

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

Oakland Police and Fire Retirement Board meetings are held in wheelchair accessible facilities. Contact Retirement Systems, 150 Frank Ogawa Plaza, Suite 3332 or call (510) 238-7295 for additional information.



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

AGENDA

AUDIT COMMITTEE MEMBERS

John C. Speakman
Chairman

Christine Daniel
Member

Robert J. Muszar
Member

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

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

Wednesday, February 28, 2018 – 9:00 am
One Frank H. Ogawa Plaza, Hearing Room 3
Oakland, California 94612

- - - ORDER OF BUSINESS - - -

- 1. Subject: January 31, 2018 PFRS Audit Committee Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: APPROVE January 31, 2018 Audit Committee meeting minutes.
- 2. Subject: PRFS fund experience study and changes to the rate of return, inflation, longevity and other key actuary assumptions**
From: Cheiron, Inc., PFRS Plan Actuary

Recommendation: RECOMMEND BOARD APPROVAL of the PRFS fund experience study and changes to the rate of return, inflation, longevity and other key actuary assumptions.
- 3. Subject: Administrative Expenses Report**
From: Staff of the PFRS Board

Recommendation: ACCEPT an informational report regarding PFRS Administrative Expenses from July 1, 2017 through December 31, 2017.
- 4. Subject: Revision of the PFRS Education & Travel Policy**
From: Staff of the PFRS Board

Recommendation: RECOMMEND BOARD APPROVAL of the revision of the PFRS Education & Travel Policy.
- 5. Subject: Review of PFRS Rules and Regulations**
From: Staff of the PFRS Board

Recommendation: DISCUSSION and review of PFRS Rules and Regulations.

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
FEBRUARY 28, 2017**

ORDER OF BUSINESS, continued

6. **Subject:** **Resolution No. 7002 - Travel Authorization for PFRS Board Member Jaime Godfrey to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Seven Hundred Twenty-seven Dollars (\$727.00)**
- From:** Staff of the PFRS Board
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7002 - Travel Authorization for PFRS Board Member Jaime Godfrey to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Seven Hundred Twenty-seven Dollars (\$727.00).
7. **Subject:** **Resolution No. 7003 - Travel Authorization for PFRS Board Member R. Steven Wilkinson to Travel and Attend the 2018 CALAPRS General Assembly Conference (“CALAPRS Conference”) from March 3, 2018 to March 6, 2018 in Indian Wells, CA with an Estimated Budget of One Thousand Three Hundred Dollars (\$1,300.00)**
- From:** Staff of the PFRS Board
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7003 - Travel Authorization for PFRS Board Member R. Steven Wilkinson to Travel and Attend the 2018 CALAPRS General Assembly Conference (“CALAPRS Conference”) from March 3, 2018 to March 6, 2018 in Indian Wells, CA with an Estimated Budget of One Thousand Three Hundred Dollars (\$1,300.00).
8. **Subject:** **Resolution No. 7004 - Travel Authorization for PFRS Plan Administrator Katano Kasaine to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00)**
- From:** Staff of the PFRS Board
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7004 - Travel Authorization for PFRS Plan Administrator Katano Kasaine to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00).

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
FEBRUARY 28, 2017**

ORDER OF BUSINESS, continued

9. **Future Scheduling**
10. **Pending Audit Agenda Items**
11. **Open Forum**
12. **Adjournment of Meeting.**

AN AUDIT/OPERATIONS COMMITTEE MEETING of the Oakland Police and Fire Retirement System (“PFRS”) was on held Wednesday, January 31, 2018 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present: • John C. Speakman, Chairman
• Robert J. Muszar, Member
• Christine Daniel, Member

Additional Attendees: • Katano Kasaine, Plan Administrator
• Teir Jenkins & David Low, Staff Member
• Pelayo Llamas, PFRS Legal Counsel

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

1. **Approval of November 27, 2018 Audit Committee meeting minutes** – Member Muszar made a motion to approve the November 27, 2017 Audit Committee meeting minutes, second by Member Daniel. Motion passed.

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

2. **Assumptions for Actuary Valuation of the PFRS Fund through July 1, 2017** – Graham Schmidt and Tim Doyle from Cheiron, Inc. (PFRS Actuary) presented the preliminary valuation results of the PFRS Plan through July 1, 2017. Their presentation addressed the impact to the PFRS plan with the current actuarial assumptions through July 1, 2017, and illustrated how a lower assumed rate of return might affect projected contributions from the City. Mr. Schmidt and the Audit Committee discussed the options to prepare for the review and recommendation of the actuarial valuation assumptions to be presented at the next meeting.

Following Audit Committee and staff discussion on the Cheiron Presentation, Member Muszar made a motion to accept the informational report from Cheiron Inc., second by member Daniel. Motion passed.

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

Member Muszar made a motion that the Audit committee forward the preliminary actuary valuation assumptions to the PFRS Board recommending that the Plan Actuary and PFRS Investment Counsel develop recommendations regarding possible modifications to the assumed rate of return at the February 2018 Audit Committee meeting, second by member Daniel. Motion passed.

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

- 3. Amended 2017-18 PFRS Administrative Budget** – Investment Officer Teir Jenkins presented the details of the amended 2017-2018 PFRS Administrative Budget. The Committee and staff clarified the line items to be changed for this amended budget to accommodate the retirement department buildout. Member Muszar made a motion to recommend Board approval of the amended 2017-18 PFRS Administrative Budget as amended, second by member Daniel. Motion passed.

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

Plan Administrator Kasaine reported that staff will be presenting a report for the mid-cycle budget in to coming months to the Audit Committee.

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

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

- 5. Annual Report for Fiscal Year ending June 30, 2017** – Mr. Jenkins reported the completion of the PFRS Annual report for the fiscal year ending June 30, 2017. He reported that new Board member photographs would be taken following today's meeting to complete the production work and that the new Annual Reports would be printed shortly afterward.. Following committee discussion, member Daniel made a motion to recommend Board approval of the printing and publication of the Annual Report of the Police and Fire Retirement System for the Fiscal Year ending June 30, 2017, second by member Muszar. Motion passed.

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

- 6. Resolution No. 6995 - Travel Authorization for PFRS Investment Committee Chairperson Jaime Godfrey** – Member Muszar made a motion to recommend Board approval of Resolution No. 6995 – travel authorization for PFRS Investment Committee Chairperson Jaime Godfrey to Travel for the Due Diligence Visit with Hansberger Growth Investors (Hansberger), an International Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System (PFRS) from February 4, 2018 through February 5, 2018 in Toronto, Ontario (Canada) With an Estimated Budget of One Thousand Two Hundred Fifty-Three Dollars (\$1,253.00), second by member Daniel. Motion passed.

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

7. **Resolution No. 6996 - Travel Authorization for PFRS Board Member R. Steven Wilkinson** – Member Muszar made a motion to recommend Board Approval of Resolution No. 6996 – Travel Authorization for PFRS Board Member R. Steven Wilkinson to Travel and Attend the 2018 EnTrustPermal Investment Summit Conference (“2018 EnTrustPermal Conference”) from February 27, 2018 through February 28, 2018 in New York, NY With an Estimated Budget of Nine Hundred Eighty-Two Dollars (\$982.00), second by Member Daniel. Motion passed.

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

8. **Resolution No. 6997 - Travel Authorization for PFRS Board Member Martin Melia** – Member Muszar made a motion to recommend Board Approval of Resolution No. 6997 – Travel Authorization for PFRS Board Member Martin Melia to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00), second by Member Daniel. Motion passed.

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

9. **Resolution No. 6998 - Travel Authorization for PFRS Investment Officer Teir Jenkins** – Member Muszar made a motion to recommend Board Approval of Resolution No. 6998 – Travel Authorization for PFRS Investment Officer Teir Jenkins to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00), second by Member Daniel. Motion passed.

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

10. **Resolution No. 7000 - Travel Authorization for PFRS Legal Counsel Pelayo Llamas** – Member Muszar made a motion to recommend Board Approval of Resolution No. 7000 – Travel Authorization for PFRS Legal Counsel Pelayo Llamas to Travel and Attend the 2018 CALAPRS Attorneys Roundtable (“CALAPRS Roundtable”) on February 2, 2018 in Glendale, CA With an Estimated Budget of Six Hundred Forty-Eight Dollars (\$648.00), second by Member Daniel. Motion passed.

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

11. **Resolution No. 7001 - Resolution to (1) Rescind Resolution No. 6964 and (2) Accommodate the Funding of Supplemental Legal Assistance for Probate- and Estate-Related Legal Needs in the Amount of \$10,000** – Plan Administrator Katano Kasaine informed the Audit Committee about PFRS Legal Counsel Pelayo Llamas’ need for funds to retain outside legal consultants for probate and collection issues. Ms. Kasaine clarified that, with Mr. Llamas serving as PFRS legal counsel, action funds previously directed for hiring of outside counsel would be used to retain consultants to assist the City Attorney’s office in probate and estate laws collection services outside of California, as needed.

Member Muszar said the original action previously approved by the PFRS Board was to include discussion and action on a Collection Policy which has yet to be brought for Board discussion or action. Ms. Kasaine said today’s action does not require

finalization of the collection policy and that approval for funding for hiring of consultants would assist Mr. Llamas in the necessary legal research required to analyze out-of-state probate and collection matters. Member Daniel stated her position that the proposed resolution not authorize hiring out-of-state collection agencies without return to the Board. Following additional committee discussion, a motion was made to adopt Resolution No. 7001 with the following amendments “(1) The sixth whereas was amended to “**WHEREAS**, upon further assessment of the System’s legal needs at this time, staff is no longer seeking to retain outside counsel to represent the System in estate and probate matters, but instead simply seeks authority and budget approval of up to \$10,000 to retain consultants to assist the City Attorney’s office in probate and estate law in approximately 30 states where PFRS retirees reside as needed; and...”; (2) the further resolved statement was amended to” **FURTHER RESOLVED**: that funding for the probate- and estate-related legal needs stated hereto of \$10,000 shall be allocated from the Legal Contingency Budget Line Item for Fiscal Years 2017-2018 and 2018-2019.”

Member Daniel made said motion, second by member Muszar. Motion passed.

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

12. **Revision to the PFRS Education and Travel Policy** – Following some brief discussion, Member Daniel made a motion to hold discussion of the review of the PFRS Education and Travel Policy to the next schedule Audit Committee meeting, second by member Muszar. Motion passed.

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

13. **Review of PFRS Rules and Regulations** – Due to time constraints, the review of the PFRS Rules and Regulations was tabled to the next scheduled Audit Committee meeting. Member Daniel made a motion to hold discussion of the review of the PFRS Rules and Regulations to the next schedule Audit Committee meeting, second by member Muszar. Motion passed.

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

14. **Open Forum** – No Report.

15. **Future Scheduling** – The next Audit Committee meeting was scheduled for February 28, 2018.

Member Muszar asked that several audit committee matters discussed at previous audit committee meetings be placed on the next PFRS audit committee agenda:

- Administrative Audit
- Travel Insurance for PFRS Board members
- Collection

Plan Administrator Katano Kasaine suggested that future Committee agendas would include a 'pending agenda' list on future meetings. The Committee agreed.

The meeting adjourned at 10:39 am.

JOHN C. SPEAKMAN, COMMITTEE CHAIRMAN

DATE

Oakland Police and Fire Retirement System



June 30, 2017 Experience Study and Preliminary Results

February 28, 2018

Graham Schmidt, ASA, EA, FCA, MAAA
Tim Doyle, ASA, EA, MAAA

Review of Actuarial Assumptions



- Rates of Mortality
- Inflation
- Salary Scale/Cost-of-Living Increases
- Expected Return on Investments
- Cost Impact and Preliminary Results

Mortality Assumptions



- Current assumptions
- New developments
 - CalPERS experience study
 - Society of Actuaries Retirement Plan Experience Committee (RPEC) MP-2017 report
- Recommendation



- Current assumptions
 - Service retirees & beneficiaries:
 - CalPERS Healthy Tables from the 2006-2011 Experience Study
 - Generational improvements projected using Scale MP-2014
 - Disabled retirees:
 - CalPERS Industrial Disability tables from the 2006-2011 Experience Study
 - Generational improvements projected using Scale MP-2014



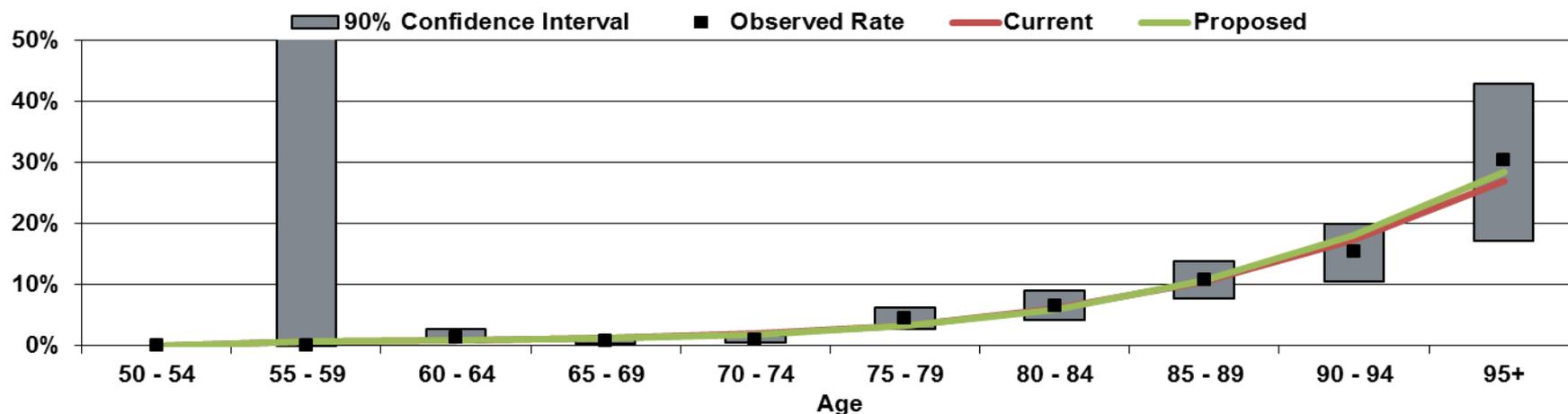
- New Developments
 - CalPERS produced new tables, based on experience from 2012-2015
 - Produced mortality rates at each age by gender/status, with 2014 representing mid-point of study period
 - RPEC published new sets of mortality improvement tables
 - MP-2017 mortality improvement tables
 - Reflects four additional years of data than MP-2014

Mortality Assumptions



Healthy Annuitant Mortality - Base Table for Males								
Age Band	Exposures	Actual Deaths	Weighted Exposures	Weighted Deaths			A/E Ratios	
				Actual	Current	Proposed	Current	Proposed
50 - 54	0	0	0	0	0	0	0%	0%
55 - 59	20	0	103,503	0	748	684	0%	0%
60 - 64	229	3	1,205,105	15,770	10,669	10,813	148%	146%
65 - 69	697	5	3,654,999	27,055	44,075	43,317	61%	62%
70 - 74	668	6	3,548,093	34,820	68,159	66,004	51%	53%
75 - 79	301	13	1,700,663	75,104	55,248	56,319	136%	133%
80 - 84	268	18	1,520,449	99,745	90,915	89,616	110%	111%
85 - 89	246	26	1,447,949	154,651	151,839	153,218	102%	101%
90 - 94	161	25	934,830	143,619	162,130	168,203	89%	85%
95 +	35	11	206,891	62,938	55,850	58,943	113%	107%
Total	2,625	107	14,322,482	613,703	639,634	647,118	96%	95%

Male Healthy Annuitant Mortality

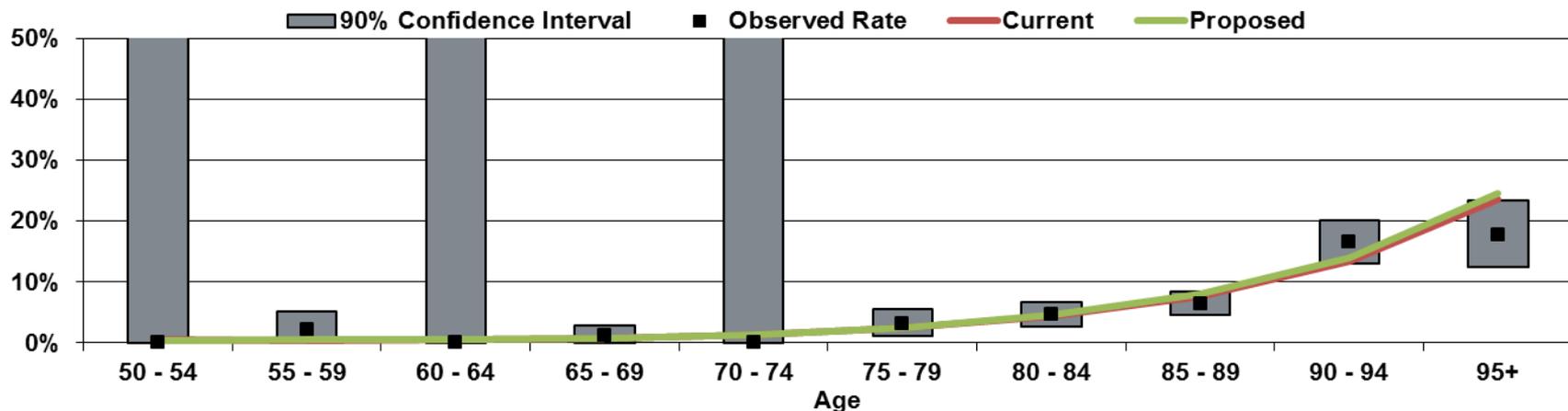


Mortality Assumptions



Healthy Annuitant Mortality - Base Table for Females								
Age Band	Exposures	Actual Deaths	Weighted Exposures	Weighted Deaths			A/E Ratios	
				Actual	Current	Proposed	Current	Proposed
50 - 54	7	0	33,430	0	161	147	0%	0%
55 - 59	38	1	157,696	3,320	721	751	461%	442%
60 - 64	100	0	414,529	0	2,299	2,469	0%	0%
65 - 69	172	2	646,997	8,170	5,371	5,358	152%	152%
70 - 74	188	0	688,331	0	9,740	9,216	0%	0%
75 - 79	182	6	692,346	21,918	17,175	17,485	128%	125%
80 - 84	301	13	1,180,509	54,949	50,968	53,566	108%	103%
85 - 89	474	31	1,779,971	115,053	138,084	143,780	83%	80%
90 - 94	282	45	1,101,142	182,006	146,864	153,460	124%	119%
95 +	120	24	528,933	93,655	124,465	129,998	75%	72%
Total	1,864	122	7,223,883	479,072	495,848	516,231	97%	93%

Female Healthy Annuitant Mortality

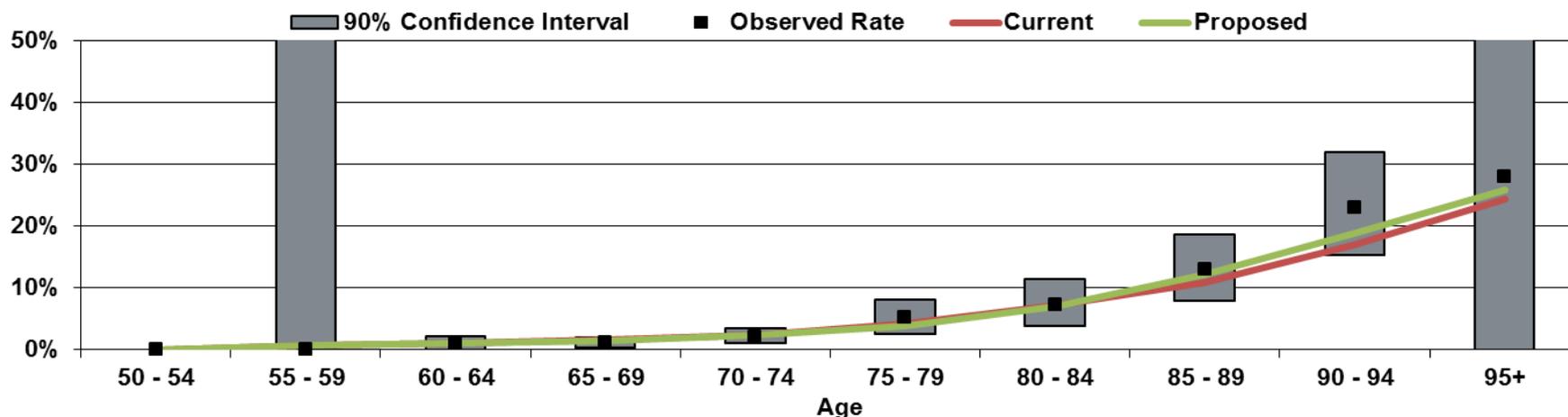


Mortality Assumptions



Disabled Annuitant Mortality - Base Table for Males								
Age Band	Exposures	Actual Deaths	Weighted Exposures	Weighted Deaths			A/E Ratios	
				Actual	Current	Proposed	Current	Proposed
50 - 54	0	0	0	0	0	0	0%	0%
55 - 59	5	0	24,755	0	182	162	0%	0%
60 - 64	181	2	863,553	8,753	9,653	9,356	91%	94%
65 - 69	514	6	2,551,470	29,531	39,623	35,962	75%	82%
70 - 74	414	9	2,146,672	44,718	51,905	48,264	86%	93%
75 - 79	200	10	1,106,896	57,031	45,549	43,112	125%	132%
80 - 84	131	10	726,768	53,267	51,432	51,212	104%	104%
85 - 89	102	14	578,965	74,651	62,842	70,724	119%	106%
90 - 94	72	15	382,925	87,803	65,168	72,041	135%	122%
95 +	7	2	36,496	10,204	8,892	9,428	115%	108%
Total	1,626	68	8,418,500	365,956	335,247	340,259	109%	108%

