.15%	18.39%	17.48%	N/A	N/A	N/A
2011	313	3	1	100%	-5.09%	-6.51%	-15.81%	N/A	N/A	N/A
2010*	153	3	1	100%	18.95%	17.64%	18.12%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning March 31, 2010.

**Beginning January 1, 2017, pure gross returns are shown as supplemental information for bundled fee accounts and are stated gross of all fees and transaction costs.

***The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

International Small Cap Equity Composite includes the discretionary, equity only accounts whose primary investment objective is growth, and secondarily yield, invested in international small cap securities, and benchmarked against MSCI World ex-US Small Cap Net Index. The minimum account size for this composite is \$100 thousand. From inception through November 30, 2013, the composite was compared to the MSCI EAFE Small Cap Net Index. On December 1, 2013, the comparative benchmark for the composite was changed to the MSCI World Ex-US Small Cap Net Index. This index includes Canadian securities, while the EAFE Small Cap Index does not. The list of eligible countries for the strategy has included Canada since its inception, and the strategy has typically included investments in Canadian securities. Therefore, the MSCI World Ex-US Small Cap Net Index is more closely representative of the strategy, and in fact, the strategy has maintained a lower tracking error versus this index since inception. This change of benchmark was made retroactively to the inception of the composite. The MSCI World Ex-US Small Cap Net Index uses withholding tax rates applicable to Luxembourg holding companies. The International Small Cap Equity Composite was created March 31, 2010. Prior to December 31, 2016, International Small Cap Equity Composite was known as the International Small Cap Core Equity Composite.

Net of fees performance was calculated using the highest applicable annual management fee of 0.90% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 1.50% applied monthly. Some accounts in this composite pay a bundled fee (or wrap fee) based on a percentage of assets under management, which in addition to brokerage commissions, the fee includes portfolio monitoring, consulting services, and in some cases, custodial services. From March 31, 2010 through December 31, 2016, gross and net returns have been reduced by the fees for these services. Beginning January 1, 2017, pure gross returns are shown as supplemental information for bundled fee accounts and are stated gross of all fees and transaction costs.

Past performance is not indicative of future results.

Maximum fee is 0.90%; actual investment advisory fees incurred by clients may vary.

Please note that effective October 1, 2018 the composite was re-defined to no longer include accounts benchmarked against the MSCI EAFE Small Cap Net Index. The change was made to accommodate differences that occurred between the composite's intended strategy and the MSCI EAFE Small Cap Net Index.

SGA International All Cap Equity Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (MILLIONS)	COMPOSITE ASSETS		ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION**	
		USD (MILLIONS)	NO. OF ACCOUNTS	COMPOSITE GROSS	COMPOSITE NET	MSCI WORLD EX USA IMI INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI WORLD EX USA IMI INDEX (NET)
2018	3,944	181	3	-16.78%	-17.50%	-14.68%	N/A	11.40%	11.37%
2017	4,085	184	3	30.07%	28.85%	25.17%	N/A	10.93%	11.74%
2016	3,023	84	1	1.30%	0.30%	2.95%	N/A	11.71%	12.42%
2015	2,548	49	1	4.47%	3.43%	-1.95%	N/A	11.95%	12.26%
2014	1,141	87	2	1.01%	0.01%	-4.46%	N/A	12.71%	12.92%
2013	715	91	2	26.63%	25.40%	21.57%	N/A	16.06%	16.18%
2012	441	132	3	21.00%	19.81%	16.55%	N/A	18.81%	19.33%
2011	313	89	3	-8.76%	-9.68%	-12.66%	N/A	21.90%	22.68%
2010	153	41	1	13.95%	12.82%	10.66%	N/A	N/A	N/A
2009	145	37	1	37.56%	36.22%	35.35%	N/A	N/A	N/A
2008*	128	34	1	-43.00%	43.41%	-41.86%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning on April 30, 2008.

**The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

International All Cap Equity Composite includes all discretionary, fee paying, equity only accounts whose primary investment objective is growth, and secondarily yield, and are invested in international all cap securities. The minimum account size for this composite is \$100 thousand. Beginning January 1, 2017, accounts in this composite may contain client imposed investment restrictions. For comparison purposes, the composite is compared to the MSCI World Ex-U.S. IMI Net Index. The MSCI World ex-U.S. IMI Net Index uses withholding tax rates applicable to Luxembourg holding companies. The International All Cap Equity Composite was created April 30, 2008. Prior to December 31, 2016, the International All Cap Equity Composite was known as the International All Cap Core MSCI World ex-U.S. IMI Equity Composite.

Net of fees performance was calculated using the highest applicable annual management fee of 0.85% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 1.00% applied monthly.

From September 30, 2013 to March 31, 2014, composite policy included two scenarios that require the temporary removal of any portfolio due to a client initiated significant cash inflow or outflow: 1) When the cash inflow or outflow represents from over 5% to 10% of portfolio assets and it takes longer than five trading days to reduce cash levels to less than 5%, and 2) When the cash inflow or outflow represents more than 10% of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite at the beginning of the month after the cash level in the portfolio is reduced to less than 5%. Additional information regarding the treatment of significant cash flows is available upon request.

From September 30, 2013 to March 31, 2014, composite policy included two scenarios that require the temporary removal of any portfolio due to a client initiated significant cash inflow or outflow: 1) When the cash inflow or outflow represents from over 5% to 10% of portfolio assets and it takes longer than five trading days to reduce cash levels to less than 5%, and 2) When the cash inflow or outflow represents more than 10% of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite at the beginning of the month after the cash level in the portfolio is reduced to less than 5%. Additional information regarding the treatment of significant cash flows is available upon request.

Past performance is not indicative of future results.

Maximum fee is 0.85%; actual investment advisory fees incurred by clients may vary

SGA Global Equity Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (MILLIONS)	COMPOSITE ASSETS		ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION**	
		USD (MILLIONS)	NO. OF ACCOUNTS	COMPOSITE GROSS	COMPOSITE NET	MSCI WORLD INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI WORLD INDEX (NET)
2018	3,944	209	3	-11.77%	-12.44%	-8.71%	N/A	10.90%	10.53%
2017	4,085	269	4	26.46%	25.30%	22.40%	N/A	10.48%	10.38%
2016	3,023	205	4	5.16%	4.12%	7.51%	N/A	11.34%	11.08%
2015	2,548	219	5	0.86%	-0.15%	-0.87%	N/A	N/A	N/A
2014	1,141	53	2	12.81%	11.70%	4.94%	N/A	N/A	N/A
2013*	715	16.6	1	6.64%	6.46%	3.93%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning on October 31, 2013.

**The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

Global Equity Composite includes all discretionary, equity only accounts whose primary investment objective is growth, and secondarily yield, and are invested in a combination of U.S. and international large cap securities. The minimum account size for this composite is \$100 thousand. For comparison purposes, the composite is compared to the MSCI World Net Index. The MSCI World Net Index uses withholding tax rates applicable to Luxembourg holding companies. The Global Equity Composite was created October 31, 2013. Prior to December 31, 2016, the Global Equity Composite was known as the Global Large Cap Core Equity Composite.

Net of fees performance was calculated using the highest applicable annual management fee of 0.75% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 1.00% applied monthly.

The annual composite dispersion presented is an asset weighted standard deviation calculated for the accounts in the composite the entire year and is only presented for periods with more than five accounts in for the entire year. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

From October 31, 2013 to January 1, 2014, composite policy included two scenarios that require the temporary removal of any portfolio due to a client initiated significant cash inflow or outflow: 1) When the cash inflow or outflow represents from over 5% to 10% of portfolio assets and it takes longer than five trading days to reduce cash levels to less than 5%, and 2) When the cash inflow or outflow represents more than 10% of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite at the beginning of the month after the cash level in the portfolio is reduced to less than 5%. Additional information regarding the treatment of significant cash flows is available upon request.

Past performance is not indicative of future results.

Maximum fee is 0.75%; actual investment advisory fees incurred by clients may vary.

SGA International SMID Cap Equity Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (MILLIONS)	COMPOSITE ASSETS			ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION***	
		USD (MILLIONS)	NO. OF ACCOUNTS	% OF WRAP ACCOUNTS	COMPOSITE GROSS**	COMPOSITE NET	MSCI EAFE SMID CAP INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI EAFE SMID CAP INDEX (NET)
2018	3,944	28	2	100%	-17.84%	-18.59%	-16.95%	N/A	13.07%	12.57%
2017	4,085	34	2	100%	38.33%	36.52%	30.78%	N/A	12.16%	11.78%
2016	3,023	25	2	100%	2.50%	0.98%	1.32%	N/A	12.57%	12.27%
2015	2,548	24	2	100%	11.71%	10.06%	6.61%	N/A	11.56%	11.45%
2014	1,141	22	2	100%	0.48%	-1.01%	-3.31%	N/A	12.63%	13.06%
2013	715	22	2	100%	34.20%	32.25%	26.48%	N/A	14.81%	16.08%
2012	441	16	2	100%	20.55%	18.78%	18.96%	N/A	18.01%	19.80%
2011	313	14	2	100%	-5.38%	-6.80%	-14.91%	N/A	20.98%	23.02%
2010	153	14	2	100%	20.37%	18.60%	17.37%	N/A	28.15%	28.53%
2009	145	12	2	100%	37.97%	35.96%	39.24%	N/A	26.28%	25.77%
2008	128	13	4	96%	-48.56%	-49.37%	-45.62%	N/A	N/A	N/A
2007	109	26	4	96%	3.60%	2.06%	3.49%	N/A	N/A	N/A
2006*	45	4	2	100%	11.19%	10.78%	12.27%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning on September 30, 2006.

**Beginning January 1, 2017, pure gross returns are shown as supplemental information for bundled fee accounts and are stated gross of all fees and transaction costs.

***The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

International SMID Cap Equity Composite includes all discretionary, equity only accounts whose primary investment objective is growth, and secondarily yield, and are invested in international small and mid cap securities. The minimum account size for this composite is \$100 thousand. For comparison purposes, the composite is compared to the MSCI EAFE SMID Cap Index (Net). The MSCI EAFE SMID Cap Index (Net) uses withholding tax rates applicable to Luxembourg holding companies. The International SMID Cap Equity Composite was created September 30, 2006. Prior to December 31, 2016, the International SMID Cap Equity Composite was known as the International Small-Mid Cap Core Equity Composite.

Net of fees performance was calculated using the highest applicable annual management fee of 0.90% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 1.50% applied monthly. Bundled fee (or wrap fee) accounts are included in the composite, and those accounts pay a fee based on a percentage of assets under management, which besides brokerage commissions, this fee includes portfolio monitoring, consulting services, and in some cases, custodial services. From September 30, 2006 through December 31, 2016, gross and net returns have been reduced by the fees for these services. Beginning January 1, 2017, pure gross returns are shown as supplemental information for bundled fee accounts and are stated gross of all fees and transaction costs.

From September 30, 2013 to March 31, 2014, composite policy included two scenarios that require the temporary removal of any portfolio due to a client initiated significant cash inflow or outflow: 1) When the cash inflow or outflow represents from over 5% to 10% of portfolio assets and it takes longer than five trading days to reduce cash levels to less than 5%, and 2) When the cash inflow or outflow represents more than 10% of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite at the beginning of the month after the cash level in the portfolio is reduced to less than 5%. Additional information regarding the treatment of significant cash flows is available upon request.

Past performance is not indicative of future results.

Maximum fee is 0.90%; actual investment advisory fees incurred by clients may vary.

SGA International ADR Equity Annual Disclosure Presentation

YEAR END	TOTAL FIRM ASSETS (MILLIONS)	COMPOSITE ASSETS			ANNUAL PERFORMANCE RESULTS				3-YEAR ANNUALIZED EX-POST STANDARD DEVIATION***	
		USD (MILLIONS)	NO. OF ACCOUNTS	% OF WRAP ACCOUNTS	COMPOSITE GROSS**	COMPOSITE NET	MSCI EAFE INDEX (NET)	COMPOSITE DISPERSION	COMPOSITE GROSS	MSCI EAFE INDEX (NET)
2018	3,944	105	5	0%	-14.33%	-14.98%	-13.79%	N/A	11.18%	11.40%
2017	4,085	28	7	16%	23.69%	22.60%	25.03%	0.13%	10.98%	12.00%
2016	3,023	22	6	35%	0.72%	-0.23%	1.00%	N/A	11.92%	12.64%
2015	2,548	18	5	18%	4.67%	3.68%	-0.81%	N/A	11.63%	12.64%
2014	1,141	12	3	24%	0.67%	-0.28%	-4.90%	N/A	12.25%	13.21%
2013	715	<1	1	100%	24.38%	23.22%	22.78%	N/A	15.70%	16.48%
2012	441	<1	1	100%	24.50%	23.34%	17.32%	N/A	18.89%	19.65%
2011	313	<1	1	100%	-8.54%	-9.41%	-12.14%	N/A	22.40%	22.75%
2010	153	<1	1	100%	9.79%	8.76%	7.75%	N/A	26.87%	26.61%
2009	145	<1	1	100%	36.39%	35.13%	31.78%	N/A	24.55%	23.91%
2008	128	5	2	6%	-44.64%	-45.19%	-43.38%	N/A	N/A	N/A
2007	109	8	2	6%	5.96%	5.27%	11.17%	N/A	N/A	N/A
2006*	45	8	2	0%	17.18%	16.90%	14.69%	N/A	N/A	N/A

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

*Performance represents a non-annualized partial period return beginning on June 30, 2006.

**Pure gross returns are shown as supplemental information and for bundled fee accounts are stated gross of all fees and transaction costs.

***The 3-year annualized ex-post standard deviation is not shown when there are not 36 monthly performance returns available.

International ADR Equity Composite includes all discretionary, equity only accounts whose primary investment objective is growth, and secondarily yield, and are invested in international large cap ADRs. The minimum account size for this composite is \$100 thousand. Prior to December 31, 2016, accounts in the composite held at least 75 securities. As of January 1, 2017, minimum number of securities is no longer required for accounts to be included in the composite. Beginning January 1, 2017, accounts in this composite may contain client imposed investment restrictions. For comparison purposes, the composite is compared to the MSCI EAFE Net Index. The MSCI EAFE Net Index uses withholding tax rates applicable to Luxembourg holding companies. The International ADR Equity Composite was created June 30, 2006. Prior to December 31, 2016, the International ADR Equity Composite was known as the International Large Cap Core ADR Equity Composite.

Between July 1, 2006 and August 31, 2007, the composite included only non-bundled fee accounts. From December 1, 2009 through December 31, 2013, 100% of the composite consisted of bundled fee (or wrap fee) accounts. For bundled fee accounts, these accounts pay a fee based on a percentage of assets under management, which besides brokerage commissions, this fee includes portfolio monitoring, consulting services, and in some cases, custodial services. Returns are presented gross and net of fees and include the reinvestment of all income. Gross returns are shown as supplemental information and for bundled fee accounts are stated gross of all fees and transaction costs; net returns are reduced by management fees and transaction costs. Beginning January 1, 2017, less than 1% of the composite consisted of non-fee paying accounts. Net of fees performance was calculated using the highest applicable annual management fee of 0.75% applied monthly effective October 1, 2017. Prior to October 1, 2017, net of fees performance was calculated using the highest applicable annual management fee of 0.95% applied monthly effective September 1, 2007. Prior to September 1, 2007, net of fees performance was calculated using the highest applicable annual management fee of 0.50% applied monthly.

Past performance is not indicative of future results.

Maximum management fee is 0.75%; actual investment advisory fees incurred by clients may vary.

Please note: Previous versions of this product sheet contained related performance for periods November 30, 2005 to June 30, 2006. Performance shown prior to June 30, 2006 represents the International Equity Composite, which was a similar strategy to the International ADR Equity Composite but utilizes ordinary foreign shares instead of ADRs. The revised figures are included here. Additionally, all periods presented prior to December 1, 2018 include bundled fee portfolios. On December 1, 2018, the bundled fee portfolios were removed from this composite to the International ADR Wrap Equity composite. Please contact SGA if you have questions.

Investment Process Disclosure

SGA Research

Investment Process

Pages in this presentation referring to investment process, portfolio construction, investment guidelines, research, portfolio characteristics, and portfolio positioning are for illustrative purposes only. Figures and statements on these pages are subject to change and may vary based on market conditions, strategy and client-specific constraints.

The “daily screening portfolio optimization” generally runs daily on the strategy’s universe subject to SGA’s strategy and client-specific constraints. The “Stock Selection Model” estimates industry relative score based on several factors and may be interpreted as expected relative return. The “Risk Model” estimates the risk profile of each stock based on SGA’s proprietary alpha and risk factors.

Fundamental analysis generally takes into consideration more areas than listed. The areas listed as well as areas not listed may singly or jointly impact an analyst’s decision. The judgment of experienced analysts is used to determine the importance of these areas and whether they constitute a high enough level of concern that a stock will be deemed ineligible for purchase.

Never invest based purely on our publication or information, which is provided on an “as is” basis without representations. Past performance is not indicative of future results.

Stock Examples

Stock examples are intended for illustration purposes only. The actual company review may differ significantly in terms of model rankings, and the parameters for the fundamental review, including areas not listed on this page. Portfolio manager judgment, as well as, research accessed from a variety of sources may be used, alone and together. The rankings at the time of purchase and at the time of sale will vary significantly by security. There is no threshold by which a stock is purchased or sold and portfolio manager judgment at all times is a factor.

Percentiles are calculated for illustration purposes using SGA’s proprietary Alpha Model estimates, which are used to assess companies. Every company receives an alpha, which may be interpreted as a proxy for expected excess return or peer group rank.

Nothing published should be considered personalized investment advice, investment services or solicitation to buy, sell, or hold any securities.

Investments do not guarantee a positive return as stocks are subject to market risks, including the potential loss of principal.

Attribution by Sector and Country

Time periods are noted on each SGA Attribution by Sector and Country slide.

Analysis uses holdings and performance for a representative account or the client's own account, as noted. In the case of a representative account, the performance may vary from other portfolios following the same strategy. The accounts are managed in a similar manner, and therefore we believe these results accurately reflect the performance of the relevant strategy.

The results portrayed reflect the reinvestment of dividends and other earnings. International equity investing includes the possibility of loss. The volatility of the index may be materially different from that of the portfolio.

The data used is derived from FactSet Portfolio Analysis. Returns will not precisely match composite returns or returns reconciled to the account's custodian due to the use of FactSet pricing, FactSet corporate actions, FactSet dividend reinvestment, and use of end of day holdings that do not account for trades not executed at closing prices.

Portfolio returns may vary from the composite returns due to several factors: holdings- rather than transaction-based attribution is used, pricing utilized MSCI net rather than actual pricing and tax withholding, and due to the fact the attribution is run on a representative portfolio rather than a composite of portfolios.

Excess returns reported by SGA are calculated by subtracting the annualized return of the benchmark from the annualized return of the SGA portfolio. Traditional attribution by FactSet is applied to cumulative returns of the benchmark versus cumulative returns of the portfolio, then annualizing the differences in cumulative return.

Due to limitations on the availability of holdings data, all benchmark data for periods prior to July 31, 2007 represent the historical returns for the benchmark holdings as of July 31, 2007.

In preparing this presentation we have relied upon and assumed without

independent verification, the accuracy and completeness of all information available from public sources.

This information is supplemental to the Annual Disclosure Presentation.

Sources: FactSet, SGA

Past performance is not indicative of future results. Returns are presented gross of fees.

- Average weight: The portfolio average weight of a position reflects the average daily value of the position relative to all of the securities in the portfolio over the period.
- Total return: Total returns for the portfolio gross of fees. Total returns include the reinvestment of dividends and other earnings.
- Contribution to return: The portfolio contribution to return is calculated by multiplying the beginning weight of a security by the portfolio return.
- Allocation effect: Portion of portfolio excess return attributed to over or underweights relative to the benchmark. A group's allocation effect equals the weight of the portfolio's group minus the weight of the benchmark's group times the total return of the benchmark group minus the total return of the benchmark in aggregate.
- Selection effect: Selection effect is the portion of portfolio excess return attributable to choosing different securities within groups from the benchmark. A group's selection effect equals the weight of the benchmark's group multiplied by the total return of the portfolio's group minus the total return of the benchmark's group.
- Interaction effect: A group's interaction effect equals the weight of the portfolio's group minus the weight of the benchmark's group times the total return of the portfolio's group minus the total return of the benchmark's group.
- Total effect: The total effect represents the opportunity cost of an investment manager's investment decisions relative to the overall benchmark.

Alpha Model International ACWI ex-U.S. Equity Universe

These Alpha Model backtests are hypothetical and do not reflect actual returns of SGA portfolios. There is no guarantee that SGA's live strategies will capture fully or in part the excess returns estimated here. Furthermore, SGA does not guarantee the accuracy of these estimates or methodology. SGA believes the backtest analysis provides important insights for SGA in thinking about and designing the firm's investment process. SGA applies both quantitative and qualitative approaches to portfolio management, which may vary depending on market conditions and impact the firm's ability to capture the alpha indicated by these backtests.

There are limitations inherent in backtested model results, particularly the fact that such results do not represent actual trading and that they may not reflect the impact that material economic and market factors might have had on portfolio decision making in a live client account. SGA did not manage any live accounts during the entire backtest period. The results portrayed reflect the reinvestment of dividends and other earnings.

International equity investing includes the possibility of loss. Equal-weighted quintile returns by SGA Alpha are compared to the equal-weighted large cap universe.

SGA encourages clients and prospects to seek independent sources of analysis in assessing SGA's returns and process. For additional information on the calculation methodology please contact Strategic Global Advisors, LLC at 949.706.2640.

- Time period January 1988 – June 2019
- Formed equal-weighted quintiles based on SGA Alphas
- Quarterly rebalancing with no transaction costs
- Included: Developed and Emerging countries
- Sector definitions used are Global Industry Classification Standard (GICS®)
- Market cap cutoff was determined through time this way:
 - The top 10% of companies in the universe as measured by market cap at each given period
 - The approximate number of companies in International ACWI ex-U.S. Equity universe varies significantly over time and in comparison to the universe used when constructing actual client portfolios

The volatility of the index may be materially different from that of all quintile returns by SGA Alpha.

Source: FactSet, SGA

Past performance is not indicative of future results. Returns are presented gross of fees.

This is supplemental information to the Annual Disclosure Presentation.

Fundamental Analysis and Process Performance Attribution Charts

These charts represent SGA's tracking of fundamental analysis ratings, which impact the eligibility of stocks that can be considered for purchase in client portfolios. SGA began tracking fundamental analysis ratings as noted on the slide and so can not provide this information back to inception of the firm. There is not necessarily a correlation between the effectiveness of the fundamental review process depicted in these charts and the actual returns of client portfolios. While these charts show all potential new buys that were reviewed, client portfolios hold only a small subsection of these universes. Furthermore, there are many more factors that impact client portfolios such as optimization, which incorporates account and strategy restrictions, risk aversion assumptions, transaction costs, etc. Portfolio manager discretion will also significantly impact portfolios depending on market conditions. Nonetheless, SGA believes this analysis provides important insights into SGA's philosophy, process, and approach.

Methodology and Parameters:

- A "Buy Universe" is the "equal weighted portfolio" formed at the end of each month comprised only of new stocks that appear in the daily optimal portfolios for the trailing six months across related strategies. Developed market and emerging markets, as well as, securities restricted for certain client portfolios are included. The Buy Universe is then divided into two groups of "Passed Fundamental" and "Failed Fundamental" universes based on our ratings, each equally weighted. "Returns" for all three universes are calculated for the next month. At the end of that month, the universes are reformed in the same process described above, dropping names that appeared prior to the trailing six months.
- In the graphs, the monthly returns are cumulated while in the tables the cumulative returns are then annualized.

- Returns cover the time period specified in the chart title and start with the later of the product inception date or six months after the earliest month where ratings were tracked.
- Zero transaction costs.

Source: FactSet, SGA

Past performance is not indicative of future results. Returns are presented gross of fees.

There are limitations inherent in universe analysis, particularly the fact that such results do not represent actual trading and that they may not reflect the impact of implementation shortfall, as well as, material economic and market factors that may have an impact on portfolio decision making and market timing in a live client account. SGA did manage portfolios longer than the analysis period, however, returns only depict the time period listed on the chart. The results portrayed reflect the reinvestment of dividends and other earnings.

International equity investing includes the possibility of loss. Universe analysis is inherently a hypothetical model because it does not reflect actual trading and portfolio management decisions. Actual investor performance could be lower than the universe analysis.

The volatility of the index may be materially different from any portfolio or universe of securities shown.

This is supplemental information to the Annual Disclosure Presentation. SGA encourages clients and prospects to seek independent sources of analysis in assessing SGA's returns and process. For additional information on the calculation methodology please contact Strategic Global Advisors, LLC at 949.706.2640.