Male Disabled Annuitant Mortality





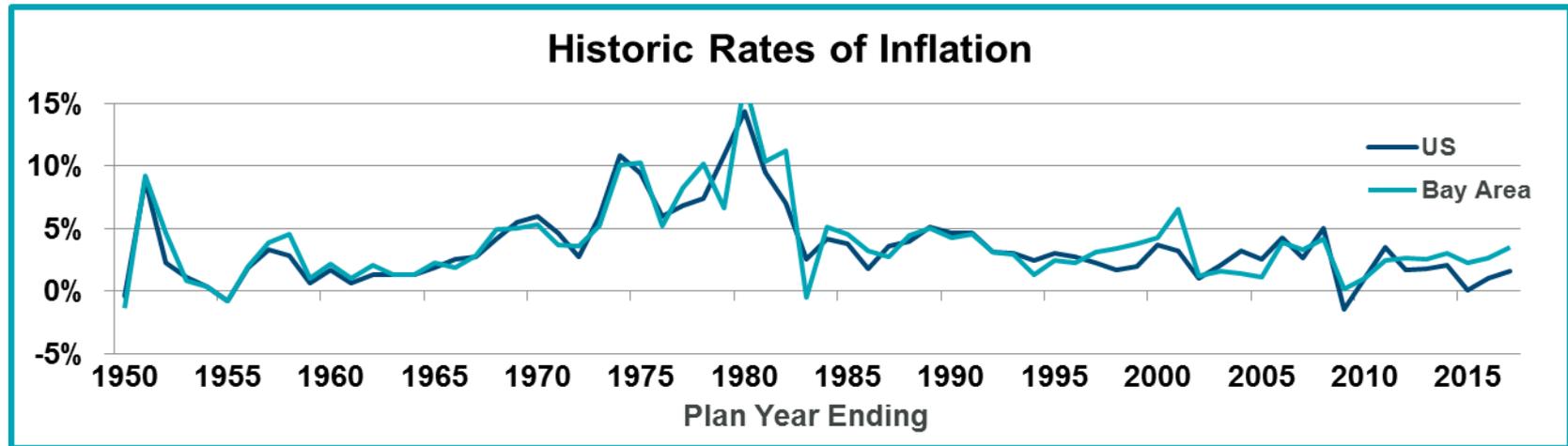
- Recommendations
 - Use updated CalPERS Healthy and Industrial Disability tables, without adjustment
 - Excellent match on male and female healthy experience
 - Reasonable match on male disability experience, very little female disability experience
 - Apply generational improvements using MP-2017 from 2014 (mid-point of most recent CalPERS study period)



- Building block approach
 - Inflation is the foundation for all economic assumptions
 - Expected Return (Nominal) = Inflation + Real Return
 - Base Wage growth = Inflation + Real Wage Growth
 - Assumptions must be reasonable, both individually AND in aggregate
 - Current Assumptions
 - Inflation: 2.75% (2.85% Bay Area)
 - Wage growth: 3.25% (ultimate rate)
 - Expected Return (net of investment expenses): 7.00%, decreasing from 2027 to 2036 to an ultimate rate of 3.25%

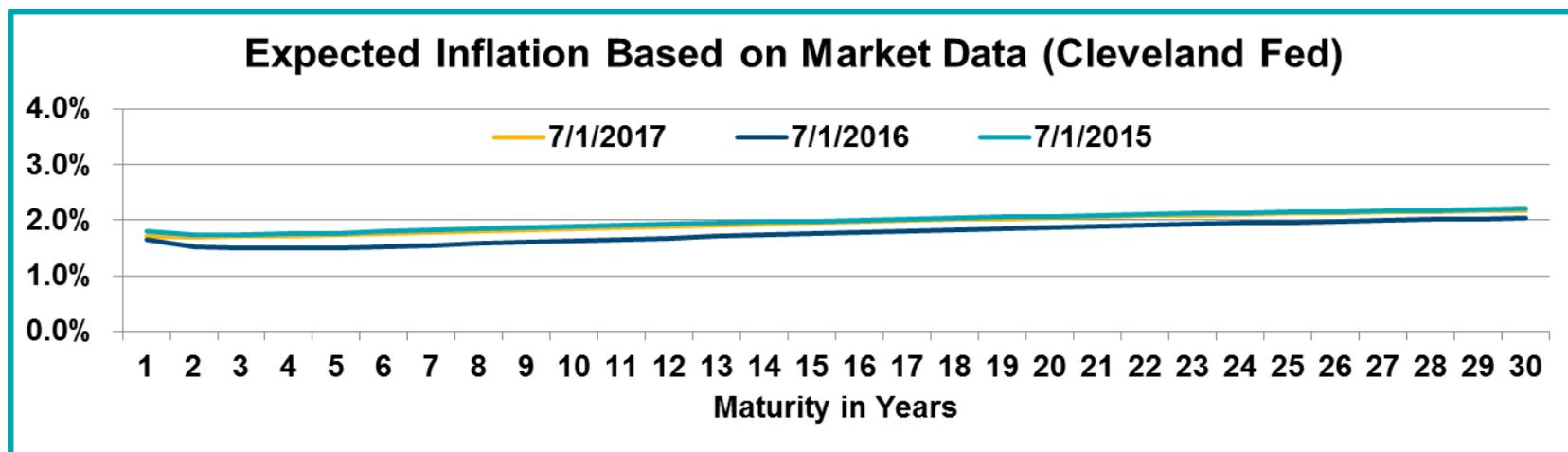


- Current Assumption: 2.75%
- PCA Assumption: 2.25%





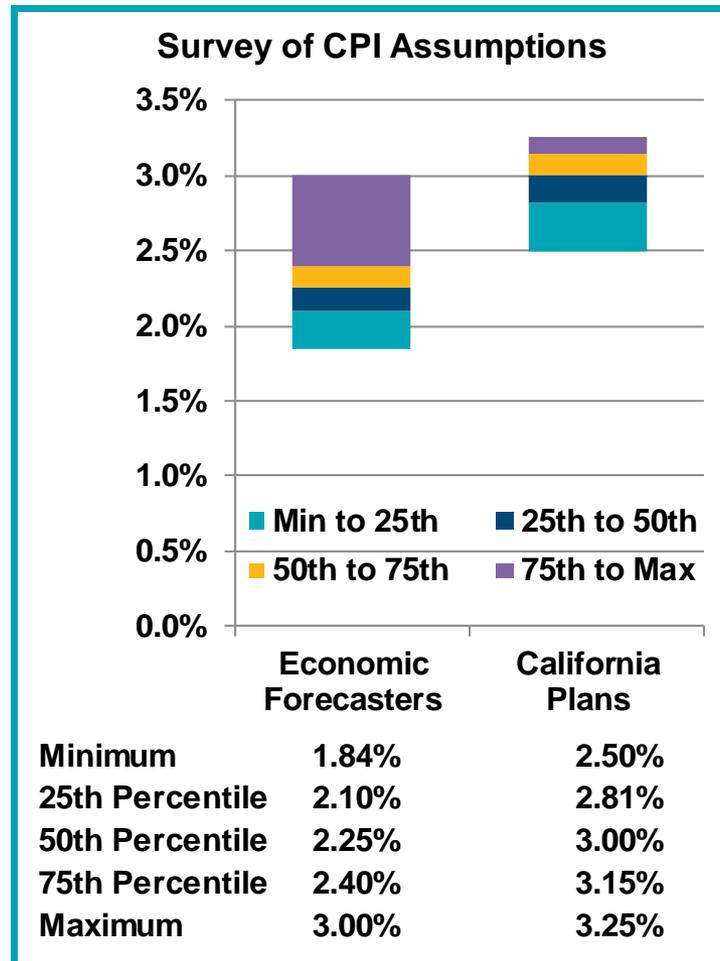
- Markets provide data on inflation assumptions by investors
 - Federal Reserve Bank of Cleveland forecasts inflation based on investment markets. Shown below is the graph of term structure of expected inflation



Inflation



- Survey of Professional Forecasters published by Philadelphia Federal Reserve
- Survey of California (CALAPRS) plans conducted by Cheiron





- Markets predicting low inflation (less than 3.0%) over short and long term
- Current assumption (2.75%) reasonable, but slightly higher than current market expectations going forward
- Trend for public plans has been to reduce inflation expectations, but average still just under 3.0%
- Could consider reduction to 2.50%
 - Matches CalPERS target assumption

Wage Growth



- Current long-term base wage growth equals 3.25%
 - Inflation (2.75%), plus
 - 0.10% for differential between US CPI and Bay Area CPI, plus
 - 0.40% for long-term real wage growth



- Current wage growth differential assumptions reasonable; no changes recommended
 - Maintain 0.50% differential between inflation and wage growth
 - Maintain 3.25% total assumption if inflation kept at 2.75%
 - Reduce to 3.00% if inflation lowered to 2.50%
 - Use current Police MOU to project wage growth for duration of contract; currently, no MOU for Fire in place



- Current assumption
 - Current Nominal return: 7.00%, Inflation: 2.75%
 - Real Return = $7.00\% - 2.75\% = 4.25\%$
 - Expected to trend down to 3.25% over 10 years, after 2026 (expected Full Funding date)
 - Net of investment, not administrative expenses



- Steps for calculation of expected returns
 - Collect assumptions of returns, risks, and correlations from investment consultant(s)
 - Adjust returns for differences in inflation
 - Simulate target portfolio
 - 21% Fixed Income
 - 40% US Equity
 - 12% Non-US Equity
 - 20% Real Return
 - 5% Covered Calls
 - 2% Credit

Expected Rate of Return (Current Rate)



Summary of Investment Advisors' Capital Market Projections (one-year arithmetic returns)

Asset Class	PCA	Horizon Survey
US Equity	7.25%	7.76%
Non-US Equity	8.70%	8.66%
Fixed Income	3.55%	3.40%
CRO	5.00%	N/A*
Covered Calls	6.50%	N/A*
Credit	4.00%	N/A*
Inflation	2.25%	2.24%

* Use PCA assumptions for Real Return, Covered Calls, CRO, Credit



- Simulation Results
 - Average 10-year compound real return of 3.51%, based on average of PCA and survey of capital market assumptions
 - PCA – 3.40%
 - Horizon Survey – 3.63%
 - Return assumption should be adjusted for investment advisor and custodian fees, but should be minimal (<10bp)

Expected Rate of Return (Current Rate)



- Simulation Results
 - Significant volatility in target portfolio, but lower than previous allocation
 - Per PCA, 10.5% annual standard deviation (reduced from 12.57% at last experience study)
 - 3.16% 10-year standard deviation, using PCA assumptions
 - Model distribution of 10-year expected returns (PCA)

Percentile	Nominal Return	Real Return
95 th	10.94%	8.69%
75 th	7.77%	5.52%
50 th	5.62%	3.37%
25 th	3.52%	1.27%
5 th	0.56%	-1.69%



- Recommendation (current rate)
 - Reduce current return assumption from 6.75% to 6.25%
 - Maintain current inflation assumption of 2.75% and wage growth of 3.25%
 - Higher than current market expectations, but inflation expectations have changed recently, and wage growth assumption reasonable
 - Lower real return assumption from 4.25% to 3.50%
 - Average of PCA / Horizon 10-year expectations
 - Consider alternative reduction to 6.00%
 - If reduce real return assumption by 25bp, would bring real return into alignment with PCA expectations
 - If reduce inflation assumption by 25bp, would bring it into closer alignment with market expectations



- Currently using approach which adjusts for expected changes in allocation over time
 - Special consideration for closed plans, as incentive to take on investment risk declines
 - Reduced upside from overfunding (last man standing/asset reversion issues)
 - Substantial downside from underfunding (generational equity)



- Approach known as select and ultimate investment assumption
 - Discount benefit payments using current allocation through date of peak assets (2026)
 - Discount benefit payments after 2026 using blended discount rate, based on transitioning from risk portfolio to non-risk portfolio
 - Currently using 50bp spread between inflation and expected return for low-risk portfolio (i.e., 3.25% ultimate rate, with 2.75% inflation)

Expected Rate of Return (Composite Rate)



Calculation of Single-Equivalent Blended Rates

FYE	Current Assumption	Recommended Assumption	Alternative 1	Alternative 2
2018	7.00%	6.25%	6.00%	6.00%
2026	7.00%	6.25%	6.00%	6.00%
2031	5.13%	4.75%	4.63%	4.50%
2036	3.25%	3.25%	3.25%	3.00%
2041	3.25%	3.25%	3.25%	3.00%
2046+	3.25%	3.25%	3.25%	3.00%
Equivalent Blended Discount Rate	6.34%	5.74%	5.53%	5.49%

Cost Impact and Preliminary Results



Summary of Preliminary Plan Results (\$ in thousands)

	July 1, 2016		July 1, 2017			
<u>Assumptions</u>						
Initial Earnings Rate	7.00%	7.00%	7.00%	6.25%	6.00%	6.00%
Wage Inflation / Ultimate Earnings	3.25%	3.25%	3.25%	3.25%	3.25%	3.00%
Single Equivalent Discount Rate	6.44%	6.34%	6.38%	5.74%	5.53%	5.49%
Mortality Basis	2014 CalPERS	2014 CalPERS	2017 CalPERS	2017 CalPERS	2017 CalPERS	2017 CalPERS
<u>Assets and Liabilities</u>						
Actuarial Liability (AL)	\$ 672,916	\$ 650,711	\$ 626,649	\$ 661,250	\$ 673,441	\$ 662,540
Actuarial Value of Assets (AVA)	<u>363,550</u>	<u>333,373</u>	<u>333,373</u>	<u>333,373</u>	<u>333,373</u>	<u>333,373</u>
Unfunded Actuarial Liability (UAL)	\$ 309,366	\$ 317,338	\$ 293,276	\$ 327,877	\$ 340,068	\$ 329,167
Funded Ratio (AVA)	54.0%	51.2%	53.2%	50.4%	49.5%	50.3%
Funded Ratio (MVA)	53.7%	54.3%	56.4%	53.4%	52.4%	53.3%
<u>Contributions</u>						
Employer Contribution (FY2017-18)	\$ 44,860	N/A	N/A	N/A	N/A	N/A
Employer Contribution (FY2018-19)	\$ 46,366	\$ 43,811	\$ 40,062	\$ 43,610	\$ 44,821	\$ 43,536

Required Disclosures



- The purpose of this presentation is to discuss preliminary results and assumptions with the Oakland Police and Fire Retirement System (PFRS). This presentation is for the use of the Board.
- In preparing this presentation we relied on information (some oral and some written) supplied by the Staff at PFRS. This information includes, but is not limited to, the plan provisions, employee data, and financial information.
- To the best of our knowledge, this presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.
- This presentation was prepared solely for the Retirement Board for PFRS for the purposes described herein. This presentation is not intended to benefit any third party and Cheiron assumes no duty or liability to any such party.

Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary

Timothy S. Doyle, ASA , EA, MAAA
Associate Actuary



- Graham Schmidt
 - gschmidt@cheiron.us, (703) 893-1456, x1137

- Tim Doyle
 - tdoyle@cheiron.us, (703) 893-1456, x1140

- David Holland
 - dholland@cheiron.us, (703) 893-1456, x1008

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)

As of December 31, 2017

	Amended					
	Budget	December 2017	FYTD	Remaining	Percent Remaining	
Internal Administrative Costs						
PFRS Staff Salaries	\$ 1,052,800	\$ 49,042	\$ 369,184	\$ 683,616	64.9%	
Board Travel Expenditures	52,500	171	5,202	47,298	90.1%	
Staff Training	10,000	-	2,934	7,066	70.7%	
Staff Training - Tuition Reimbursement	7,500	-	1,640	5,860	78.1%	
Annual Report & Duplicating Services	4,000	-	466	3,534	88.4%	
Board Hospitality	2,600	-	662	1,938	74.5%	
Payroll Processing Fees	35,000	-	-	35,000	100.0%	
Miscellaneous Expenditures	30,000	3,952	31,344	(1,344)	-4.5%	
Contract Services Contingency	1,200	-	1,200	-	0.0%	
Office Construction Costs	127,143	-	-	127,143	100.0%	
Internal Administrative Costs Subtotal :	\$ 1,322,743	\$ 53,165	\$ 412,632	\$ 910,111	68.8%	
Actuary and Accounting Services						
Audit	\$ 45,000	\$ 10,117	\$ 40,747	\$ 4,253	9.5%	
Actuary	45,000	-	6,992	38,008	84.5%	
Actuary and Accounting Subtotal:	\$ 90,000	\$ 10,117	\$ 47,739	\$ 42,261	47.0%	
Legal Services						
City Attorney Salaries	\$ 178,000	\$ 8,907	\$ 71,796	\$ 106,204	59.7%	
Legal Contingency	150,000	-	48,206	101,794	67.9%	
Legal Services Subtotal:	\$ 328,000	\$ 8,907	\$ 120,002	\$ 207,998	63.4%	
Investment Services						
Money Manager Fees	\$ 1,310,857	\$ -	\$ 283,163	\$ 1,027,694	78.4%	
Custodial Fee	124,000	-	29,125	94,875	76.5%	
Investment Consultant (PCA)	100,000	25,000	50,000	50,000	50.0%	
Investment Subtotal:	\$ 1,534,857	\$ 25,000	\$ 362,288	\$ 1,172,569	76.4%	
Total Operating Budget	\$ 3,275,600	\$ 97,189	\$ 942,661	\$ 2,332,939	71.22%	

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of December 31, 2017

	Dec 2017
Beginning Cash as of 11/30/2017	\$ 7,693,390
Additions:	
City Pension Contribution - December	\$ 3,738,333
Investment Draw (Incoming Wire) - 12/1/2017	1,261,667
Misc. Receipts	2,783
Total Additions:	\$ 5,002,783
Deductions:	
Pension Payment (November Pension Paid on 12/1/2017)	(4,661,228)
Expenditures Paid	(85,054)
Total Deductions	\$ (4,746,282)
 Ending Cash Balance as of 12/31/2017*	 \$ 7,949,891

* On 01/01/2018, a pension payment of appx \$4,595,530 will be made leaving a cash balance of \$3,354,361

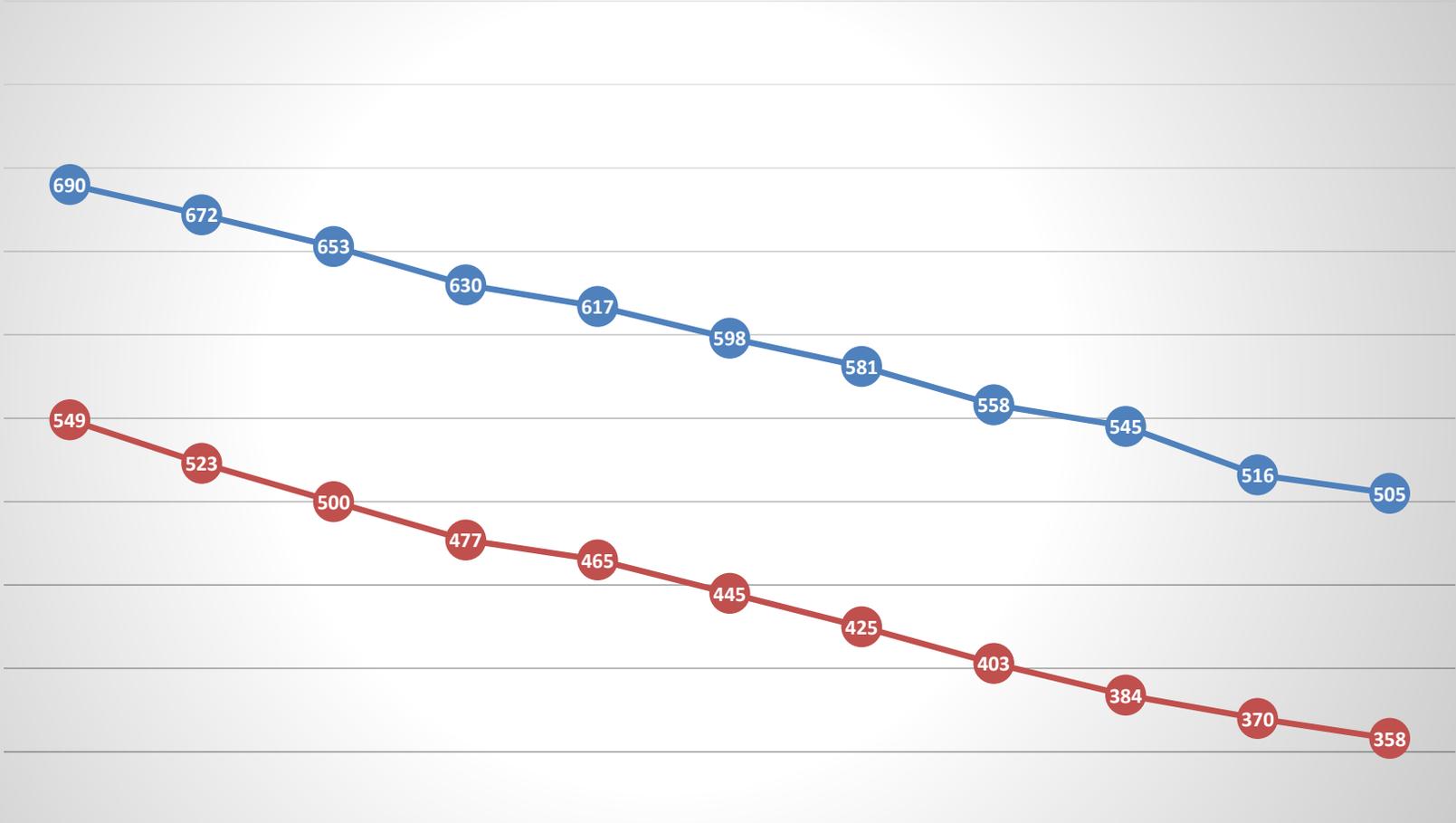
Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census
As of December 31, 2017

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	370	228	598
Beneficiary	135	130	265
<i>Total Retired Members</i>	505	358	863
<i>Total Membership:</i>	505	358	863

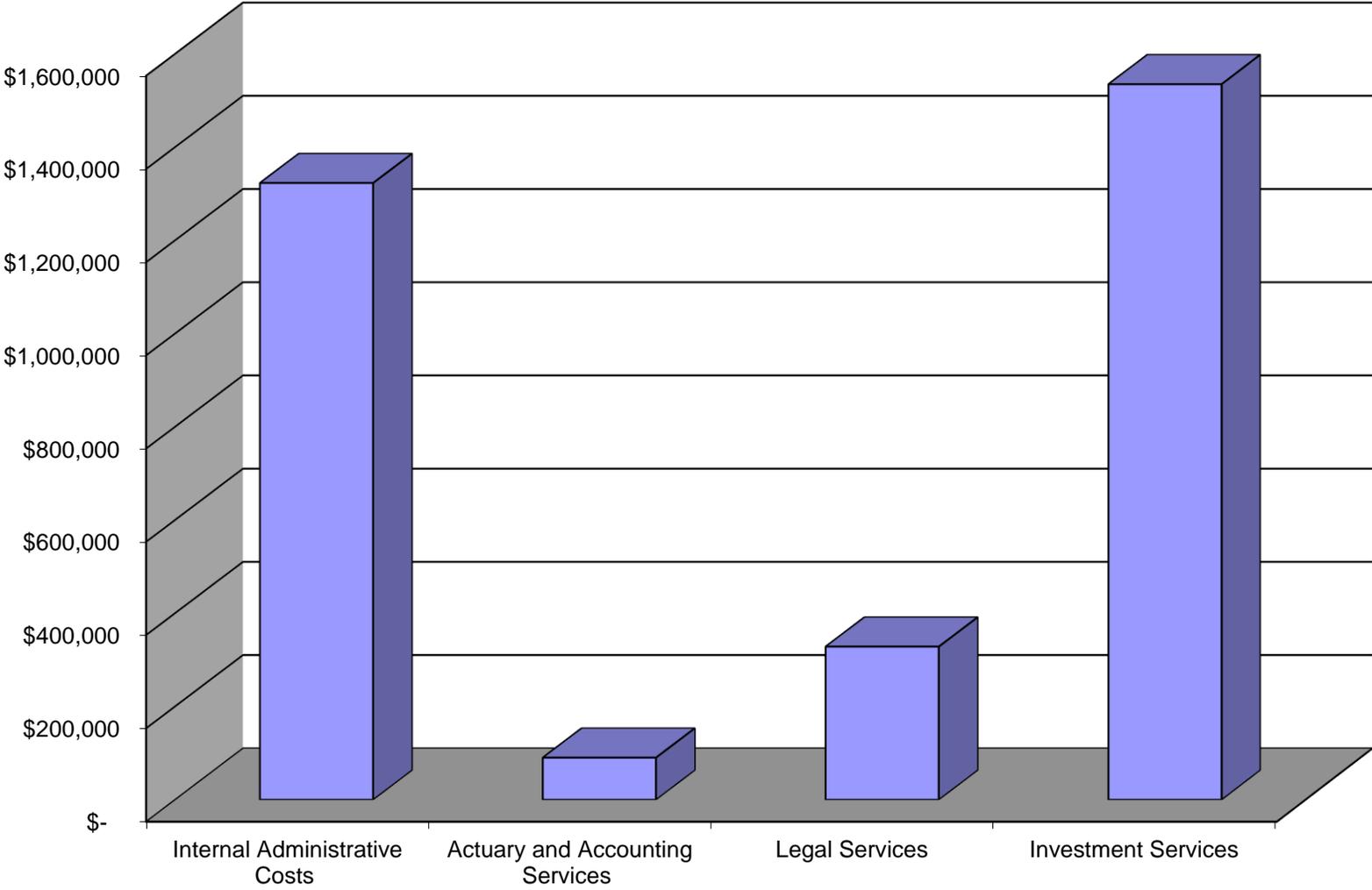
COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	334	189	523
Disability Retirement	157	154	311
Death Allowance	14	15	29
<i>Total Retired Members:</i>	505	358	863
<i>Total Membership as of December 31, 2017:</i>	505	358	863
<i>Total Membership as of June 30, 2017:</i>	516	370	886
<i>Annual Difference:</i>	-11	-12	-23

Oakland Police and Fire Retirement System Pension Plan Membership Count As of December 31, 2017 (FY 2008 - FY 2018)

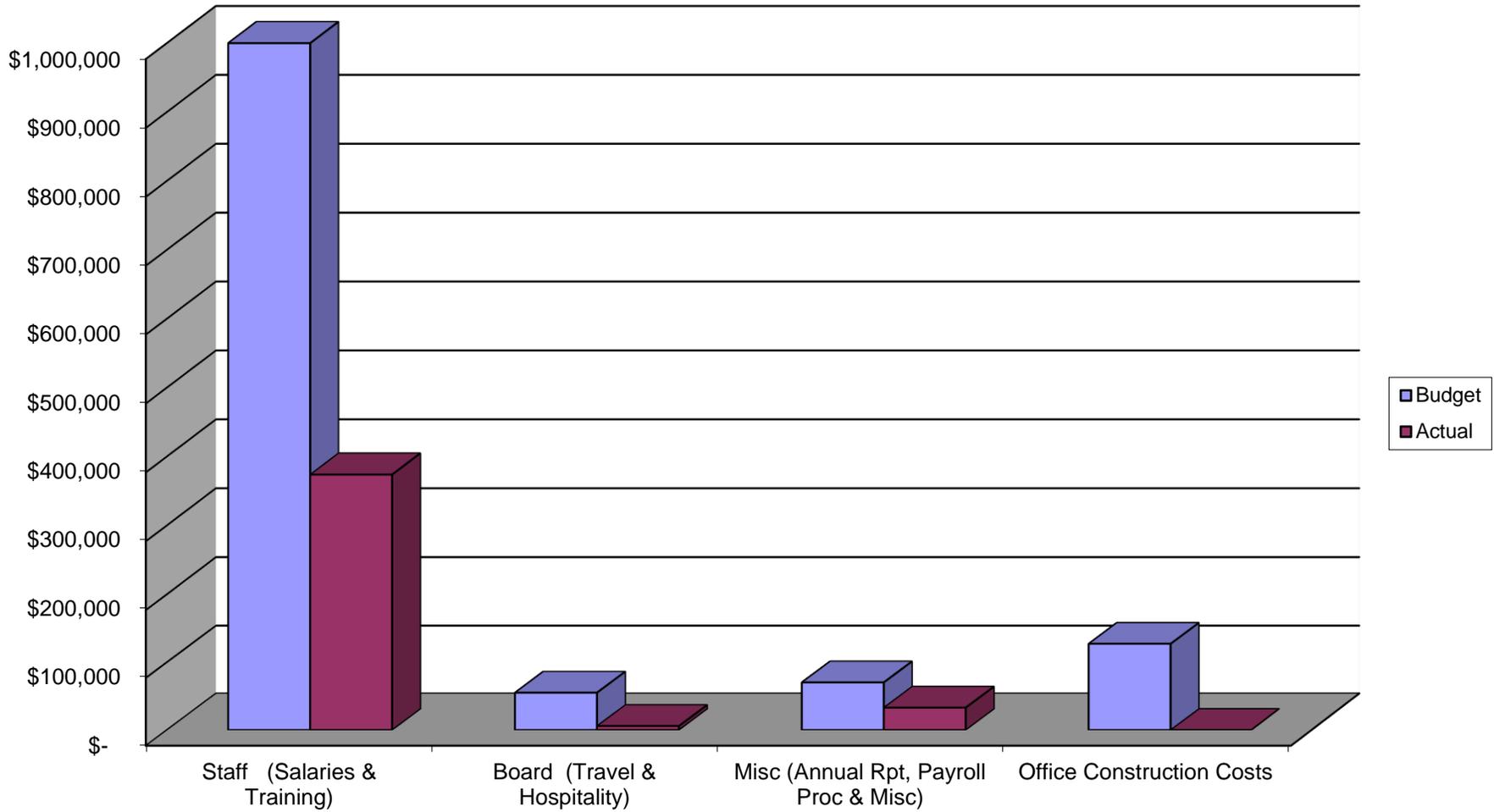


	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 FYTD
● Police	690	672	653	630	617	598	581	558	545	516	505
● Fire	549	523	500	477	465	445	425	403	384	370	358
● Total	1239	1195	1153	1107	1082	1043	1006	961	929	886	863

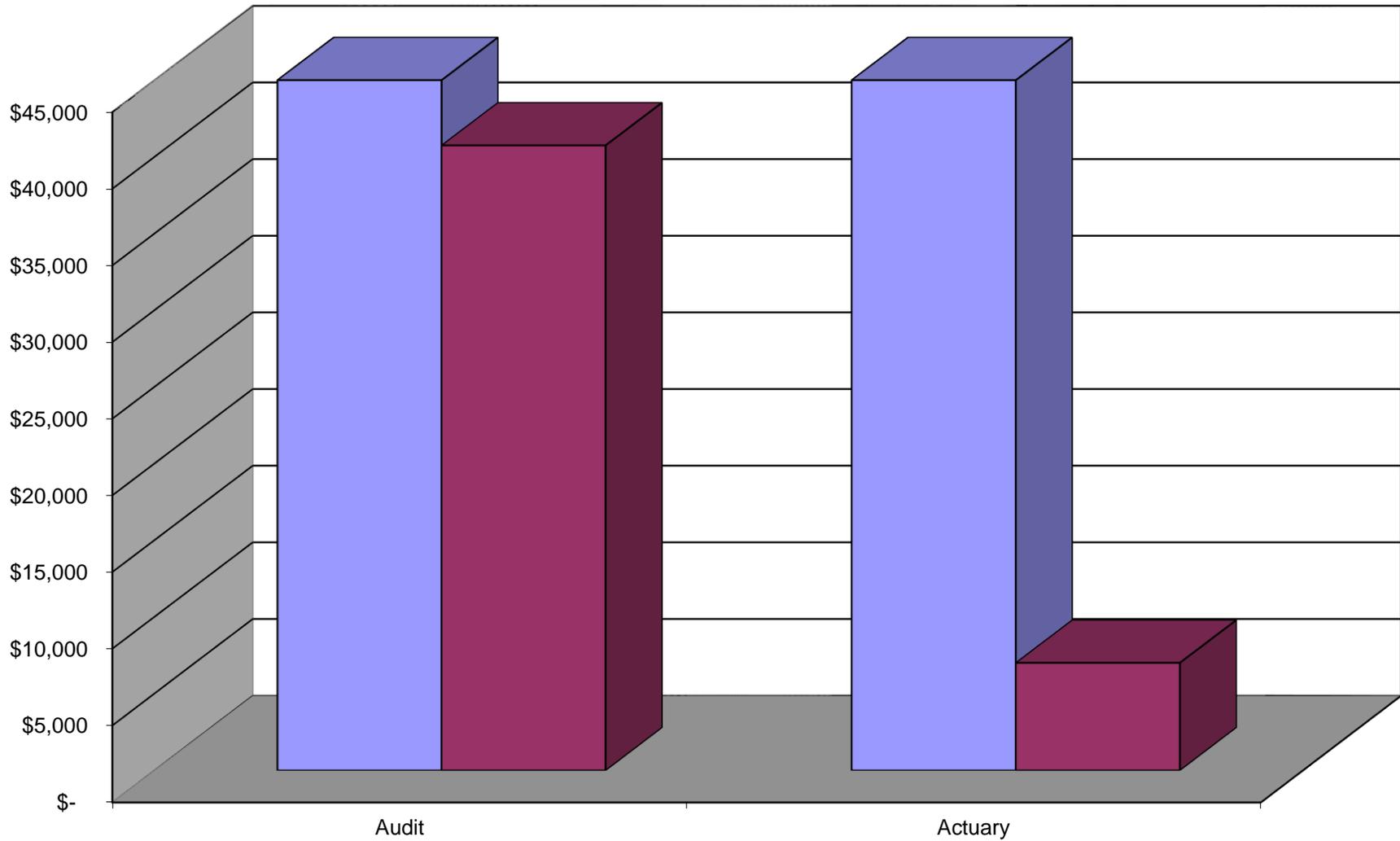
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Approved Budget
FY 2017-2018



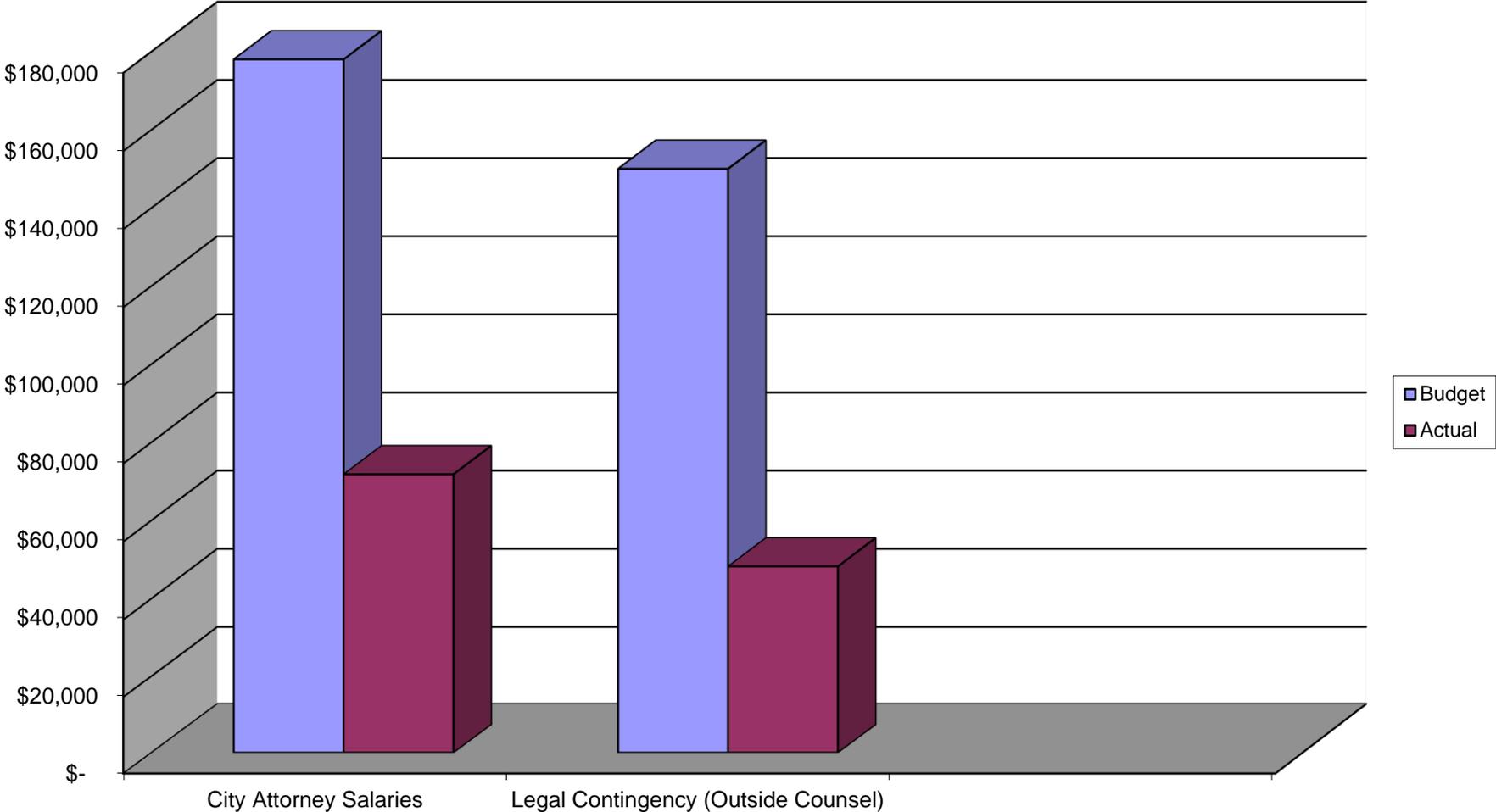
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs Actual as of December 31, 2017
Internal Administrative Costs



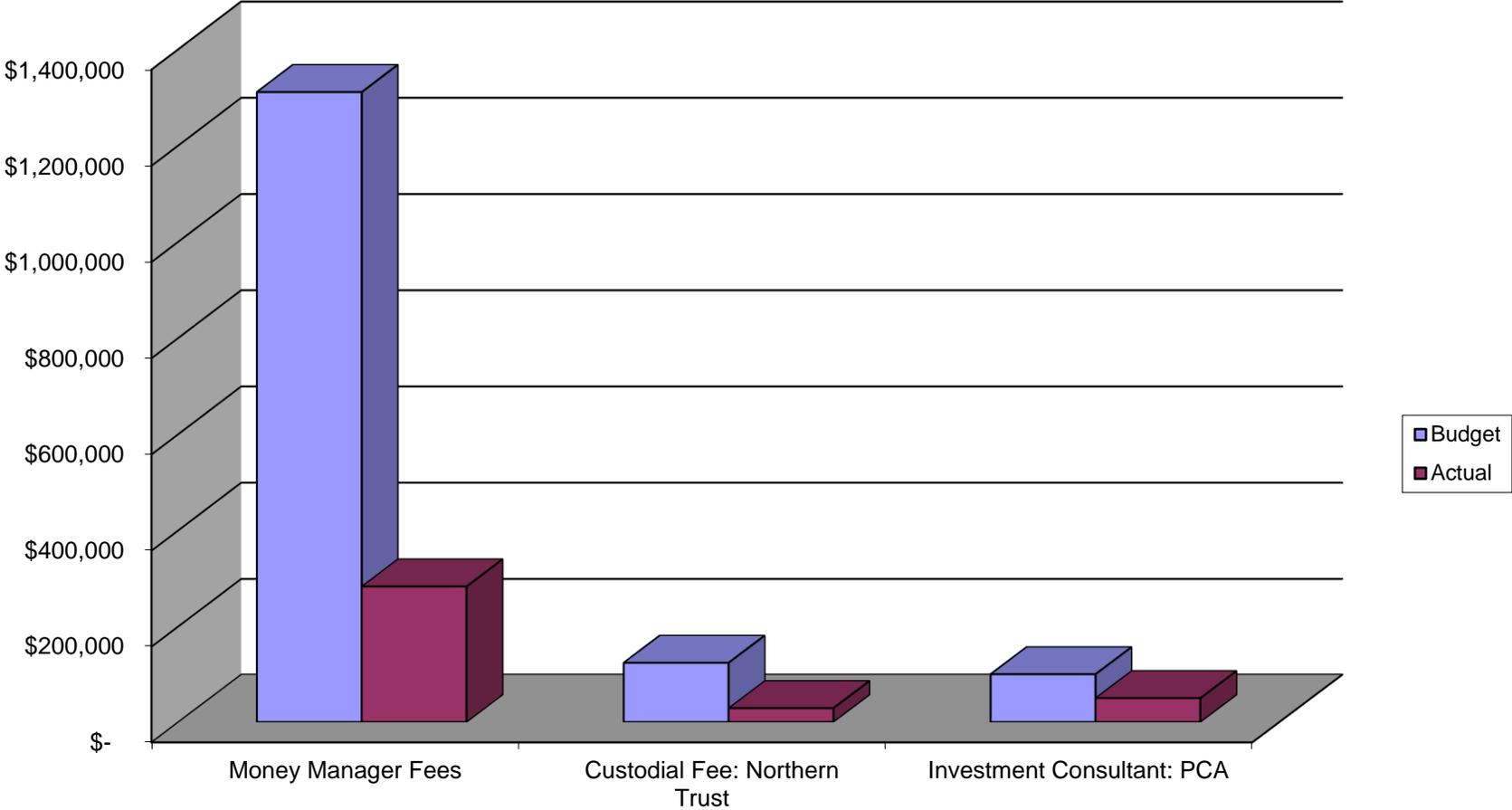
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs. Actual as of December 31, 2017
Actuary and Accounting Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs. Actual as of December 31, 2017
Legal Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
Budget vs. Actual as of December 31, 2017
Investment Services





AGENDA REPORT

TO: Oakland Police and Fire
Retirement Board

FROM: Katano Kasaine

SUBJECT: Review of Updated Travel Policy of the
Oakland Police and Fire Retirement
System

DATE: January 22, 2018

OVERVIEW

The PFRS Staff Present the Updated Draft Version of the Updated PFRS Travel Policy for Board approval.

SUMMARY

The Board of Administration of the Oakland Police and Fire Retirement System approved the current PFRS Travel Policy on March 1, 2013. Staff has recently reviewed the travel and education policies of other public retirement systems and have drafted an update to the current PFRS Travel Policy for review and discussion by the PFRS board.

At the November 29, 2017 Board meeting, Staff was directed to deliver to each Board member the current draft version of the Education and Travel Policy so they can add comments. Staff reported the plan to return the edited Education and Travel Policy to the Board for approval at the January 2018 Board meeting.

Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

Attachment(1):

- DRAFT: Update to PFRS Travel Policy approved March 1, 2013

ATTACHMENT 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
EDUCATION AND TRAVEL POLICY
CURRENT EDITED VERSION

I. INTRODUCTION

- 1) The Board of Retirement of the Oakland Police and Fire Retirement System (the "Board") recognizes and affirms its constitutional and statutory fiduciary duty to prudently administer the retirement system for the exclusive benefit of PFRS members and their beneficiaries as set forth below:
 - a) "[T]he retirement board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the system..." Cal. Const. Art. XVI, § 17
 - b) "Except as otherwise expressly restricted by the California Constitution and by law, the board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the board." Cal. Gov. Code § 31595(a)
 - c) "The board and its officers and employees shall discharge their duties with respect to the system...(b) [w]ith the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims." Cal. Gov. Code § 31595(b)
- 2) Travel by multiple Trustees shall be conducted in such a manner as to not violate provisions of the Brown Act (Cal. Gov. Code § 54950 et seq.) or Oakland Sunshine Ordinance (Oakland City Council Resolution No. 12483 C.M.S.).
- 3) The Board ~~also~~ recognizes the need to reimburse Trustees and authorized staff for travel and other expenses reasonably and necessarily incurred while participating in educational programs, conducting due diligence, and other activities on behalf of the retirement system. These expenses are legitimate expenses of the retirement system. The Board adopts this Policy and the accompanying Preapproved Travel Expense Reimbursement Schedule (Exhibit A) to facilitate reimbursement of qualifying travel expenses. ~~This Policy shall also apply to business-related travel of the PFRS Plan Administrator and staff.~~

II. PURPOSE

- 1) The objectives of this PFRS Education and Travel Policy are:
 - a) To ensure all Trustees gain the knowledge necessary to carry out their fiduciary responsibilities.
 - b) To ensure access to relevant information is made available to all Trustees.
 - c) To ensure Trustees possess shared knowledge relevant to pension administration and the investment of trust assets, to enable effective group discussion, debate, and decision-making.
 - d) To enable each Trustee to achieve and maintain proficiency in the conduct of PFRS business by educating themselves in matters central to the prudent administration of the retirement system and the investment of retirement funds.
 - e) To set forth the guidelines by which PFRS will reimburse Trustees, the Retirement Administrator, and staff for qualifying travel expenditures.
 - f) To ensure that travel expenditures incurred are prudent and cost effective, and to mitigate the risk of any impropriety (whether perceived or actual) that could arise from retirement system and/or PFRS business-related travel.