City of Oakland Police and Fire Retirement System
International Leaders

August 28, 2019

Ryan Dimas, CFA, CAIA
rdimas@williamblair.com
312-364-8964

Wally Fikri, CFA, Partner
wfikri@williamblair.com
312-364-8089

William Blair Investment Management at a Glance

We work closely with corporations, public pension funds, retirement plans, Taft-Hartley plans, endowments, foundations, insurance and healthcare companies, and sovereign wealth funds.

Investment Management

- \$56.0 billion in AUM
- 479 clients
- PMs average 15 years at the firm
- Analysts average 10 years at the firm
- 314 employees (55 partners)
- 97 investment professionals

Core Investment Tenets

- Active Management
- Alpha-Seeking
- Long-Term Focus
- Fundamental Orientation
- Disciplined Process
- Research Intensive



¹Wo Bai Business Consulting (Shanghai) Co., Ltd. is an affiliated company solely providing research to other William Blair affiliates on a consultative basis. As of June 30, 2019

William Blair Investment Management, LLC is headquartered in Chicago and utilizes resources and personnel of its affiliate, William Blair & Company L.L.C. and its participating affiliate, William Blair International, Ltd. William Blair International, Ltd. is an asset manager located in London. William Blair & Company, L.L.C. and certain affiliates maintain sales and client services offices in Sydney and Zurich.

As used on this page, "William Blair" refers to William Blair Investment Management, LLC and affiliates unless otherwise noted. For more information about William Blair, please see <http://www.williamblair.com/About-William-Blair.aspx>. This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy, or investment product. Strategy availability may be limited to certain investment vehicles; not all investment vehicles may be available to all investors. Unless otherwise noted, all data shown is as of the date of this material. Assets shown in U.S. dollar.

Active Never Rests – Ownership, Culture, and Investment Approach

Our client-focused approach underpins each of three key fundamental pillars

Ownership

- 100% active employee-owned
- Alignment of interests; no outside influences or constantly changing short-term priorities
- Stable and entrepreneurial environment helps retain top talent
- Client focus; we build client relationships that last year after year rather than quarter to quarter

Culture

- Stability and evolution; we evolve with you
- Collaborative environment where investment professionals can thrive
- Professionals incented to seek long-term success for clients
- Transparency and an unwavering commitment to active investing and strong client outcomes

Investment Approach

- Unique voices and shared values; autonomous investment teams have freedom and flexibility to deliver high-conviction active management
- Deep intellectual curiosity and conviction promotes ongoing investment process improvements while each team stays true to its investment philosophy
- Consistent, rigorous, and repeatable process enables teams to seek performance our clients expect



Representative Client List

Corporate	Public Plans and Taft-Hartley
<ul style="list-style-type: none"> • Air Products & Chemical, Inc. • AT&T • Bank of America • Boeing Company • Caterpillar Inc. • Liberty Mutual Insurance • PGA TOUR, Inc. 	<ul style="list-style-type: none"> • City of Lansing ERS & PFRS • City of Orlando Pension Plans • Contra Costa County Employees' Retirement Association • County Employees' Annuity and Benefit Fund of Cook County • El Paso Firemen and Policemen's Pension Fund • Employees' Retirement System of the City of Milwaukee • Firemen's Annuity & Benefit Fund of Chicago • Florida State Board of Administration • Illinois State Board of Investment • Illinois Municipal Retirement Fund • Iowa Judiciary • Laborers' Annuity and Benefit Fund of Chicago • Municipal Employees' Annuity & Benefit Fund of Chicago • Municipal Police Employees' Retirement System of Louisiana • Orange County ERS • Oregon State Treasury • Pensionskasse SBB (Swiss Federal Railway) • Policemen's Annuity and Benefit Fund of Chicago • Sacramento County ERS • State of Connecticut Retirement Plans and Trust Funds • Teachers' Retirement System of Louisiana • Tulare County Employees' Retirement Association • Washington State Investment Board • Workplace Safety and Insurance Board of Ontario
Endowment/Foundation	Sub Advisory <ul style="list-style-type: none"> <li style="width: 50%;">• Charles Schwab <li style="width: 50%;">• Russell Investment Group <li style="width: 50%;">• Fidelity <li style="width: 50%;">• SEB Group <li style="width: 50%;">• Lombard Odier Darier Hentsch <li style="width: 50%;">• SEI <li style="width: 50%;">• Northern Trust <li style="width: 50%;">• UBS <li style="width: 50%;">• Prudential
<ul style="list-style-type: none"> • The College of William and Mary Foundation • Indiana University Foundation • Landmarks Financial Corporation • McGill University • Toledo Museum of Art • Truth Initiative • University of California, Irvine Foundation 	
Healthcare & Not-For-Profit	
<ul style="list-style-type: none"> • Advocate/Aurora Healthcare • The Carle Foundation • Catholic Health Initiatives • Children's Hospital of New Orleans • Clerics of St. Viator • Kaiser Permanente • NorthShore University HealthSystem • OhioHealth • Rush University Medical Center • SKL Investment Group, LLC 	

As of June 2019.

This list is comprised of representative clients that have either given William Blair express permission to use their names or for whose services we provide have been made part of the public domain. Inclusion indicates the scope of clients served, but is not to be construed as an approval or disapproval of William Blair or its advisory services.

William Blair Leaders Strategies

Our single, integrated investment platform is directed toward achieving portfolio objectives across all of our strategies

		Global	International	Emerging Markets
Leaders	High quality portfolios of leading companies across the corporate life cycle	Global Leaders \$2.9 billion	International Leaders \$6.3 billion	Emerging Markets Leaders \$4.6 billion
		Global Leaders SRI \$54 million	International Leaders ADR \$210 million / \$672 million AUA ¹	
All Cap	Broad exposure across all market caps		International Growth \$13.8 billion (closed) ²	Emerging Markets Growth \$4.7 billion
Small Cap	Broad exposure to small cap companies		International Small Cap Growth \$2.8 billion (closed) ²	Emerging Markets Small Cap Growth \$1.2 billion (closed) ²
China A	Locally-traded companies in China			China A-Shares Growth \$17 million

¹Assets Under Advisement (AUA) consists of assets managed by third parties in accordance with model portfolios provided by William Blair. William Blair does not have investment discretion or trading authority over these assets.

²Capacity management is an integral component of our investment process. Assets as of June 30, 2019.

As used on this page, "William Blair" refers to William Blair Investment Management, LLC and affiliates unless otherwise noted. For more information about William Blair, please see <http://www.williamblair.com/About-William-Blair.aspx>. This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy, or investment product. Strategy availability may be limited to certain investment vehicles; not all investment vehicles may be available to all investors. and affiliates unless otherwise noted, all data shown is as of the date of this material. Assets shown in U.S. dollar.

Global Investment Team

One team, one philosophy, one process

Portfolio Management¹

Global Leaders

Andy Flynn, CFA, Partner (14/29)
Ken McAtamney, Partner (14/29)

International Leaders / International Growth

Simon Fennell, Partner (8/27)
Ken McAtamney, Partner (14/29)

International Leaders ADR

Alaina Anderson, CFA, Partner (13/18)
David Merjan, CFA, Partner (21/32)

International Small Cap

Simon Fennell, Partner (8/27)
Andy Flynn, CFA, Partner (14/29)

Emerging Markets Leaders

Todd McClone, CFA, Partner (19/27)
Jack Murphy, CFA, Partner (14/23)

Emerging Markets Growth/ Emerging Small Cap Growth

Todd McClone, CFA, Partner (19/27)
Casey Preyss, CFA, Partner (19/20)

China A-Shares Growth

Casey Preyss, CFA, Partner (19/20)
Vivian Lin Thurston, CFA, Partner (4/23)

Portfolio Specialists

Ryan Dimas, CFA, CAIA (19/24)
Romina Graiver (7/20)
Blake Pontius, CFA (14/22)
Emily George (7/8)

Global Fundamental Research Analysts²

Consumer

Kwesi Smith, CFA (4/15)
Rita Spitz, CFA, Partner (33/41)
Adam Dettmer, CFA (2/5)
Michael Patchen, CFA (<1, 7)
Armando Tamez (<1, 2)

Financials

Joel Gomberg, CFA, Partner (22/25)
D.J. Neiman, CFA, Partner³ (17/21)
Daniel Hill, CFA (14/14)
Kristin Rowland, CFA (8/22)

Healthcare

Thomas Sternberg, CFA, Partner (14/16)
Camilla Oxhamre Cruse, Ph.D. (4/13)
Richard Reznick, Ph.D. (9/9)
Emily Stent (1/4)

Industrials, Energy & Materials

Andrew Siepker, CFA, Partner (13/15)
Anil Daka, CFA (8/11)
Ben Loss, CFA (8/8)
Monika Budyn (6/10)
Esteban Gonzalez-Rosell (<1/9)

Information Technology

William Benton, CFA, CPA, Partner (22/22)
Drew Buckley, CFA, CPA (11/13)
Jayesh Kannan, CFA (<1/6)
Kalpiti Shah, CFA (<1/4)

Real Assets

Alaina Anderson, CFA, Partner (13/18)
Andrea Kim (2/10)

China Generalists

Vivian Lin Thurston, CFA, Partner (4/23)
Richard Reznick, Ph.D. (9/9)

Emerging Markets Small Cap Generalists

Greg Scolaro, CFA, CPA (5/5)
Bryan Shea (10/10)
Jo Wang (<1/9)

Strategy Research²

Hugo Scott-Gall (<1/25)³
Olga Bitel, Partner (9/16)
Alexa Davis (<1/4)
Gurviri Grewal (<1, 5)

Systematic Research²

Spiro Voulgaris, Partner (11/28)
Andrew Kominik, CFA (16/19)
Jeff Hill (5/20)
Andrew Wickman, CFA (4/9)
Scott Akeson (4/4)

Technologist

Darragh Grogan (11/13)

Trading⁵

Asia/Pacific

Nathan Fisher, CFA (4/15)
Daniel Iannessa (14/16)
Malik Nicholson (5/13)

Europe

Nicola Hynds (11/24)
Simon Johnstone (6/19)

Americas and FX

Terry O'Bryan, Partner⁴ (12/21)

Portfolio & Trade Order Management

Joe Emanuele (2/4)
Tim Randick (12/12)

International Trade Data Specialists

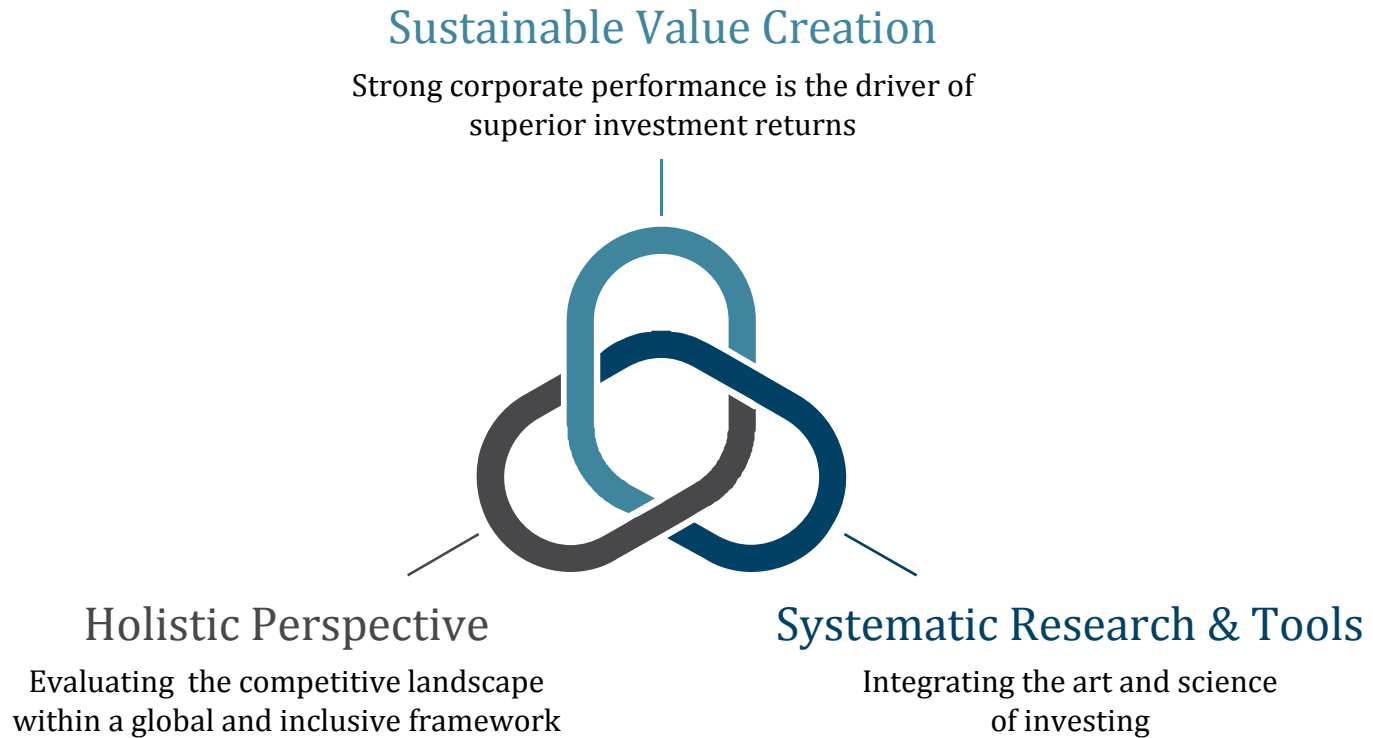
Kristin Gaffud (13/16)
Michael LaDuke (9/11)

(Years at William Blair/Years in Industry)

1. Portfolio Management team average 14 years at William Blair and 26 years in the industry. 2. Global Fundamental Research Team average 12 years at William Blair and 16 years in the industry. 3. D.J. Neiman and Hugo Scott-Gall also serve as Co-Directors of Research. 4. Terry O'Bryan also serves as the Head of Global Equity Trading. 5. Traders, excluding Portfolio and Trade Order Management and International Trade Specialists, average 9 years at William Blair and 19 years in the industry. *Italics indicate Associate role.* As of June 2019.

Investment Philosophy

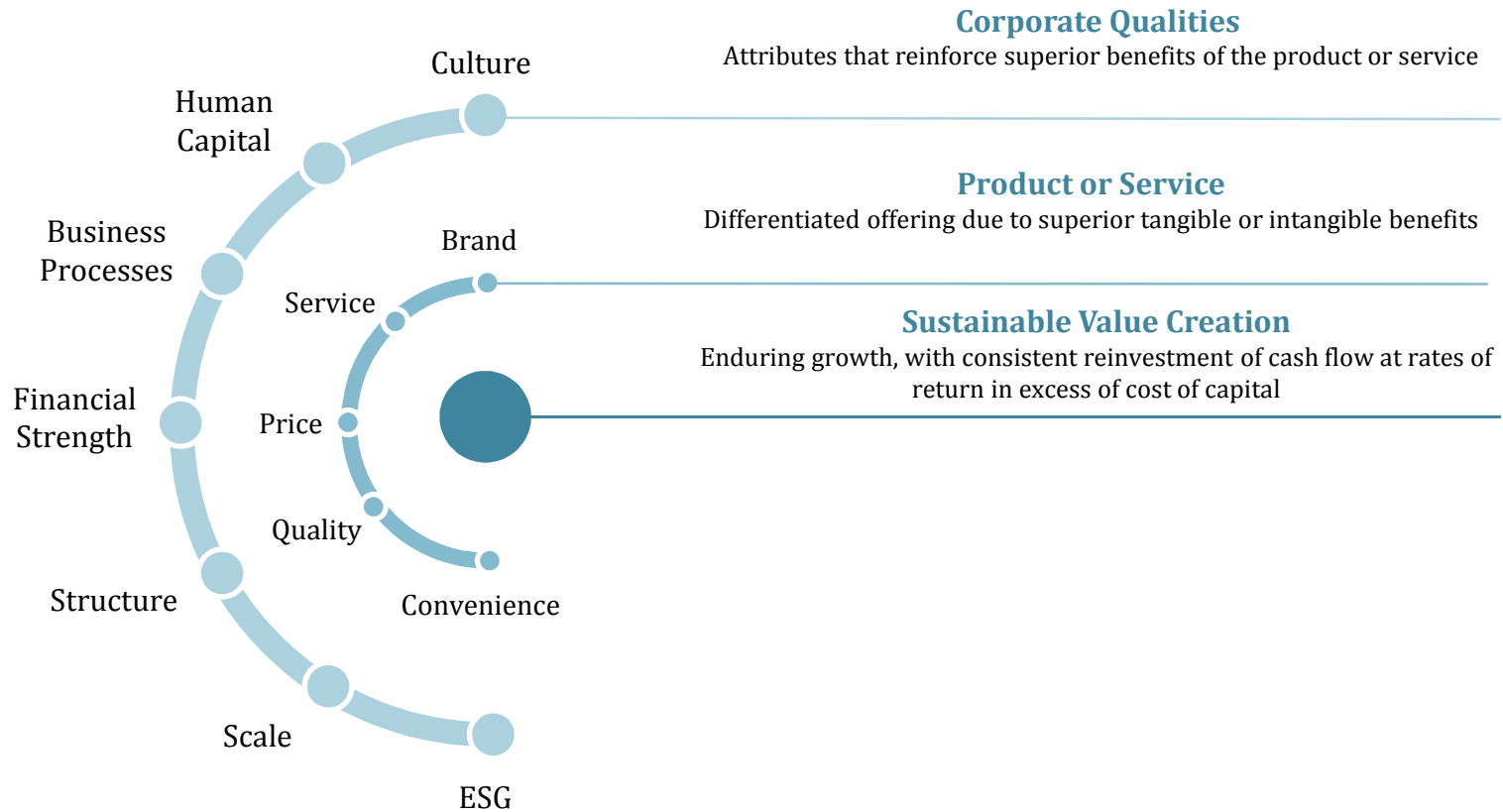
We believe an integrated investment platform directed towards identifying companies with strong corporate performance will drive superior long-term investment returns





Sustainable Value Creation

Strong corporate performance is the driver of superior investment returns





Sustainable Value Creation

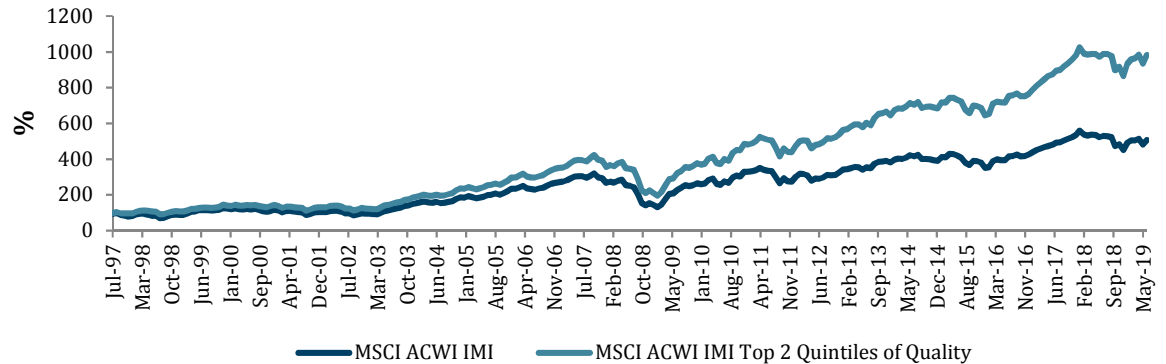
Strong corporate performance is the driver of superior investment returns

Benefits of Quality Investing

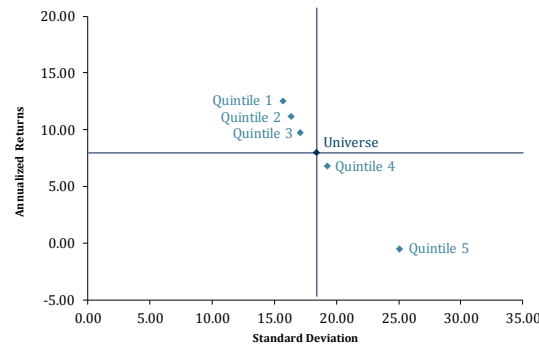
Companies with industry leading returns on capital and sustainable competitive advantages have:

- Produced attractive relative returns
- Helped protect capital in down markets
- Performed well in up markets

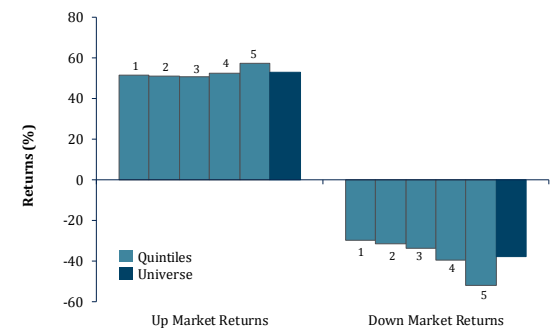
Cumulative Returns of High Quality



Global Universe by Quality Quintiles



Global Quality Universe Up/Down Market Performance



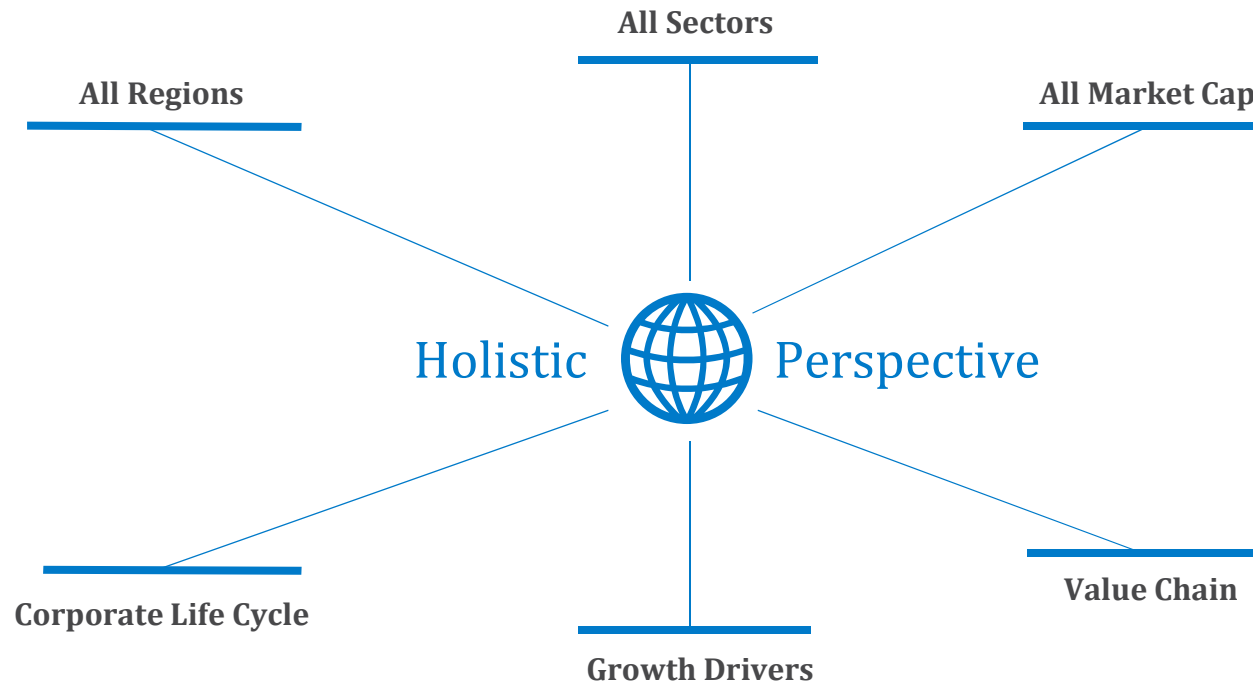
Past performance is not indicative of future returns. Hypothetical performance is provided for illustrative purposes only. The above performance information is based on quality scores from William Blair's proprietary model and does not in any way relate to actual results of any account or strategy. The strategy may or may not hold the companies included in the Quality quintiles shown. Hypothetical performance has inherent limitations. Specifically, hypothetical results do not reflect actual trading or the effect of material economic and market factors on the decision-making process. There is no assurance that the models will remain the same in the future. Quality is defined as those companies with good balance sheet metrics, efficiency, and higher returns. Up/down market returns based on MSCI ACWI Index, monthly annualized returns.

Data shown for period between July 31, 1997–June 30, 2019. Securities are equally weighted to create hypothetical portfolios based on the criteria shown. The hypothetical portfolios are rebalanced monthly.

Source: William Blair Global Universe.