- g) To encourage the continued education of the PFRS Board and staff.
- 2) In order to keep pace with the continued growth and diversification of the retirement fund as well as the increasing complexity of financial and investment management systems, Board members are required to have ongoing training regarding (but not limited to):
 - a) Fiduciary Responsibility;
 - b) Pertinent Pension/Retirement Law and Standards;
 - c) Equity and Security Investing;
 - d) International Investing;
 - e) Asset Allocation; and
 - f) Pension Funding.

III. SCOPE

This policy shall apply to:

- 1) The members serving on the PFRS Board of Administration, also referred to as “Board Members” or “Trustees”,
- 2) The Secretary of the PFRS Board,
- 3) The Plan Administrator,
- 4) The staff assigned to provide administrative support to the Board.

IV. EDUCATION AND TRAVEL POLICY

1) General Provisions

a) The Audit and Operations Committee of the PFRS Board will review and recommend all travel and education reimbursement requests to the PFRS Board.

a)b) Board members who attend educational programs and travel in their official Board capacity shall be reimbursed for their actual and necessary expenses for event registration, transportation, parking, tolls and other reasonable incidental costs. “Actual and necessary expense” does not include alcoholic beverages nor does it include expenses incurred by a travel companion.

c) All travel shall be approved in advance of travel by the Board, except as described below. Membership in an organization is not of itself, a basis for travel authorization.

d) Travel by multiple Trustees shall be conducted in such a manner as to not violate provisions of the Brown Act (Cal. Gov. Code § 54950 et seq.) or Oakland Sunshine Ordinance (Oakland City Council Resolution No. 12483 C.M.S.).

b)e) Travel by the Plan Administrator and the staff assigned to provide administrative support to the Board are additionally subject to the travel policy of the City of Oakland for any relevant travel associated with the PFRS system.

2) Approval

a) Reimbursement of education and travel-related expenses for a Trustee or staff members to attend an educational program, conduct a due diligence site examination, or conduct other PFRS-related business requires the prior approval of the Board.

-
- b) PFRS staff will include the education/travel request as an agenda item, noting the Board member(s) and staff who will be traveling, the purpose of the travel, and the date(s) of the travel. Any PFRS board approval shall be accomplished by resolution.
 - c) The Board President, in consultation with the Plan Administrator, may authorize education or travel without prior approval of the Board in circumstances when Board approval cannot be obtained in advance and subject to the limitations in this Policy. Staff should place the expense request and authorization on the next regularly scheduled Board and Committee meeting for ratification.
 - d) The Plan Administrator may approve payment of education and travel claims that do not exceed \$1,000 per item, not specifically covered by the provisions of this policy, provided the Plan Administrator determines such expenses are/were necessary in connection with official business of the Board and staff.
 - e) City staff will process the approved Board education/travel by submitting assembled invoices and reimbursement requests (if any) related to Board travel to the City of Oakland, Controller Bureau.
- 3) Limitation on Attendance
- a) Trustees are encouraged to seek education that will further the purpose of this Policy. A Trustee may attend additional Board approved educational programs requiring overnight lodging, subject to the criteria of this Policy. The Board, at its sole discretion, may limit Trustee attendance up to the Trustee's annual Travel Expense (not to exceed \$7,500 per fiscal year).
- 4) Travel and Education Expense Allocation Budget
- a) The travel and education allowance for the PFRS Board and Staff will be budgeted and adopted annually during the Board's budget process.
 - b) Prior to the start of the upcoming fiscal year beginning July 1, the Board will establish an education and travel allowance of up to \$7,500.00 for each Board member. These allowances shall not be exceeded without prior Board approval. However, the Board may pre-authorize expenses associated with education/travel for a Board member whose expenses are expected to exceed \$7,500.00 if, prior to the education program or travel, a cost estimate is submitted for the Board's review and the Board determines the expenses are necessary and are in connection with official Board business.
 - c) The Travel Allowance for the Staff of the PFRS board will be budgeted and adopted annually during the Board's budget process. The Board will establish the next fiscal year travel allowance and education allowance prior to the start of the next fiscal year beginning July 1.
 - d) Staff members whose local bargaining unit has provisions for tuition reimbursement related to professional development shall have budget allocated from the PFRS fund. The Staff Education Allowance shall only apply to tuition and/or registration fees related to class enrollment and textbooks related to enrolled classes. The Staff Education Allowance shall be administered and budgeted separately from the Annual Board and Staff Travel Expense Allowance. The Staff tuition reimbursement requests and authorization related to the Staff Education Allowance shall be administered by the Plan Administrator.
- 5) Expenses other than Pre-approved Expenses
- a) The Board shall approve or disapprove, by a majority vote, any travel, education, and other expenses at its discretion. Board decisions are final and denial of travel made by the Board cannot be appealed.
-

6) Requests for Reimbursement

- a) Reimbursement for education or travel by an attendee shall be submitted on the Travel Authorization form. All such forms will be reviewed and approved (or disapproved) in accordance with the provisions of this Policy. All requests for reimbursement shall be submitted within fifteen (15) days following conclusion of event and/or return to Oakland, whichever is first.
- b) Reimbursements or advances in excess of allowable expenses must be returned to PFRS within thirty (30) days after the excess amounts become evident.

7) Gifts

- a) When traveling on official PFRS due diligence business travel, PFRS's trustees, officers, or employees shall not accept payment or gifts of travel or lodging from any person or entity (also, see Honoraria).
- b) Food and beverages provided during the normal course of the day, as part of due diligence business travel, may be accepted, provided such food and beverages are uniformly offered to all attendees.

8) Honoraria

- a) Board members and staff are not permitted to accept honoraria from event sponsors or investment managers in any form for any event included with any request for travel authorization and/or expense reimbursement.

9) Cash Advances

- a) Cash advances will not be allowed unless specifically approved by the Board.

10) Expenses for Traveling Companions

- a) Expenses of family members and/or traveling companions are not reimbursable by PFRS.

11) Limitations on Expense Allowance

- a) Reimbursement for expenses shall not exceed that which is reasonable and necessary for travel to the precise destination and date of the covered occurrence, whether by private automobile, rental vehicle or common carrier. Expense costs for extra days prior to or after a conference will be reimbursed only if such extension results in lower overall trip costs or is necessitated by the conference schedule or available flights. Such cost(s) cannot push travel costs beyond any members' overall annual travel budget allowance.

12) Travel and Lodging Cancellations

- a) Trustees are responsible for the timely cancellation of registration fees, as well as travel and lodging reservations made on their behalf that will not be used, so that PFRS will incur no unnecessary expense. Trustees will be personally responsible for paying any fees caused by their failure to timely cancel any registrations or reservations, unless otherwise determined by the Board.

13) Travel Arrangements

- a) All travel arrangements for which reimbursement is or will be sought shall be coordinated with

the office of the Plan Administrator. Staff will process and pay the registration fee for an event (if any) and apply the cost of registration toward the members' annual travel expense allowance.

- b) Travel requests shall be submitted to the Plan Administrator prior to travel and shall include supporting information such as: program announcements, schedules, meeting dates, and an estimate of costs.
- c) The Plan Administrator or designee will assist the Board with travel arrangements when necessary, including arranging for event registration .

14) Travel By Privately-Owned Vehicles

a) Board members, who use their privately owned vehicles for official travel within a 150-mile radius of ~~City Hall~~point of origin, will be reimbursed at the Federal mileage rate. For trips exceeding a 150-mile radius of point of origin~~City Hall~~, Board members will be reimbursed at the established full coach round trip, unrestricted airfare (as of the date of the claim).

~~a)~~b) Point of origin shall refer to the residence of the Board member.

15) Travel By Common Carrier

a) When the carrier provides transportation by more than one class of service, the full coach or economy class fare on a major airline must be used. Any costs over and above coach or economy class shall be considered personal, non-reimbursable expenses of the traveler. Whenever possible, the Oakland Airport should be used for air travel. Original receipts and the travel itinerary are required for reimbursement of airfare. Airfare purchased using "frequent flyer miles" will not be reimbursed.

16) Rental Car

a) The use of a rental car is allowed, provided its use is the most economical and practical means of travel. Original receipts are required for rental car reimbursement (including receipts for tolls, fuel, etc.).

17) Overnight Lodging

a) The Plan Administrator will be responsible for payment of lodging invoices. Conference discount rates are to be used if offered. Travelers may make independent reservations at a non-conference associated hotel, under unusual circumstances, and are expected to stay in reasonable economical accommodations. A receipt is required for reimbursement of lodging costs.

18) Per Diem

a) The current Federal per diem rate is used to cover the cost of three meals plus tips. There are no restrictions on how the meal per diem will be divided. Receipts are not necessary, since the Federal daily rate is the maximum allowable rate. If the conference registration fee includes meals, then the per diem will be reduced according to the current Federal per diem rateschedule shown in Appendix A attached.

b) The current Federal per diem rate is found at: <https://www.gsa.gov/travel/plan-book/per-diem-rates>

19) Meals

- a) For any full day out-of-city travel, the costs of meals and tips may be reimbursed at the current daily Federal per diem rate [see Section IV(18)(b)] without regard to how much is spent on individual meals (i.e., breakfast, lunch, dinner, snacks) and without receipts, subject to the following limitations:
- i. If a Board member is on travel status for less than a full day, costs may be reimbursed for individual meals occurring within the travel time, using the per diem rates [see Section IV(19)(b)]shown.
 - ii. Meals that are included in a meeting, conference and/or registration fee will be deducted from the per diem rates [see Section IV(18)(b)]below.
 - iii. Meals may be reimbursed without regard to the duration of travel ~~and without regard to a Board member's regular work hours~~. Breakfast may be reimbursed even if a board member's travel consists of less than two hours in duration before his or her regular work hours. Dinners may be reimbursed even if travel consists of less than two hours duration ~~after his or her regular work hours~~.

20) Other Expenses

- a) Other reasonable and necessary expenses such as parking, transportation to and from the airport (shuttle, taxi, etc.), will be reimbursed when a receipt is submitted with the Travel Expense Voucher reimbursement claim. For expenses where receipts are not customarily issued, (i.e. BART, bus fare, tips), reasonableness of the expense shall be approved by the Plan Administrator.
- b) Board members who travel on a non per-diem basis must submit receipts for all expenses incurred. If a member chooses not to utilize per diem, reimbursement will be based on the submission of individual itemized receipts (i.e. 1 coffee, 1 salad, 1 sandwich, etc.) Alcoholic beverages charges and charges incurred by a travel companion will not be reimbursed.

21) Expense Submission

- a) Travel Expenses for reimbursement are due within fifteen (15) days of return from a trip. The Plan Administrator may request further justification and documentation and may deny cost claims that are not considered eligible.

22) Cancellations

- a) It is the Board member's responsibility to cancel reservations when travel plans are altered or canceled and refund the Board for all previously advanced expenses. Charges or loss of refunds resulting from failure to cancel reservations will not be reimbursed except when cancellation was not feasible. ~~Cancellation costs and fees will be deducted from the member's annual travel allowance.~~

23) Update of Education and Travel Policy

- a) The PFRS Education and Travel Policy will be reviewed by the PFRS Board as needed but no ~~sooner~~ less than three years from the previous approval date.

PRESIDENT
POLICE AND FIRE RETIREMENT SYSTEM BOARD

WALTER L. JOHNSON, SR.

DRAFT

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
EDUCATION AND TRAVEL POLICY**

DRAFT

KATANO KASAINÉ
PLAN ADMINISTRATOR & BOARD SECRETARY

POLICE AND FIRE RETIREMENT SYSTEM BOARD

APPENDIX A – PROCEDURE: Travel Request, Authorization and Reimbursement

The PFRS Board has final approval authority regarding travel authorization and expense reimbursement for Board or staff travel for conferences and educational seminars related to the function of PFRS. Such requests and authorization is reviewed and acted upon by the Board at their Board meetings.

Board members are asked to submit their travel requests to staff no later than fourteen (14) calendar days before the next PFRS Board meeting in order to add the travel request to the upcoming board meeting agenda. Travel requests received after this 14-day window will be added to the next available Board meeting agenda.

Procedures for a travel request, travel authorization and reimbursement for travel expenses are detailed below:

1. Inform PFRS staff of intent to request travel authorization and reimbursement for an event. All reservations which can be made immediately are suggested to be made if full reimbursement can be arranged in the event of the denial of travel request.
2. Staff will create a file for this travel event, which will include the following items:
 - a. **Agenda Report** summarizing travel request (signed by Plan Administrator). This report will be submitted for Board approval at the next available Board meeting.
 - b. **PFRS Board Resolution** detailing the travel request (approved to form and legality by the PFRS Legal Counsel).
 - c. **Event Agenda**. This document must identify the event name, date, location and schedule of events.
 - d. **Travel Authorization Form** (complete; signed by Plan Administrator). The estimated travel expenses will be detailed in this document and will be signed by the Plan Administrator.
 - e. **Travel Expense Voucher** (completed following return from travel event, signed by traveler and Plan Administrator).
 - f. **Travel Reimbursement Summary** (completed by staff). The reimbursement check and itemized travel reimbursement expenses are presented to the traveler.
 - g. All event receipts.

Items A – C above shall be submitted for PFRS Board approval. No education or travel will be approved without Board review and approval.

Exception I: A request for travel authorization and reimbursement that occurs after the 14 calendar day window for submission to the next PFRS Board agenda may be allowed if a request is made and authorized by the PFRS Board President. If the Board President authorizes the travel request for the Board agenda, and there is no violation of the Brown Act or Oakland Sunshine Ordinance, the travel request will be added to the current PFRS Board agenda for review and possible approval. This executive permission will be noted on the agenda report submitted to the Board for approval.

3. Staff will generate and submit at the next available PFRS Audit Committee an Agenda Report and PFRS Resolution requesting authorization for education and travel and reimbursement for the requested event. Staff will estimate the cost for the travel event.
4. The Audit Committee will approve or deny the recommendation for Board approval of the education/travel request. If approved, the Board shall review the travel request and approve, deny or amend it.

-
5. Upon approval, staff will process registration for the event, including any registration fees. Traveler will be responsible to arrange all other related travel actions for this travel event, including airfare, lodging, other related travel expenses involved in traveling to, and returning from, the event. Traveler will need to submit all original receipts to staff upon return from event travel. If receipts are not available, traveler must complete a Lost Receipt form which attests to the loss or unavailability of obtaining a receipt for reimbursement. No reimbursement for expenses can be made without original receipts or signed affidavit.
 6. Upon receiving all receipts following conclusion of event travel, staff will provide the traveler with the expense voucher, which itemizes the travel expenses from the traveler's submitted receipts. The traveler will be required to sign the expense voucher agreeing to its accuracy. Staff will review the signed expense voucher with the Plan Administrator. Upon Plan Administrator approval, staff will take submit the expense voucher to the City of Oakland Controllers department for review and disbursement. If the controller's office has any questions about the submitted expense voucher, they will contact staff before enacting any changes to the reimbursement amount. Following this review, a reimbursement check will be made to the traveler and delivered to staff.

ATTACHMENT 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
EDUCATION AND TRAVEL POLICY
CURRENT VERSION EDITED BY MEMBER MUSZAR

I. INTRODUCTION

- 1) The Board of Retirement Administration of the Oakland Police and Fire Retirement System (the "Board") recognizes and affirms its constitutional and statutory fiduciary duty to prudently administer the retirement system for the exclusive benefit of PFRS members and their beneficiaries as set forth below:
 - a) "[T]he retirement board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the system..." Cal. Const. Art. XVI, § 17
 - b) "Except as otherwise expressly restricted by the California Constitution and by law, the board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the board." Cal. Gov. Code § 31595(a)
 - c) "The board and its officers and employees shall discharge their duties with respect to the system...(b) [w]ith the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims." Cal. Gov. Code § 31595(b)
- ~~2) Travel by multiple Trustees shall be conducted in such a manner as to not violate provisions of the Brown Act (Cal. Gov. Code § 54950 et seq.) or Oakland Sunshine Ordinance (Oakland City Council Resolution No. 12483 C.M.S.).~~
- 3) The Board ~~also~~ recognizes the need to reimburse Trustees and authorized staff for travel and other expenses reasonably and necessarily incurred while participating in educational programs, conducting due diligence, and other activities on behalf of the retirement system. These expenses are legitimate expenses of the retirement system. The Board adopts this Policy and the accompanying Preapproved Travel Expense Reimbursement Schedule (Exhibit A) to facilitate reimbursement of qualifying travel expenses. ~~This Policy shall also apply to business-related travel of the PFRS Plan Administrator and staff.~~

II. PURPOSE

- 1) The objectives of this PFRS Education and Travel Policy are:
 - a) To ensure all Trustees gain the knowledge necessary to carry out their fiduciary responsibilities.
 - b) To ensure access to relevant information is made available to all Trustees.
 - c) To ensure Trustees possess shared knowledge relevant to pension administration and the investment of trust assets, to enable effective group discussion, debate, and decision-making.
 - d) To enable each Trustee to achieve and maintain proficiency in the conduct of PFRS business by educating themselves in matters central to the prudent administration of the retirement system and the investment of retirement funds.
 - e) To set forth the guidelines by which PFRS will reimburse Trustees, the Retirement Administrator, and staff for qualifying travel expenditures.
 - f) To ensure that travel expenditures incurred are prudent and cost effective, and to mitigate the risk of any impropriety (whether perceived or actual) that could arise from retirement system and/or PFRS business-related travel.

- g) To encourage the continued education of the PFRS Board and staff.
- 2) In order to keep pace with the continued growth and diversification of the retirement fund as well as the increasing complexity of financial and investment management systems, Board members are required to have ongoing training regarding (but not limited to):
 - a) Fiduciary Responsibility;
 - b) Pertinent Pension/Retirement Law and Standards;
 - c) Equity and Security Investing;
 - d) International Investing;
 - e) Asset Allocation; and
 - f) Pension Funding.

III. SCOPE

This policy shall apply to:

- 1) The members serving on the PFRS Board of Administration, also referred to as “Board Members” or “Trustees”,
- 2) The Secretary of the PFRS Board,
- 3) The Plan Administrator,
- 4) The staff assigned to provide administrative support to the Board.

IV. EDUCATION AND TRAVEL POLICY

1) General Provisions

a) The Audit and Operations Committee of the PFRS Board will review and recommend make recommendations regarding all travel and education reimbursement requests to the PFRS Board.

a)b) Board members who attend educational programs and travel in their official Board capacity shall be reimbursed for their actual and necessary expenses for event registration, transportation, parking, tolls and other reasonable incidental costs. “Actual and necessary expense” does not include alcoholic beverages nor does it include expenses incurred by a travel companion.

c) All travel shall be reviewed by the Audit and Operations Committee and approved in advance of travel by the Board, except as described below. Membership in an organization is not of itself, a basis for travel authorization.

d) Travel by multiple Trustees shall be conducted in such a manner as to not violate provisions of the Brown Act (Cal. Gov. Code § 54950 et seq.) or Oakland Sunshine Ordinance (Oakland City Council Resolution No. 12483 C.M.S.).

b)e) Where costs are shared by PFRS and the City, travel by the Plan Administrator and the staff assigned to provide administrative support to the Board are additionally subject to the travel policy of the City of Oakland for any relevant travel associated with the PFRS system.

2) Approval

- a) Reimbursement of education and travel-related expenses for a Trustee or staff members to

attend an educational program, conduct a due diligence site examination, or conduct other PFRS-related business requires the prior [review by the Audit and Operations Committee and the](#) approval of the Board.

- b) PFRS staff will include the education/travel request as an [Audit and Operations Committee](#) agenda item, noting the Board member(s) and staff who will be traveling, the purpose of the travel, and the date(s) of the travel. Any PFRS board approval shall be accomplished by resolution.
 - c) The Board President, in consultation with the Plan Administrator, may authorize education or travel without prior approval of the Board in circumstances when Board approval cannot be obtained in advance and subject to the limitations in this Policy. Staff ~~should~~ [will](#) place the expense request and authorization on the next regularly scheduled Board and Committee meeting for ratification.
 - d) The Plan Administrator may approve payment of [budgeted](#) education and travel claims that do not exceed \$1,000 per item, not specifically covered by the provisions of this policy, provided the Plan Administrator determines such expenses are/were necessary in connection with official business of the Board and staff.
 - e) City staff will process the approved Board education/travel by submitting assembled invoices and reimbursement requests (if any) related to Board travel to the City of Oakland, Controller Bureau.
- 3) Limitation on Attendance
- a) Trustees are encouraged to seek education that will further the purpose of this Policy. A Trustee may attend additional Board approved educational programs requiring overnight lodging, subject to the criteria of this Policy. The Board, at its sole discretion, may limit Trustee attendance up to the Trustee's annual Travel Expense (not to exceed \$7,500 per fiscal year).
- 4) Travel and Education Expense Allocation Budget
- a) The travel and education allowance for the PFRS Board and Staff will be budgeted and adopted annually during the Board's budget process.
 - b) Prior to the start of the upcoming fiscal year beginning July 1, the Board will establish an education and travel allowance of up to \$7,500.00 for each Board member. These allowances shall not be exceeded without prior Board approval. However, the Board may pre-authorize expenses associated with education/travel for a Board member whose expenses are expected to exceed \$7,500.00 if, prior to the education program or travel, a cost estimate is submitted for the Board's review and the Board determines the expenses are necessary and are in connection with official Board business.
 - c) The Travel Allowance for the Staff of the PFRS board will be budgeted and adopted annually during the Board's budget process. The Board will establish the next fiscal year travel allowance and education allowance prior to the start of the next fiscal year beginning July 1.
 - d) Staff members whose local bargaining unit has provisions for tuition reimbursement related to professional development shall have budget allocated from the PFRS fund. The Staff Education Allowance shall only apply to tuition and/or registration fees related to class enrollment and textbooks related to enrolled classes. The Staff Education Allowance shall be administered and budgeted separately from the Annual Board and Staff Travel Expense Allowance. The Staff tuition reimbursement requests and authorization related to the Staff Education Allowance shall be administered by the Plan Administrator. [The PFRS share of Education Allowance expenses shall pro-rated in amounts equal to the percentage of a staff member's time has been allocated to PFRS duties.](#)

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- 5) Expenses other than Pre-approved Expenses
- a) The Board shall approve or disapprove, by a majority ~~the~~ vote of four members, any travel, education, and other expenses at its discretion. Board decisions are final and denial of travel made by the Board cannot be appealed.
- 6) Requests for Reimbursement
- a) Reimbursement for education or travel by an attendee shall be submitted on the Travel Authorization form. All such forms will be reviewed and approved (or disapproved) in accordance with the provisions of this Policy. All requests for reimbursement shall be submitted within fifteen (15) days following conclusion of event and/or return to Oakland, whichever is first.
 - b) Reimbursements or advances in excess of allowable expenses must be returned to PFRS within thirty (30) days after the excess amounts become evident.
- 7) Gifts
- a) When traveling on official PFRS due diligence business travel, PFRS's trustees, officers, or employees shall not accept payment or gifts of travel or lodging from any person or entity (also, see Honoraria).
 - b) Food and beverages provided during the normal course of the day, as part of due diligence business travel, may be accepted, provided such food and beverages are uniformly offered to all attendees.
- 8) Honoraria
- a) Board members and staff are not permitted to accept honoraria from event sponsors or investment managers in any form for any event included with any request for travel authorization and/or expense reimbursement.
- 9) Cash Advances
- a) Cash advances will not be allowed unless specifically approved by the Board.
- 10) Expenses for Traveling Companions
- a) Expenses of family members and/or traveling companions are not reimbursable by PFRS.
- 11) Limitations on Expense Allowance
- a) Reimbursement for expenses shall not exceed that which is reasonable and necessary for travel to the precise destination and date of the covered occurrence, whether by private automobile, rental vehicle or common carrier. Expense costs for extra days prior to or after a conference will be reimbursed only if such extension results in lower overall trip costs or is necessitated by the conference schedule or available flights. Such cost(s) cannot push travel costs beyond any members' overall annual travel budget allowance.
- 12) Travel and Lodging Cancellations
- a) Trustees are responsible for the timely cancellation of registration fees, as well as travel and lodging reservations made on their behalf that will not be used, so that PFRS will incur no unnecessary expense. ~~Trustees will be personally responsible for paying~~ Any fees
-

caused by ~~their~~ a Trustee's failure to timely cancel any registrations or reservations, will be charged against the Trustee's annual travel expense allowance unless otherwise determined by the Board.

13) Travel Arrangements

- a) All travel arrangements for which reimbursement is or will be sought shall be coordinated with the office of the Plan Administrator. Staff will process and pay the registration fee for an event (if any) and apply the cost of registration toward the members' annual travel expense allowance.
- b) Travel requests shall be submitted to the Plan Administrator prior to travel and shall include supporting information such as: program announcements, schedules, meeting dates, and an estimate of costs.
- c) The Plan Administrator or designee will assist the Board with travel arrangements when necessary, including arranging for event registration .

14) Travel By Privately-Owned Vehicles

- a) Board members, who use their privately owned vehicles for official travel including travel to and from the airport, within a 150-mile radius of ~~City Hall~~point of origin, will be reimbursed at the Federal mileage rate. For trips exceeding a 150-mile radius of ~~point of origin~~City Hall, Board members will be reimbursed at the Federal mileage rate not to exceed the established full coach round trip, unrestricted airfare (as of the date of the claim).

a)b) Point of origin shall refer to the residence of the Board member.

15) Travel By Common Carrier

- a) When the carrier provides transportation by more than one class of service, the full coach or economy class fare on a major airline must be used. Any costs over and above coach or economy class shall be considered personal, non-reimbursable expenses of the traveler. Whenever possible, the Oakland Airport should be used for air travel. Original receipts and the travel itinerary are required for reimbursement of airfare. Airfare purchased using "frequent flyer miles" will not be reimbursed.

16) Rental Car

- a) The use of a rental car is allowed, provided its use is the most economical and practical means of travel. Original receipts are required for rental car reimbursement (including receipts for tolls, fuel, etc.).

17) Overnight Lodging

- a) The Plan Administrator will be responsible for payment of lodging invoices. Conference discount rates are to be used if offered. Travelers may make independent reservations at a non-conference associated hotel, under unusual circumstances, and are expected to stay in reasonable economical accommodations. A receipt is required for reimbursement of lodging costs.

18) Per Diem

- a) The current Federal per diem rate is used to cover the cost of three meals plus tips. There are no restrictions on how the meal per diem will be divided. Receipts are not necessary, since the

Federal daily rate is the maximum allowable rate. If the conference registration fee includes meals, then the per diem will be reduced according to the [current Federal per diem rateschedule shown in Appendix A attached](#).

- b) [The current Federal per diem rate is found at: https://www.gsa.gov/travel/plan-book/per-diem-rates](https://www.gsa.gov/travel/plan-book/per-diem-rates)

19) Meals

- a) For any full day out-of-city travel, the costs of meals and tips may be reimbursed at the current daily [Federal per diem](#) rate [\[see Section IV\(18\)\(b\)\]](#) without regard to how much is spent on individual meals (i.e., breakfast, lunch, dinner, snacks) and without receipts, subject to the following limitations:
- i. If a Board member is on travel status for less than a full day, costs may be reimbursed for individual meals occurring within the travel time, using the per diem rates [\[see Section IV\(19\)\(b\)\]shown](#).
 - ii. Meals that are included in a meeting, conference and/or registration fee will be deducted from the per diem rates [\[see Section IV\(18\)\(b\)\]below](#).
 - iii. Meals may be reimbursed without regard to the duration of travel ~~and without regard to a Board member's regular work hours~~. Breakfast may be reimbursed even if a board member's travel consists of less than two hours in duration before ~~his or her regular work normal business~~ hours. Dinners may be reimbursed even if travel consists of less than two hours duration ~~after his or her regular work hours~~ [following normal business hours](#).

20) Other Expenses

- a) Other reasonable and necessary expenses such as parking, transportation to and from the airport (shuttle, taxi, etc.), will be reimbursed when a receipt is submitted with the Travel Expense Voucher reimbursement claim. For expenses where receipts are not customarily issued, (i.e. BART, bus fare, tips), reasonableness of the expense shall be approved by the Plan Administrator.
- b) Board members who travel on a non per-diem basis must submit receipts for all expenses incurred. If a member chooses not to utilize per diem, reimbursement will be based on the submission of individual itemized receipts (i.e. 1 coffee, 1 salad, 1 sandwich, etc.) Alcoholic beverages charges and charges incurred by a travel companion will not be reimbursed.

21) Expense Submission

- a) Travel Expenses for reimbursement are due within fifteen (15) days of return from a trip. The Plan Administrator may request further justification and documentation and may [subject to Board approval](#), deny cost claims that are not considered eligible.

22) Cancellations

- a) It is the Board member's responsibility to cancel reservations when travel plans are altered or canceled and refund the Board for all previously advanced expenses. Charges or loss of refunds resulting from failure to cancel reservations will not be reimbursed except when cancellation was not feasible. ~~Cancellation costs and fees will be deducted from the member's annual travel allowance.~~

23) Update of Education and Travel Policy

DRAFT

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
EDUCATION AND TRAVEL POLICY**

DRAFT

- a) The PFRS Education and Travel Policy will be reviewed by the PFRS Board as needed but no ~~sooner~~less than three years from the previous approval date.

WALTER L. JOHNSON, SR.
PRESIDENT
POLICE AND FIRE RETIREMENT SYSTEM BOARD

KATANO KASAINÉ
PLAN ADMINISTRATOR & BOARD SECRETARY
POLICE AND FIRE RETIREMENT SYSTEM BOARD

APPENDIX A – PROCEDURE: Travel Request, Authorization and Reimbursement

The PFRS Board has final approval authority regarding travel authorization and expense reimbursement for Board or staff travel for conferences and educational seminars related to the function of PFRS. Such requests and authorization is reviewed and acted upon by the Board at their Board meetings.

Board members are asked to submit their travel requests to staff no later than fourteen (14) calendar days before the next PFRS Board meeting in order to add the travel request to the upcoming board meeting agenda. Travel requests received after this 14-day window will be added to the next available Board meeting agenda.

Procedures for a travel request, travel authorization and reimbursement for travel expenses are detailed below:

1. Inform PFRS staff of intent to request travel authorization and reimbursement for an event. All reservations which can be made immediately are suggested to be made if full reimbursement can be arranged in the event of the denial of travel request.
2. Staff will create a file for this travel event, which will include the following items:
 - a. **Agenda Report** summarizing travel request (signed by Plan Administrator). This report will be submitted for Board approval at the next available Board meeting.
 - b. **PFRS Board Resolution** detailing the travel request (approved to form and legality by the PFRS Legal Counsel).
 - c. **Event Agenda**. This document must identify the event name, date, location and schedule of events.
 - d. **Travel Authorization Form** (complete; signed by Plan Administrator). The estimated travel expenses will be detailed in this document and will be signed by the Plan Administrator.
 - e. **Travel Expense Voucher** (completed following return from travel event, signed by traveler and Plan Administrator).
 - f. **Travel Reimbursement Summary** (completed by staff). The reimbursement check and itemized travel reimbursement expenses are presented to the traveler.
 - g. All event receipts.

Items A – C above shall be submitted for PFRS Board approval. No education or travel will be approved without Board review and approval.

Exception 1: A request for travel authorization and reimbursement that occurs after the 14 calendar day window for submission to the next PFRS Board agenda may be allowed if a request is made and authorized by the PFRS Board President. If the Board President authorizes the travel request for the Board agenda, and there is no violation of the Brown Act or Oakland Sunshine Ordinance, the travel request will be added to the current PFRS Board agenda for review and possible approval. This executive permission will be noted on the agenda report submitted to the Board for approval.

3. Staff will generate and submit at the next available PFRS Audit Committee an Agenda Report and PFRS Resolution requesting authorization for education and travel and reimbursement for the requested event. Staff will estimate the cost for the travel event.
4. The Audit Committee will approve or deny the recommendation for Board approval of the education/travel request. If approved, the Board shall review the travel request and approve, deny or amend it.

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5. Upon approval, staff will process registration for the event, including any registration fees. Traveler will be responsible to arrange all other related travel actions for this travel event, including airfare, lodging, other related travel expenses involved in traveling to, and returning from, the event. Traveler will need to submit all original receipts to staff upon return from event travel. If receipts are not available, traveler must complete form **XXX** which attests to the loss or unavailability of obtaining a receipt for reimbursement. No reimbursement for expenses can be made without original receipts or signed affidavit.
 6. Upon receiving all receipts following conclusion of event travel, staff will provide the traveler with the expense voucher, which itemizes the travel expenses from the traveler's submitted receipts. The traveler will be required to sign the expense voucher agreeing to its accuracy. Staff will review the signed expense voucher with the Plan Administrator. Upon Plan Administrator approval, staff will take submit the expense voucher to the City of Oakland Controllers department for review and disbursement. If the controller's office has any questions about the submitted expense voucher, they will contact staff before enacting any changes to the reimbursement amount. Following this review, a reimbursement check will be made to the traveler and delivered to staff.

ATTACHMENT 3

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
EDUCATION AND TRAVEL POLICY
CURRENT VERSION EDITED BY MEMBER MELIA

Low, David

From: Martin Melia <melia401@gmail.com>
Sent: Thursday, January 25, 2018 12:44 PM
To: Low, David
Subject: Re: PFRS DRAFT Education & Travel Policy for edit

My only suggestion is to put a cap on tips. Perhaps 18%.

Martin

On Jan 2, 2018 12:50 PM, "Low, David" <DLow@oaklandnet.com> wrote:

Attention PFRS Board Members:

Attached here is the current working draft of the PFRS Education and Travel Policy. Please review and submit to me any comments and edits for submission at the January 31, 2018 audit committee meeting for review and possible approval.

Please respond by Friday, January 12, 2017 by 4:00 pm. Thank you.

DAVID LOW

Retirement Systems

City of Oakland

150 Frank Ogawa Plaza, Ste 3332

Oakland CA 94612

p: [510.238.7295](tel:510.238.7295) f: [510.238.7129](tel:510.238.7129)

dlow@oaklandnet.com



AGENDA REPORT

TO: Oakland Police and Fire
Retirement Board

FROM: Katano Kasaine

SUBJECT: Rules and Regulations Review

DATE: January 22, 2018

EXECUTIVE SUMMARY

As directed by the Audit Committee at their September 27, 2017 meeting, the PFRS staff presents the attached draft changes approved by consensus of the Audit Committee to date. The committee has completed its review of the PFRS Rules and Regulations through Section 8 and continues to discuss and edit the PFRS Rules and Regulations.

BACKGROUND

The Audit Committee has been reviewing and editing the PFRS Rules and Regulations during their Audit Committee meetings since May 31, 2017. Staff was directed to bring the updated draft of the Rules and Regulations back to each meeting for continued discussion (**Attachment 1**). Also attached are Member Muszar's notes regarding the Rules and Regulations (**Attachment 2**).

Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

Attachment(2):

- Draft PFRS Rules and Regulations approved by consensus of the Audit Committee through September 27, 2017
- Edited Draft PFRS Rules and Regulations submitted by Member Robert Muszar

ATTACHMENT 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

Article 1: IDENTIFICATION

Section 1.1: Name

The Oakland Police and Fire Retirement Systems (“PFRS”) Board

Section 1.2: Office Location

Retirement Systems, 150 Frank H. Ogawa Plaza, Suite 3332, Oakland, CA 94612

Section 1.3: Authority, Statutory Requirements

The PFRS Board shall comply with all applicable laws, including but not limited to Article XVI, Section 17 of the California Constitution, Article XXVI of the Oakland City Charter, the Oakland Sunshine Ordinance (Oakland Municipal Code (“OMC”) Chapter 2.20, the Ralph M. Brown Act (Government Code section 54950 et seq.), the California Public Records Act (Government Code section 6250 et seq.), and the Oakland Conflict of Interest Code (OMC Chapter 3.16).

Article 2: MISSION STATEMENT

It is the mission of the Board of the Oakland Police and Fire Retirement System to manage and administer the Oakland Police and Fire Retirement System and Fund. In order to fulfill this mission, the PFRS Board shall:

1. Possess power to make all necessary rules and regulations for its guidance;
2. Have exclusive control of the administration and investment of the fund established for the maintenance and operation of the System;
3. Administer the System in accordance with the provisions of Article XXVI of the Oakland City Charter;
4. Exercise its plenary authority and fiduciary responsibility for investment of the Plan’s funds in accordance with Article XVI, Section 17 of the California Constitution.

Article 3: BOARD OF TRUSTEES

Section 3.1: Board Membership

The Board of the Police and Fire Retirement System consists of seven members, appointed or elected as set forth in Oakland City Charter section 2601: the Mayor (or a designated representative), a life insurance executive of a local office, a senior officer of a local bank, a community representative, an elected retired member of the Police Department, an elected retired member of the Fire Department, and an elected retired member position that alternates between the Police Department and Fire Department memberships. ~~A retired police or fire member may be elected by the active and retired~~

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

~~membership to serve if no active member is elected to serve on the Board from their respective department.~~

Section 3.2: Procedure to Fill Vacancy of Elected Members

In the event a vacancy occurs before the end of a full term in any of the three (3) elected offices of the Board which are filled by retired members of the Retirement System, a successor shall be elected for the unexpired portion of the term vacated In accordance with Section 11.12.

Section 3.3: Procedure to Fill Vacancy of Appointed Members

In the event a vacancy occurs before the end of a five (5) year term in any of the three (3) appointed offices of the Board, the Mayor's office will be notified of the vacancy by the Retirement office. The new appointee shall be appointed by the Mayor, confirmed by Oakland City Council and sworn-in by the Oakland City Clerk's office. A successor appointed under this Section shall be appointed for the remainder of the vacated term.

Section 3.4: Holdover

In the event of a failure to appoint a successor to the Board seat held by the life insurance representative, bank representative, or community representative after the expiration of a five (5) year term, the Board member most recently filling that seat may continue to serve as a Board member during the following term in a holdover capacity for up to one year.

Section 3.5: Compensation

All Board members shall serve without compensation.

Article 4: BOARD MEMBER RESPONSIBILITIES AND CORE COMPETENCIES

Section 4.1: Attendance

All Board members are expected to attend all board and applicable committee meetings. While attendance is not always possible, board members should, once the calendar for a year is set, immediately identify any scheduling conflicts and thereafter manage their schedules to avoid creating additional conflicts. Absences for medical or other substantial reasons shall be deemed to be excused absences in the discretion of the Board President.

Section 4.2: Preparation

Board members should come to Board and committee meetings having already read the materials prepared and circulated by staff and/or consultants, and having already asked any questions of staff necessary for their understanding.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

Section 4.3: Integrity

Board members shall conduct themselves with integrity and dignity, maintaining the highest ethical conduct at all times. They should understand system objectives and exercise care, prudence and diligence in handling confidential information.

Section 4.4: Conflict of Interest

No Board member and no employee of the Board shall have any interest, direct or indirect in the making of any investment, or in the gains or profits accruing there from. No member or employee of the Board, directly or indirectly, for himself or herself or as an agent or partner of others, shall borrow any of its funds or deposits or in any manner use the same except to make such current and necessary payments as are authorized by the Board; nor shall any member or employee of the Board become an endorser or surety or become in any manner an obligor for moneys invested by the Board.

Board members, staff and specified consultants are subject to the conflict of interest provisions the Oakland Municipal Code (OMC Chapter 3.16) and California state law, including but not limited to the Political Reform Act (Government Code section 81000 et seq) and Government Code section 1090.

Board members shall timely file annually the Statement of Economic Interests (Fair Political Practices Commission Form 700) as required by the City of Oakland's Conflict of Interest Code.

Section 4.5: Knowledge

Board members should develop and maintain their knowledge and understanding of the issues involved in the management of the system. The specific areas in which board members should develop and maintain a high level of knowledge should include:

- Public pension plan governance.
- Asset allocation and investment management.
- Actuarial principles and funding policies.
- Financial reporting, controls and audits.
- Benefits administration.
- Vendor selection process.
- Open meeting and public records laws.
- Fiduciary responsibility.
- Ethics and conflicts of interest.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

Section 4.6: Education

Board members are expected to pursue educational opportunities that will assist them in the fulfillment of their fiduciary duties to the retirement plan and its beneficiaries. Each Board member will be allocated an educational allowance on an annual basis.

Section 4.7: Collegiality

Board members shall make every effort to engage in collegial deliberations, and to maintain an atmosphere in which board or committee members can speak freely, explore ideas before becoming committed to positions and seek information from staff and other members.

Article 5: MEETINGS

Section 5.1: Open Meetings / Quorum

Public notice of all meetings shall be provided as required by the Brown Act and the Sunshine Ordinance. Four members of the Board shall constitute a quorum for the transaction of business. Two Board Members constitute a quorum for the purpose of a Committee meeting. The powers conferred by the Charter upon the Board shall be exercised by order or resolution adopted by the affirmative votes of at least four (4) Board members. The affirmative votes of five (5) members of the Board are required for all investment decisions excluding Board approved drawdowns for benefits payments or administrative expenses.

Section 5.2: Time and Place of Regular Meetings

Section 5.2a: Full Board

The regularly scheduled meetings of the PFRS Board shall take place at Oakland City Hall on the last Wednesday of each month.

Section 5.2b: Standing Committee

The regularly scheduled meetings of the Audit/Operations Committee shall take place at Oakland City Hall on the last Wednesday of each month, at a specified time.

The regularly scheduled meetings of the Investment Committee shall take place at Oakland City Hall on the last Wednesday of each month, at a specified time.

Section 5.3: Special Meetings

The President or a majority of the members of the Board may schedule a Special Meeting of the board at any time, with notice given in accordance with the notice provisions of the Sunshine Ordinance and Brown Act.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

Article 6: FISCAL YEAR

The fiscal year of the Board shall commence upon the first day of July each year and terminate on the thirtieth day of June of the following year.

Article 7: OFFICERS

Section 7.1: Elective Officers

At the regular meeting in September of each year, the Board shall elect one of its members to act as President for the ensuing year, and one to act as Vice President. ~~The Board shall also appoint a Secretary who shall hold office at its pleasure.~~

Section 7.2: Terms of President and Vice-President

The President and Vice-President shall take office at the close of the September meeting following their election and shall serve for one year or until their successors have been elected and take office.

Section 7.3: Duties of President and Vice-President

The President of the Board shall preside at all Board meetings. In his or her absence, the Vice-President shall preside. In the absence of both the President and the Vice-President, when the President has not selected a President Pro Tem in advance, the Board shall select one of its own members to preside.

The President shall also:

- Appoint the members of the Board's standing committees annually prior to the October meeting;
- ~~Add or delete items from~~ Manage the Full Board Meeting Agenda and Committee Agendas in accordance with Article 9 of the PFRS Rules and Regulations;
- Ensure that Committee Chairpersons manage committee agendas in accordance with Article 9 of the PFRS Rules and Regulations;
- Schedule a Special Meeting of the Board,
- Create ad hoc committees for a limited duration and purpose, which shall be comprised of at least one but less than a quorum of board members, and may include a non-board member(s),
- Sign authorized contracts, agreements and financial documents on the Board's behalf; and
- Perform other duties as directed by the Board.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

The Vice President shall also:

- Assume and discharge the President's duties when the President is absent or otherwise unable to perform them, or when directed by the President; and
- Perform other duties as directed by the Board.

Section 7.4: Duties of the Secretary of the Board

The Board shall also appoint a Secretary who shall hold office at its pleasure. The Secretary shall have the power to:

- Administer oaths and affirmations
- Issue subpoenas in all matters pertaining to the administration and operation of the System

Section 7.5: Duties of the Plan Administrator

The Plan Administrator is authorized to:

- Approve the withdrawal of funds for the purpose of making benefit payments to retirees and their beneficiaries in the event that the Board is unable to do so in a timely manner and submit to the board for ratification.
- Approve all demands for payment of claims against the administrative appropriation as approved by the Board.

The Plan Administrator shall also:

- Submit a monthly report to the Board that shall summarize plan expenses and membership count of the Retirement System.
- Prepare an annual report for the Board and the City Council.
- Annually submit a budget for approval by the Board and to be submitted to the City Administrator for the bi-annual budget.