Holistic Perspective

We believe that applying a global and inclusive framework is the proper way to evaluate the competitive landscape

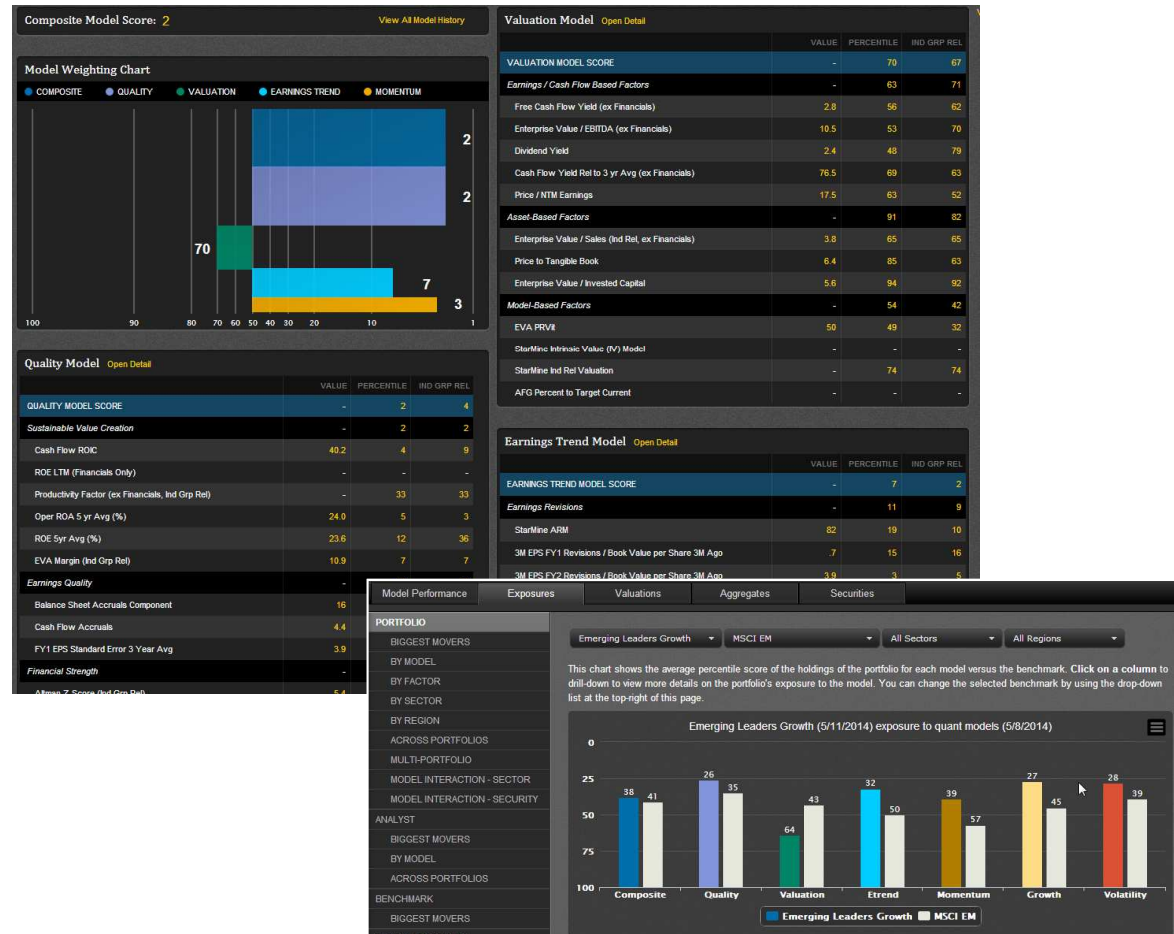


Systematic Research & Tools

We believe that integrating the art and science of investing is the best way to achieve desired outcomes



Quantitative models, portfolio analytics, and fundamental research are integrated within Summit, dynamically connecting all elements of our investment process.

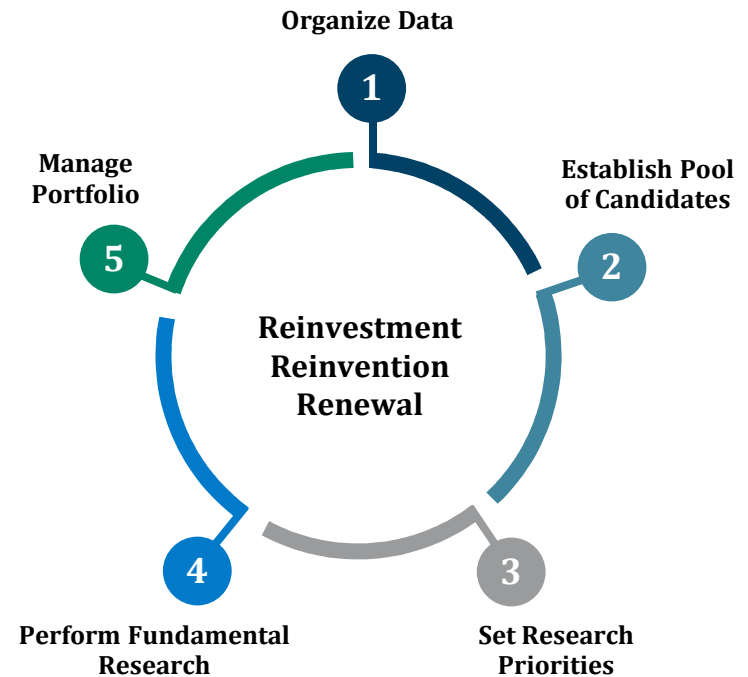


For illustrative purposes only. Not intended as investment advice.

Investment Process

Integrated Fundamental, Systematic and Strategy Research Throughout the Investment Process

- 1 Organize Data**
Rank order global universe of equities by fundamental and technical attributes and utilize systematic research to analyze information
- 2 Establish Pool of Candidates**
Create Eligibility List of 2,800- 3,000 companies through quantitative screens and fundamental analysis
- 3 Set Research Priorities**
Establish Research Agenda of 50-75 companies by identifying opportunities and risks through bottom up research, top down strategy, and portfolio objectives
- 4 Perform Fundamental Research**
Analyze sustainable value creation and determine if fundamentals appear poised to change
- 5 Manage Portfolio**
Weigh risk/reward of buy/sell decision to seek desired outcomes



International Leaders Portfolio Attributes

As of July 31, 2019

	International Leaders	MSCI AC World ex-US IMI Index	Difference
Quality			
WB Quality Model (Percentile)	23	36	
Return on Equity (%)	22.1	13.9	59%
Cash Flow ROIC (%)	17.6	13.0	35%
Debt/Equity (%)	86.4	88.9	-3%
Growth			
WB Growth Model (Percentile)	47	56	
Long-Term Growth (%) ¹	11.0	10.6	4%
5-Year Historic EPS Growth (%)	14.4	11.5	25%
Reinvestment Rate (%)	15.4	9.0	72%
Earnings Trend			
WB Earnings Trend Model (Percentile)	43	47	
EPS Est Rev Breadth (%) ²	3.6	-3.0	6.7
Valuation			
WB Valuation Model (Percentile)	75	49	
P/E (next 12 months)	20.5	13.3	54%
Dividend Yield (%)	1.7	3.2	-45%

¹This measure represents the weighted average of forecasted growth in earnings expected to be experienced by stocks within the portfolio over the next 3-5 years. This projected earnings growth should not be considered an indication of future performance. From a portfolio perspective, the portfolio P/E ratio and EPS Growth Rate are weighted averages of the individual holdings' P/E ratios and EPS Growth Rates.

²The 1-month EPS Revision Breadth factor represents the trend in the direction of estimate changes. Ranging from -100% to +100%, it is calculated as the number of positive revisions minus the number of negative revisions divided by the total number of estimates.

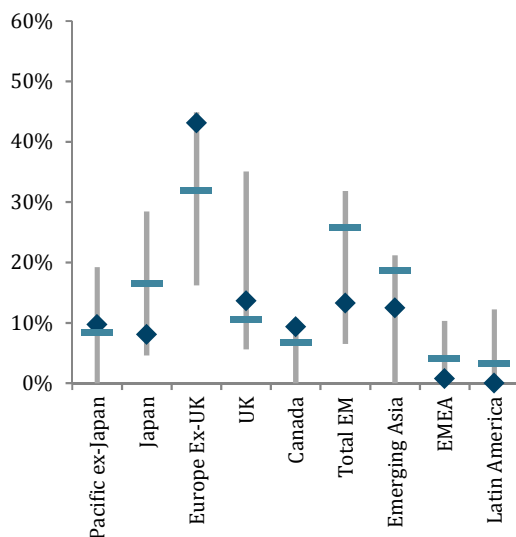
The data shown above is based on the strategy's representative portfolio. The index is comparable to the strategy in terms of investment approach but contains significantly more securities. Calculated in FactSet, with the exception of market cap, which is calculated in Eagle. Aggregate scores shown above based on William Blair's quantitative model. For individual and composite ranks, 1 is best and 100 is worst. The MSCI AC World ex-US IMI Index is a free float-adjusted market capitalization index designed to measure global developed and emerging market equity performance, excluding the U.S. Not intended as investment advice.

International Leaders Composition Snapshot

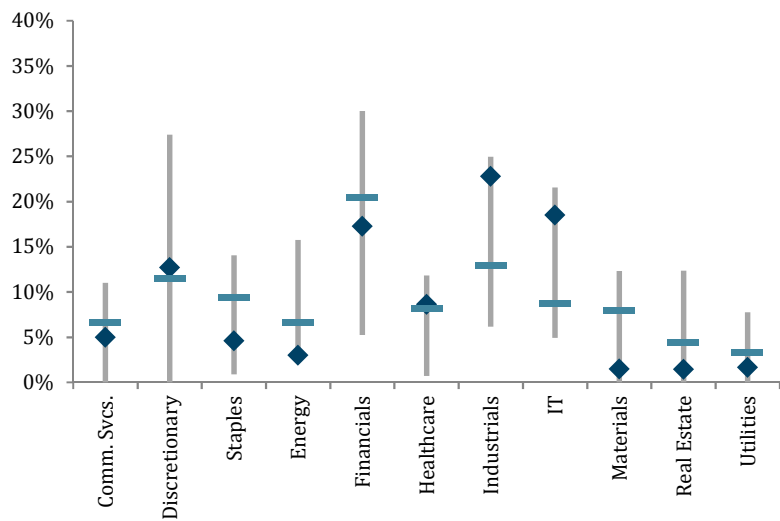
As of July 31, 2019

Top 10 Holdings	Sector	Country	Position Size (%)	Benchmark
Aia Group Ltd	Financials	Hong Kong	3.1	MSCI AC World ex-US IMI
Alibaba Group Holding Ltd	Consumer Discretionary	China	2.7	
Canadian National Railway Co	Industrials	Canada	2.6	Maximum Position Size 5%
Lvmh Moet Hennessy Louis Vuitton	Consumer Discretionary	France	2.6	Active Share 88.5%
Taiwan Semiconductor Manufactu	Information Technology	Taiwan	2.6	Number of Holdings 57
Airbus Se	Industrials	France	2.4	Weighted Avg. Mkt Cap (\$b) \$55.7
Tencent Holdings Ltd.	Communication Services	China	2.3	
Safran Sa	Industrials	France	2.3	
Keyence Corp	Information Technology	Japan	2.3	
Lonza Group Ag	Health Care	Switzerland	2.3	

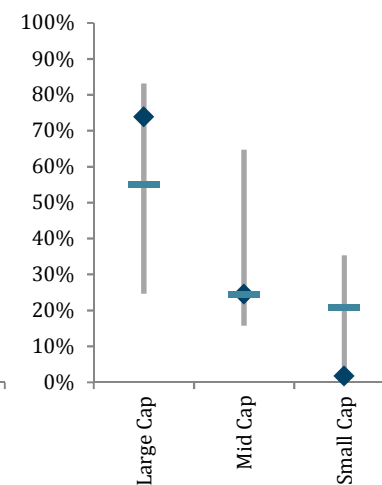
Regions



Sectors



Market Cap



◆ Current Portfolio Weight ■ Current Benchmark Weight ■ Historic Range¹

¹Historic range dates back to strategy inception 2/1/2003. Region, Sector and Market Cap are based on quarterly data as of June 30, 2019.

Source: FactSet. Individual securities listed in this report are for informational purposes only. Holdings are subject to change at any time. The data shown above is based on the strategy's representative portfolio excluding cash. Small cap is defined as \$0-\$4 billion, mid cap \$4 billion to \$15 billion, and large cap over \$15 billion. The MSCI AC World ex-US IMI Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. This information does not constitute, and should not be construed as, investment advice or recommendations with respect to the securities listed.

International Leaders Performance Summary

As of July 31, 2019

Composite Performance (%)	QTD	YTD	Annualized					Strategy Inception			
			1 Yr	3 Yr	5 Yr	10 Yr	(Feb 1 03)				
International Leaders (Gross of fees)	-0.13	21.58	3.51	11.53	8.54	11.33	10.26				
MSCI AC World ex-US IMI Index	-1.14	12.04	-2.97	6.99	2.24	5.67	8.22				
Relative Performance (Gross of fees)	1.00	9.54	6.47	4.54	6.30	5.66	2.04				

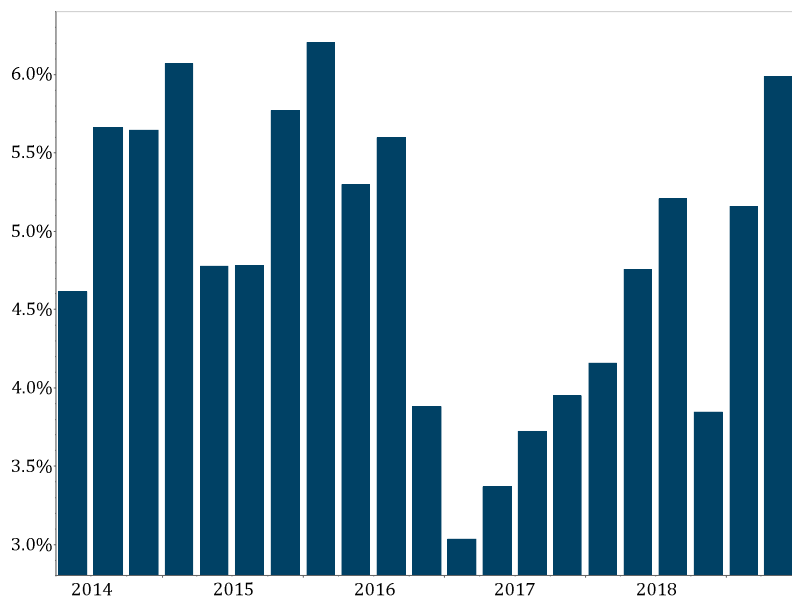
Annual Composite Performance (%)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
International Leaders (Gross of fees)	-11.70	31.70	2.02	7.02	-0.94	19.21	20.60	-7.81	24.63	42.80
MSCI AC World ex-US IMI Index	-14.76	27.81	4.41	-4.60	-3.89	15.82	17.04	-14.31	12.73	43.60
Relative Performance (Gross of fees)	3.06	3.88	-2.39	11.62	2.94	3.40	3.56	6.50	11.90	-0.79

July 2019 performance is preliminary.

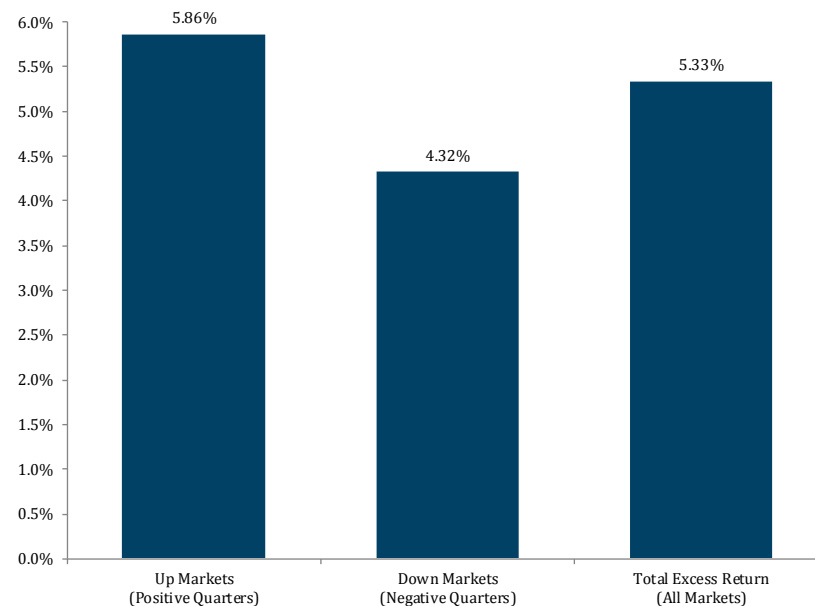
Past performance is not indicative of future returns. Performance is shown in U.S. dollar unless otherwise noted. Returns for periods greater than one year are annualized. Gross performance results shown do not reflect the deduction of investment management fees, assume the reinvestment of dividends and capital gains, and are net of transaction costs. Performance results will be reduced by the fees incurred in the management of the account. For example, assuming an annual gross return of 8% and an annual management/advisory fee of .40%, the net annualized total return of the portfolio would be 7.58% over a 5-year period. Net investment performance represents the deduction of the highest possible fee. Investment management fees are described in William Blair's Form ADV Part 2A. The benchmark that best reflects the composite's investment strategy is the MSCI AC World ex-US Investable Market Index (IMI) Net, which is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. International investing involves special risk considerations, including currency fluctuations, lower liquidity, economic and political risk. Please see composite disclosure in appendix for a complete description of the composite.

International Leaders Excess Returns – Last Ten Years

**Annualized Excess Returns – Rolling 5-Year Quarterly Periods
International Leaders Composite vs. MSCI ACWI ex-US IMI Index
(% Gross of Fees)**



**Annualized Excess Return in Up Markets and Down Markets
International Leaders Composite vs. MSCI ACWI ex-US IMI Index
(% Gross of Fees)**



	Up Markets	Down Markets
Capture Ratio	1.23	0.82
Number of Quarters	27	13

As of June 30, 2019. Composite inception January 31, 2003.

Calculated in FactSet using quarterly data since inception. The annualized up/down market excess returns reflect average annualized returns during positive and negative market environments based on the composite's stated benchmark. Up market capture ratio reflects the composite's annualized return during up markets (positive quarters) divided by the benchmark's annualized returns during up markets. The down markets capture ratio reflects the composite's annualized return during down markets (negative quarters) divided by the benchmark's annualized return during down markets.

Past performance is not indicative of future returns. Performance is shown in U.S. dollar unless otherwise noted. Returns for periods greater than one year are annualized. Gross performance results shown do not reflect the deduction of investment management fees, assume the reinvestment of dividends and capital gains, and are net of transaction costs. Performance results will be reduced by the fees incurred in the management of the account. For example, assuming an annual gross return of 8% and an annual management/advisory fee of .40%, the net annualized total return of the portfolio would be 7.58% over a 5-year period. Net investment performance represents the deduction of the highest possible fee. Investment management fees are described in William Blair's Form ADV Part 2A. The benchmark that best reflects the composite's investment strategy is the MSCI AC World ex-US Investable Market Index (IMI) Net, which is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. International investing involves special risk considerations, including currency fluctuations, lower liquidity, economic and political risk. Please see composite disclosure in appendix for a complete description of the composite.

Appendix

City of Oakland Police and Fire Retirement System

International Leaders Fee Schedules

<u>Separate Account</u>		<u>Collective Investment Trust</u>		<u>Mutual Fund</u>
Account Size	Annual Investment Management Fee	Account Size	Annual Investment Management Fee	International Leaders Fund (Class R6) Expense Ratio Gross: 0.92%; Net: 0.85% ¹
First \$20 million	0.80%	First \$20 million	0.80%	
Next \$30 million	0.60%	Next \$30 million	0.60%	
Next \$50 million	0.50%	Next \$50 million	0.50%	
Next \$50 million	0.45%	Next \$50 million	0.45%	
Next \$50 million	0.40%	Next \$50 million	0.40%	
Over \$200 million	0.30%	Over \$200 million	0.30%	

Based on a mandate of \$40 million, the annual investment management fees are 0.70%

Based on a mandate of \$35 million, the annual investment management fees are 0.71%

¹The Fund's Adviser has contractually agreed to waive fees and/or reimburse expenses to limit fund operating expenses until 4/30/20. After that date, there is no assurance that the Fund's expenses will be limited. The Fund's net expenses paid may be different. Please refer to the Fund's Prospectus for more information on the Fund's expenses.

All fees shown are annual, payable quarterly in arrears, based on the appraised total market value of the account(s) including accrued interest and dividends but excluding the current anticipated balance invested with any other William Blair strategy. Fee schedule effective January 2010.

Investors in the Commingled Investment Trust (CIT) are also responsible for customary expenses associated with pooled investment vehicles (including custody, trustee, fund accounting, audit, etc.) which are paid to unaffiliated third party service providers. These expenses are contractually capped at 0.05%. The CIT does not participate in securities lending. There is no revenue sharing within the CIT.

Biographies – Global Investment Team

Portfolio Management



Alaina Anderson, CFA
Partner

Alaina Anderson is a portfolio manager for the International Leaders ADR strategy and a global research analyst covering real-estate, utilities, and engineering companies.

Before joining William Blair in 2006, she was a senior analyst in the investments department of the MacArthur Foundation, where she provided research support for internally managed portfolios and was involved in investment manager due diligence, selection, and monitoring for the foundation's U.S., non-U.S., and hedge-fund portfolios. Before joining the MacArthur Foundation, Alaina was an investor relations consultant with Ashton Partners and a financial advisor with UBS Painewebber. She is a fellow of Leadership Greater Chicago, a board member of the North Lawndale Employment Network, and a member of the CFA Institute and the CFA Society of Chicago.

Education: B.S., Wharton School at the University of Pennsylvania; M.B.A., University of Chicago's Booth School of Business



Simon Fennell
Partner

Simon Fennell is a portfolio manager for William Blair's International Growth, International Small Cap Growth, and International Leaders strategies.

He joined William Blair in 2011 as a technology, media, and telecommunications research analyst focusing on idea generation and strategy more broadly. Before joining William Blair, Simon was a managing director in the equities division at Goldman Sachs in London and Boston, responsible for institutional equity research coverage for European and international stocks. Previously, Simon was in the corporate finance group at Lehman Brothers in London and Hong Kong, working in the M&A and debt capital markets groups.

M.A., University of Edinburgh; M.B.A., Cornell University's Samuel Curtis Johnson Graduate School of



Andrew G. Flynn, CFA
Partner

Andy Flynn is a portfolio manager for William Blair's International Small Cap Growth and Global Leaders strategies.

Since joining William Blair in 2005, Andy has served as a U.S. industrials and consumer analyst and a non-U.S. consumer, healthcare, and IT analyst. He was also a portfolio manager for the firm's Global Small Cap Growth strategy. Before joining the firm, Andy was a senior equity analyst and portfolio manager at Northern Trust, where he specialized in mid- and small-capitalization growth companies. Before that, he was a senior equity analyst at Scudder Kemper Investments and a research assistant at Fidelity Investments. Andy is a member of the CFA Institute and the CFA Society of Chicago.

B.A., economics, University of Kansas; M.B.A. finance emphasis, University of North Carolina at Chapel Hill



Kenneth J. McAtamney
Partner

Ken McAtamney is a portfolio manager for William Blair's International Growth, Global Leaders, and International Leaders strategies.

He was previously co-director of research and a mid-large-cap industrials and healthcare analyst. Before joining William Blair in 2005, Ken was a vice president at Goldman Sachs and Co., where he was responsible for institutional equity research coverage for both international and domestic equity. Before that, he was a corporate banking officer with NBD Bank.

B.A., Michigan State University; M.B.A., Indiana University

Biographies – Global Investment Team

Portfolio Management



Todd M. McClone, CFA
Partner

Todd McClone is a portfolio manager for William Blair's Emerging Markets strategies.

Before joining the firm in 2000, he was a senior research analyst specializing in international equity for Strong Capital Management. Previously, he was a corporate finance research analyst with Piper Jaffray, where he worked with the corporate banking financials team on a variety of transactions, including initial public offerings, mergers and acquisitions, and subordinated debt offerings. He also issued fairness opinions and conducted private company



David Merjan, CFA
Partner

David Merjan is a portfolio manager for William Blair's International Leaders ADR strategy.

Before joining William Blair in 1998, he worked for Hughes Electronics in Los Angeles in various capacities, including in the corporate treasury department, where he focused on international mergers and acquisitions and managed corporate currency and interest-rate portfolios. He also managed an international equity fund in the pension management subsidiary of Hughes. David is a member of the CFA Institute.



Jack Murphy, CFA
Partner

Jack Murphy is a portfolio manager for William Blair's Emerging Markets Leaders strategy.

Previously, he was director of research for the Global Equity team and a research analyst covering mid-large-cap non-U.S. consumer stocks. He joined William Blair in 2005 as a sell-side research analyst focusing on e-commerce and hardline retailers. Previously, he was an equity research analyst covering a broad range of retail companies for Credit Suisse First Boston for nearly six years. Before that, he was an equity research analyst at Lehman Brothers and an equity research associate at Salomon Brothers. Before that, he was a financial analyst for General Electric Capital, having graduated from GE's financial management program.