Article 8: STANDING COMMITTEES

Section 8.1: Investment Committee

The Investment Committee shall be a Standing Committee of the Board, consisting of three members, whose chairperson shall be the banker representative on the Board. If

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

the banker representative position is vacant, the Board President shall appoint a chairperson. Annually, before the October meeting, the President of the Board shall appoint the additional members of the committee, who shall serve until their successors have been appointed.

The Investment Committee shall have the responsibility for making recommendations to the Board in the following areas:

- Review the Plan's overall investment objectives, risk tolerance and performance standards and recommend changes to the Board.
- Recommend the hire or termination of investment managers to the PFRS Board.
- Keep the Board apprised of the performance of the Plan's investment portfolio.
- Recommend the asset allocation of the Plan to the Board.
- Recommend to the Board which investments to target for the purpose of making benefit payments under the Plan.
- Review the Investment Policy and recommend changes to the Board.

Section 8.2: Audit/Operations Committee

The Audit/Operations Committee shall be a Standing Committee of the Board, consisting of three members. Annually, before the October meeting, the President of the Board shall appoint the members of the committee, who shall serve until their successors have been appointed. The President shall appoint a Committee chairperson from one of the three Committee members.

The Audit/Operations Committee shall have the responsibility for making recommendations to the Board in the following areas:

- Review the Plan's administrative procedures for the purpose of ensuring prompt delivery of benefits and related services to participants and their beneficiaries and recommend necessary changes to the full Board.
- Review and recommend solutions to specific issues raised by the Board that relate to administration of the PFRS Plan.
- Review the actuarial valuation report and the annual financial audit report of the Plan and recommend approval by the Board, unless the Board President determines that a report should be reviewed in the first instance by the full Board.
- Review the annual budget and recommend approval by the Board.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

- Monitor the Plan's administrative budget and assist the Board in defraying reasonable expenses.
- Develop and recommend changes to Board rules, regulations and policies in non-investment areas.
- Review PFRS Rules and Regulations every three years.
- Other duties and/ or issues as directed by the Board.
- Approve-Recommend approval of Board Member Travel and staff travel in accordance with the PFRS Travel Policy.
- Periodically rReview PFRS Travel Policy- every three years.

Article 9: MEETING PROCEDURES AND BOARD ACTION

Section 9.1: Board and Committee Time Management

The Board President or Committee Chair person is responsible for time management of the applicable body. To the greatest extent feasible, all items on Board and Committee agendas shall be supported by concise, easily accessible written information.

Section 9.2: Speakers' Cards

Members of the public wishing to speak must submit their name and the item on the agenda they wish to discuss, if any, to staff before being recognized by the presiding officer.

Members of the public who wish to speak must complete a speaker card for each agenda item he/shes/he wishes to speak on. Multiple agenda items cannot be listed on one speaker card.

Section 9.3: Public Speaker Procedures

Members of the public addressing the Board shall state their name. They shall confine their remarks to the agenda item under discussion, unless they are speaking during the Open Forum portion of the agenda.

Section 9.4: Time Limits for Public Speakers

Any member of the public who has submitted a speaker card on an agenda item, other than open forum, shall be allotted three (3) minutes to speak prior to any vote or action by the Board.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

Subject to the provisions of this Rule that apply to ~~public~~-speakers who submit multiple speaker's cards, all ~~public~~-speakers on any one item shall be allotted the same amount of speaking time on that item, unless given ceded time, or unless more time must be given to comply with due process or other legal requirements or in circumstances where the Board is acting in a quasi-adjudicatory capacity.

Section 9.5: Speakers Submitting Speaker's Cards on Multiple Items

Subject to Section 9.4 and the discretion of the presiding officer, which discretion must be exercised in accordance with Section 9.4, a speaker who submits his or her name to speak on four or more items (other than open forum) will be instructed to address all items concurrently and shall be allotted 2 minutes per item up to a maximum of 10 minutes; if the presiding officer exercises his/her discretion under Section 9.4 to reduce each speaker's time to one (1) minute, speakers who submit four or more speaker's cards shall be allotted one (1) minute per item up to a maximum of 5 minutes.

Section 9.6: Ceding Time

In case the allotted time for each ~~public~~-speaker is less than two (2) minutes on an agenda item, a ~~public~~-speaker may extend his or her speaking time if other ~~public~~ speakers who have submitted their names to speak agree to cede their time to the recipient ~~public~~-speaker. The recipient ~~public~~-speaker will receive one (1) minute speaking time from each ceding ~~public~~-speaker, up to a maximum of five (5) minutes. At the presiding officer's discretion, a ~~public~~-speaker may be allotted more than five (5) minutes based on ceded time. The recipient public speaker must submit the ceding ~~public~~ speakers' speaking cards, and the ceding ~~public~~-speakers must be present at the time the recipient ~~public~~-speaker speaks.

Section 9.7: Open Forum

~~Public~~-speakers submitting their names to speak under open forum shall be allotted a maximum of three (3) minutes. A ~~public~~-speaker may speak only once under open forum during any one meeting, subject to the discretion of the presiding officer. The presiding officer may reduce each ~~public~~-speaker's allotted time to one (1) minute if he or she publicly states all reasons justifying any reduction in speaker time, which reasons shall be based at least on consideration of the time allocated or anticipated for the meeting, the number and complexity of agenda items and the number of persons wishing to address the local body, and whether there will be sufficient time available during the meeting to consider all agenda items if all ~~public~~-speakers are allowed two (2) minutes to speak.

The Board cannot take any action under Open Forum unless it is deemed an emergency or urgency matter under the Sunshine Ordinance and Brown Act by a vote of the Board.

Section 9.8: Procedure for Placing New Items on an Agenda

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

RULES AND REGULATIONS

For any new business by any board member, the full Board is authorized to add the item to future agendas of any meeting by an affirmative vote of a majority of the quorum of Board members present.

Section 9.9: Procedure to Add, Remove Agenda Items

For Board items, any Board member wishing to add (or remove) a Board agenda item after the Board has met, but before the agenda is published, must obtain authorization from the President of the Board.

For Committee items, any Board member wishing to add (or remove) a Committee agenda item after the Committee has met, but before the agenda is published, must obtain authorization from the President of the Board and the Chair of the Committee.

Section 9.10: Minutes

The Secretary shall cause to be recorded in the minutes, the time and place of each meeting of the Board, the names of Board members present and all official acts of the Board along with a summation of the Board discussion along with the votes, and shall cause the minutes to be written and presented for approval no later than the second succeeding regular meeting.

Draft minutes shall be prepared and forwarded to Board members for review by the 15th business day following each meeting. The minutes or a true copy thereof, submitted and signed by the Secretary after approval by the Board shall form part of the permanent records of the Board.

Section 9.11: Other Requests

Other requests by the plan sponsor, other entities or the public will be directed to the Plan Administrator, who will review and respond administratively. To the extent the request need to be addressed to or by the Board, the request will be brought to the full board for further direction or authorization.

Section 9.12: Requests by the Board

Any research, analyses and reports from staff as are necessary for the Board's effective oversight of PFRS operations shall be initiated by placing that item on a future agenda in accordance with section 9.8. Such requests will be agendized and considered at regularly scheduled Board meetings. If approved, the Plan Administrator will be responsible for coordinating the completion of the approved project or report within a reasonable time or by the completion date specified in the Board action.

Section 9.13: Requests by Individual Board Members

Board members making individual requests for information will be advised to place the item on the Board meeting agenda in accordance with section 9.8 unless the information

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

is readily available and the Plan Administrator determines that a response will not require any significant commitment of staff time or other PFRS resources.

Section 9.14: Resolutions

The Board shall act either by order or by resolutions, numbered in sequence of passage. In every instance, authorization by Board resolution shall be required for the following:

- Retirement of active members of the Police and Fire Retirement System;
- Setting of Retirement and Disability Allowances;
- Reinstatement of members from the Disability Allowance Roll to active status;
- Approval of Death Benefits;
- Approval of continuation of allowances to eligible surviving spouse.
- Authorization of Contracts

The Board may, in its discretion, act by resolution in other matters not listed above. Actions taken by the Board by way of order shall be set forth in the minutes of the Board.

Section 9.15: Ayes and Noes

The Board shall pass resolutions or orders only by taking the ayes and noes by an audible vote, which shall be entered in its minute book. Each resolution shall show on its face the ayes and noes vote thereon and the members so voting.

Section 9.16: Subject and Title

Every resolution of the Board shall be confined to one subject, which shall be clearly expressed in its title.

Article 10: RULES OF ORDER

Roberts' Rules of Order shall be the final authority on all questions of procedure and parliamentary law, not otherwise provided for by the City Charter, (Article XXVI) or these rules.

Article 11: ELECTION OF MEMBERS OF THE BOARD REPRESENTING ~~ACTIVE AND~~ RETIRED MEMBERS OF THE RETIREMENT SYSTEM

Section 11.1: Day for Counting of Ballots

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

The fourth Wednesday in August of the year in which such election is required to be held is hereby designated as the day for counting of ballots.

In the event of a vacancy of one or more of the elected PFRS Retirement Board seats before the completion of the full term, the day for counting ballots for the election to fill the vacant PFRS Retirement Board seat shall be the fourth Wednesday of the month that follows 90 days after the date of being informed of the vacancy.

Section 11.2: Notice of Nomination

On or before the first business day in June of each year in which an election is required, the office of the Police and Fire Retirement Board shall send a notice stating that nomination papers may be obtained at the office of said Police and Fire Retirement Board, the place where nomination papers shall be filed and the final date of filing thereof, the date when ballots will be counted and such other information as may be appropriate to the following organizations:

- Retired Oakland Police Officers' Association (ROPOA)
- International Association of Fire Fighters, Local 55 (IAFF Local 55)

In the event of a vacancy of one of the elected PFRS Retirement Board seats before the completion of the full term, the office of the Police and Fire Retirement Board shall send notice as stated above no later than ten (10) calendar days after the date of being informed of the vacancy.

Section 11.3: Nomination for Membership

Nomination for membership on the Police and Fire Retirement Board ~~form from~~ the ~~active~~ ~~retired~~ membership of the Police and Fire Department shall be in writing on forms supplied by the office of said Police and Fire Retirement Board upon request ~~therefore~~. Nomination papers shall be substantially in the form shown in Appendix A. Nomination papers shall be signed by at least ten retired members of the Police or Fire Department, as the case may be, who are members of the POLICE AND FIRE RETIREMENT SYSTEM, other than the person nominated. Each signator of a nominating paper shall write the date of his/her signature at the end of the line opposite his/her signature. Beneficiaries of deceased members are not eligible to vote in elections.

Section 11.4: Date of Filing Nomination Papers

Nominating papers shall be filed in the Office of the Oakland City Clerk, Room 306 of the Oakland City Hall, not less than thirty-five days before the day of counting ballots. If said date falls on a non-business day for the City of Oakland, it shall be filed on the next business day.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

Section 11.5: Determination of Sufficiency of Nominating Papers

The City Clerk of the City of Oakland will determine when a member is nominated and for this purpose shall have access to the records of the Police and Fire Retirement Board the names of those ~~active or~~ retired members of the respective departments determined by him to have been nominated.

Section 11.6: Winner by Default

In the event that only one person is nominated in accordance with this Article 11 as a member of the Board, that person shall be declared a winner.

Section 11.7: Mailing of Ballots

Not less than fifteen days before the day for the counting of the ballots that shall be prepared by and mailed for the office of the Police and Fire Retirement Board to each ~~active or~~ retired member of the Police Department of Fire Department who is a member of the Police and Fire Retirement System a ballot addressed to his or her address as shown by the records of the Police and Fire Retirement Board. The Ballots shall contain the names in alphabetical order of the candidates certified by the City Clerk as nominated. Such ballot, sealed in a blank envelope provided for this purpose, which shall be enclosed in another envelope, also provided for such purpose, upon which the voter shall place his or her name, may be returned to the City Clerk not later than 10:00 a.m. of the day for the counting of ballots.

Section 11.8: Roster of Eligible Voters

There shall be prepared in the office of the Police and Fire Retirement Board a roster of eligible voters which shall contain the names of the ~~active or~~ retired members of the Police or Fire Department who are members of the Police and Fire Retirement System, excluding beneficiaries of deceased members. Such roster of eligible voters shall be delivered to the City Clerk not less than fifteen days before the day for the counting of ballots and shall be in such form as to permit appropriate asking thereon by the City Clerk to indicate that an eligible member has voted.

Section 11.9: Counting of Ballots

On the day for the counting of ballots at the hour of 10:00 A.M. thereof, the ballot box shall be opened and no ballot received after said hour shall be counted. The ballots will be counted under the supervision and control of the City Clerk in such manner that the identity of the individual casting any ballot will not be disclosed. No ballot shall be counted unless it is enclosed in an envelope bearing the name of the voter. No ballot shall be counted which contains a vote for a person not nominated in accordance with Article 12. Upon the conclusion of the counting of the ballots, the City Clerk will certify the count and the candidate elected, and notify each candidate thereof by mail.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

Section 11.10: Vote Necessary for Election

The candidate receiving the highest number of eligible votes shall be declared elected.

Section 11.11: Disposition of Ballots after Counting

Upon conclusion of the counting of the ballots they shall be kept by the City Clerk in the manner and for the period the ballots of municipal elections are kept.

Section 11.12: Procedure to Fill Vacancy of Elected Members

In the event a vacancy occurs before the end of a full term in any of the three (3) elected offices of the Board which are filled by retired members of the Retirement System, a successor shall be elected for the unexpired portion of the term vacated. The successor shall be elected from the same department of the member who is vacating the seat for the remainder of said unexpired three (3) year, or five (5) year, term. The election shall be governed by Article 11.

Article 12: RECALL OF MEMBER OF THE BOARD REPRESENTING ~~ACTIVE~~ ~~AND~~ RETIRED MEMBERS OF THE RETIREMENT SYSTEM

Section 12.1: Day for Counting Recall Ballots

The Ballots shall be counted not less than 90 days from receiving Recall Petition.

Section 12.2: Notice of Recall Petition

Upon receiving a Notice of Recall, the office of the Police and Fire Retirement Board shall send to the Retired Oakland Police Officers' Association (ROPOA), International Association of Fire Fighters, Local 55 (IAFF Local 55) and the City Clerk a notice stating that a recall petition had been received, the date when ballots will be counted and such other information as may be appropriate.

The Petition for recall of ~~an active or~~ retired member on the Police and Fire Retirement Board shall be in writing on forms supplied by the Secretary of the Board upon request. Recall petitions shall be substantially in the form as shown in Appendix B.

Recall petition shall be signed by 10 ~~active or~~ retired members of the Police or Fire Department (as the case may be). And who are members of the POLICE AND FIRE RETIREMENT SYSTEM, other than the person recalled. Each signator of a recall petition shall write the date of his/her signature at the end of the line opposite his/her signature. Beneficiaries of deceased retired members are not eligible to sign or vote on recall.

Section 12.3: Date of Filing Recall Petition Paper

Petition papers shall be filed in the Office of the Oakland City Clerk, Room 306 of the Oakland City Hall, not more than thirty (30) days after filing the notice of recall petition.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

Within seven (7) days after filing of petition the board member sought for recall may file with the City Clerk, a response, in not more than 200 words, to the statement of the proponents. If a response is filed, the City Clerk shall serve a copy by Certified Mail, to one of the proponents named in the petition.

Copies of the Petition and Response shall be distributed and posted within the offices of ROPOA, IAFF Local 55 and the City Clerk. The statement and answers shall be for voter's information and will be mailed to them upon the request.

Section 12.4: Determination of Recall Petition

The City Clerk of the City of Oakland will determine when a member is recalled and for this purpose shall have access to the records of the Police and Fire Retirement Board. The City Clerk, within five (5) days after the last day for filing Recall Petition papers will certify to the office of the Police and Retirement Board the names of those ~~active or~~ retired members of the respective departments determined by him to have been recalled.

Section 12.5: Mailing of Ballots

Not less than fifteen (15) days before the day the counting of the ballots shall be prepared by and mailed from the office of the Police and Fire Retirement Board to each retired member of the Police or Fire Department and who is a member of the Police and Fire Retirement System a ballot addressed to his or her address as shown by the records of the Police and Fire Retirement Board. The ballots shall contain the name of the member to be recalled, as certified by the City Clerk. Such ballot, sealed in a blank envelope provided for this purpose, which shall be enclosed in another envelope, also provided for such purpose, upon which the voter shall place his/her name, may be returned to the City Clerk not later than 10:00 A.M. of the day for counting of ballots.

Section 12.6: Roster of Eligible Voters

The Roster of Eligible Voters described in Section 11.8 shall be delivered to the City Clerk not less than fifteen (15) days before the day for counting of the ballots and shall be in such form as to permit appropriate marking thereon by the City Clerk to indicate that an eligible member has voted on the recall.

Section 12.7: Counting of Ballots

On the day for counting of ballots at the hour of 10:00 A.M. thereof the ballot box shall be opened and no ballots received after said hour shall be counted. Upon the conclusion of the counting of the ballots, the City Clerk will certify the count and notify the Retirement Board of the results.

Section 12.8: Vote Necessary for Recall

The majority of eligible votes counted and cast to recall or not recall the board member shall prevail.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM RULES AND REGULATIONS

Section 12.9: Disposition of Ballots after Counting

Upon conclusion of the counting of the ballots, they shall be kept by the City Clerk in the manner and for the period, the ballots of municipal recalls are kept.

Article 13: PROCEDURE TO FILL VACANCY OF RECALLED MEMBER

A vacancy created after a successful recall pursuant to Article 12 shall be filled by the procedure set forth in Article 11.12.

These rules may be amended by a majority vote of the Board at any regular meeting or special meeting called for that purpose.

Article 14: AMENDMENT OF RULES AND REGULATIONS

These Rules and Regulations may be amended under the following procedures:

- Amendments shall be read at a regular meeting.
- No vote may be taken earlier than the next regular meeting.
- At least four (4) members of the Board must vote in favor of the amendments.

The Rules and Regulations of the Oakland Police and Fire Retirement System have been approved by vote of the Board of Administration, effective SEPTEMBER 24, 2014.

WALTER L. JOHNSON, SR.
PRESIDENT
OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD

KATANO KASAINÉ
SECRETARY
OAKLAND POLICE & FIRE RETIREMENT SYSTEM BOARD

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
RULES AND REGULATIONS

APPENDIX A

Nomination Form – Elected PFRS Member

OAKLAND POLICE AND FIRE RETIREMENT BOARD

I, undersigned, am a retired member of the Oakland Police Department (or Fire Department as the case may be), and a member of the POLICE AND FIRE RETIREMENT SYSTEM, and I hereby nominate _____, PRINT NOMINEE NAME, a member of the POLICE AND FIRE RETIREMENT SYSTEM, as a candidate for membership on the Police and Fire Retirement Board from the retired membership of the Oakland Police Department (or Fire Department as the case may be), for the term expiring August 31, _____.

	Name	Signature	Date
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____

I accept the nomination and consent to serve if elected.

Signature of Nominee

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
RULES AND REGULATIONS

APPENDIX B

Board Member Recall Form – Elected PFRS Member

OAKLAND POLICE AND FIRE RETIREMENT BOARD

I, undersigned, am an ~~an active or~~ retired member of the Oakland Police or Fire Department (as the case may be), and a member of the POLICE AND FIRE RETIREMENT SYSTEM. I hereby request that _____, a member of the POLICE AND FIRE RETIREMENT BOARD as representative for the Police or Fire Department (as the case may be), be recalled by the retired membership of said department, for the unexpired term ending _____, for the following reasons:

	Name	Signature	Date
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
RULES AND REGULATIONS

DIRECTORY OF AMENDMENTS

Amendment ID	Date	Notes
	09/24/2014	Creation of New Rules and Regulations approved by PFRS Board.
	07/29/2015	Passage of PFRS Board Resolution No. 6856 affirming, “that the September 24, 2014 Rules and Regulations are the only Rules the PFRS board uses to govern, until amended.”

ATTACHMENT 2

Date: July 5, 2017

To: Audit/Operations Committee

From: Robert J. Muszar

Subject: Audit/Operations Committee Review of PFRS Rules and Regulations - Draft Recommendations

The Audit and Operations Committee began its review of the System's Rules and Regulations on May 31, 2017 with the goal of submitting its recommendations to the full Board at the Board's October 2017 meeting.

At the May 31, 2017 Committee meeting I volunteered to draft proposed modifications to Article 9 of the Rules as they apply to placing items onto Board and committee agendas. I also took the liberty to expand my effort to include proposed language regarding most of the Rules sections flagged for review. This material was submitted to PFRS staff on Jun 15, 2017 for inclusion in the June 28, 2017 agenda package. However, the material was not included as requested.

At the June 28, 2017 Audit/Operations Committee meeting it was agreed that I would consolidate all of my suggestions (May 15, May 31 and June 14 memos) into a single set of recommendations. It was further agreed that: staff would prepare and maintain a second document which included only those recommendations that have been approved by the Committee for submission to the full Board; the City Attorney would provide advice/guidance regarding Sections 3.4 and the second paragraph of Section 9.10; and; both my updated recommendations and staff's document reflecting the Committee's recommendations would be included in the July 26 agenda package. Lastly, it was agreed that discussion of the material would be put over until the August 30 meeting.

I would like to thank the Committee for providing this opportunity. I look forward to our discussions.

Attachment

cc: Katano Kasaine
Pelayo Llamas

1 **Article 3: BOARD OF TRUSTEES**

2
3 Section 3.1: Board Membership

4
5 The Board of the Police and Fire Retirement System consists of seven members,
6 appointed or elected as set forth in Oakland City Charter section 2601: the Mayor (or
7 a designated representative), a life insurance executive of a local office, a senior
8 officer of a local bank, a community representative, an elected retired member of the
9 Police Department, an elected retired member of the Fire Department, and an elected
10 member position that alternates between the Police Department and Fire Department
11 memberships. ~~A retired police or fire member may be elected by the active and retired~~
12 ~~membership to serve if no active member is elected to serve on the Board from their~~
13 ~~respective department.~~

14
15 Section 3.4: Holdover

16
17 *(Referred to Deputy City Attorney for research).*

18
19 **Article 4: BOARD MEMBER RESPONSIBILITES AND CORE COMPETENCES**

20
21 Section 4.6: Education

22 Board members are expected to pursue educational opportunities that will assist them
23 in the fulfillment of their fiduciary duties to the retirement plan and its beneficiaries.
24 Each Board member will be allocated an educational allowance on an annual basis.
25 **The amount of individual training allotments will be detailed in the PFRS budget**
26 **and each Board member's expenditures will be reported to the Audit/Operations**
27 **Committee monthly.**

1 **Article 7: OFFICERS**

2
3 Section 7.1: Elective Officers

4
5 ***(Request further discussion)***

6
7 Section 7.3: Duties of President and Vice-President

8
9 The President of the Board shall preside at all Board meetings. In his or her absence,
10 the Vice-President shall preside. In the absence of both the President and the Vice
11 President, when the President has not selected a President Pro Tem in advance, the
12 Board shall select one of its own members to preside.

13 The President shall also:

- 14
- 15 • Appoint the members of the Board's standing committees annually prior to the
16 October meeting;
 - 17
 - 18 • ~~Add or delete items from the Full~~ **Manage** Board Meeting Agendas **in accordance**
19 **with Article 9 of these Rules.** ~~and, Committee Agendas;~~
 - 20
 - 21 • **Ensure that Committee Chairs manage committee agendas in accordance with**
22 **Article 9 of these Rules.**
 - 23
 - 24 • Schedule a Special Meeting of the Board,
 - 25
 - 26 • Create ad hoc committees for a limited duration and purpose, which shall be
27 comprised of at least one but less than a quorum of board members, and may
28 include a non-board member(s),
 - 29

1 • Sign authorized contracts, agreements and financial documents on the Board's
2 behalf; and

3
4 • Perform other duties as directed by the Board.
5

6 Section 7.4: Duties of the Secretary of the Board

7
8 ***(Request further discussion)***
9

10 Section 7.5: Duties of the Plan Administrator

11
12 ***(Request further discussion)***
13

14 **Article 8: STANDING COMMITTEES**

15
16 Section 8.2: Audit/Operations Committee
17

18 The Audit/Operations Committee shall be a Standing Committee of the Board,
19 consisting of three members. Annually, before the October meeting, the President of
20 the Board shall appoint the members of the committee, who shall serve until their
21 successors have been appointed. The President shall appoint a Committee
22 chairperson from one of the three Committee members.
23

24 The Audit/Operations Committee shall have the responsibility for making
25 recommendations to the Board in the following areas:
26

27 • Review the Plan's administrative procedures for the purpose of ensuring prompt
28 delivery of benefits and related services to participants and their beneficiaries and
29 recommend necessary changes to the full Board.
30

- 1 • Review and recommend solutions to specific issues raised by the Board that relate
2 to administration of the PFRS Plan.
3
- 4 • Review the actuarial valuation report and the annual financial audit report of the Plan
5 and recommend approval by the Board, unless the Board President determines that
6 a report should be reviewed in the first instance by the full Board.
7
- 8 • Review the annual budget and recommend approval by the Board.
9
- 10 • Monitor the Plan's administrative budget and assist the Board in defraying
11 reasonable expenses.
12
- 13 • Develop and recommend changes to Board rules, regulations and policies in
14 noninvestment areas. **At a minimum, review Board rules and make**
15 **recommendations to the Board as deemed appropriate every three years with**
16 **the first review to be conducted in 2020.**
17
- 18 • Other duties and/ or issues as directed by the Board.
19
- 20 • **Recommend approval of ~~Approve~~ Board Member Travel and staff travel in**
21 **accordance with the PFRS Travel Policy and individual training allotments.**
22
- 23 • Periodically review PFRS Travel Policy. **At a minimum, review the Board travel**
24 **policy and make recommendations to the Board as deemed appropriate every**
25 **three years with the first review to be conducted in 2020.**
26
27

1 **Article 9: MEETING PROCEDURES AND BOARD ACTION**

2
3 Section 9.1: Board and Committee Time Management

4
5 The Board President or Committee Chair is responsible for time management of the
6 applicable body. To the greatest extent feasible, all items on Board and Committee
7 agendas shall be supported by concise, easily accessible written information **which**
8 **shall be submitted pursuant to Section 9.11, below.**

9
10 Section 9.2: Speakers' Cards

11
12 ~~Members of the public~~ **Except as provided in Section 9.7 below, Individuals**
13 wishing to speak must submit their name and the item on the agenda they wish to
14 discuss, if any, to staff ~~before being recognized by the presiding officer~~ **prior to the**
15 **beginning of the meeting.**

16
17 ~~Members of the public who wish to speak must complete a speaker~~ **A speaker's card**
18 **must be completed** for each agenda item ~~he/she wishes to speak on.~~ **Speakers'**
19 **cards listing multiple agenda items cannot be listed on one speaker card will not be**
20 **accepted. If the intent is to cede time to another speaker, the name of the**
21 **individual to whom time is being ceded shall also be listed on the speaker card.**

22
23 Section 9.3: Public Speaker Procedures

24
25 ~~Members of the public~~ **Individuals** addressing the Board shall state their name. They
26 shall confine their remarks to the agenda item under discussion, unless they are
27 speaking during the Open Forum ~~portion of the agenda.~~

1 Section 9.4: Time Limits for Public Speakers

2
3 **The Board President or Committee Chair may impose reasonable time limits on**
4 **speakers. In making this determination the number of speakers' cards**
5 **submitted, the complexity of the issues to be addressed and the number of**
6 **items on the agenda will be considered. If time limits are to be imposed they**
7 **will be announced at the beginning of the meeting.**

8
9 **If time limits have not been imposed, speakers are expected to be respectful of**
10 **the Board/Committee's time limiting presentations to concise, on-point**
11 **comments. Generally presentations should not exceed five minutes. If a**
12 **presentation exceeds five minutes the Board President or Committee Chair may**
13 **direct the speaker to conclude his/her remarks and may impose a time limit for**
14 **so doing.**

15
16 ~~Any member of the public who has submitted a speaker card on an agenda item, other~~
17 ~~than open forum~~ **If time limits have been imposed, each speaker normally will**
18 **shall be allotted three (3) minutes to speak prior to any vote or action by the Board. If**
19 **more than five (5) individuals have submitted speakers' cards on the same item,**
20 **the Board President or Committee Chair may limit time to two (2) minutes per**
21 **speaker. If more than ten (10) speakers have submitted speakers cards on the**
22 **same item, time may be limited to one (1) minute per speaker.**

23
24 ~~Subject to the provisions of this Rule that apply to public speakers who submit multiple~~
25 ~~speaker's cards~~ **ceding time**, all public speakers on any one item shall be allotted the
26 same amount of speaking time on that item, ~~unless given ceded time, or unless more~~
27 ~~time must be given to comply with due process or other legal requirements or in~~
28 ~~circumstances where the Board is acting in a quasi adjudicatory capacity.~~

29
30 Section 9.5: Speakers Submitting Speaker's Cards on Multiple Items

1

2 Subject to Section 9.4 and the discretion of the presiding officer, which discretion must
3 be exercised in accordance with Section 9.4, a speaker who submits his or her name
4 to speak on four or more items (other than open forum) will be instructed to address
5 all items concurrently and shall be allotted 2 minutes per item up to a maximum of 10
6 minutes; if the presiding officer exercises his/her discretion under Section 9.4 to
7 reduce each speaker's time to one (1) minute, speakers who submit four or more
8 speaker's cards shall be allotted one (1) minute per item up to a maximum of 5
9 minutes.

10

11 Section 9.6 **9.5: Ceding Time**

12

13 In case the allotted time for each public speaker is less than two (2) minutes on an
14 agenda item **If time limits have been imposed**, a public speaker may extend his
15 or her speaking time if other public speakers who have submitted speakers' cards
16 cede their time to the recipient public speaker. The recipient public speaker will receive
17 one-half of the allotted (1) minute speaking time from each ceding public speaker,
18 up to a maximum of five (5) minutes **three times the allotted time**.

19

20 At the presiding officer's discretion, a public speaker may be allotted more than five
21 (5) minutes **three times the allotted time** based on ceded time. The recipient public
22 speaker must submit the ceding public speakers' speaking cards, and the **Speakers**
23 ceding public speakers **time** must be present at the time the recipient public speaker
24 speaks.

25

26 Section 9.7 **9.6: Open Forum**

27

28 Public Speakers submitting their names to speak under open forum shall be allotted
29 a maximum of three (3) minutes. A public speaker may speak only once under open
30 forum during any one meeting, subject to the discretion of the presiding officer. **If more**

1 **than five (5) individuals have submitted speakers' cards for open forum, the**
2 **Board President or Committee Chair may** ~~The presiding officer may reduce limit~~
3 ~~each public speaker's allotted time to one (1) minute~~ **two (2) minutes. . If more than**
4 **ten (10) speakers have submitted speakers cards for open forum, time may be**
5 **limited to one (1) minute per speaker.** ~~if he or she publicly states all reasons~~
6 ~~justifying any reduction in speaker time, which reasons shall be based at least on~~
7 ~~consideration of the time allocated or anticipated for the meeting, the number and~~
8 ~~complexity of agenda items and the number of persons wishing to address the local~~
9 ~~body, and whether there will be sufficient time available during the meeting to consider~~
10 ~~all agenda items if all public speakers are allowed two (2) minutes to speak.~~

11
12 The Board cannot take any action, **other than scheduling the item for future**
13 **consideration**, under Open Forum unless it is deemed an emergency or urgency
14 matter under the Sunshine Ordinance and Brown Act by a vote of the Board. **Board**
15 **members and staff representatives may ask clarifying questions of the speaker**
16 **but will engage in no substantive discussion of the issue.**

17
18 **Sections 9.7: Exceptions**

19
20 **The provisions of Section 9.4 above, shall not apply to the following:**

- 21
22
 - **Speakers who are presenting an agenda item or making a report to the**
23 **Board or a committee.**
- 24
25
 - **Individuals or the representatives of individuals who are the subject of or**
26 **directly impacted by the subject matter of a public hearing held by the**
27 **Board or a committee.**

- 1 • **Individuals or the representatives of individuals who are the subject of a**
2 **hearing of the Board held pursuant to Sections 2603 or 2604 of the City**
3 **Charter.**

4
5 Section 9.8: Procedure for Placing New Items on an Agenda – Board Members

6
7 **During the Future Scheduling (*or New Business*) portion of Board/Committee**
8 **meetings and subject to Section 9.11, below** ~~For any new business by any board~~
9 ~~member, the full Board is authorized to may add the~~ **have** an item **that is within the**
10 **subject matter responsibility of the Board/Committee placed onto a future**
11 **Board/Committee** ~~agendas of any meeting by an affirmative vote of a majority of the~~
12 ~~quorum of Board members present.~~ **Discussion during Future Scheduling will be**
13 **limited to scheduling issues and seeking clarity as to proper titling of the future**
14 **agenda item. There shall be no substantive discussion of the topic.**

15
16 Section 9.9: Procedure to Add, Remove Agenda Items Between Meetings – Board
17 Members

18
19 For Board items, any Board member wishing to add a Board agenda item (or remove
20 **an item which he/she has had added**) after the Board has met, but before the
21 agenda is published, must obtain authorization from the President of the Board.

22
23 For Committee items, any Board member wishing to add a Committee agenda item
24 (or remove **an item which he/she has had added**) after the Committee has met, but
25 before the agenda is published, must obtain authorization from the ~~President of the~~
26 ~~Board~~ and the Chair of the Committee **who may consult with the Board President**
27 **before responding.**

1 **Section 9.10: Procedure for Placing New Items on Agenda – Non Board**
2 **Members**

3
4 Subject to Section 9.11 below, requests from other entities/individuals to have
5 an item that is within the subject matter responsibility of the Board/Committee
6 placed onto a Board/Committee agenda will be submitted in writing to the Plan
7 Administrator. The Board President or Committee Chair, in consultation with
8 the Plan Administrator will decide whether to place the item on a future agenda.
9 The decision of the Board President/Committee Chair will be communicated in
10 writing to the requesting entity/individual by the Plan Administrator.

11
12 The provisions of Section 9.10 are not intended to apply to scheduled reports
13 provided to the Board and/or its Committees by PFRS staff or the Board's
14 professional advisers. These items may be placed on the appropriate agenda
15 by the Plan Administrator as a matter of routine.

16
17 **Section 9.11: Submission of Agenda Materials**

18
19 Items which are placed onto a Board or Committee agenda pursuant to the
20 processes described in Sections 9.8, 9.9 and 9.10 above, normally will be
21 supported by written materials submitted to the Plan Administrator by close of
22 business on the Wednesday that is two (2) weeks prior to the scheduled
23 Board/Committee meeting. If such materials are received following this
24 deadline, the item will not be placed onto the appropriate agenda until the
25 following month.

26
27 This Section is not intended to prohibit oral-only submissions, but unless
28 specifically approved by the Plan Administrator with the concurrence of the
29 Board President/Committee Chair written materials that do not conform to the

1 **above-described schedule will not be accepted for inclusion in agenda**
2 **packages.**

3
4 Section 9.12: Minutes

5
6 The Secretary shall cause to be recorded in the minutes, the time and place of each
7 meeting of the Board, the names of Board members present and all official acts of the
8 Board along with a summation of the Board discussion along with the votes, and shall
9 cause the minutes to be written and presented for approval no later than the second
10 succeeding regular meeting.

11
12 Draft minutes shall be prepared and forwarded to Board members for review by the
13 ~~15th~~ **10th** business day following each meeting. The minutes or a true copy thereof,
14 submitted and signed by the Secretary after approval by the Board shall form part of
15 the permanent records of the Board.

16
17 *(Should we consider adding a provision for the preparation and distribution*
18 *of action minutes?)*

19
20 Section 9.13: Other Requests

21
22 Other requests by the plan sponsor, **retirees/beneficiaries**, other entities or the public
23 will be directed to the Plan Administrator, who will review and respond
24 administratively. To the extent the request needs to be addressed to or by the Board
25 **or a Committee**, the request will be brought to the full board/**committee** for further
26 direction or authorization.

1 Section 9.14: Other Requests by the Board

2
3 Any research, analyses and reports from staff as are necessary for the Board's
4 effective oversight of PFRS operations shall be initiated by placing that item on a future
5 agenda in accordance with section 9.8. Such requests will be agendized and
6 considered at regularly scheduled Board meetings. If approved, the Plan Administrator
7 will be responsible for coordinating the completion of the approved project or report
8 within a reasonable time or by the completion date specified in the Board action.

9
10 Section 9.15: Other Requests by Individual Board Members

11
12 Board members making individual requests for information will be advised to place the
13 item on the Board meeting agenda in accordance with section 9.8 unless the
14 information is readily available and the Plan Administrator determines that a response
15 will not require any significant commitment of staff time or other PFRS resources.

16
17 Section 9.16: Resolutions and Orders

18
19 The Board shall act either by order or by resolutions, numbered in sequence of
20 passage. In every instance, authorization by Board resolution shall be required for the
21 following:

- 22
23 • ~~Retirement of active members of the Police and Fire Retirement System;~~
24
25 • ~~Setting of Retirement and Disability Allowances;~~
26
27 • **Changes to the types of compensation to be included as “Compensation”**
28 **and/or “Compensation Attached to the Average Rank Held”**
29
30 • ~~Reinstatement of members from the Disability Allowance Roll to active status;~~

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- Approval of Death Benefits;
- Approval of continuation of allowances to eligible surviving spouse;
- Authorization of Contracts.

The Board may, in its discretion, act by resolution in other matters not listed above. Actions taken by the Board by way of order shall be set forth in the minutes of the Board.

Section 9.17: Ayes and Noes

The Board shall pass resolutions or orders only by taking the ayes and noes by an audible vote, which shall be entered in its minute book. Each resolution shall show on its face the ayes and noes vote thereon and the members so voting.

Section '9.18: Resolutions - Subject and Title

Every resolution of the Board shall be confined to one subject, which shall be clearly expressed in its title.

Article 10: RULES OF ORDER

Roberts' Rules of Order shall be the final authority on all questions of procedure and parliamentary law, not otherwise provided for by the City Charter, (Article XXVI) or these rules. **The deputy City Attorney in attendance will serve as the Parliamentarian for the Board and its Committees.**

1 **Article 11: ELECTION OF MEMBERS OF THE BOARD REPRESENTING**
2 **~~ACTIVE AND RETIRED~~ MEMBERS OF THE RETIREMENT**
3 **SYSTEM**

4
5 *(Referred to staff to remove references to active members and other possible*
6 *clean-up)*

7
8 *(Request further discussion on possible provision to allow police or fire*
9 *representative to fill position designated for the other if no one from appropriate*
10 *department is available to serve)*

11
12 **Article 12: RECALL OF MEMBER OF THE BOARD REPRESENTING ~~ACTIVE~~**
13 **~~AND RETIRED~~ MEMBERS OF THE RETIREMENT SYSTEM**

14
15 *(Referred to staff to remove references to active members and other possible*
16 *clean-up)*

17
18 *(Request further discussion regarding combining recall and replacement*
19 *elections into a single election with two questions)*

20
21 Request further discussion regarding the following:

- 22
- 23 • Hearing procedures for hearings conducted pursuant to Sections 2603 and
24 2604 of the Charter.
 - 25
 - 26 • Hearing procedures for public hearings that are not conducted pursuant to
27 Sections 2603/2604 of the Charter.



MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: Katano Kasaine

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

DATE: February 20, 2018

Jaime Godfrey, 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: 2018 The Pension Bridge

Event Location: Four Seasons Hotel, San Francisco, CA

Event Date: April 10-11, 2018

Estimated Event Expense*: \$ 727.00 (estimated)

Notes: Member Godfrey's Estimated Expenses includes hotel accomodations due

to his travel from his home outside Alameda County.

* 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.

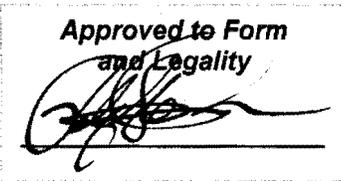
Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

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

Attachments (if any):
Resolution #7002
2018 The Pension Bridge Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA



RESOLUTION No. 7002

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

TRAVEL AUTHORIZATION FOR PFRS BOARD MEMBER JAIME GODFREY TO TRAVEL TO AND ATTEND THE 2018 THE PENSION BRIDGE CONFERENCE ("PENSION BRIDGE CONFERENCE") FROM APRIL 10, 2018 TO APRIL 11, 2018 IN SAN FRANCISCO, CA WITH AN ESTIMATED BUDGET OF SEVEN HUNDRED TWENTY-SEVEN DOLLARS (\$727.00)

WHEREAS, PFRS Board Member Jaime Godfrey wishes to attend the The Pension Bridge Conference in San Francisco, CA from April 10, 2018 to April 11, 2018; and

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

WHEREAS, in compliance with the Board Travel Policy, which requires that PFRS Board/Staff Members seek PFRS Board approval prior to travel; and

WHEREAS, in compliance with the Board Travel Policy, the Board/Staff Member has presented costs for travel, lodging and/or registration fees to the Pension Bridge Conference in the amount of approximately \$727.00; and

WHEREAS, PFRS Board Member Godfrey seeks Board approval of the aforementioned estimated costs to travel to San Francisco, CA to attend the Pension Bridge Conference from April 10, 2018 to April 11, 2018; now, therefore, be it

RESOLVED: PFRS Board Member Jaime Godfrey's travel request and estimated budget of \$727.00 to attend the Pension Bridge Conference is hereby approved.

IN BOARD MEETING, CITY HALL, OAKLAND, CA FEBRUARY 28, 2018

PASSED BY THE FOLLOWING VOTE:

AYES: DANIEL, MELIA, MUSZAR, SPEAKMAN, WILKINSON AND PRESIDENT JOHNSON

NOES:

ABSTAIN: GODFREY

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

THE PENSION BRIDGE ANNUAL

April 10th & 11th, 2018 | Four Seasons Hotel, San Francisco

The Pension Bridge Annual Conference provides the highest level of education and networking to the institutional investment community. A mix of Public Funds, Corporate Funds, Foundations, Endowments, Union Funds, Taft-Hartleys, Family Offices, Sovereign Wealth Funds, Consultants and Investment Managers will come together for this exclusive event.

The Pension Bridge Annual provides the industry's only controlled attendance structured event. This helps The Pension Bridge to maintain the best conference ratio in the industry. **There will be over 200 Pension Fund Representatives and Non-Discretionary Consultants in attendance.**

We have allowed for only 100 Manager Firms. This better than 2:1 ratio, combined with participation from the most influential industry figures, creates a more enjoyable environment for all.



THE PENSION BRIDGE ANNUAL

April 10th & 11th, 2018 | Four Seasons Hotel, San Francisco



LEARN FROM THE EXPERTS

ABOUT THE MOST IMPORTANT ISSUES, CHALLENGES, TRENDS, OPPORTUNITIES, AND STRATEGIES THAT WILL SHAPE OUR INDUSTRY FOR TODAY AND THE FUTURE:

- ✓ Macroeconomic View and Future Expectations for the Equity and Bond Markets
- ✓ What does the Future hold for Artificial Intelligence and Machine Learning in Investment Management?
- ✓ Active vs. Passive Management - Will it take a Market Sell-Off to Show the Need for Active Managers?
- ✓ Executive Directors/CEOs Views on the Current and Future State of the Industry
- ✓ Women and their Increasing Role in Investment Management Overview of the Cybersecurity Landscape and the Necessary Steps for Protection
- ✓ Challenges of the Risk Allocation Framework and Considerations when Building a Risk Culture from Within
- ✓ Does Risk Parity Make Sense Now? - Scenario Analysis for Risk Parity Performance
- ✓ Why Tail Risk Hedging is Important Now - Costs vs. Benefits
- ✓ In-Depth View of the Unconstrained Fixed Income Space and ways to Simplify the Sub-Allocations
- ✓ Does ESG Add Value? Best Approaches for ESG Integration in the Investment Process

- ✓ Emerging Markets Valuations Relative to Risk - a Look at Various Regions/Countries
- ✓ Why should Plans Sponsors Actively Manage Currency? - Hedging vs. Alpha
- ✓ The Benefits and Criticisms of Multi-Asset Strategies
- ✓ Current and Future State of the Hedge Fund Industry
- ✓ Impact from Global Central Bank Policy on Risk and Opportunities Across Credit Markets Going Forward
- ✓ Which Sectors, Strategies and Geographies will create the Best Opportunities in the Distressed Space?
- ✓ Investing in Commodities via Private Equity vs. Public - Benefits and Drawbacks of Each
- ✓ Most Attractive Sectors and Opportunities in Energy
- ✓ Top Trends to Watch in Real Estate; Strategies that Offer the Best Value
- ✓ Listed vs. Unlisted Infrastructure - which will Deliver Better Returns in a Volatile Down Market?
- ✓ Protecting your Existing Private Equity Portfolio and Avoiding Getting Involved in Expensive Deals
- ✓ Impactful Industry CIOs Provide their Insights on their Allocations, Risks and Macro-Based Decisions

We remain in a low growth, low return environment with unfavorable demographics in the U.S. The Pension Bridge Annual will uncover various structural transformations and investment ideas that will be beneficial for long-term fiscal sustainability.