Casey K. Preyss, CFA
Partner

Casey Preyss is a portfolio manager for William Blair's Emerging Markets Growth, Emerging Markets Small Cap Growth, and China A-Shares Growth strategies.

Since joining William Blair in 2000, he has been a research analyst covering industrials, IT, and resources stocks. Before taking on fundamental research responsibilities for William Blair's global equity team, Casey was a quantitative analyst. Before joining the firm, he was an international equity research sales associate with Thomas White International.

Education: B.B.A. and B.A., University of Wisconsin–Madison

B.A., Dickinson College; M.I.M., American Graduate School of International Management

B.A., economics, magna cum laude, Villanova University

B.S.B.A., The Ohio State University; M.B.A., University of Chicago's Booth School of Business

Biographies – Global Investment Team

Portfolio Management



Vivian Lin Thurston,
CFA
Partner

Vivian Lin Thurston is a portfolio manager for William Blair’s China A-Shares Growth strategy and a global research analyst covering Chinese equities.

Previously, she was a global research analyst covering large-cap consumer companies. Before joining William Blair, Vivian was vice president and consumer sector head at Calamos Investments. Before that, she was an executive director and senior investment analyst at UBS Global Asset Management/Brinson Partners, where she was responsible for stock selection and research for consumer sectors in the United States and emerging markets. Vivian also held roles at Mesirow Financial, China Agribusiness Development Trust and Investment Corporation, and Vanke. She is a member of the CFA Institute and the CFA Society of Chicago. She is also the founder and chairman of the board of the Chinese Finance Association of America, a 501(c) nonprofit organization.

Education: B.A., sociology, Peking University; M.A., sociology and M.S., finance, University of Illinois Urbana-Champaign

Biographies – Global Investment Team

Portfolio Specialists



Ryan Dimas, CFA, CAIA

Ryan Dimas is a portfolio specialist for William Blair's global equity strategies.

In this role, Ryan participates in the team's decision-making meetings, conducts portfolio analysis, and is responsible for communicating portfolio structure and outlook to clients, consultants, and prospects. Previously, for 17 years, Ryan led the investment manager research effort for William Blair Select, a team that was responsible for the selection and ongoing evaluation of third-party investment managers. In 2016, Ryan was named chief investment strategist and chair of the asset allocation investment committee for investment counseling, where he worked closely with investment counseling teams on strategic and tactical recommendations that were implemented within portfolios. He is a member of the CFA Society of Chicago and is a CFA and CAIA charterholder.



Romina Graiver

Romina Graiver is a portfolio specialist for William Blair's global equity strategies.

In this role, she participates in the team's decision-making meetings, conducts portfolio analysis, and is responsible for communicating portfolio structure and outlook to clients, consultants, and prospects. Previously at William Blair, she was a senior client relationship manager. Before joining William Blair in 2012, Romina was deputy head of the international equity investment team at BNP Paribas Investment Partners, where she was responsible for product development and investor communication. Before taking on that role, she was a product specialist for model-driven equity investments and a marketing manager.



Blake Pontius, CFA

Blake Pontius is director of sustainable investing and a global portfolio specialist.

In this role, he coordinates the firm's integration of environmental, social and governance (ESG) factors in its investment processes and provides analytical support to portfolio managers on the global equity team. He is also responsible for communicating investment strategy and portfolio positioning to clients, consultants, and prospects. Previously at William Blair, Blake was a relationship manager responsible for institutional clients invested in the firm's global/international and emerging market equity strategies. Before joining William Blair in 2005, Blake worked at UBS Asset Management and Mercer. He is a member of the CFA Institute and the CFA Society of Chicago.

Education: B.A., finance, Arizona State University

B.Sc., international business and an M.Sc., economics, University of Pantheon-Sorbonne, Paris, France

B.A., economics, with honors, Michigan State University; M.B.A. in finance, with distinction, from DePaul University

Biographies – Global Investment Team

Research



**William Benton, CFA,
CPA
Partner**

William Benton is a global equity research analyst. He covers mid- and large-cap technology, media, and communication services companies.

Before joining William Blair Investment Management in 2007, William was a technology research analyst with the firm's sell-side research group for 10 years. In this position, he was twice named "Best on the Street" in The Wall Street Journal's annual analyst survey. Before joining William Blair in 1997, he worked at SBC Warburg, U.S. Cellular, May Company, and Monsanto. He is a member of the CFA Society of Chicago and holds the CMA and CPA designations.



Drew Buckley, CFA

Drew Buckley is a global equity research analyst. He covers small-cap technology, media, and communication services companies.

Before joining William Blair in 2008 as a global research associate focused on technology, media, and telecommunications stocks, he spent two years as a senior associate in Ernst & Young LLP's investment management assurance practice. Drew is a member of the CFA Society of Chicago and holds the certified public accountant (CPA) designation.



Anil Daka, CFA

Anil Daka is a global equity research analyst. He covers midcap industrial companies.

Before joining the firm in 2011, Anil was an equity analyst at Morningstar, where he was responsible for equity research coverage in the global industrials sector. He is a member of the CFA Institute and the CFA Society of Chicago.



**Joel Gomberg, CFA
Partner**

Joel Gomberg is a global equity research analyst. He covers mid- and large-cap financials companies.

Previously, he was an equity analyst following the finance industry, including commercial banks, global investment banks, exchanges, retail brokers, and commercial property service companies, and was group head of the financials sector. In this role, Joel was included in The Wall Street Journal's annual analyst survey, "Best on the Street," three times. Before joining William Blair in 1997, Joel was an equity analyst at Duff & Phelps and Howe Barnes Investments, where he covered specialty finance and bank stocks. He also worked at Northern Trust Company, primarily in commercial banking and credit policy.

Education: B.S., finance, University of Illinois Urbana-Champaign; M.B.A., Dartmouth College's Amos Tuck School of Business Administration, where he was a Tuck Scholar

B.S., business, University of Colorado-Boulder

B.Tech., metallurgical engineering, Indian Institute of Technology; M.B.A. from the University of North Carolina

B.S., University of Illinois at Urbana-Champaign; M.B.A. from the University of Chicago's Booth School of Business

Biographies – Global Investment Team

Research



Daniel Hill, CFA

Daniel Hill is a global equity research analyst. He covers small cap financial companies.

He was previously a global generalist research analyst and an international and global research associate supporting the global financial team under the guidance of research analysts. Daniel joined William Blair in 2005 as an investment accountant. He is a member of the CFA Institute and the CFA Society of Chicago.



Benjamin Loss, CFA

Benjamin Loss is a global equity research analyst. He covers energy and materials companies.

Before joining William Blair in 2011 as a global research associate focused on energy and materials, Benjamin was a sell-side research associate at Morgan Keegan. He is a member of the CFA Institute and the CFA Society of Chicago.



**D.J. Neiman, CFA
Partner**

D.J. Neiman is co-director of research for the global equity team. He is also a global equity research analyst covering small- and mid cap financial companies.

Before joining Investment Management in 2009, D.J. was an analyst in the firm's sell-side research group, covering the financials sector with a focus on the asset-management and advisory investment-banking industries. Previously, D.J. was a senior accountant with William Blair Funds and a fund analyst at Scudder Kemper Investments. He is a member of the CFA Institute and the CFA Society of Chicago.



**Camilla Oxhamre Cruse,
Ph.D**

Camilla Oxhamre Cruse is a global equity research analyst. She covers small- and mid cap healthcare companies.

Camilla joined William Blair in 2014. She previously spent six years at Carnegie Investment Bank, where she was a sell-side research analyst focusing on the Nordic pharma and biotech industry. She has a scientific background.

Education: B.S., finance, University of Nebraska; M.B.A. from Northwestern University's Kellogg Graduate School of Management

B.S., accounting, summa cum laude, University of Maine; M.S., finance, Vanderbilt University

B.S., Miami University; M.B.A., with high distinction, University of Michigan's Ross School of Business

M.B.A., finance, Hawaii Pacific University; Ph.D., medicine, Karolinska Institute; M.Sc., biochemistry, Lund University

Biographies – Global Investment Team

Research



Richard Reznick, Ph.D.

Richard Reznick is a global equity research analyst. In this role, he covers Chinese equities with a focus on small-cap healthcare companies.

Before joining William Blair in 2010 as an equity research associate focused primarily on the biotechnology sector, Richard was a product specialist in Abbott Laboratories' diagnostics division.



Greg Scolaro, CFA, CPA

Greg Scolaro is a global equity research analyst. He covers emerging market small-cap companies.

Previously, he was a research associate covering global technology, media, and telecommunications stocks. Before joining the firm in 2014, Greg was an auditor in the technology sector at KPMG Chicago. He is a member of the CFA Institute and the CFA Society of Chicago.



Bryan Shea

Bryan Shea is a global equity research analyst. He covers emerging markets small-cap companies.

He joined the firm in 2009. Previously, he was an associate focusing on global consumer stocks and a sell-side research associate focusing on several subsectors within the consumer sectors. Before joining William Blair, Bryan was an associate at Madison Capital Funding, where he provided a variety of cash-flow-based, leveraged-capital products to private-equity sponsors. Before that, he was an analyst at Lincoln International, where he worked on mergers and acquisitions, issued fairness opinions, and conducted private company valuations.



**Andrew J. Siepker, CFA
Partner**

Andrew Siepker is a global equity research analyst. He covers large-cap industrial companies.

Previously, he was a research analyst conducting non-U.S. consumer research and worked on William Blair's sell-side as a research associate focused on e-commerce and hardline retailers. Before joining William Blair in 2006, Andy was a financial analyst in a finance training program at First Data Corporation. He is a CFA charterholder and a member of the CFA Society of Chicago.

Education: B.S., biology, University of Illinois at Urbana-Champaign; Ph.D., biology, Yale University

B.S. and M.S., accountancy, University of Illinois Urbana-Champaign

B.S., finance, with honors, Indiana University; M.B.A., Northwestern University's Kellogg School of Management

B.S., finance, with highest distinction, University of Nebraska

Biographies – Global Investment Team

Research



Kwesi Smith, CFA

Kwesi Smith is a global equity research analyst. He covers large-cap consumer companies.

Before joining the firm in 2015, Kwesi was an equity research analyst for TimesSquare Capital Management for 10 years. In this role, he supported the firm's research efforts across a variety of sectors, including healthcare, technology, media/cable, defense, and consumer, before focusing on healthcare. Before that, Kwesi worked at MetLife Investments as a technology, media/cable, and telecom fixed-income research analyst and provided credit analysis across a variety of fixed-income asset classes, including high yield, private placement, leveraged finance, and investment-grade public corporates. He is on the governing board of 3Arts and Breakthrough. He is also a member of the CFA Institute and the CFA Society of Chicago.



Rita Spitz, CFA
Partner

Rita Spitz is a global equity research analyst. She covers small-cap consumer companies.

Previously, she was a research analyst covering U.S. large- and midcap consumer stocks, and she served as director of research from 2001 to 2008. Rita joined William Blair in 1986 as a sell-side research analyst covering advertising and marketing firms, a role she held for 13 years. She is a member of the CFA Society of Chicago, the CFA Institute, and The Economic Club of Chicago. She has also served on the advisory groups of several financial accounting standards boards since 2002, and is currently a board member of the Transition Resource Group for Revenue Recognition and a trustee of The Joffrey Ballet.



Thomas A. Sternberg,
CFA
Partner

Tommy Sternberg is a global equity research analyst. He covers large-cap healthcare companies.

Previously, he was a research associate focused on the healthcare industry. Before joining William Blair in 2004, Tommy spent two years as an equity analyst in Oak Brook Bank's investment management and trust department. He is a member of the CFA Institute and the CFA Society of Chicago.

Education: B.S., University of Virginia's McIntire School of Commerce

B.B.A., finance and Spanish, University of Wisconsin–Madison; M.B.A., University of Chicago's Booth School of Business

B.S., economics, Duke University; M.B.A., University of Chicago's Booth School of Business

Biographies – Global Investment Team

Systematic Research



Jeffrey Hill

Jeffrey Hill is a senior quantitative business analyst on the systematic research team.

In this role, he provides the team with business and technical support, focusing on portfolio attribution. Before joining William Blair in 2014, Jeff spent 15 years on the global investment services team at UBS Global Asset Management. In this role, he managed an international development team focused on building bespoke risk-management, portfolio-rebalancing, and asset-allocation solutions. Because these solutions were used both within UBS and for external clients, Jeff also functioned as the bridge between the technical, investment, and sales teams.



Andrew Kominik, CFA

Andrew Kominik is the liquidity and investment risk manager.

In this role, Andrew identifies, aggregates, and monitors investment-related risks across William Blair Investment Management. He also is a senior quantitative analyst on the systematic research team, where he spearheaded the development of William Blair's proprietary equity risk models and continues to maintain and enhance them. Previously, Andrew was a quantitative portfolio analyst, portfolio construction analyst, and marketing analyst. Before joining William Blair in 2003, he worked in institutional marketing at Columbia Management Group. Andrew is a CFA charterholder and a member of the CFA Institute and the CFA Society of Chicago.



Spiro Voulgaris
Partner

Spiro Voulgaris is a senior quantitative analyst and systematic equity portfolio manager.

He joined William Blair in 2007. Before joining the firm, Spiro was a senior quantitative analyst with Neuberger Berman for five years and subsequently worked alongside the same investment professionals for an additional three years while with Northern Trust. He was also with Lehman Brothers for six years, where he was a strategist and quantitative analyst for its global and U.S. investment strategy teams in London and New York. Before that, Spiro spent three years as a research analyst with the Center for Research in Securities Prices (CRSP).



Andrew Wickman, CFA

Andrew Wickman is a quantitative research analyst on the systematic research team.

In this role, he develops and programs multifactor quantitative models that are used by fundamental equity analysts and portfolio managers. He also produces research for the team's portfolio strategy thought leaders. Before joining William Blair in 2015, Andrew was a consultant at FactSet Research Systems for four years; in this role, he supported investment management research analysts and portfolio managers. He is a member of the CFA Institute and the CFA Society of Chicago.

Education: B.S., industrial technology, Illinois State University

B.A., history, Brandeis University; M.B.A., finance and econometrics/statistics, University of Chicago's Booth School of Business

B.A., economics, University of Chicago; M.B.A., statistics and international finance, University of Chicago's Booth School of Business

B.S., economics, University of Kentucky

Biographies – Global Investment Team

Strategy Research and Technology



Olga Bitel
Partner

Olga Bitel is a global strategist.

She is responsible for economic research and analysis across all regions and sectors. She distills macroeconomic and geopolitical developments into actionable insights for global equity portfolios within a multifaceted strategic framework. In addition, she provides insights about cyclical turning points and structural trends as inputs into portfolio construction in predominantly bottom-up investment approaches. Before joining William Blair in 2009, Olga was a senior economist at the National Institute of Economic and Social Research in London, United Kingdom, where she produced macroeconomic forecasts for most Asian economies and led thematic research projects for some of the world's best-known international organizations, including the Organization of the Petroleum Exporting Countries and the International Monetary Fund.

Education: B.A., University of Chicago; M.Sc., economics, London School of Economics and Political Science



Hugo Scott-Gall

Hugo Scott-Gall is co-director of research for the global equity team. He is also a thematic strategist.

He is responsible for researching longer-term trends affecting corporate performance and developing systematic solutions for broad investment challenges. Before joining William Blair in 2018, Hugo was a managing director and head of the thematic research team at Goldman Sachs that investigated thematic changes, analyzed their effects across industries, and sought to identify long-term structurally advantaged companies. He produced *Fortnightly Thoughts*, a publication offering thematic insights, and *GS Sustain*, a long-term-focused publication that sought to identify best-in-breed companies. He also oversaw *GS Dataworks*, a team that used alternative data to augment fundamental research. Before his move into thematic research, Hugo was an equity research analyst covering European transportation companies. Before Goldman Sachs, he was an equity research analyst at Fidelity Investments.



Darragh Grogan

Darragh Grogan is a technologist on the global equity team.

In this role, he works with William Blair's IT development team to implement technological improvements into the investment process. Before joining William Blair in 2008 as a software engineer supporting trading and reconciliation, Darragh was a senior software engineer at Accenture and Fidelity.

B.Com. and a higher diploma in applied science (software development and design), National University of Ireland in Galway; M.S., advanced software engineering, University College Dublin

Biography

Wally Fikri, CFA, CPA, Partner

Wally Fikri is responsible for consultant relations and business development for William Blair Investment Management. He covers the Western region of the United States. Wally joined William Blair in 2004 after nearly 12 years with Brinson Partners (now UBS Global Asset Management). He has been actively involved in the institutional asset-management industry, including extensive work with asset-allocation, equity, fixed-income, and hedge-fund strategies, since beginning his career in the financial services practice at KPMG Peat Marwick in 1991. He is an active member and past board member of the CFA Society of Chicago, a member of the CFA Institute, and a member of the advisory board for Goldie's Place, a charitable organization helping homeless adults become self-sufficient. Wally received a B.S. in accountancy from Northern Illinois University and an M.B.A. from Northwestern University's Kellogg Graduate School of Management.

Portfolio Design: International Leaders

June 30, 2019

Benchmark:

MSCI AC World ex-US IMI Index

Position Size:

Dependent on market cap, float, trading volume, price volatility, and fundamental risk/reward

Number Of Holdings:

40-70

Sector Exposure

Sector	Range
Communication Svcs.	0-20%
Discretionary	5-30%
Staples	0-20%
Energy	0-20%
Financials	5-35%
Healthcare	0-20%
Industrials	0-30%
IT	0-25%
Materials	0-20%
Real Estate	0-10%
Utilities	0-15%

Geographic Exposure

Region	Range
Pacific ex-Japan	0-20%
Japan	0-30%
Europe + ME ex-U.K.	10-55%
United Kingdom	0-35%
Canada	0-15%
Emerging Asia	0-20%
EMEA	0-10%
Latin America	0-15%
Total Emerging Markets	0-40%

Capitalization

Market Cap	Range
Large Cap	20-70%
Mid Cap	20-60%
Small Cap	0-30%

Policy ranges subject to change at any time. Name change from Telecommunication Services to Communication Services effective after close of business on 9/28/18; industry and subindustry reclassifications effective 10/1/18.

Holdings: International Leaders – Region

June 30, 2019

	Portfolio Weight		Portfolio Weight
Pacific Ex Japan	9.69	Europe+ME Ex UK (continued)	
Australia	5.09	Sweden (continued)	
Csl Ltd	2.02	Hexagon Ab-B Shs	1.51
Macquarie Group Ltd	1.99	Switzerland	7.41
Aristocrat Leisure Ltd	1.08	Lonza Group Ag-Reg	2.29
Hong Kong	4.60	Temenos Ag - Reg	1.94
Aia Group Ltd	3.30	Partners Group Holding AG	1.70
Galaxy Entertainment Group L	1.30	Sika Ag-Reg	1.48
Japan	8.06	UK	13.64
Japan	8.06	United Kingdom	13.64
Keyence Corp	2.50	Experian PLC	2.14
Shiseido Co Ltd	1.81	Diageo PLC	2.03
Daikin Industries Ltd	1.45	Relx PLC	1.99
Nitori Holdings Co Ltd	1.23	Compass Group PLC	1.95
Smc Corp	1.07	London Stock Exchange Group	1.47
Europe+ME Ex UK	43.12	Segro PLC	1.45
Denmark	4.19	Ferguson PLC	1.30
Coloplast-B	1.74	St James's Place PLC	0.84
Orsted A/S	1.66	Abcam PLC	0.46
Dsv A/S	0.80	W Hemisphere	9.33
Finland	0.46	Canada	9.33
Neste Oyj	0.46	Canadian Natl Railway Co	2.58
France	9.43	Toronto-Dominion Bank	2.19
Lvmh Moet Hennessy Louis Vui	2.68	Brookfield Asset Manage-CI A	2.11
Airbus Se	2.46	Rogers Communications Inc-B	1.27
Safran SA	2.41	Dollarama Inc	1.18
Capgemini Se	1.89	EM Asia	12.49
Germany	4.87	China	8.50
Sap Se	2.38	Alibaba Group Holding-Sp Adr	2.71
Infineon Technologies AG	1.38	Tencent Holdings Ltd	2.27
Rational AG	1.11	China Merchants Bank-H	2.05
Ireland	1.79	Netease Inc-Adr	1.46
Kingspan Group PLC	1.79	India	1.61
Israel	1.58	Housing Development Finance	1.61
Check Point Software Tech	1.58	Taiwan	2.39
Italy	0.58	Taiwan Semiconductor Manufac	2.39
Ferrari NV	0.58	EMEA	0.76
Luxembourg	0.76	South Africa	0.76
Tenaris SA	0.76	Bid Corp Ltd	0.76
Netherlands	4.89	Cash	2.91
Koninklijke Philips NV	2.12	Total	100.00
Royal Dutch Shell Plc-A Shs	1.77		
Adyen NV	0.99		
Spain	3.82		
Amadeus It Group SA	1.95		
Acs Actividades Cons Y Serv	1.80		
Acs Actividades De Const-Rts	0.07		
Sweden	3.36		
Atlas Copco Ab-A Shs	1.85		

The data shown above is based on the strategy's representative portfolio. Individual securities listed in this report are for informational purposes only. Holdings are subject to change at any time. This information does not constitute, and should not be construed as, investment advice or recommendations with respect to the securities listed. Cash incorporates cash equivalents and accruals.

Sustainable Value Creation Across the Corporate Lifecycle



Lifecycle Stage	Emergent Growth	Expanding Growth	Sustained Growth
Description	<p>Narrow product or service offering, often novel and disruptive</p> <p>Focus on making customers aware of the competitive advantage of the offering</p>	<p>Expanding market share and extended market leadership</p> <p>Clear points of differentiation in offering vs. competitors</p> <p>Integration of innovation into core offering to extend market leadership</p>	<p>Dominant market position which it seeks to maintain</p> <p>Defends market share and profitability through integration of innovation</p> <p>Relentless focus on improving efficiencies</p>
Growth	<p>Rapidly growing market or large market with rapidly growing market share</p> <p>Focus on top-line growth</p>	<p>Pursues new growth opportunities while divest older, exhausted ones</p> <p>Top-line growth slows but becomes more certain</p>	<p>Top-line growth plateaus at stable levels</p> <p>Focus on bottom-line growth</p>
Profitability	<p>Willingness to delay profitability to maximize long-term value</p> <p>High levels of investment as a percentage of revenue</p>	<p>Cash flow improves due to increasing operating margins</p> <p>Stronger cash flow generation supports high reinvestment levels</p>	<p>High and stable margins</p> <p>Reinvestment rates have decreased to modest levels</p> <p>Excess profit returned through dividends/buybacks</p>

For illustrative purposes only. Not intended as investment advice. Lifecycle stages are not projections of future returns.

ESG at William Blair

Experience

- Natural alignment with our quality-focused investment approach
- \$9.1 billion in mandates with client-specific ESG objectives¹

Commitment

- PRI signatory since 2011²
- Tier 1 signatory of UK Stewardship Code
- US Investor Stewardship Group signatory
- Oversight by Director of Sustainable Investing and ESG working group

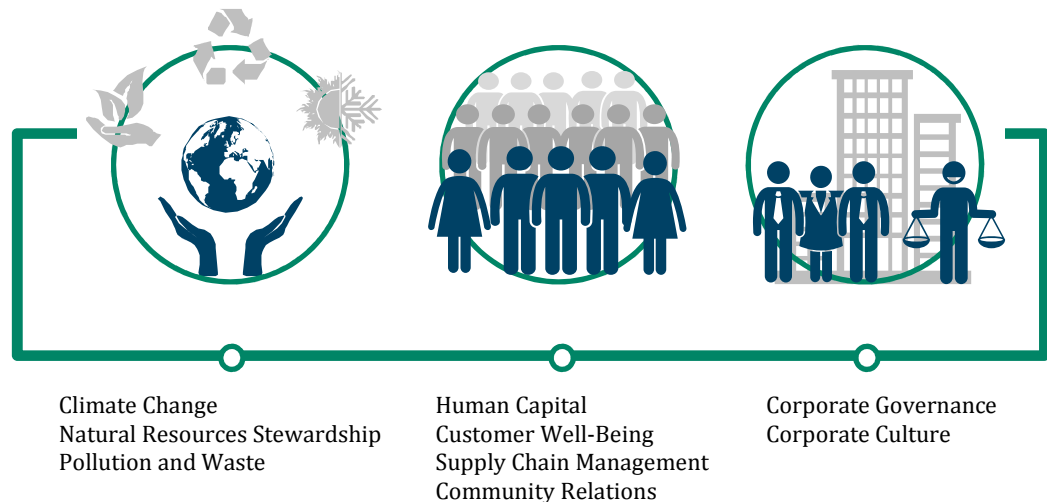
Signatory of:



Integration

- Material ESG factors are inputs in our holistic assessment of a company's opportunities and risks
- Proprietary ESG materiality framework focuses fundamental analysis on most relevant ESG factors at the industry level
- Seamless incorporation through our Summit research platform

William Blair ESG Materiality Framework Topic Structure



¹As of June 30, 2019. Includes separate accounts with client-specific screening criteria. ²A+ rated for Equity Incorporation as per 2019 PRI Assessment Report. William Blair & Company, L.L.C. is signatory to the UN-supported PRI and UK Stewardship Code.

Glossary – Terms

Active Share: A measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index.

Alpha: A measure of a portfolio's return in excess of the market return, after both have been adjusted for risk. It is a mathematical estimate of the amount of return expected from a portfolio above and beyond the market return at any point in time. For example, an alpha of 1.25 indicates that a stock is projected to rise 1.25% in price in a year over the return of the market, or the return when the market return is zero. When an investment price is low relative to its alpha, it is undervalued, and considered a good selection.

Beta: A quantitative measure of the volatility of the portfolio relative to the overall market, represented by a comparable benchmark. A beta above 1 is more volatile than the overall market, while a beta below 1 is less volatile, and could be expected to rise and fall more slowly than the market.

CFROI (Cash Flow Return on Invested Capital): A measure of how effectively a company generates cash flow based on legacy capital investment.

Developed Markets: Using the Morgan Stanley Capital International (MSCI) geographic definition, this region includes: United Kingdom, Europe (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Spain, Sweden and Switzerland), Japan, Pacific Asia (Australia, Hong Kong, New Zealand, and Singapore) and the Western Hemisphere (Canada and other Americas).

Debt to Total Capital Ratio: This figure is the percentage of each company's invested capital that consists of debt. Companies with a high Debt to Total Capital level may be considered more risky. From a portfolio perspective, the portfolio Debt to Total Capital Ratio is a weighted average of the individual holdings' Debt to Total Capital Ratio.

Emerging Markets: Using MSCI's geographic definition, this region includes: Emerging Markets Asia (China, India, Indonesia, Malaysia, S Korea, Taiwan, and Thailand), Emerging Markets Europe, Mid-East and Africa (Czech Republic, Hungary, Poland, Russia, Turkey, Egypt, Morocco, and S Africa), and Latin America (Argentina, Brazil, Chile, Columbia, Mexico, Peru and Venezuela).

EPS Estimate Revision Breadth: A 1-month factor representing the trend in the direction of estimate changes. Range from -100% to +100%, it is calculated as the number of positive revisions minus the number of negative revisions divided by the total number of estimates.

EPS (Earnings Per Share) Growth Rate (Projected): This measure represents the weighted average of forecasted growth in earnings expected to be experienced by the stocks within the portfolio over the next year. From a portfolio perspective, the portfolio EPS Growth Rate is a weighted average of the individual holdings' EPS Growth Rate.

EPS Growth Rate (5-Year Historic): The weighted average earnings per share growth for stocks within the portfolio over the past 5 years.

EV/EBITDA (Enterprise Value/Earnings Before Interest, Taxes and Depreciation-Amortization): The EV/EBITDA ratio is useful for global comparisons because it ignores the distorting effects of individual countries' taxation policies. It's used to find attractive takeover candidates. Enterprise value is a better measure than market cap for takeovers because it takes into account the debt which the acquirer will have to assume. Therefore, a company with a low EV/EBITDA ratio can be viewed as a good takeover candidate.

EV/IC: (Enterprise Value/Invested Capital) Ratio: Enterprise Value (EV), which is market capitalization minus cash plus debt divided by Invested Capital (IC), which is the sum of common stock, preferred stock and long-term debt. This number will get you a simple multiple. If it is below 1.0, then it means that the company is selling below book value and theoretically below its liquidation value.

Information Ratio: A measure of risk-adjusted return. The annualized excess return of the portfolio relative to a respective benchmark, divided by the annualized tracking error relative to that same benchmark. The higher the measure, the higher the risk-adjusted return.

Integrated: Constructs a portfolio of the top 20% of stocks based on William Blair's multi-factor composite model, which uses Earnings Trend, Momentum, Quality, and Valuation factors. The portfolio is rebalanced on a monthly basis and weights stocks based on relative market capitalization.

PBVn (Price/Book Value) Ratio: The PBV Ratio measures the value of a company's common stock relative to its shareholder's equity. A price-to-book multiple above one means that the price of the company's common stock is higher than its common shareholder's equity. A price-to-book multiple below one means that the price of the company's common stock are less than its break-up value, and the shares may be undervalued.

PCF (Price/CashFlow): Some analysts favor the price/cash flow over the price-earnings (PE) ratio as a measure of a company's value. Cash flow is a measure of a company's financial health. It equals cash receipts minus cash payments over a given period of time.

P/E (Price/Earnings) Ratio: This is the most common measure of how expensive a stock is. Simply, it is the cost an investor in a given stock must pay per dollar of current annual earnings. A high P/E generally indicates that the market is paying more to obtain the stock because it has confidence in the company's ability to increase its earnings. Conversely, a low P/E often indicates that the market has less confidence that the company's earnings will increase rapidly or steadily, and therefore will not pay as much for its stock.

R-squared: A measurement of how closely the portfolio's performance correlates with the performance of its benchmark, such as the MSC AC World Free ex US Index. In other words, it is a measurement of what portion of a portfolio's performance can be explained by the performance of the overall market or index. Ranges from 0 to 1, where 0 indicates no correlation and 1 indicates perfect correlation.

Risk (Standard Deviation): A measure of the portfolio's risk. A higher standard deviation represents a greater dispersion of returns, and thus a greater amount of risk. The annualized standard deviation is calculated using monthly returns.

Silo: Constructs portfolios using the top 20% of stocks based on each of the four sub-models used to construct William Blair's composite model, then averages the returns coming from each of the four portfolios. The portfolios are rebalanced on a monthly basis and weights stocks based on relative market capitalization. (The Equal Weighted strategy equally weights the returns coming from each of the sub-portfolios; the Optimized approach weights Quality 5%, Valuation 60%, Earnings Trend 5%, and Momentum 30%. The optimization was based on a monte-carlo simulation that sought an optimal weighting of each sub-portfolios to achieve the highest return).

Sortino Ratio: A modification of the Sharpe ratio that differentiates harmful volatility from general volatility by taking into account the standard deviation of negative asset returns, called downside deviation. The Sortino ratio subtracts the risk-free rate of return from the portfolio's return, and then divides that by the downside deviation. A large Sortino ratio indicates there is a low probability of a large loss.

Sharpe-Ratio: A risk-adjusted measure calculated using standard deviation and excess return (Portfolio return – Risk Free Rate) to determine reward per unit of risk. The higher the Sharpe ratio, the better the portfolio's historic risk-adjusted performance.

Tracking Error: Tracking Error measures the extent to which a portfolio tracks its benchmark. The tracking error of an index portfolio should be lower than that of an active portfolio. The tracking error will always be greater than zero if the portfolio is anything other than a replication of the benchmark.

Trailing 1-Year Turnover: This figure reflects the portfolio's trading activity by calculating the amount of the portfolio's holdings bought or sold over the prior year, expressed as a percentage of the portfolio's average market value. Turnover figures may be related to the amount of trading costs experienced by the portfolio.

Weighted Average Market Capitalization: Market capitalization refers to the total market value of each company's outstanding shares. The Weighted Average Market Capitalization for a portfolio is calculated as the average market capitalization of the stocks within the portfolio, weighted by the amount of each stock owned.

Weighted Median Market Capitalization: This calculation represents the median market capitalization of the stocks in the portfolio, weighted by the amount of each stock owned.

Glossary – Indices

Bloomberg Barclays U.S. Aggregate Bond Index: A broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, mortgage-backed securities (agency fixed-rate and hybrid ARM pass-throughs), asset-backed securities and commercial mortgage backed securities.

Bloomberg Barclays Intermediate Govt./Credit Bond Index (formerly the Lehman Index): A fixed-rate government and corporate bonds rated investment grade or higher.

Bloomberg Barclay's Multiverse Index: Provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment grade and high yield securities in all eligible currencies. Standalone indices such as the Euro Floating-Rate ABS Index and the Chinese Aggregate Index are excluded. The Multiverse Index family includes a wide range of standard and customized sub-indices by sector, quality, maturity, and country.

Bloomberg Barclays U.S. Intermediate Aggregate Bond Index: A broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, mortgage-backed securities (agency fixed-rate and hybrid ARM pass-throughs), asset-backed securities and commercial mortgage backed securities with maturities between one and 10 years.

ICE BofAML 1-Year U.S. Treasury Note Index: An unmanaged index comprised of a single U.S. Treasury Bill issued at the beginning of each month and held for a full month. Each month the index is rebalanced and the issue selected is the outstanding U.S. Treasury Note that matures closest to, but not beyond one year from the rebalancing date.

ICE BofAML 3-Month Treasury Bill Index: An unmanaged market index of U.S. Treasury securities maturing in 90 days that assumes reinvestment of all income.

J.P. Morgan Cash Index: Measures the total return of a rolling investment in a notional fixed income instrument with a maturity of three months. The deposit rates used in the calculation of the JP Morgan Cash Index are LIBOR or similar local reference rates.

Merrill Lynch 1-Year U.S. Treasury Note Index: Comprised of a single U.S. Treasury Bill issued at the beginning of each month and held for a full month. Each month the index is rebalanced and the issue selected is the outstanding U.S. Treasury Note that matures closest to, but not beyond one year from the rebalancing date.

Merrill Lynch 3-Month Treasury Bill Index: An unmanaged index market index of U.S. Treasury securities maturing in 90 days that assumes reinvestment of all income.

MSCI (Morgan Stanley Capital International): MSCI indices are the most widely used benchmarks by global portfolio managers. MSCI offers international investors performance benchmarks for 51 national stock markets as well as regional, sector, industry group, and industry aggregations.

MSCI China A Onshore Index: A free-float weighted equity index, designed to measure performance of China A share securities listed on either the Shanghai or Shenzhen Stock Exchanges.

MSCI All Country World ex-US EAFE Index: An unmanaged index that includes developed and emerging markets outside the United States.

MSCI All Country World ex-US Small Cap Index: A free float-adjusted market capitalization index designed to measure global developed and emerging market small capitalization equity performance, excluding the U.S.

MSCI EAFE Index: A free float-adjusted market capitalization index which captures large and mid cap representation across Developed Markets countries around the world, excluding the U.S. and Canada.

MSCI EAFE IMI Index: A free float-adjusted market capitalization index which captures large, mid and small cap representation across Developed Markets countries around the world, excluding the U.S. and Canada.

MSCI EAFE Growth Index: A free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. & Canada.

MSCI All Country World ex-US Index: An unmanaged index that includes developed and emerging markets, excluding the U.S.

MSCI All Country World ex-US Growth Index: A free float-adjusted market capitalization index that is designed to provide a broad measure of equity-market performance throughout the world, excluding the U.S. It includes those MSCI All Country World ex-US securities with higher price-to-book ratios and higher forecasted growth rates.

MSCI All Country World ex-US IMI Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S.

MSCI All Country World IMI Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets.

MSCI All Country World ex-US IMI Growth Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. It includes those MSCI All Country World ex-US IMI Index securities with higher price-to-book ratios and higher forecasted growth rates.

MSCI World ex-US Growth Index: A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S., with higher price-to-book ratios and higher forecasted growth rates.

MSCI World ex-US Index: A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S.

MSCI Emerging Markets Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

MSCI Emerging Markets IMI Index: A free float-adjusted market capitalization index which captures large, mid and small cap equity market performance in the global emerging markets.

MSCI Emerging Markets Small Cap Index: A free float-adjusted market capitalization index that is designed to measure equity market performance of small cap companies in emerging markets.

MSCI Emerging Markets Large Cap Index: A free float-adjusted market capitalization index that is designed to measure equity market performance of large cap companies in emerging markets.

MSCI World ex-US Small Cap Index: An unmanaged index that includes non-US developed markets.

Russell 1000 Index: Measures the performance of the 1000 largest companies in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the U.S. market.

Russell 1000 Growth Index: Measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value Index: Measures the performance of the large cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Index: Measures the performance of the 2000 smallest companies in the Russell 3000 index, which represents approximately 8% of the total market capitalization of the Russell 3000 index.

Russell 2000 Growth Index: Measures the performance of those Russell 2000 companies with higher price to book ratios and higher forecasted growth values.

Russell 2000 Value Index: Measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2500 Index: Measures the performance of the 2500 smallest companies in the Russell 3000 Index.

Russell 2500 Growth Index: Measures the performance of those Russell 2500 companies with higher price-to book ratios and higher forecasted growth values.

Russell 2500 Value Index: Measures the performance of those Russell 2500 companies with lower price-to book ratios and lower forecasted growth values.

Russell 3000 Index: Measures the performance of the 3000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

Russell 3000 Growth Index: Measures the performance of those Russell 3000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell Midcap Index: Measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 27% of the total market capitalization of the Russell 1000 companies.

Russell Midcap Growth Index: Measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values.

Russell Midcap Value Index: Measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values.

S&P 500 Index: The Standard & Poor's 500 Index (S&P 500) is an index of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The S&P 500 is designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe. Companies included in the index are selected by the S&P Index Committee, a team of analysts and economists at Standard & Poor's. The S&P 500 is a market value weighted index—each stock's weight is proportionate to its market value.

A direct investment in an unmanaged index is not possible.

International Leaders Performance Summary

As of June 30, 2019

Composite Performance (%)	Qtr	YTD	1 Yr	Annualized			Strategy Inception
				3 Yr	5 Yr	10 Yr	(Feb 1 03)
International Leaders (Gross of fees)	6.39	21.75	5.48	13.61	8.24	12.11	10.33
International Leaders (Net of fees)	6.18	21.26	4.64	12.71	7.37	11.20	9.36
MSCI AC World ex-US IMI Index	2.74	13.33	0.26	9.17	2.25	6.78	8.34
Relative Performance (Gross of fees)	3.65	8.42	5.22	4.44	5.99	5.33	1.99

Annual Composite Performance (%)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003 ¹
International Leaders (Gross of fees)	-11.70	31.70	2.02	7.02	-0.94	19.21	20.60	-7.81	24.63	42.80	-53.74	15.99	21.46	23.30	21.83	41.97
International Leaders (Net of fees)	-12.40	30.65	1.20	6.17	-1.73	18.26	19.64	-8.55	23.64	41.38	-54.23	14.86	20.27	22.10	20.65	40.72
MSCI AC World ex-US IMI Index	-14.76	27.81	4.41	-4.60	-3.89	15.82	17.04	-14.31	12.73	43.60	-45.99	16.13	26.51	17.68	21.93	47.19

¹Partial year performance from February 1 to December 31, 2003.

Past performance is not indicative of future returns. Performance is shown in U.S. dollar unless otherwise noted. Net investment performance represents the deduction of the highest possible fee. Actual client net returns may be higher or lower depending on fees charged to your account and the amount invested.

Returns for periods greater than one year are annualized. Gross performance results shown do not reflect the deduction of investment management fees, assume the reinvestment of dividends and capital gains, and are net of transaction costs. Performance results will be reduced by the fees incurred in the management of the account. For example, assuming an annual gross return of 8% and an annual management/advisory fee of .40%, the net annualized total return of the portfolio would be 7.58% over a 5-year period. Net investment performance represents the deduction of the highest possible fee. Investment management fees are described in William Blair's Form ADV Part 2A. The benchmark that best reflects the composite's investment strategy is the MSCI AC World ex-US Investable Market Index (IMI) Net, which is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. International investing involves special risk considerations, including currency fluctuations, lower liquidity, economic and political risk. Please see composite disclosure in appendix for a complete description of the composite.

Composite Presentation Report

International Leaders

Calendar Year	Composite Gross Return (%)	Composite Net Return (%)	MSCI AC World ex US IMI (net) Return (%)	Composite 3-Yr Std Dev (%)	Benchmark 3-Yr Std Dev (%)	Number of Portfolios	Dispersion (%)	Composite Assets End of Period \$(mm)	Percentage of Total Firm Assets (%)
2009	42.80	41.38	43.60	27.81	25.52	5/Fewer	N/A**	337.42	0.92
2010	24.63	23.64	12.73	29.62	27.57	5/Fewer	N/A**	410.20	0.93
2011	-7.81	-8.55	-14.31	21.26	22.79	11	N/A**	1,948.15	4.73
2012	20.60	19.64	17.04	19.53	19.29	21	0.69	3,163.04	6.38
2013	19.21	18.26	15.82	16.20	16.24	23	0.42	3,655.73	5.89
2014	-0.94	-1.73	-3.89	11.94	12.78	21	0.16	3,356.38	5.32
2015	7.02	6.17	-4.60	11.07	11.95	22	0.57	3,723.18	5.75
2016	2.02	1.20	4.41	12.25	12.38	25	0.22	4,161.92	6.42
2017	31.70	30.65	27.81	11.73	11.77	25	0.35	5,300.45	7.21
2018	-11.70	-12.40	-14.76	12.79	11.47	24	0.14	4,364.93	8.93

Disclosures:

William Blair Investment Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. William Blair Investment Management has been independently verified for the periods January 1, 1993 through December 31, 2018. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The International Leaders Composite has been examined for the periods presented through December 31, 2018. The verification and performance examination reports are available upon request.

For purposes of compliance with GIPS, the Firm is defined as all portfolios managed by William Blair Investment Management ("WBIM"), a distinct operating unit within William Blair. WBIM currently operates as William Blair Investment Management, LLC, an investment adviser registered with the United States Securities and Exchange Commission ("SEC"). Registration with the SEC does not imply a certain level of skill or training. WBIM primarily manages assets for institutional investors. Through 2017, WBIM included an additional sub unit, named IM Counseling, which primarily managed assets for private wealth investors, under an affiliated registered investment adviser.

The International Leaders strategy invests in companies based in developed and emerging markets outside of the United States. Companies have had and are expected to maintain superior growth, profitability and quality relative to local markets. Portfolios invested in the International Leaders strategy will hold fewer securities in fewer markets than portfolios managed under the International Growth strategy.

The benchmark that best reflects the composite's investment strategy is the MSCI All Country World Ex US Investable Market Index (net), which is a free float-adjusted market capitalization index that is designed to measure equity market performance, net of withholding taxes, in the global developed and emerging markets, excluding the US.

Portfolios must have an initial market value greater than or equal to \$1 million to be included in the composite. New portfolios are added to the composite at the beginning of the month following the first full calendar month under management. Prior to July 2007, new portfolios were added to the composite at the beginning of the quarter following two full calendar months under management. Portfolios will be excluded from the composite the first month immediately following the last complete month of authorized management by the Firm. Beginning May 2013, portfolios are removed from this composite, in the event of a significant cash flow, for the month during which the flow occurs. Portfolios are typically added back into the composite the following month. A portfolio is determined to have a significant cash flow if the accumulated net external flows of cash and /or securities during a month total more than 25% of the beginning of month portfolio market value. Additional information regarding the treatment of significant cash flows is available upon request.

Portfolio and composite returns are calculated daily. Prior to January 2009, portfolio returns were calculated monthly using a time-weighted monthly linked return formula with adjustments for cash flows and composites were calculated monthly by weighting portfolio returns based on beginning of month market value. Valuations and returns are denominated in U.S. Dollars. Accrual accounting is used for dividends. The dividend accruals included in portfolio valuations are net of applicable withholding taxes. Pending withholding tax reclaims are not accrued for in the portfolio valuations. Composite dispersion measures represent the consistency of a firm's composite performance with respect to the individual portfolio returns within a composite. The dispersion of annual returns is measured by the asset-weighted standard deviation of the gross returns in the composite. Dispersion includes only those portfolios that have been included in the composite for the entire year. The three-year annualized standard deviation measures the variability of the gross composite returns and the benchmark returns over the preceding 36-month period. This statistic is not presented until there are 36 months of performance available.

Performance results are stated gross and net of the maximum management fee for the strategy as of the time the composite return was calculated. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. The current separate account management fee schedule is as follows:

First \$20,000,000: 0.80%
 Next \$30,000,000: 0.60%
 Next \$50,000,000: 0.50%
 Next \$50,000,000: 0.45%
 Next \$50,000,000: 0.40%
 Over \$200,000,000: 0.30%

The International Leaders Composite was created in March 2003. Through April 2005, the composite was named International Growth Team: Taxable. From May 2005 through September 2011, the composite was named International Growth Team: Concentrated. The composite performance inception date is February 1, 2003.

A complete list and description of firm composites is available upon request. Additional information regarding policies for valuing portfolios, calculating performance and preparing compliant presentations is also available upon request. Past performance is not indicative of future results.

**Five or fewer portfolios were included in the composite for the entire year.

Important Disclosures – International Leaders Strategy

This content is for informational and educational purposes only and not intended as investment advice or a recommendation to buy or sell any security. Investment advice and recommendations can be provided only after careful consideration of an investor's objectives, guidelines, and restrictions. Any investment or strategy mentioned herein may not be suitable for every investor. Factual information has been taken from sources we believe to be reliable, but its accuracy, completeness or interpretation cannot be guaranteed. Information and opinions expressed are those of the author(s) and may not reflect the opinions of other investment teams within William Blair. Information is current as of the date appearing in this material only and subject to change without notice.

Performance and Fees

Past performance is not indicative of future returns. Gross investment performance assumes reinvestment of dividends and capital gains, is gross of investment management fees and net of transaction costs. Performance results will be reduced by the fees incurred in the management of the account. For example, assuming an annual gross return of 8% and an annual management/advisory fee of .40%, the net annualized total return of the portfolio would be 7.58% over a 5-year period. Net investment performance represents the deduction of the highest fee charged to any account in the composite. Investment management fees are described in William Blair's Form ADV Part 2A.

Risk

The strategy's returns will vary, and you could lose money by investing in the strategy. International investing involves special risk considerations, including currency fluctuations, lower liquidity, economic and political risk. Because the strategy may focus its investments in a limited number of securities, its performance may be more volatile than a fund that invests in a greater number of securities. International investing involves special risk considerations, including currency fluctuations, lower liquidity, and economic and political risk. Investing in emerging markets can increase these risks, including higher volatility and lower liquidity. Investing in smaller and medium capitalization companies involves special risks, including higher volatility and lower liquidity. Small and mid-cap stocks are also more sensitive to purchase/sale transactions and changes in the issuer's financial condition. Convertible securities may be called before intended, which may have an adverse effect on investment objectives. Diversification does not ensure against loss.

Benchmark

The Morgan Stanley Capital International (MSCI) All Country World Ex-U.S. IMI Index (net) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets, excluding the United States. This series approximates the minimum possible dividend reinvestment. The Index is unmanaged and does not incur fees or expenses. It is not possible to directly invest in an unmanaged index.

For more information, please visit us at www.williamblair.com



MEMORANDUM

To: Oakland Police and Fire Retirement System (OPFRS)
From: David Sancewich, Sean Copus, CFA – Meketa Inv. Group
Date: August 28, 2019
Re: 2019 Ongoing Strategic Investment Agenda

On an ongoing (monthly) basis, Meketa develops a list of projects that we expect to work closely with OPFRS to complete over throughout the calendar year (see table below). In an attempt to coordinate the scheduling of these tasks, this memo details a Preliminary Investment Project Agenda by calendaring and prioritizing the expected tasks and deliverables that would be required to fulfill the Agenda. Meketa welcomes any suggestions and/or modifications to the proposed timeline.

2019 Preliminary Investment Project Agenda

Expected Completion Date	Task
September 2019	<ul style="list-style-type: none">• TBD: Educational Topic• Manager Update: Ramirez• Asset Class Review: Fixed Income• Cash Flow Report (4Q2019)• Small Cap Value search Update• Thermal Coal List Report - Update
October 2019	<ul style="list-style-type: none">• Flash Performance Report (3Q 2019)• Manager Update: Parametric• Service Contract Extension - Parametric
November 2019	<ul style="list-style-type: none">• PCA Performance report (3Q2019)• Manager Update: Earnest Partners
December 2019	<ul style="list-style-type: none">• TBD: Depends on meeting schedule• Cash Flow Report (1Q2020)

Bold are priority strategic items.

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

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

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



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

AGENDA

RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr.
President

Jaime T. Godfrey
Vice President

Adam Benson
Member

Martin J. Melia
Member

Robert J. Muszar
Member

John C. Speakman
Member

Steven Wilkinson
Member

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

Wednesday, August 28, 2019 – 1:00 pm
One Frank H. Ogawa Plaza, Hearing Room 1
Oakland, California 94612

--- ORDER OF BUSINESS ---

- A. Adjourn to Closed Session of the PFRS Board**
- B. Report of Board Action from Closed Session (if any)**
- C. Subject: Hearing for the Request for Full Continuance of Cheryl Noland, Spouse of Chesley J. Noland, Member of the Oakland Police and Fire Retirement System**
From: Staff of the PFRS Board

Recommendation: APPROVE Action from Hearing for the Request for Full Continuance of Cheryl Noland, Spouse of Chesley J. Noland, Member of the Oakland Police and Fire Retirement System.
- D. Subject: PFRS Board Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: APPROVE July 31, 2019 PFRS Board meeting minutes.

ORDER OF BUSINESS, continued

- E. Subject:** Resolution No. 7066 – Resolution Expressing Appreciation for Martin J. Melia’s Dedication and Loyal and Valuable Service as a Member of The Oakland Police and Fire Retirement System Board
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7066 – Resolution Expressing Appreciation for Martin J. Melia’s Dedication and Loyal and Valuable Service as a Member of The Oakland Police and Fire Retirement System Board.
- F. Subject:** Resolution No. 7067 – Resolution Expressing Appreciation for Katano Kasaine’s Dedication and Loyal and Valuable Service as Plan Administrator to and as a Member of the Oakland Police and Fire Retirement System Board
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7067 – Resolution Expressing Appreciation for Katano Kasaine’s Dedication and Loyal and Valuable Service as Plan Administrator to and as a Member of the Oakland Police and Fire Retirement System Board .
- G. Subject:** Resolution No. 7068 – Resolution Ratifying the July 31, 2019 Motion Terminating Professional Service Agreement with NWQ, an Active Small-Cap Value Domestic Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System, Authorizing the Transfer of Assets Managed by NWQ to an Exchange Traded Fund, and Directing the Plan Investment Consultant to Commence a Search for a Replacement Asset Manager
- From:** Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7068 – Resolution Ratifying the July 31, 2019 Motion Terminating Professional Service Agreement with NWQ, an Active Small-Cap Value Domestic Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System, Authorizing the Transfer of Assets Managed by NWQ to an Exchange Traded Fund, and Directing the Plan Investment Consultant to Commence a Search for a Replacement Asset Manager.

ORDER OF BUSINESS, continued

H. **Subject:** Resolution No. 7069 - Resolution Ratifying the July 31, 2019 Motion Terminating Professional Service Agreement with State Street Global Advisors, a Passive International Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System, and Authorizing the Transfer of Assets Managed by State Street Global Advisors to An Exchange Traded Fund

From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7069 – Resolution Ratifying the July 31, 2019 Motion Terminating Professional Service Agreement with State Street Global Advisors, a Passive International Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System, and Authorizing the Transfer of Assets Managed by State Street Global Advisors to An Exchange Traded Fund.

I. **AUDIT AND OPERATIONS COMMITTEE AGENDA – JULY 31, 2019**

I1. **Subject:** Administrative Expenses Report

From: Staff of the PFRS Board

Recommendation: **ACCEPT** an informational report regarding PFRS administrative expenses from July 1, 2018 through June 30, 2019.

I2. **Subject:** Resolution No. 7065 – Travel authorization for PFRS Board Member R. Steven Wilkinson to travel and attend the Value Edge Advisors, LLC 2019 Public Funds Forum (“2019 VEA Public Funds Forum”) from September 3, 2019 to September 5, 2019 in Park City, UT with an estimated budget of Two Thousand Five Hundred Dollars (\$2,500.00)

From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7065 – Travel authorization for PFRS Board Member R. Steven Wilkinson to travel and attend the Value Edge Advisors, LLC 2019 Public Funds Forum (“2019 VEA Public Funds Forum”) from September 3, 2019 to September 5, 2019 in Park City, UT with an estimated budget of Two Thousand Five Hundred Dollars (\$2,500.00).

ORDER OF BUSINESS, continued

- I3. **Subject:** 2006 Management Audit of the PFRS System
From: Staff of the PFRS Board
-
- Recommendation:** **DISCUSSION** regarding development of scope of services to be used for a Request for Proposal of an audit of the management of PFRS.
- J. **INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – JULY 31, 2019**
- J1. **Subject:** Investment Market Overview
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** an informational report on the global investment markets through August 2019.
- J2. **Subject:** Investment Fund Performance for the Quarter Ending June 30, 2019
From: Meketa Investment Group
-
- Recommendation:** **APPROVE** the report on the Investment Fund Performance for the Quarter Ending June 30, 2019.
- J3. **Subject:** Request for Information for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager (VERBAL REPORT)
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** an Informational Report on the status of the Request for Information for the new PFRS Active Small Cap Domestic Equity Asset Class Investment Manager.
- J4. **Subject:** Request for Information for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio (VERBAL REPORT)
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** Informational Report on the status of the Request for Information for the new Investment Manager to service both the PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
AUGUST 28, 2019

ORDER OF BUSINESS, continued

- J5. Subject:** **New Active International Equities Asset Class Investment Managers Presentations**
From: Meketa Investment Group and Staff of the PFRS Board
Recommendation: **ACCEPT** the presentations of possible new Active International Equities Asset Class Investment Firms for the PFRS Fund:
- Acadian Asset Management
 - Strategic Global Advisors
 - GQG Partners
 - William Blair Investment Management
- J6. Subject:** **Selection of a new Active International Equities Asset Class Investment Manager for the PFRS Fund**
From: Staff of the PFRS Board
Recommendation: **APPROVE** the Selection of a new Active International Equities Asset Class Investment Manager for the PFRS Fund.

K. NEW BUSINESS

L. OPEN FORUM

M. FUTURE SCHEDULING



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

TO: Oakland Police and Fire
Retirement Board

FROM: David Jones

SUBJECT: Hearing for the Request for Full
Continuance of Cheryl Noland, Spouse of
Chesley J. Noland, Member of the Oakland
Police and Fire Retirement System

DATE: August 19, 2019

SUMMARY

Cheryl Noland, spouse of Chesley J. Noland, a deceased Fire member of the Oakland Police and Fire Retirement System, has requested a hearing before the PFRS Board on her application for full continuance of Mr. Noland's retirement allowance. Ms. Noland asserts that she is entitled to full continuance of Mr. Noland's retirement allowance because Mr. Noland's death was the result of injury or illness caused by or arising out of performance of duty for the Oakland Fire Department. If the Board approves Ms. Noland's application for full continuance, Ms. Noland will receive 100% of Mr. Noland's retirement allowance as it was at death instead of two-thirds of Mr. Noland's retirement allowance as it was a death.

Attached as **Exhibit A** are the following documents for the Board's consideration:

1. August 9, 2019, Notice of Hearing with Attachments (PFRS001-004);
2. May 15, 2019, Request of Cheryl Noland, by and through counsel, for hearing before PFRS Board on application for full continuance with attachments (PFRS005-0010);
3. March 7, 2019, Determination of Application of Cheryl Noland for Full Continuance (PFRS0011);
4. February 20, 2019, City Physician's Disability Retirement Opinion (PFRS0012);
5. February 23, 2018, Application of Cheryl Noland for Full Continuation of Retirement Allowance (PFRS0013);
6. October 28, 2015, PFRS Resolution No. 6874, Fixing Monthly Allowance of Cheryl A. Noland, surviving spouse of Chesley J. Noland (PFRS0014);

Board of Administration, Oakland Police and Fire Retirement System

Subject: Hearing for the Request for Full Continuance of Cheryl Noland, Spouse of Chesley J. Noland, Member of the Oakland Police and Fire Retirement System

Date: August 19, 2019

Page 2

7. September 1, 2015, Certified Copy of Certificate of Death of Chesley J. Noland (PFRS0015);
8. June 24, 2012, PFRS Resolution No. 5808, Fixing Monthly Retirement Allowance for Chesley J. Noland (PFRS0016); and
9. May 27, 2012, PFRS Resolution No. 5807, Retiring Chesley J. Noland for Service-Connected Disability (PFRS0017-0018).

In addition, attached is **Exhibit B** containing 25 pages of documents submitted by Ms. Noland, by and through her attorney, for the Board's consideration.

Respectfully submitted,



David Jones, Plan Administrator
Oakland Police and Fire Retirement System

For questions please contact Teir Jenkins, Investment Officer, at 510-238-6481.

EXHIBIT A

CITY OF OAKLAND



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

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-7295
FAX (510) 238-7129

August 9, 2019

W. David Holsberry
McCracken Stemerma & Holsberry, LLP
595 Market Street, Suite 800
San Francisco, CA 94105

NOTICE OF HEARING

RE: Cheryl Noland –Application for Full Continuance

Letter via USPS – First Class delivered via Certified Mail #: 7010 0290 0001 1347 1916

Dear Mr. Holsberry,

The Oakland Police and Fire Retirement System (PFRS) has received your request for a 2603 hearing before the PFRS Board regarding your client, Cheryl Noland's application for full continuance of her deceased husband, Chesley J. Noland's pension. Your hearing has been scheduled to take place during the Regular Meeting of the PFRS Board on **Wednesday, August 28, 2019 at 1:00 pm in Oakland City Hall Hearing Room 1, One Frank H. Ogawa Plaza, Oakland, CA 94612.**

Witness Testimony

If you intend to call any witnesses to testify at the hearing, a witness list containing the name of all witnesses and a time estimate for each witness' testimony must be received by PFRS **no later than Wednesday, August 21, 2019.** Please note that all witness testimony will be limited to 10 minutes absent a showing of extraordinary circumstances.

Exhibits

If you intend to offer any exhibits in support of Mrs. Noland's application, one (1) copy of all exhibits must be received by PFRS **no later than Wednesday, August 21, 2019** to allow PFRS staff sufficient time to make copies of all exhibits for each Board member.

Any witness list and evidence can be delivered in person or by U.S. mail to PFRS at the following address:

City of Oakland
Finance Department, Retirement Unit
150 Frank Ogawa Plaza, Suite 3349
Oakland, CA 94612
ATTN: Teir Jenkins

If you wish to submit your witness list and exhibits by email, please email to Teir Jenkins at tjenkins@oaklandca.gov.

If you have questions, please contact Teir Jenkins at 510-238-6481.

Sincerely,



David Jones, Plan Administrator
Oakland Police and Fire Retirement System

ATTACHMENTS (2):

- (1) *March 7, 2019 letter from David Jones, Hearing Officer, to Cheryl Noland, Spouse of Chesney J. Noland.*
- (2) *February 20, 2019 City Physician's Disability Retirement Opinion*

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-6480
FAX (510) 238-7129

March 7, 2019

Mrs. Cheryl Noland
[REDACTED]

RE: Determination of Application for Surviving Spouse Full Continuance
Letter via USPS – First Class delivered via certified mail #: 7017 0530 0000 3432 7949

Dear Mrs. Noland:

Our office has had the City Physician review all available medical files regarding your spouse, Mr. Chesley J. Noland, in response to your request for a survivor full continuance pension payment of your spouse's retirement allowance. This review has resulted in the determination by the City Physician and my concurrence as Hearing Officer that the cause of Mr. Chesley J. Noland's death on August 20, 2015 was not related to his City of Oakland employment.

Your survivor continuance benefit is fixed pursuant to the City Charter in the gross amount of \$3,236.64, which is two thirds of Mr. Chesley J. Noland's gross pension benefit. Please contact Carol Kolenda, Benefits Representative, at 510-238-6480 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Jones', written over a horizontal line.

David Jones, Hearing Officer
Oakland Police and Fire Retirement System

ATTACHMENT 1
PFRS003

ConcentraTM

CITY PHYSICIAN'S DISABILITY RETIREMENT OPINION

Mr. Gregory Stanfield
Hanna Brophy Law
Post Office Box 12488
Oakland, CA 94604

February 20, 2019

Re: Noland, Chesley J (deceased)
DOD: August 20, 2015
WCAB Number: ADJ4650111
HB Number: OK004783

Dear Mr. Stanfield:


At your request I have reviewed the file of Chesley Noland, including the Certificate of Death dated September 1, 2015 signed by Berta Paola Baldovino Navarro, MD, a Complex Internal Medicine Evaluation report of July 29, 1991 submitted by David, a Qualified Injured Worker report of August 26, 1991 submitted by September 1, 2011 submitted by John B. O'Brien, MD, and hospital admission and discharge dictations from Curry General Hospital of August 13, 2015 submitted by Victor O. Macias, MD.

The internal medicine report of Dr. Baum clearly outlines cardiovascular disease that was treated with coronary artery bypass surgery on November 13, 1990. Cardiology consultant Dr. Gwynn on March 20, 1991 released Mr. Noland to resume regular work duty. However, the report of Dr. O'Brien disagrees with the ability to resume work, based upon exercise tolerance on treadmill stress testing and Thallium testing. Mr. Noland was declared a Qualified Injured Worker on August 26, 1991. Dr. O'Brien's report also indicates that in addition to coronary artery disease, Mr. Noland suffered Mild Obstructive pulmonary disease. Dr. O'Brien further clarifies that his belief was that the obstructive pulmonary disease was secondary to cigarette smoking.

The Curry General Hospital admission one week prior to the date of death indicates the reason for admission of low oxygen saturations for two days prior to admission. Chest CT scan indicated left lower lobe infiltrate and enlarging lymph nodes (as compared to previous scan). While coronary artery disease is mentioned, in the diagnoses list it is described as History of Coronary Artery disease and not as an active diagnosis. The chief diagnosis was Left lower lung pneumonia and second listed diagnosis was suspected lymphocytic leukemia. This is borne out in the August 20, 2015 certificate of death that indicates cause of death as Hypoxemic respiratory failure as a consequence of Necrotizing bacterial pneumonia.

Based on the materials provided, it is my medical opinion that Chesley Noland died as a result of his lung disease and not as a consequence of coronary artery disease.

Sincerely,



David Jourgensen, M.D., Ph.D.
Office of the City Physician, City of Oakland
Concentra - Oakland center, 384 Embarcadero West, Oakland, CA 94607
(510) 465-9363, Fax 465-3840

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

RECEIVED
DEPT. OF HUMAN RESOURCES
MANAGEMENT

19 MAY 17 PM 4:38

May 15, 2019

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via U.S. Mail

Walter Johnson Sr.
Oakland Police and Fire Retirement Board
150 Frank H. Ogawa Plaza, 3rd Floor
Oakland, CA 94612-2021

Steven L. Stemerman (CA, NV)
Richard G. McCracken (CA, NV)
W. David Holsberry (CA, NV)

Re: Cheryl Noland/Application for Full Continuance
Oakland Police and Fire Retirement System

John J. Davis, Jr. (CA)

Dear Board Member Johnson:

Florence E. Culp (CA, NV)

Kristin L. Martin (CA, NV, HI)

My office represents Cheryl Noland, the widow of deceased member Chelsey J. Noland. On April 12, 2018, Ms. Noland submitted her application to receive 100% of her deceased husband's pension. The application included the death certificate and all pertinent medical records to support her application. She submitted her application in accordance with the directions she received from the Board's benefit representative, which included the statement that the matter would be considered "during a hearing of the Oakland Police and Fire Retirement Board." We believe such a hearing is also required by Charter Sec. 2603 and is also consistent with what I have observed as the Board's practice over the past 40 years.

Eric B. Myers (CA, NV)

Paul L. More (CA, NV, MA)

Sarah Varela (CA, AZ, NV)

Sarah Grossman-Swenson (CA, NV)

Yuval Miller (CA, NV)

David L. Barber (CA, NV)

Kimberley C. Weber (CA, NV)

A. Mirella Nieto (CA)

F. Benjamin Kowalczyk (CA)

Robert P. Cowell (1931-1980)

Ms. Noland received a letter dated March 7, 2019 from "David Jones, Hearing Officer, Oakland Police and Fire Retirement System" indicating that there had been a "determination" that she was not entitled to the continuance. A copy of his letter is attached. Neither Ms. Noland or my office was ever notified of any hearing, and I now have confirmed that the Board has adopted no procedure involving a hearing officer. I wrote to the "hearing officer" on three occasions for an explanation and to obtain all records upon which his "determination" was based, but have received no explanation or records. Copies of pertinent letters are attached.

Philip Paul Bowe (CA) (Ret.)

Barry S. Jellison (CA) (Ret.)

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

The unresolved status of this matter has caused Ms. Noland unwarranted stress and worry. She has apparently been subjected to a "hearing" of which she had no notice; a procedure which was never adopted by the Board; and a review of evidence which she has not been provided. Ms. Noland is entitled to a hearing under Charter Sec. 2603 and expects that one will be scheduled after appropriate



PFRS005

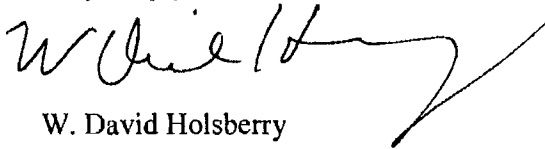
McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Walter Johnson, Sr.
Oakland Police and Fire Retirement Board
May 15, 2019
Page 2

notice. More important, however, is how the Board will deal with the taint caused by the premature and unauthorized determination by your "hearing officer." We expect the Board to formally retract that improper "determination" and to guarantee Ms. Noland a fair hearing free of prejudice.

Please inform me of what steps are necessary to obtain a fair hearing pursuant to Section 2603.

Very truly yours,



W. David Holsberry

cc. Cheryl Noland
Steve Splendorio



PFRS006

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-6480
FAX (510) 238-7129

March 7, 2019

Mrs. Cheryl Noland
[REDACTED]

RE: Determination of Application for Surviving Spouse Full Continuance
Letter via USPS – First Class delivered via certified mail #: 7017 0530 0000 3432 7949

Dear Mrs. Noland:

Our office has had the City Physician review all available medical files regarding your spouse, Mr. Chesley J. Noland, in response to your request for a survivor full continuance pension payment of your spouse's retirement allowance. This review has resulted in the determination by the City Physician and my concurrence as Hearing Officer that the cause of Mr. Chesley J. Noland's death on August 20, 2015 was not related to his City of Oakland employment.

Your survivor continuance benefit is fixed pursuant to the City Charter in the gross amount of \$3,236.64, which is two thirds of Mr. Chesley J. Noland's gross pension benefit. Please contact Carol Kolenda, Benefits Representative, at 510-238-6480 if you have any questions.

Sincerely,

David Jones, Hearing Officer
Oakland Police and Fire Retirement System

PFRS007

McCRACKEN, STEMERMAN & HOLSBERY, LLP

Counselors and Attorneys at Law

March 20, 2019

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via U.S. Mail & Email

David Jones, Hearing Officer
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, 3rd Floor
Oakland, CA 94612-2021

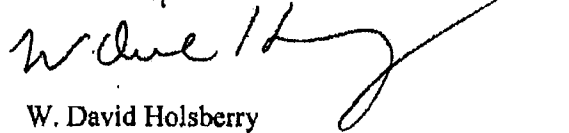
Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

Dear Mr. Jones:

Please immediately provide the documents requested in my March 13, 2019 letter to you. Another copy is attached.

Your prompt attention is appreciated.

Very truly yours,



W. David Holsberry

cc. Cheryl Noland
Steve Splendorio

Robert P. Cowell (1931-1980)

Philip Paul Bowe (CA) (Ret.)
Barry S. Jellison (CA) (Ret.)

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848



PFRS008

McCRACKEN, STEINERMAN & HOLSBERY, LLP

Counselors and Attorneys at Law

March 29, 2019

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via U.S. Mail and Email

David Jones, Retirement Administrator
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, 3rd Floor
Oakland, CA 94612-2021

Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

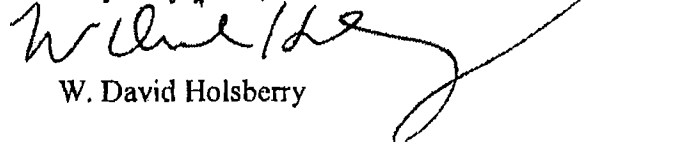
Dear Mr. Jones:

This is my third request for documents pertinent to Ms. Noland's pending application for a full continuance of her deceased spouse's retirement allowance. Copies of my prior requests are attached. Please immediately provide the requested documents.

It is now clear that, contrary to the implication of your March 7, 2019 letter to Ms. Noland, you were never appointed as a "hearing officer" by the PFRS Board. I request that you formally retract your asserted March 7, 2019 "determination" and so inform Ms. Noland immediately as your letter has caused her unnecessary distress.

Ms. Noland expects a hearing before the PFRS Board on the issues raised by her application as provided for in Charter Sec. 2603. Please inform me when she can expect such a hearing and what steps will be taken to insure that her hearing is not tainted by a premature and unauthorized "determination" by a "hearing officer."

Very truly yours,


W. David Holsberry

cc. Cheryl Noland
Steve Splendorio

Las Vegas

30 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848



PFRS009

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

April 12, 2018

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via U.S. Mail

Carol Kolenda
Benefits Representative
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, Room 3332
Oakland, CA 94612

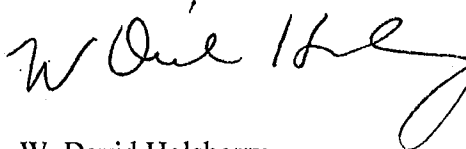
Re: Cheryl Noland/Application for full continuance
per Charter Sec. 2611, 2614

Dear Ms. Kolenda:

My office represents Cheryl Noland in this matter. Enclosed is Ms. Noland's application to receive 100% of her deceased husband's pension. Enclosed is her application, the death certificate and medical records establishing that Mr. Noland's death resulted from an injury or illness caused by or arising out of his performance of duty in the Oakland Fire Department.

I also forwarding a copy of the entire file to JT2 pursuant to your previous instructions to Ms. Noland. We trust that appropriate confidentiality will be observed. Please contact me with any questions.

Very truly yours,



W. David Holsberry

Robert P. Cowell (1931-1980)

Philip Paul Bowe (CA) (Ret.)

Barry S. Jellison (CA) (Ret.)

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

cc. Cheryl Noland w/enclosures
Steve Splendorio w/enclosures

JT2 - Attn: Grinnah Bautista w/enclosures
P.O. Box 70410
Oakland, CA 94612



PFRS0010

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-6480
FAX (510) 238-7129

March 7, 2019

Mrs. Cheryl Noland

RE: Determination of Application for Surviving Spouse Full Continuance
Letter via USPS – First Class delivered via certified mail #: 7017 0530 0000 3432 7949

Dear Mrs. Noland:

Our office has had the City Physician review all available medical files regarding your spouse, Mr. Chesley J. Noland, in response to your request for a survivor full continuance pension payment of your spouse's retirement allowance. This review has resulted in the determination by the City Physician and my concurrence as Hearing Officer that the cause of Mr. Chesley J. Noland's death on August 20, 2015 was not related to his City of Oakland employment.

Your survivor continuance benefit is fixed pursuant to the City Charter in the gross amount of \$3,236.64, which is two thirds of Mr. Chesley J. Noland's gross pension benefit. Please contact Carol Koleida, Benefits Representative, at 510-238-6480 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "David Jones".

David Jones, Hearing Officer
Oakland Police and Fire Retirement System

PFRS0011



CITY PHYSICIAN'S DISABILITY RETIREMENT OPINION

Mr. Gregory Stanfield
Hanna Brophy Law
Post Office Box 12488
Oakland, CA 94604

February 20, 2019

Re: Noland, Chesley J (deceased)
DOD: August 20, 2015
WCAB Number: ADJ4650111
HB Number: OK004783

Dear Mr. Stanfield:

At your request I have reviewed the file of Chesley Noland, including the Certificate of Death dated September 1, 2015 signed by Berta Paola Baldovino Navarro, MD, a Complex Internal Medicine Evaluation report of July 29, 1991 submitted by David, a Qualified Injured Worker report of August 26, 1991 submitted by September 1, 2011 submitted by John B. O'Brien, MD, and hospital admission and discharge dictations from Curry General Hospital of August 13, 2015 submitted by Victor O. Macias, MD.

The internal medicine report of Dr. Baum clearly outlines cardiovascular disease that was treated with coronary artery bypass surgery on November 13, 1990. Cardiology consultant Dr. Gwynn on March 20, 1991 released Mr. Noland to resume regular work duty. However, the report of Dr. O'Brien disagrees with the ability to resume work, based upon exercise tolerance on treadmill stress testing and Thallium testing. Mr. Noland was declared a Qualified Injured Worker on August 26, 1991. Dr. O'Brien's report also indicates that in addition to coronary artery disease, Mr. Noland suffered Mild Obstructive pulmonary disease. Dr. O'Brien further clarifies that his belief was that the obstructive pulmonary disease was secondary to cigarette smoking.

The Curry General Hospital admission one week prior to the date of death indicates the reason for admission of low oxygen saturations for two days prior to admission. Chest CT scan indicated left lower lobe infiltrate and enlarging lymph nodes (as compared to previous scan). While coronary artery disease is mentioned, in the diagnoses list it is described as History of Coronary Artery disease and not as an active diagnosis. The chief diagnosis was Left lower lung pneumonia and second listed diagnosis was suspected lymphocytic leukemia. This is borne out in the August 20, 2015 certificate of death that indicates cause of death as Hypoxemic respiratory failure as a consequence of Necrotizing bacterial pneumonia.

Based on the materials provided, it is my medical opinion that Chesley Noland died as a result of his lung disease and not as a consequence of coronary artery disease.

Sincerely,

David Jourgensen, M.D., Ph.D.
Office of the City Physician, City of Oakland
Concentra - Oakland center, 384 Embarcadero West, Oakland, CA 94607
(510) 465-9365, Fax 465-3840

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021
Finance and Management Agency - Treasury Department
Retirement Systems

(510) 238-3987
FAX (510) 238-7129
TDD (510) 839-6451

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
APPLICATION FOR CONTINUATION OF RETIREMENT ALLOWANCE

To: The Retirement Board
Police & Fire Retirement Systems

In accordance with the City of Oakland Charter and Ordinance provisions governing the Retirement Systems, I hereby make an application for the continuation to me of

all of the retirement allowance of my husband, Chesley
(all or two thirds) first name

J Noland, who was retired from the
(middle initial) (last name)

Oakland Police or Fire Department, and who died on: August 20, 2015
(circle one) (date of death)

And I claim that said death resulted from injury received in, or
(claim or do not claim)

illness caused by or arising out of the performance of duty in said Department.

I am the lawful widow of the said Chesley James Noland
(deceased members full name)

to whom I was married on May 10, 1975
(date of marriage)

I was born [redacted]
(month, date, year)

My present home address is [redacted]

My Social Security Number is [redacted] My Telephone # is [redacted]

Executed on Feb 23, 2018
(date signed)

I declare under penalty of perjury that the foregoing is true and correct.

Signature: Cheryl Noland

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. ~~8873~~ 6874 ^{DM}

ON MOTION OF MEMBER Speakman SECONDED BY MEMBER Oznowicz

RESOLUTION FIXING THE MONTHLY ALLOWANCE OF THE SURVIVING SPOUSE(S) OF THE RETIRED MEMBER(S) OF THE POLICE AND FIRE RETIREMENT SYSTEM.

WHEREAS, the retired member of the Police and Fire Retirement System, whose name appears below, died on the date shown; and

WHEREAS, the surviving spouse, whose name appears below, does not claim such death resulted from injury in or illness caused by the performance of duty; and

WHEREAS, there is now presented to this Board, the amount in Column (6), as shown on Disability Retirement Allowance Roll No. 8597 and as calculated by the Actuary in accordance with Article XXVI of the Charter of the City of Oakland; now, therefore, be it

RESOLVED: That the Police and Fire Retirement Board fixes, and it does hereby fix, the amount in Column (6), as the monthly allowance to which said surviving spouse is entitled, effective on the date shown in Column (4):

(1) Name of Deceased Member	(2) Date of Death	(3) Name of Surviving Spouse	(4) Effective Date of Allowance	(5) % of Compensation Attached to Avg. Rank Held	(6) Monthly Allowance
Chesley J. Noland (F)	10/20/2015	Cheryl A. Noland	10/21/2015	33.3333%	\$3,111.23
Charles J. Hansen (P)	10/20/2015	Caryl P. Hansen	10/21/2015	34.4447%	\$5,365.34

IN BOARD MEETING, CITY HALL, OAKLAND, CA OCTOBER 28, 2015

PASSED BY THE FOLLOWING VOTE:

AYES: GODFREY, SPEAKMAN, ~~COOPER~~, OZNOWICZ, WILKINSON, DANIEL
PRESIDENT JOHNSON

NOES:

ABSENT: Cooper

ATTEST: [Signature]
PRESIDENT

ATTEST: [Signature]
SECRETARY

STATE OF OREGON

CERTIFICATION OF VITAL RECORD

OREGON HEALTH AUTHORITY CENTER FOR HEALTH STATISTICS CERTIFICATE OF DEATH

728909
I.D. TAG NO.

136-2015-022000
STATE FILE NUMBER

TO BE COMPLETED BY FUNERAL FACILITY	Legal Name: First Chesley Middle J Last Noland Suffix		Death Date: August 20, 2015	
	Sex: Male	Age: [REDACTED]	Social Security Number: [REDACTED]	
	Birthdate: [REDACTED]		Birthplace: Hanford, California	
	Residence: [REDACTED]		City/Town: [REDACTED]	
	Residence County: [REDACTED]		State or Foreign Country: [REDACTED]	
	Marital Status at Time of Death: Married		Spouse's Name: Prior to First Marriage: Cheryl Ann Lepage	
	Father's Name: Egbert John Noland		Mother's Name: Prior to First Marriage: Fleda Kathryn Arnold	
	Informant's Name: Cheryl Ann Noland		Relationship to Decedent: Spouse	
	Place of Death: Hospital-Inpatient		Facility Name: Providence Medford Medical Center	
	Location of Death: 1111 Crater Lake Avenue		City/Town or Location of Death: Medford	
	Method of Disposition: Cremation		Place of Disposition: Siskiyou Memorial Park	
	Name and Complete Address of Funeral Facility: Peri Funeral Home		Location (City/Town and State): Medford, Oregon	
	Date of Disposition: August 20, 2015		Funeral Director's Signature: Bret Benzley	
	Registrar's Signature: Jennifer A. Woodward		Date Received: September 01, 2015	
	Was case referred to Medical Examiner? No		Autopsy? No	
CAUSE OF DEATH		Time of Death: 2003		
IMMEDIATE CAUSE: Hypoxemic respiratory failure		Approximate Interval: Onset to Death		
Due to (or as a consequence of): Necrotizing bacterial pneumonia		days		
Due to (or as a consequence of): Bladder Cancer		years		
Manner of Death: Natural		If Female: Not Applicable		
Date of Injury: [REDACTED]		Time of Injury: [REDACTED]		
Location of Injury: [REDACTED]		Place of Injury: [REDACTED]		
Name and Address of Certifier: Berta Paola Baldovino Navarro		1111 Crater Lake Avenue, Medford, Oregon 97504		
Medical Certifier: Berta Paola Baldovino Navarro		Title of Certifier: M.D.		
Date Signed: September 01, 2015		License Number: MD164887		

TO BE COMPLETED BY MEDICAL CERTIFIER



I CERTIFY THAT THIS IS A TRUE, FULL AND CORRECT COPY OF THE ORIGINAL CERTIFICATE ON FILE OR THE VITAL RECORD FACTS ON FILE IN THE OREGON CENTER FOR HEALTH STATISTICS OR A DELEGATED LOCAL OFFICE

DATE ISSUED: **September 01, 2015**

Jennifer A. Woodward
JENNIFERA WOODWARD, Ph.D.
STATE REGISTRAR



45-2GC (01/08)

THIS COPY IS NOT VALID WITHOUT INTACT OREGON STATE SEAL AND BORDER

PFRS0015

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 5808

ON MOTION OF MEMBER Guidici SECONDED BY MEMBER Lau

RESOLUTION FIXING THE MONTHLY RETIREMENT ALLOWANCE OF CHESLEY L. NOLAND, MEMBER OF THE POLICE AND FIRE RETIREMENT SYSTEM, AS SHOWN ON DISABILITY RETIREMENT ALLOWANCE ROLL NO. 4892.

WHEREAS, the Police and Fire Retirement Board has approved the retirement for Disability, of the member of the Police and Fire Retirement System, as listed below; and

WHEREAS, said member prior to the making of the first payment on account of their retirement allowance may be modified as shown in Column (3); and there is now presented to the Board, as the monthly allowance, all as shown on Disability Retirement Allowance Roll No. 4892, and as calculated by the Actuary; now, therefore, be it

RESOLVED: That the Police and Fire Retirement Board fixes, and it does hereby fix, the amount in Column (5) set opposite the name of said member as listed below, as the monthly retirement allowance to which said member is entitled effective on the date shown in Column (2):

(1)	(2)	(3)	(4)	(5)
<u>Name</u>	<u>Effective Date of Retirement</u>	<u>Option Elected</u>	<u>Per Cent of Compensation Attached to Avg. Rank Held</u>	<u>Monthly Retirement Allowance</u>
Chesley L. Noland	6-1-92	None	75.000% reducing to 50.000% 9-3-93	\$2,924.63

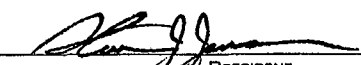
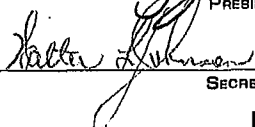
IN BOARD MEETING, CITY HALL, OAKLAND, CALIF. June 24, 1992

PASSED BY THE FOLLOWING VOTE:

AYES: Members Guidici, Lau, Lowey, Wiley and President Jensen.

NOES: None.

ABSENT: Members Daniels and Darnes.

ATTEST:  PRESIDENT
ATTEST:  SECRETARY

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 5807

ON MOTION OF MEMBER Wiley SECONDED BY MEMBER Daniels

**RESOLUTION RETIRING CHESLEY J. NOLAND, A MEMBER OF THE
FIRE DEPARTMENT FOR SERVICE-CONNECTED DISABILITY.**

WHEREAS, in pursuance of Section 2610 of the Charter of the City of Oakland, the question of retiring Chesley J. Noland, a member of the Fire Department, was brought before the Police and Fire Retirement Board at its meeting of May 27, 1992; and

WHEREAS, this Board has received copies of his medical reports as listed below, all covering the present disability of Chesley J. Noland:

1. Phillip B. Collins, M.D., City Physician, dated April 14, 1992, November 10, 1991 and May 13, 1991.
2. David W. Baum, M.D., dated August 27, 1991.
3. John B. O'Brien, M.D., dated August 26, 1991.
4. Robert E. Gwynn, M.D., dated August 5, 1991, March 20, 1991, January 7, 1991, November 26, 1990, November 5, 1990 and October 30, 1990.
5. Roger R. Ecker, M.D., dated March 20, 1991 and November 13, 1990.
6. Richard W. Terry, M.D., dated March 5, 1991 and December 4, 1990.
7. D.C. Hansen, M.D., dated March 5, 1991.
8. Robert C. Feldman, M.D., dated November 18, 1990.
9. Avrum V. Gratch, M.D., dated June 15, 1987.
10. Giles C. Floyd, M.D., dated August 22, 1984.

WHEREAS, Notice of time and place of Hearing (May 27, 1992 at 475-14th Street, 9th Floor) by Police and Fire Retirement Board on the question of retiring Chesley J. Noland, for service-connected disability pursuant to Article XXVI of the Charter of the City of Oakland was given to and served on Chesley J. Noland, on May 15 1992; and

WHEREAS, copies of medical reports as listed above were admitted into evidence at Hearing of May 27, 1992; and

IN BOARD MEETING, CITY HALL, OAKLAND, CALIF. _____

PASSED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 5807

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

WHEREAS, it appears to this Board that the said Chesley J. Noland is incapacitated for the performance of duty in the Fire Department because of heart abnormality, injuries to back, left foot and right knee received in or arising out of the performance of duty in the Oakland Fire Department, and disability has been for one year commencing October 23, 1990 and the Police and Fire Retirement Board so finds; now, therefore, be it

RESOLVED: That the Police and Fire Retirement Board does hereby retire Chesley J. Noland, a member of the Fire Department, for disability because of heart abnormality, injuries to back, left foot and right knee received in or arising out of the performance of duty in the Oakland Fire Department, in accordance with the provision of Section 2610(a) of the Charter of the City of Oakland, said retirement to be effective June 1, 1992.

IN BOARD MEETING, CITY HALL, OAKLAND, CALIF. May 27, 1992

PASSED BY THE FOLLOWING VOTE:

AYES: Members Daniels, Lowey, Wiley and Vice-President Lau.

NOES: None.

ABSENT: Members Darnes, Guidici and President Jensen.

Page 2 of 2

ATTEST: Worwa Lee Lau
Vice PRESIDENT

ATTEST: Robert Johnson
SECRETARY

EXHIBIT B

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

August 21, 2019

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via Hand Delivery

City of Oakland
Finance Department, Retirement Unit
150 Frank Ogawa Plaza, Suite 3349
Oakland, CA 94612

Attn: Teir Jenkins

Re: Oakland Police and Fire Retirement Board/
Cheryl Noland-Application for Full Continuance

Dear Mr. Jenkins:

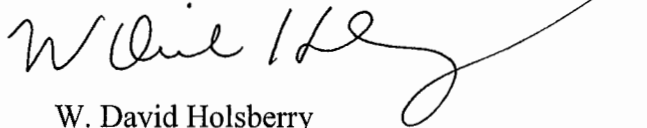
In accordance with Mr. Jones' August 9, 2019 letter, enclosed is my declaration in this matter and a July 17, 2019 medical report from Cheryl Malo-Clines, NP-C. I intend to offer these in support of Ms. Noland's application.

I assume that the Board will also be provided with copies of Ms. Noland's February 23, 2018 application, the death certificate, and the 72 pages of medical records submitted on April 12, 2018. If not, please inform me.

At this point, I plan to call Ms. Noland as a witness, but reserve the right to call any other necessary witness.

Thank you for your prompt attention.

Very truly yours,


W. David Holsberry

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

AUG 05 2019 5



oak street HEALTH CARE CENTER



Family Practice

MARK E. SILVER, M.D.

HEIDI J. CARLSON FNP
CHERYL MALO-CLINES FNP

July 17, 2019

To Whom It May Concern:

CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION
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CONFIDENTIAL MEDICAL INFORMATION
CONFIDENTIAL MEDICAL INFORMATION

Please feel free to call if you have any questions.

Sincerely,

Cheryl Malo-Clines NP-C

Cheryl Malo-Clines, NP-C

446 Oak St. • P.O. Box 6579 • Brookings, Oregon 97415
(541) 412-8898 Fax (541) 412-7420

EXHIBIT B

BEFORE THE OAKLAND POLICE AND
FIRE RETIREMENT BOARD

In the Matter of

Cheryl Noland
Application for Full Widow's Continuance

Charter Sec. 2611(3)

**DECLARATION OF W. DAVID
HOLSBERY**

I, W. David Holsberry, do hereby declare:

1. I am an attorney with the law firm of McCracken, Stemerman & Holsberry, LLP. I am admitted to practice before all the courts of this state. If called as a witness, I am competent to testify about the matters contained in this declaration.
2. I represent Cheryl Noland in her application for a full continuance of her husband's pension pursuant to Oakland City Charter Sec. 2611(3).
3. Ms. Noland commenced this proceeding by filing an application with the Board pursuant to the written instructions of Carol Kolenda. A true and correct copy of the instructions are attached as Exhibit A hereto. Ms. Noland followed those instructions and filed her application. A true and correct copy of the completed application and cover letter is attached as Exhibit B hereto.
4. Included with Ms. Noland's application was a certified death certificate of her husband, Chesley James Noland and 72 pages of medical records pertaining to his condition. These documents should already be part of the record before the Board.

EXHIBIT B

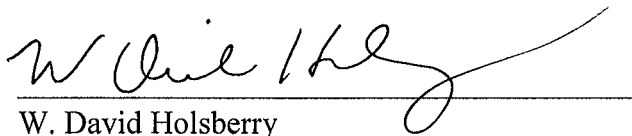
5. On or about March 7, 2019, Ms. Noland received a letter from "David Jones, Hearing Officer, Oakland Police and Fire Retirement System" indicating that there had been a "determination" that she was not entitled to the continuance she had applied for. A true and correct copy of that letter is attached as Exhibit C hereto. Prior to receipt of that letter, Ms. Noland had never been notified of any hearing, nor had any hearing before the Retirement Board had been conducted or scheduled. No "hearing officer" ever contacted or interviewed Ms. Noland.

6. On or about March 13, 2019, I responded to Mr. Jones' March 7, 2019 letter. A true and correct copy of my response is attached as Exhibit D hereto. When I received no response, I wrote another letter requesting pertinent documents and information. A true and correct copy of my March 20, 2019 request is attached as Exhibit E hereto. When I received no response, I wrote another letter requesting pertinent documents and information. A true and correct copy of my March 29, 2019 letter is attached as Exhibit F.

7. On March 29, 2019, I received an email response from David Jones' email, a copy of which is attached as Exhibit G. My further response to Mr. Jones is attached as part of Exhibit G.

8. Subsequently, I received a one-page "retirement opinion" signed by David Jourgensen, M.D., PhD. relating to this case. A copy is attached as Exhibit H. Dr. Jourgensen never contacted Ms. Noland about this matter. I have been provided with no document or information requested in my March 13, 20, or March 29, 2019 letters.

I declare under penalty of perjury that the forgoing is true and correct and was executed this 21 day of August, 2019 at San Francisco, California.


W. David Holsberry

Letter of Continuance from the Oakland Police and Fire Retirement System

Dear Member:

Enclosed for your completion is an application for continuance of the retirement allowance of your deceased husband.

The dollar amount of your continuance pension payments will be disbursed as calculated at the time of your husband's retirement. However, if you believe that your husband's death resulted from injury received in, or illness caused by or arising out of the performance of duty in the Police or Fire Department you may petition to receive 100% of your husband's pension payment.

In order to have your request considered at a hearing of the Oakland Police and Fire Retirement Board, you must submit a medical file and/or Worker's Compensation records pertaining to the specific illness that arose out of the performance of your husband's duty in the Oakland Police or Fire Department. Please send the medical file(s) to:

JT2
P. O. Box 70410
Oakland, CA 94612
Attention: Grinnah Bautista

The medical files will be reviewed by the City of Oakland's City Physician and a recommendation of the findings will be given for consideration during a hearing of the Oakland Police and Fire Retirement Board.

You may contact your legal representative or your respective bargaining unit (Oakland Police Officer's Association, Retirees' Oakland Police Officer's Association, or International Association of Fire Fighters) to discuss your alternatives.

Once you have decided your course of action, please contact the Retirement Office at (510) 238-6480.

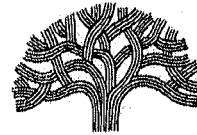
Your earliest attention regarding this is greatly appreciated.

Sincerely,

Carol Kolenda, Benefits Representative
Oakland Police & Fire Retirement Systems

EXHIBIT B

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021
Finance and Management Agency – Treasury Department
Retirement Systems

(510) 238-3987
FAX (510) 238-7129
TDD (510) 839-6451

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
APPLICATION FOR CONTINUATION OF RETIREMENT ALLOWANCE

To: The Retirement Board
Police & Fire Retirement Systems

In accordance with the City of Oakland Charter and Ordinance provisions governing the Retirement Systems, I hereby make an application for the continuation to me of

all of the retirement allowance of my husband, Chesley
(all or two thirds) first name

J Noland, who was retired from the
(middle initial) (last name)

Oakland Police or Fire Department, and who died on: August 20, 2015,
(circle one) (date of death)

And I Claim that said death resulted from injury received in, or
(claim or do not claim)

Illness caused by or arising out of the performance of duty in said Department.

I am the lawful widow of the said Chesley James Noland
(deceased members full name)

to whom I was married on May 10, 1975
(date of marriage)

I was born [redacted]
(month, date, year)

My present home address is [redacted]

My Social Security Number is [redacted] My Telephone # is [redacted]

Executed on Feb 23, 2018
(date signed)

I declare under penalty of perjury that the foregoing is true and correct.

Signature: Cheryl Noland

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

April 12, 2018

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via U.S. Mail

Carol Kolenda
Benefits Representative
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, Room 3332
Oakland, CA 94612

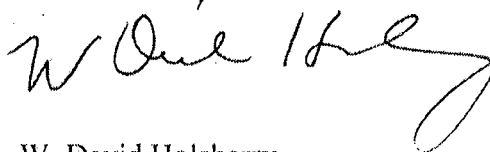
Re: Cheryl Noland/Application for full continuance
per Charter Sec. 2611, 2614

Dear Ms. Kolenda:

My office represents Cheryl Noland in this matter. Enclosed is Ms. Noland's application to receive 100% of her deceased husband's pension. Enclosed is her application, the death certificate and medical records establishing that Mr. Noland's death resulted from an injury or illness caused by or arising out of his performance of duty in the Oakland Fire Department.

I also forwarding a copy of the entire file to JT2 pursuant to your previous instructions to Ms. Noland. We trust that appropriate confidentiality will be observed. Please contact me with any questions.

Very truly yours,



W. David Holsberry

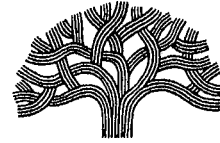
cc. Cheryl Noland w/enclosures
Steve Splendorio w/enclosures

JT2 - Attn: Grinnah Bautista w/enclosures
P.O. Box 70410
Oakland, CA 94612

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, 3RD FLOOR • OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-6480
FAX (510) 238-7129

March 7, 2019

Mrs. Cheryl Noland
[REDACTED]

RE: Determination of Application for Surviving Spouse Full Continuance
Letter via USPS – First Class delivered via certified mail #: 7017 0530 0000 3432 7949

Dear Mrs. Noland:

Our office has had the City Physician review all available medical files regarding your spouse, Mr. Chesley J. Noland, in response to your request for a survivor full continuance pension payment of your spouse's retirement allowance. This review has resulted in the determination by the City Physician and my concurrence as Hearing Officer that the cause of Mr. Chesley J. Noland's death on August 20, 2015 was not related to his City of Oakland employment.

Your survivor continuance benefit is fixed pursuant to the City Charter in the gross amount of \$3,236.64, which is two thirds of Mr. Chesley J. Noland's gross pension benefit. Please contact Carol Kolenda, Benefits Representative, at 510-238-6480 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Jones', written in a cursive style.

David Jones, Hearing Officer
Oakland Police and Fire Retirement System

EXHIBIT B

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

March 13, 2019

Via U.S. Mail & E-mail (dfjones@oaklandca.gov)

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

David Jones, Hearing Officer
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza 3rd Floor
Oakland, CA 94612-2021

Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

Dear Mr. Jones:

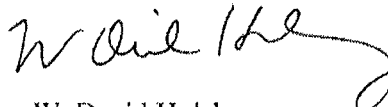
I have your March 7, 2019 letter to my client, Ms. Cheryl Noland, indicating that you have denied her application for a full continuance of her deceased spouse's retirement allowance. Please immediately provide me with a copy of all records and documents which were reviewed either by the City Physician or by you in reaching that determination.

Ms. Noland filed her application on April 12, 2018. To my knowledge, no rule or regulation existed at that time which provided for a review by a "hearing officer." Moreover, neither Ms. Noland nor I was never informed of any "hearing," nor of any procedure for a hearing other than that provided by Sec. 2603 of the Charter. We followed the written instructions provided by Carol Kolenda, which said nothing about a "hearing officer" procedure.

Please provide me with all documents indicating that either Ms. Noland or my office was informed about a "hearing," or indeed, that any procedure other than that described in Section 2603 of the Charter or that described by Ms. Kolenda's written instructions was to be followed in this case.

Your prompt attention is appreciated.

Very truly yours,



W. David Holsberry

cc. Cheryl Noland
Carol Kolenda
Steve Splendorio

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848



McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

March 20, 2019

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via. U.S. Mail & Email

David Jones, Hearing Officer
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, 3rd Floor
Oakland, CA 94612-2021

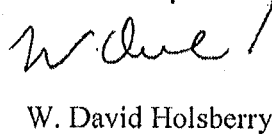
Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

Dear Mr. Jones:

Please immediately provide the documents requested in my March 13, 2019 letter to you. Another copy is attached.

Your prompt attention is appreciated.

Very truly yours,


W. David Holsberry

cc. Cheryl Noland
Steve Splendorio

Robert P. Cowell (1931-1980)

Philip Paul Bowe (CA) (Ret.)
Barry S. Jellison (CA) (Ret.)

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848



EXHIBIT B

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

March 13, 2019

Via U.S. Mail & E-mail (dfjones@oaklandca.gov)

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

David Jones, Hearing Officer
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza 3rd Floor
Oakland, CA 94612-2021

Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

Steven L. Stemerma (CA, NV)

Richard G. McCracken (CA, NV)

W. David Holsberry (CA, NV)

John J. Davis, Jr. (CA)

Florance E. Culp (CA, NV)

Kristin L. Martin (CA, NV, HI)

Eric B. Myers (CA, NV)

Paul L. More (CA, NV, MA)

Sarah Varela (CA, AZ, NV)

Sarah Grossman-Svenson (CA, NV)

Yuval Miller (CA, NV)

David L. Barber (CA, NV)

Kimberley C. Weber (CA, NV)

A. Mirella Nieto (CA)

F. Benjamin Kowalczyk (CA)

Dear Mr. Jones:

I have your March 7, 2019 letter to my client, Ms. Cheryl Noland, indicating that you have denied her application for a full continuance of her deceased spouse's retirement allowance. Please immediately provide me with a copy of all records and documents which were reviewed either by the City Physician or by you in reaching that determination.

Ms. Noland filed her application on April 12, 2018. To my knowledge, no rule or regulation existed at that time which provided for a review by a "hearing officer." Moreover, neither Ms. Noland nor I was never informed of any "hearing," nor of any procedure for a hearing other than that provided by Sec. 2603 of the Charter. We followed the written instructions provided by Carol Kolenda, which said nothing about a "hearing officer" procedure.

Please provide me with all documents indicating that either Ms. Noland or my office was informed about a "hearing," or indeed, that any procedure other than that described in Section 2603 of the Charter or that described by Ms. Kolenda's written instructions was to be followed in this case.

Your prompt attention is appreciated.

Very truly yours,


W. David Holsberry

cc. Cheryl Noland
Carol Kolenda
Steve Splendorio

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

McCRACKEN, J. STEMERMAN & HOLSBERY, LLP

Counselors and Attorneys at Law

March 29, 2019

Via U.S. Mail and Email

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

David Jones, Retirement Administrator
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, 3rd Floor
Oakland, CA 94612-2021

Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

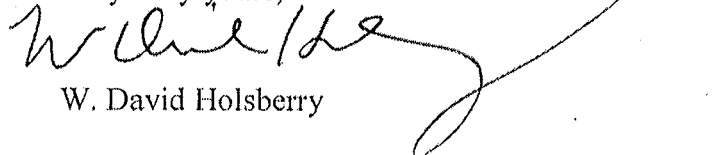
Dear Mr. Jones:

This is my third request for documents pertinent to Ms. Noland's pending application for a full continuance of her deceased spouse's retirement allowance. Copies of my prior requests are attached. Please immediately provide the requested documents.

It is now clear that, contrary to the implication of your March 7, 2019 letter to Ms. Noland, you were never appointed as a "hearing officer" by the PFRS Board. I request that you formally retract your asserted March 7, 2019 "determination" and so inform Ms. Noland immediately as your letter has caused her unnecessary distress.

Ms. Noland expects a hearing before the PFRS Board on the issues raised by her application as provided for in Charter Sec. 2603. Please inform me when she can expect such a hearing and what steps will be taken to insure that her hearing is not tainted by a premature and unauthorized "determination" by a "hearing officer."

Very truly yours,



W. David Holsberry

Las Vegas

cc. Cheryl Noland
Steve Splendorio

30 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

March 20, 2019

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

Via. U.S. Mail & Email

David Jones, Hearing Officer
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza, 3rd Floor
Oakland, CA 94612-2021

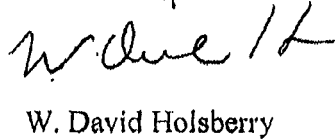
Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

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cc. Cheryl Noland
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Robert P. Cowell (1931-1980)

Phillip Paul Bowe (CA) (Ret.)
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Las Vegas

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Las Vegas, Nevada 89102
702.386.5107
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McCRACKEN, STEMERMAN & HOLSBERRY, LLP

Counselors and Attorneys at Law

March 13, 2019

Via U.S. Mail & E-mail (dfjones@oaklandca.gov)

San Francisco

595 Market Street, Suite 800
San Francisco, California 94105
415.597.7200
Fax 415.597.7201

David Jones, Hearing Officer
Oakland Police and Fire Retirement System
150 Frank H. Ogawa Plaza 3rd Floor
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Re: Cheryl Noland / Application for Full Continuance
Oakland Police and Fire Retirement System

Steven L. Stemerman (CA, NV)
Richard G. McCracken (CA, NV)
W. David Holsberry (CA, NV)
John J. Davin, Jr. (CA)
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Yuval Millar (CA, NV)
David L. Barber (CA, NV)
Kimberley C. Weber (CA, NV)
A. Mirella Nieto (CA)
F. Benjamin Kowalczyk (CA)

Dear Mr. Jones:

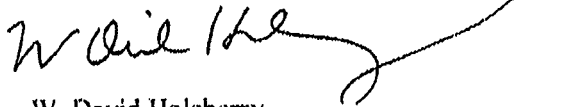
I have your March 7, 2019 letter to my client, Ms. Cheryl Noland, indicating that you have denied her application for a full continuance of her deceased spouse's retirement allowance. Please immediately provide me with a copy of all records and documents which were reviewed either by the City Physician or by you in reaching that determination.

Ms. Noland filed her application on April 12, 2018. To my knowledge, no rule or regulation existed at that time which provided for a review by a "hearing officer." Moreover, neither Ms. Noland nor I was never informed of any "hearing," nor of any procedure for a hearing other than that provided by Sec. 2603 of the Charter. We followed the written instructions provided by Carol Kolenda, which said nothing about a "hearing officer" procedure.

Please provide me with all documents indicating that either Ms. Noland or my office was informed about a "hearing," or indeed, that any procedure other than that described in Section 2603 of the Charter or that described by Ms. Kolenda's written instructions was to be followed in this case.

Your prompt attention is appreciated.

Very truly yours,



W. David Holsberry

cc. Cheryl Noland
Carol Kolenda
Steve Splendorio

Las Vegas

1630 S. Commerce Street, Suite A-1
Las Vegas, Nevada 89102
702.386.5107
Fax 702.386.9848

David Holsberry

From: David Holsberry
Sent: Friday, March 29, 2019 3:22 PM
To: 'DfJones@oaklandca.gov'
Subject: FW: Cheryl Noland / Application for Full Continuance - Oakland Police and Fire Retirement System

Mr. Jones,

Your email is not responsive and does not address all of the issues in my letter of this date. Ms. Noland initiated the application process by providing the Board copies of all pertinent medical documents. Of course she knows what she provided. Her physician was not thereafter involved in any so-called hearing process to which you referred in your March 7, 2019 "determination." What other documents did you or the City Physician review? If the City Physician issued a written opinion, please provide it. Furthermore, your email does not address when your so-called "determination" will be retracted, when she can expect a 2603 hearing, and how she will be assured that any hearing will not be tainted by the unauthorized process about which she had no notice.

David Holsberry

From: Jones, David [<mailto:DfJones@oaklandca.gov>]
Sent: Friday, March 29, 2019 2:10 PM
To: Charles Gonzalez <cgonzalez@msh.law>
Subject: RE: Cheryl Noland / Application for Full Continuance - Oakland Police and Fire Retirement System

Hello

I would recommend that Cheryl Noland contact her Physician to obtain the records or documents that Were used in this case.

Thanks
David

From: Charles Gonzalez [<mailto:cgonzalez@msh.law>]
Sent: Friday, March 29, 2019 1:12 PM
To: Jones, David <DfJones@oaklandca.gov>
Cc: David Holsberry <wdh@msh.law>
Subject: Cheryl Noland / Application for Full Continuance - Oakland Police and Fire Retirement System

Please find the attached correspondence in the above referenced matter.

Regards,

Charles Gonzalez
Legal Secretary to David Holsberry, Lorrie Culp, Sarah Grossman-Swenson & A. Mirella Nieto
McCracken, Stemerman & Holsberry, LLP
595 Market Street, Suite 800
San Francisco, CA 94105

Telephone: (415) 597-7200
Fax: (415) 597-7201

Concentra

CITY PHYSICIAN'S DISABILITY RETIREMENT OPINION

Mr. Gregory Stanfield
Hanna Brophy Law
Post Office Box 12488
Oakland, CA 94604

February 20, 2019

Re: Noland, Chesley J (deceased)
DOD: August 20, 2015
WCAB Number: ADJ46501.11
HB Number: OK004783

Dear Mr. Stanfield:

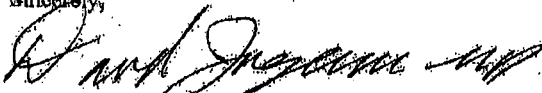
At your request I have reviewed the file of Chesley Noland, including the Certificate of Death dated September 1, 2015 signed by Berta Paola Baldovino Navarro, MD, a Complex Internal Medicine Evaluation report of July 29, 1991 submitted by David, a Qualified Injured Worker report of August 26, 1991 submitted by September 1, 2011 submitted by John B. O'Brien, MD, and hospital admission and discharge dictations from Curry General Hospital of August 13, 2015 submitted by Victor O. Macias, MD.

The internal medicine report of Dr. Baum clearly outlines cardiovascular disease that was treated with coronary artery bypass surgery on November 13, 1990. Cardiology consultant Dr. Gwynn on March 20, 1991 released Mr. Noland to resume regular work duty. However, the report of Dr. O'Brien disagrees with the ability to resume work, based upon exercise tolerance on treadmill stress testing and Thallium testing. Mr. Noland was declared a Qualified Injured Worker on August 26, 1991. Dr. O'Brien's report also indicates that in addition to coronary artery disease, Mr. Noland suffered Mild Obstructive pulmonary disease. Dr. O'Brien further clarifies that his belief was that the obstructive pulmonary disease was secondary to cigarette smoking.

The Curry General Hospital admission one week prior to the date of death indicates the reason for admission of low oxygen saturations for two days prior to admission. Chest CT scan indicated left lower lobe infiltrate and enlarging lymph nodes (as compared to previous scan). While coronary artery disease is mentioned, in the diagnoses list it is described as History of Coronary Artery disease and not as an active diagnosis. The chief diagnosis was Left lower lung pneumonia and second listed diagnosis was suspected lymphocytic leukemia. This is borne out in the August 20, 2015 certificate of death that indicates cause of death as Hypoxemia respiratory failure as a consequence of Necrotizing bacterial pneumonia.

Based on the materials provided, it is my medical opinion that Chesley Noland died as a result of his lung disease and not as a consequence of coronary artery disease.

Sincerely,



David Jorgensen, M.D., Ph.D.
Office of the City Physician, City of Oakland
Concentra - Oakland Center, 384 Embarcadero West, Oakland, CA 94607
(510) 465-9565, Fax 465-3840

A BOARD MEETING of the Oakland Police and Fire Retirement System (“PFRS”) was held on July 31, 2019 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Board Members Present:

- Walter L. Johnson, President
- Jaime T. Godfrey, Vice President
- John C. Speakman, Member
- Katano Kasaine, Member
- R. Steven Wilkinson, Member
- Robert J. Muszar, Member
- Martin J. Melia, Member

Additional Attendees:

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

The meeting was called to order at 11:51 am.

A. Closed Session – President Johnson convened the closed session meeting at 11:52 am.

B. Report of Board Actions from Closed Session – The PFRS Board meeting reconvened following the conclusion of Closed Session at 12:37 pm. President Johnson said no reportable action by the Board was made during closed session. Member Speakman had departed the meeting prior to the continuation of the Regular session of the Board.

C. Approval of PFRS Board Meeting Minutes – Member Godfrey made a motion to approve the May 29, 2019 PFRS Board meeting minutes, second by Member Melia. Motion Passed.

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

D. Approval of PFRS Board Meeting Minutes – Member Godfrey made a motion to approve the June 26, 2019 PFRS Board meeting minutes, second by Member Muszar. Motion Passed.

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

E. PFRS AUDIT COMMITTEE MEETING – JULY 31, 2019

E1. Scope of Services and initiation of the Financial Audit of the PFRS fund for the Fiscal Year Ending June 30, 2019 – Member Muszar reported that Macias Gini and O’Connell would be conducting a financial audit of the PFRS Fund for the Fiscal Year Ended June 30, 2019 and would present its report at the November 2019 meeting.

MOTION: Member Muszar made a motion to approve the initiation of the Financial Audit of the PFRS Fund for Fiscal Year Ended June 30, 2019, second by member Melia. Motion passed.

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

E2. Administrative Expenses Report – PFRS Investment Officer Teir Jenkins reported the administrative expenses of the PFRS Board through May 31, 2019.

MOTION: Member Muszar made a motion to accept the administrative expenses report of the PFRS Board through May 31, 2019, second by member Melia. Motion passed.

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

E3. Hearing Procedures and Handling of Confidential Member Medical Files – Member Muszar reported that the audit committee discussed hearing procedures and handling of Confidential Member Medical Files. He reported that the Audit Committee will continue discussing this matter at the September 2019 Audit Committee meeting.

E4. RESOLUTION No. 7064 – Travel authorization for Jennifer Logue – Member Muszar made a motion to approve Resolution No. 7064 - Travel authorization for PFRS Legal Counsel Jennifer Logue to travel and attend the California Association of Public Employee Retirement Systems (CALAPRS) Attorneys' Roundtable (2019 CALAPRS Attorneys' Roundtable) on September 20, 2019 in Oakland, CA with an estimated budget of One Hundred Twenty-five Dollars (\$125.00), second by Member Godfrey. Motion passed.

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

E5. 2006 Management Audit of the PFRS System – Member Muszar said the Audit Committee discussed the development of a new management audit and that this matter will continue to be discussed at the next Audit Committee meeting. Member Kasaine suggested that an independent committee be assigned to work with staff to develop the scope of services necessary to advance the approval of an RFP a management audit for Audit Committee review.

F. PFRS INVESTMENT COMMITTEE MEETING – JULY 31, 2019

F1. Investment Manager Performance Review – Reams Asset Management – David Sancewich from Meketa reported that Reams Asset Management presented a performance and management report of its investment of the PFRS funds.

MOTION: Member Godfrey made a motion accept the Informational Report from Meketa, second by Member Speakman. Motion passed.

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

F2. Investment Manager Overview – Reams Asset Management – Member Godfrey said more information is needed from Reams regarding their limited use of Local Brokers, their workforce diversity plans, and their apparent shift to a Core fixed income strategy from a Core Plus fixed income strategy.

MOTION: Member Godfrey made a motion to approve evaluation and review of Reams by Meketa, second by Member Melia. Motion passed.

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

F3. Investment Manager Performance Review – NWQ – David Sancewich from Meketa reported that NWQ presented a review of the effect of the departure of its Portfolio Manager and how NWQ is planning to move forward from this action.

MOTION: Member Godfrey made a motion to accept the information report from NWQ, second by member Melia. Motion passed.

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

F4. Investment Manager Review – NWQ – David Sancewich explained his recommendation to terminate the service agreement between the PFRS Board and NWQ, including the impact of the departure of the longtime portfolio manager, the poor recent performance of NWQ, and the alternative opportunities available to replace NWQ.

MOTION: Member Kasaine made a motion: 1) to terminate the service agreement between the PFRS board and NWQ, and 2) to place the investment funds to a small cap domestic equity (Russell 2000) Exchange Traded Fund, second by member Godfrey. Motion passed.

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

F5. Investment Market Overview – Mr. Sancewich reported the effects of global economic factors to the PFRS Fund.

MOTION: Member Godfrey made a motion to accept the informational report from Meketa, second by member Kasaine. Motion passed.

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

F6. Select Investment Managers to invite to Interview as the new PFRS Active International Equity Asset Class Investment Manager – Mr. Sancewich reported that Meketa has completed its Request for Information for a new Active International Equity Asset Class Investment Manager and the Investment Committee made a recommendation to approve the four investment manager to be interviewed by the Investment Committee at its August 2019 meeting: GQG

Partners, William Blair Investment Management, Strategic Global Advisors, and Acadian Asset Management.

MOTION: Member Godfrey made a motion to approve the invitation to GQG Partners, William Blair Investment Management, Strategic Global Advisors, and Acadian Asset Management to present at the August 2019 Investment Committee meeting for the Active International Equity Asset Class Investment Manager for the PFRS Board, Second by Member Melia. Motion passed.

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

F7. Preliminary Investment Fund Performance for the Quarter Ending June 30, 2019 – Sean Copus from Meketa presented the preliminary performance report of the PFRS fund for the quarter ending June 30, 2019.

MOTION: Member Godfrey made a motion to accept the informational report from Meketa, second by member Melia. Motion passed.

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

F8. Options for replacing State Street Global Advisors (SSgA) as PFRS Investment Manager and possible steps to follow for replacing SSgA – David Sancewich said his report to the Investment Committee regarding concerns and issues with State Street Global Advisors and its management of the PFRS passive international equity investments prompted a decision to terminate the services of SSgA for the PFRS Board.

MOTION: Member Kasaine made a motion to 1) immediately terminate the service agreement between State Street Global Advisors, and 2) move investment funds managed by SSgA into a passive international equity Exchange Traded Fund, second by member Wilkinson. Motion passed.

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

F9. Options to select a new PFRS Investment Manager to implement the Crisis Risk Offset (Long Duration Treasury) Investment Strategy – David Sancewich reported the investment committee discussion about finding an investment manager to manage the Long Duration Treasury Investments of the PFRS fund without over-funding any one current investment manager.

MOTION: Member Godfrey made a motion to conduct a Request for Proposal for a new investment manager to manage the Long Duration Treasury Investments with the goal that the same manager be selected to manage the passive International Equity Investments, second by member Melia. Motion passed.

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

G. NEW BUSINESS – No Report.

H. OPEN FORUM – Staff Member David Low reported that the election of the new 3-year alternating police/fire board member has completed with the uncontested nomination of Robert Nichelini, who will begin service on September 1, 2019.

I. FUTURE SCHEDULING – The next PFRS Board meeting was scheduled for Wednesday, August 28, 2019.

The meeting adjourned at 1:16 pm.

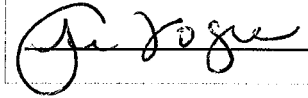
DAVID JONES, BOARD SECRETARY	DATE
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DRAFT

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7066

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

**RESOLUTION EXPRESSING APPRECIATION FOR MARTIN J. MELIA'S
DEDICATION AND LOYAL AND VALUABLE SERVICE AS A MEMBER
OF THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM BOARD**

WHEREAS, Martin J. Melia was elected to the Board of Administration of the Oakland Police and Fire Retirement System (PFRS) as the 3-year alternating police/fire Representative in accordance with Section 2601 of the Oakland City Charter commencing on July 21, 2017; and

WHEREAS, Martin J. Melia served as a member of the Investment Committee during his entire term and assisted the Board in making prudent investment decisions; and

WHEREAS, on August 31, 2019, Martin J. Melia's term as 3-year alternating police/fire Representative of the PFRS Board will end; now, therefore, be it

RESOLVED: That the Oakland Police and Fire Retirement System Board does hereby commend Martin J. Melia for his loyal service from July 21, 2017 to August 31, 2019 and express appreciation for his dedication and valuable contribution as a member of the Oakland Police and Fire Retirement System Board; and be it

FURTHER RESOLVED: That the members of the Oakland Police and Fire Retirement System Board express their sincere best wishes to Martin J. Melia for a healthy and prosperous future.

IN BOARD MEETING, CITY HALL, OAKLAND, CA _____ AUGUST 28, 2019

PASSED BY THE FOLLOWING VOTE:

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

NOES:

ABSTAIN: **MELIA**

ABSENT:

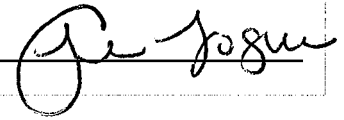
ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7067

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION EXPRESSING APPRECIATION FOR KATANO KASAINÉ'S DEDICATION AND LOYAL AND VALUABLE SERVICE AS PLAN ADMINISTRATOR TO AND AS A MEMBER OF THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM BOARD

WHEREAS, Katano Kasaine served as Plan Administrator to the Board of Administration of the Oakland Police and Fire Retirement System (PFRS) from March 28, 2012 to October 16, 2018 ensuring the efficient operation and administration of the Retirement Plan; and

WHEREAS, Katano Kasaine was appointed to the Board of Administration of the Oakland Police and Fire Retirement System (PFRS) as the Mayoral Representative in accordance with Section 2601 of the Oakland City Charter commencing on October 17, 2018; and

WHEREAS, Katano Kasaine served as a member of the Audit Committee during her entire term and helped guide the Board with its policy decisions; and

WHEREAS, on August 23, 2019, Katano Kasaine retired from her position as City of Oakland Finance Director after 25 years of service; now, therefore, be it

RESOLVED: That the Oakland Police and Fire Retirement System Board does hereby commend Katano Kasaine for her loyal service and express appreciation for her dedication and valuable contribution as Plan Administrator to and member of the Oakland Police and Fire Retirement System Board; and be it

FURTHER RESOLVED: That the members of the Oakland Police and Fire Retirement System Board express their sincere best wishes to Katano Kasaine for a healthy and prosperous future.

IN BOARD MEETING, CITY HALL, OAKLAND, CA _____ **AUGUST 28, 2019**

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, MELIA, MUSZAR, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON**

NOES:
ABSTAIN:
ABSENT:

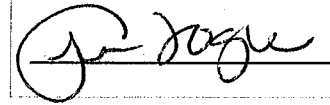
ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7068

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION RATIFYING THE JULY 31, 2019 MOTION TERMINATING PROFESSIONAL SERVICE AGREEMENT WITH NWQ, AN ACTIVE SMALL-CAP VALUE DOMESTIC EQUITIES ASSET CLASS INVESTMENT MANAGER FOR THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM, AUTHORIZING THE TRANSFER OF ASSETS MANAGED BY NWQ TO AN EXCHANGE TRADED FUND, AND DIRECTING THE PLAN INVESTMENT CONSULTANT TO COMMENCE A SEARCH FOR A REPLACEMENT ASSET MANAGER

WHEREAS, the Oakland City Charter section 2601(e) provides that the Board of the Oakland Police and Fire Retirement System ("PFRS Board") shall possess power to make all necessary rules and regulation for its guidance and shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, on November 1, 2005, the PFRS Board hired NWQ to be the Active Small-Cap Value Domestic Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System; and

WHEREAS, as of July 17, 2019, NWQ announced organizational changes within the company; and

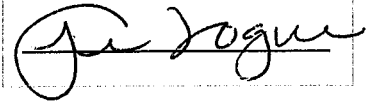
WHEREAS, on July 31, 2019, the PFRS Investment Committee reviewed the updated operational overview and investment performance reports presented by NWQ and the PFRS Investment Consultant, Meketa Investment Group; and

WHEREAS, on July 31, 2019, the PFRS Board, after considering the information provided by and recommendations of the PFRS Investment Committee and Investment Consultant, passed a motion: 1) to terminate its service agreement with NWQ, 2) directing the transfer of PFRS assets managed by NWQ into an Exchange-traded Fund (ETF) matching the Russell 2000 Value Index, and 3) directing PFRS staff to work with the PFRS Investment Consultant to prepare and post a Request for Proposal to elicit applications for a new Active Small-Cap Value Domestic Equities Asset Class investment manager; now, therefore be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 7069

Approved as to
Form and Legality



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION RATIFYING THE JULY 31, 2019 MOTION TERMINATING PROFESSIONAL SERVICE AGREEMENT WITH STATE STREET GLOBAL ADVISORS, A PASSIVE INTERNATIONAL EQUITIES ASSET CLASS INVESTMENT MANAGER FOR THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM, AND AUTHORIZING THE TRANSFER OF ASSETS MANAGED BY STATE STREET GLOBAL ADVISORS TO AN EXCHANGE TRADED FUND.

WHEREAS, Oakland City Charter section 2601(e) provides that the Board of the Oakland Police and Fire Retirement System ("PFRS Board") shall possess power to make all necessary rules and regulation for its guidance and shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, on March 13, 1997, the PFRS Board hired State Street Global Advisors (SSgA) to be the Passive International Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System; and

WHEREAS, on June 26, 2019, the PFRS Board, by motion, directed staff to research and present options for replacing SSgA as an investment manager for the Oakland Police and Fire Retirement System ("PFRS"); and

WHEREAS, on July 31, 2019, the PFRS Board, after considering information from and recommendations of the PFRS Investment Committee and Investment Consultant, passed a motion to terminate the service agreement with SSgA and transfer the PFRS assets managed by SSgA into an MSCI EAFE Index Exchange Traded Fund; now, therefore be it

RESOLVED: That the PFRS Board hereby ratifies its July 31, 2019 motion terminating the service agreement with SSgA and directing staff to transfer PFRS assets managed by SSgA into an MSCI EAFE Index Exchange-traded Fund (ETF).

IN BOARD MEETING, CITY HALL, OAKLAND, CA AUGUST 28, 2019

PASSED BY THE FOLLOWING VOTE:

AYES: **BENSON, GODFREY, MELIA, MUSZAR, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON**

NOES:

ABSTAIN:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

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 Unit, 150 Frank Ogawa Plaza, Suite 3349 or call (510) 238-7295 for additional information.



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

AGENDA

RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr.
President

Jaime T. Godfrey
Vice President

Adam Benson
Member

Martin J. Melia
Member

Robert J. Muszar
Member

John C. Speakman
Member

R. Steven Wilkinson
Member

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

Wednesday, August 28, 2019 – during regular meeting starting at 1:00 pm
One Frank H. Ogawa Plaza, Hearing Room 1
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); 54956.9(d)(2) and (4); and 54956.9(e)(3); and 54956.9(d)(4):

1. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION:

One Item of Anticipated Litigation.

Claims, Written Threats of Litigation and Contemporaneous Writings of Threatened Litigation required for Items appearing under Government Code Sections 54956.9(e)(3) or 54956.9(e)(5) may be viewed in the City of Oakland Retirement Unit, 150 Frank H. Ogawa Plaza, Suite 3349, Oakland, California, during regular business hours Monday Through Friday from 8:30 a.m. to 5:00 p.m. To schedule a viewing time contact David Low at (510) 238-7295.