In addition to the listed themes above, we will be covering many more challenging issues that are crucial to the investment decision making process during these uncertain economic times. We will learn from the best about how to adapt in our industry which is always evolving and transforming.

THE PENSION BRIDGE ANNUAL HAS TWO GOALS IN MIND

First is to provide the highest level of education with the top speaker faculty. This highly regarded group will bring forth influential insights and concepts. The second goal is to help build relationships between the pension plans, consultants and investment managers. We have provided the best possible environment for this event which is designed to be conducive for networking. We will cap off the event with a fun and enjoyable networking outing necessary for maintaining relationships and connecting with your peers and prospective business contacts.

We look forward to a strong event and a very productive one from both an educational and relationship perspective. We have structured this conference in a manner that will be most productive and beneficial for you. We hope that you will join us to be amongst your industry peers to learn about the most up-to-date insights, investment strategies, and trends.

TUESDAY, APRIL 10TH

Four Seasons, San Francisco

7:00 AM – BREAKFAST

SPONSORED BY:

ClearBridge
Investments

8:00 AM – OPENING REMARKS

8:05 AM – KEYNOTE SPEAKER

Speaker:

Ashbel C. “Ash” Williams, Executive Director & Chief Investment Officer, **Florida State Board of Administration, (SBA)**

Interviewed by:

Kristen Doyle, CFA, Partner, Head of Public Pension Funds, **Aon Hewitt Investment Consulting**

8:35 AM – KEYNOTE SPEAKER – MACROECONOMIC VIEW

- Easy Money Central Bank Policy and the Consequences Down the Road
- Debt to GDP
- Corporate Debt Growth for Financial Engineering
- Oil and High Yield Defaults Outlook
- Are we in a Credit Bubble?
- Margin Debt and Valuation Levels
- Algo's and Passive Investment as a Market Risk
- Inflation/Deflation Argument
- Outlook for Europe and Emerging Markets
- China - Debt Levels, Leverage, and Real Estate Bubble as a Wildcard
- Japan's Demographics and Debt - what might be the Far Reaching Effects?
- Currencies
- Derivatives Risk
- Expectations for Equities and Bonds
- Expectations for the Next Black Swan?
- What are your Best Bets for a Low Growth, Low Return Environment?



Speaker:

J. Kyle Bass, Founder, Chief Investment Officer, **Hayman Capital Management, L.P.**

9:05 AM – ARTIFICIAL INTELLIGENCE IN ASSET MANAGEMENT

- What is the latest you've seen with Big, Established Asset Managers and Hedge Funds Pouring Money into Technology and Data Management to Develop Next-Generation Investment Systems?
- How Long Before AI becomes Mainstream in Hedge Fund Asset Management?
- Investing with Artificial Intelligence via Natural Language Processing so that Algorithms can Systematically Look for Verbal Cues. How are these Quant Hedge Funds doing as far as Inflows and Returns?
- Giving Computers and Data Science More Significant Roles over Humans in the Quant Space – How Big has the Movement Become at the Big Firms for Humans to be Replaced by Robots and Quant Researchers? Might this spread from Equity Trading to Fixed Income?
- Do you believe the AI Quants Combined with Leverage and the Inflows into Smart Beta might one day lead to a Massive Flash Crash or Quant Quake?
- When the next Quant Hedge Fund Sell-Off Unfolds, will the Risk Issues that are now used to address the 2007 Crisis still be applicable today?
- Do you have any Performance Concerns for Funds Relying on Algorithms during a Bear Market? Will the Risk Management side still largely be run by Humans?
- What does the Future Hold for Artificial Intelligence and Machine Learning?
- Do you believe Automated Technology will Eventually Play a Role in the Outsourced CIO Business and Reduce Costs?
- Will Robo-Advice Technology go Beyond Passive Investing and Move into Active? Might it be used by Consultants?
- What are the Roadblocks for AI?

PRESENTED BY: **BLACKROCK**[®]

Speaker:

Jeff Shen, Managing Director, Head of Emerging Markets, Co-Head Scientific Equity, **BlackRock**

9:35 AM – ACTIVE VS. PASSIVE MANAGEMENT

- When making the Active/Passive Decision, what Factors should be Considered?
- Is Active Management a Dying Breed or is it simply at a Cyclical Low?
- Do you believe that the Extraordinary Growth in Passive Management is One of the Factors Contributing to Drive High Valuations?
- Agree or Disagree: With Volatility, Risk Premia, and the Dispersion of Risk being Low for an Extended Period of Time, it has made it Difficult for Active Managers to Shine
- When Volatility and Risk Premia Rise, will a Larger Number of Active Managers Stand Out?
- Do you believe it will take a Substantial Market Sell-Off for Investors to Realize their Need for Active Managers?
- What do Smaller Managers need to do to Compete with Flows going to Large Active Managers?
- How should Active Managers Differentiate Themselves to Justify the Fee Premium over Low-Cost Indexed Funds?
- Importance of Passive Managers to Identify Mispricings and Dislocations
- What are the Hidden Risks of both Passive Investing and Smart Beta?
- What are some Customization or Niche Strategies that will be necessary for both Active and Passive Managers to Adapt?

Moderator:

William Chau, CFA, Senior Manager, Retirement Investments, **Intel Corporation**

Speaker:

Mark Higgins, CFA, Consultant, Principal, **RVK, Inc.**

10:10 AM – REFRESHMENT BREAK

SPONSORED BY:



(A) PENSION HEALTH/GOVERNANCE

- Do you believe Plans will be able to Meet or Beat the Assumed Rate of Return over the next 5 to 10 Years? What about in the Longer Term?
- Should we be Spending Political Capital to Lower Assumed Rate of Return Targets?
- Dealing with Legislature – what is your Biggest Concern? Is Trust a Factor?
- How do you approach Increases in Longevity and Costs for Healthcare Drugs for Retirees? Any possible Solutions?
- Agree or Disagree with this Concept: "We need to disconnect our healthcare and retirement plans from the employer-sponsored model. Employers are not in the health-care business; they aren't in the retirement business."
- Do you see the Benefits of Adopting a Hybrid DB/DC Plan? What are the Drawbacks?
- Best Governance Practices to Keep Plans Optimally Invested, Managed, Funded and in Regulatory Compliance
- How do you ensure your Board Members receive Continual Education of their Fiduciary Roles/Duties and keep them Updated on Risk Factors?
- Have you Educated Internally on the Risks or Steps for Cybersecurity Protection? Do you have Cybersecurity Questions or Guidelines in your Due Diligence of your Managers?

(B) LONG-TERM STRUCTURAL CHANGES FOR FISCAL SUSTAINABILITY

- Do you have Internal Management Capabilities?
- Will we see a Shift to Hunt for Long-Term Cash Flow Investments through Partnerships and Co-Investment Structures? Greater Competition to Follow?
- Have we made Strides to Solve the Talent and Compensation Struggle? Will we see More Compensation-Based Pay to Attract and Retain Talent to be Competitive with the Private Sector?
- Will we see a Continued Shift towards Investing in Passive, Low-Cost Vehicles, Index Funds, and ETFs over Actively Managed Funds? Is it Passive here to stay?
- Requirement for Better Transparency
- Do you believe we'll see a Consolidation of Public Pension Plans Under One Entity, (such as INPRS or IMCO in Canada)? What are the Benefits?
- Making Governance More Effective – Identifying Key Board Member Roles with Expertise in Particular Areas with an Independent Board
- What is your Biggest Threat to your DB Plan? What keeps you up at night?

Moderator:

Gary A. Amelio, Chief Executive Officer, **San Bernardino County Employees' Retirement Association**

Speakers:

Paul Matson, Executive Director, **Arizona State Retirement System**

R. Dean Kenderdine, Executive Director, **Maryland State Retirement and Pension System**

Brian Guthrie, Executive Director, **Teacher Retirement System of Texas**

11:30 AM – WOMEN AND THEIR INCREASING ROLE IN INVESTMENT MANAGEMENT

- What are some Ways we can Encourage Organizations to Embrace Diversity?
- Have we seen any Statistical Performance for Women and Minority-Owned Investing? What about the Performance of Female Hedge Fund and Private Equity Managers?
- Should Pensions put Pressure on Investment Managers to Formalize Family-Leave Policies to Encourage Diversity or is that the Responsibility of the Manager?
- Is there a way to Close the Income Gap?
- What is the Most Common Reason why Investors do not have Specific Women-Owned Investment Mandates? How Big an Issue is Lack of Supply?
- With just 6.5% of Global Private Equity Firms having Partners or Managing Partners that are Women (source: Preqin), how do you approach Beating those Odds?
- What are the Recent Findings from Women in Alternative Investments Report by KPMG? Any Takeaways?
- What is the Gender Retirement Gap and what are the Ways Women can Overcome these Hurdles?
- What Programs or Organizations do you believe are Helpful in the Advancement of Women in the Industry?
- What Can Institutions do to Support Women's Advancement to the Top Levels of Leadership?
- How might Specialization be an Important Way for Women to offer a Diversified Strategy Approach?
- What Career Advancement Advice would you give to Younger Women who are Passionate and Fairly New to Investment Management?

Moderator:

Meredith A. Jones, Partner & Head of Emerging Manager Research, **Aon Hewitt Investment Consulting**

Speakers:

Anne Sheehan, Director of Corporate Governance, **California State Teachers' Retirement System, (CalSTRS)**

Sharmila Chatterjee Kassam, Deputy Chief Investment Officer, **Employees Retirement System of Texas**

Susan E. Oh, CFA, Senior Portfolio Manager, **Pennsylvania Public School Employees' Retirement System**

12:10 PM – CYBERSECURITY

(A) INVESTMENT MANAGERS

- What are the Biggest Cybersecurity Challenges Investment Managers Face Today?
- Overview of the Cybersecurity Landscape – Phishing, Botnet Hackers, Insider Threats, Compromised Business E-mails, and Attempts to Steal Healthcare Data
- Ransomware and the Use of Bitcoin for the Hijacked Information's Return
- What Initiatives should Firms take to Protect Against Phishing and Other Critical Threats?
- With the SEC Flagging Third Party Vendors as a Crack in a Firm's Cybersecurity Shield, what Detailed Measures should be taken to Help a Firm to Avoid a Cybersecurity Breach?
- What are the Biggest Challenges to the Implementation of Corporate Security Analytics?

(B) PENSION PLANS

- What are the Necessary Steps for Cybersecurity Protection for Pension Plans?
- As a Pension Plan, Endowment, Foundation or Family Office, what Cybersecurity Questions should you ask in your Due Diligence of your Investment Managers?
- Have we seen any Education of the Risks, Steps for Protection and Internal Accountability yet?
- Pension Plans' Responsibility starting at the Request for Proposal (RFP) Stage – providing Details for Data Protection and Privacy Provisions
- Should Plan Sponsors have Cybersecurity Insurance Coverage? What is typically Covered in a Policy?

Speaker:

M. K. Palmore, CISM, CISSP, Assistant Special Agent In Charge – Cyber Branch, San Francisco, **FBI**

SPONSORED BY:



1:40 PM – RISK MANAGEMENT AND ADOPTING A RISK CULTURE

(A) KEY CONSIDERATIONS AND TOOLS FOR MANAGING RISKS

- Overview of the Transformation from an Asset Allocation-Centered Process to a More Comprehensive Risk Allocation-Based Process
- Discuss the Challenges that have Prevented Wide-Spread Adoption of a Risk Allocation Framework?
 - (1) What Governance Challenges have you seen?
 - (2) What are the Implementation Challenges?
 - (3) What are the Key Challenges as it relates to Measuring Risk?
 - (4) Balance Between Cost and Comprehensive Risk Approach
 - (5) Challenges of Performance Monitoring, Risk Data and Systems – getting good Risk Information Across All Asset Classes and Fund/Investment Structures, (Pooled Vehicles vs. Separate Accounts)
- How can considering Diversification and Risk Independently help Investors Build More Efficient Portfolios?
- What Developments have we seen for Combining Several Risk Premiums as a part of Portfolio Diversification?
- How has taking a Risk Allocation Approach changed the Structure of your Plan's Fixed Income Investments? Understanding Return Seeking Fixed Income and Traditional Risk Reducing Fixed Income
- What Irregularities have we seen in Portfolios as Asset Classes are Redrawn and Renamed via Risk Allocation? Are we still too Over-Reliant on Equities?

(B) TOP PENSION RISKS WE SHOULD BE MOST WARY OF

- Understanding Asset Class Correlation and Behavior Risk – Tendency of Interest Rate and Inflation Shocks Driving Both Equities and Bonds in the Same Direction, (Correlations Change)
- Drawdown Risk
- Transparency and Liquidity Risk – Basing it on a Cost/Benefit Evaluation
- What's the Best Approach to Liquidity Risk as it applies to Meeting Future Cash Flow Obligations?
- Leverage Risk – what are the Best Approaches to keep these Risks within Acceptable Parameters?
- Monitoring Counterparty Risk being taken by Managers – any New Measures?
- Equity, Credit, Duration, Inflation/Deflation, Currency, Geopolitical Risk Considerations
- How does Stress Testing or Scenario Analysis factor into your Process?
- What should Keep CIOs and Staff Up at Night?

(C) COMMUNICATION

- How do you Communicate your Risk Tolerances with your Board, Managers, and Media?
- How has the Role of Fiduciary Responsibility Changed in this New Era of Risk?
- What should Boards/Organizations Consider when Building a Risk Culture?
- How can Fiduciaries Adapt and Safeguard Against Today's Challenges?
- How do you go about Educating a Board on Risk?
- Have you Developed a Process for Monitoring Risk being taken by your Money Managers?
- What Metrics Aid in the Decision-Making Process?
- How does a Plan's Size affect the Approach to Pension Risk Management?

Moderator:

Vijoy Chattergy, CAIA, Chief Investment Officer, **Employees' Retirement System of the State of Hawaii**

Speakers:

Luis J. Roman, Ph.D., Senior Investment Officer, Director of Risk Management, **Massachusetts Pension Reserves Investment Management Board, (PRIM)**

Timothy F. McCusker, FSA, CFA, CAIA, Chief Investment Officer, Partner, **NEPC, LLC**

Bruce H. Cundick, CFA, CPA, Chief Investment Officer, **Utah Retirement Systems**

2:30 PM – RISK PARITY

- Risk Parity Explained
- Do you Consider it a Drawback that there's Only a Positive Weight to an Asset with No Ability to go Short?
- Active Strategy? Passive? Extent to which a Risk Parity Portfolio is Managed?
- Risk Parity's Role in a Portfolio and Benchmarking – why might these tend to Complicate and Potentially Discourage Investor Adoption/Implementation? What Progress have we seen towards Adopting an Appropriate Benchmark?
- Does Risk Parity Make Sense Now if we Expect Low Market Returns in the Future?
- Is it possible that Bonds will Become Less Likely to Protect against a Large Drawdown in Equities?
- Should we be Worried about Leverage or Leveraging the Inappropriate Assets? Is there an Over-Reliance on Bonds with Current Valuations?
- Do Commodities Make Sense in Risk Parity if Inflation Remains Low?
- Performance in the Past Decade and Longer – how does Risk Parity look over time Compared to Other Asset Mix Models?
- Leverage and Illiquidity Do Not Mix – any Approaches to Avoid this Combination?
- Do you View it as a Flaw that Portfolio Construction Approaches only consider Volatility Risk, Not Tail Risk or Drawdown Risk?
- Could Tail Risk Parity be More Effective? Thoughts on the Concept of Measuring Expected Tail Loss Rather Than Volatility – Cheaper Hedges for Protection, Reducing Tail Risks while Retaining More Upside than Risk Parity?
- Aside from the Money Concentrated in the Top “Founding Firms,” how should we Approach Managers with Short Track Records?

3:05 PM – REFRESHMENT BREAK

3:35 PM – TAIL RISK HEDGING

- Why is Tail Risk Hedging Important Now?
- Understanding Tail Risk Frequency, Severity and Impact
- Why are the Markets Vulnerable to a Substantial Decline Today? Does the Impact of Central Bank Tapering and the Fed Reducing its Balance Sheet Weigh on you?
- Understanding the Risk of Correlated Global Markets for Developed Countries
- How can you Quantify the Costs vs. the Benefits?
- What are the Merits of an Option Overlay Strategy In Lieu of Owning a Tail Risk Hedge?
- What Risks can be Efficiently Hedged in the Financial Markets?
- What Types of Strategies and Approaches are used to Hedge?
- Where have you seen it Work Successfully and Not So Well?
- What are the Implementation Challenges?
- Why is there often Difficulty Implementing a Tail Risk Program within the context of a Committee and how can we overcome this?
- Are there Alternative Ways to Deal with Tail Risk?
- Using Information from the Derivatives Markets to assess Stress Points – where we are seeing Tail Risks Building?
- Does the Growth in the VIX Universe pose a Risk?
- Pension Plans developing a Contingency Plan – What are the Best Practices to Navigate through Stressful Periods?
- Any Experiences you can Share among your Clients with Tail Risk Hedging?

4:05 PM – UNCONSTRAINED FIXED INCOME

- Assessing the Current Environment – Fed and Global Central Bank Policy, Interest Rates, Spreads, U.S. Dollar, Foreign Investment in U.S. Treasuries, Global Fixed Income Landscape, and Default Rate Expectations
- What are your Best Ideas for ways to Simplify the Sub-Allocations within the Fixed Income Space? Any Preferred Allocation Breakdowns or Weightings?
- With the Proliferation of Products which are Diverse, what is the Return Objective?
- Portfolio Construction – Need for Increased Disaggregation of Alpha Sources
- Understanding Return Sources/Attribution and Correlation that Unconstrained Funds have had with other Fixed Income Sectors and Equity Markets
- Impact of the Non-Linearity of Risk Correlations and Volatility Not Being Stable through time. Is that something you look to Measure in case of Market Dislocations?
- How are you Taking Advantage of Current Market Dislocations?
- What are the Implications of Reduced Liquidity?
- How should Investors think about Transparency of Positioning in Unconstrained Fixed Income?
- What Progress have we seen for a Factor or Risk Premium Approach for Assessing Risk?
- Do you see a Supply/Demand Imbalance in Long-Duration Fixed Income?
- Using Structured Products, Swaps, and Derivatives to Create Alpha and Hedge Volatility
- Emerging Markets Local Fixed Income – what are the Opportunities? Currency Risk Factors? Should Currency Exposures be Hedged or Unhedged?
- What are your Expectations and Outlook for Corporate Debt?
- Taxable Municipals vs. Corporate Bonds – Which Make More Sense Now?
- Do you view Bank Loans as a Hedge in Rising Rate Environment?
- If Trump Moves on GSE Reform (as he's indicated), how would that Impact the MBS Market?
- Where do you see the Greatest Risks in the Debt Markets and what might be the Trigger Points that Enhance that Potential?
- Understanding how to Select Alternative Managers – Multi-Sector, Multi-Region and Multi-Currency Skill Set
- How do you Define Success for Unconstrained Fixed Income Strategies?

Moderator:

Scottie D. Bevell, Senior Investment Officer - Global Bonds and Real Return, **Teachers' Retirement System of Illinois**

4:50 PM – ENVIRONMENTAL, SOCIAL AND GOVERNANCE, (ESG)

- Do we have Proof that ESG Integration Adds Value?
- ESG Fund Performance vs. Traditional Funds
- Do Firms with Good Performance on SASB Topics Outperform Firms with Poor Performance on those Topics?
- How do you Approach ESG from a Fiduciary Standpoint and for the Development of your Plan's Investment Beliefs?
- How should ESG be best Incorporated into the Investment and Due Diligence Process?
- Factors Needed to make ESG Mainstream and Integrated into Every Investment Process – Agreement on Weightings, Scoring and Definitions
- What are the Perceived Obstacles to applying an ESG Framework to the Stock Selection Process?
- Considerations for Investing in a Passive ESG Index – thoughts on Low Carbon Index? Combining ESG with Smart Beta?
- Climate Change and Investment – what's the Relationship and how do you Integrate Climate Risks into your Process?
- What should Pension Funds be asking their Existing Active Managers in terms of whether they are looking at Climate Risk or Opportunity?
- Understanding the Importance of Supply Chain Management
- Will there come a time when Plan Sponsors Only Invest with UN PRI Investment Manager Signatory Firms? Has the UN PRI been Strict or Lenient on Signatories for the Integration of their Principles?
- What are the most Recent Trends we've seen for the Sustainability Movement in Real Estate and the Demand to be Green?
- Understanding Relevant Benchmarks for ESG Risk Measurement

Speaker:

Thomas Henley, Senior Managing Director of Strategic Opportunities, **UAW Retiree Medical Benefits Trust**

5:25 PM – COCKTAIL RECEPTION

6:40 PM – COCKTAIL RECEPTION CONCLUDES

WEDNESDAY, APRIL 11TH

Four Seasons, San Francisco

7:00 AM – BREAKFAST

8:00 AM – EMERGING MARKETS

- Macro Environment and Recent Developments
- How have EM Headwinds Impacted your Deployment?
- What would be the Effects on Emerging Markets if we see Weak or Negative Growth in the U.S or Instability in Eurozone?
- What are Realistic Return Expectations? How might that Differ based on Region?
- How do Valuations look Relative to Risk?
- Are you Investing in Higher Growth Markets such as Southeast Asia, Africa or Latin America? Which particular Countries? Do you see Higher Risk, Returns and Diversification Factors here?
- Outlook for China – are you Concerned about their Credit and Real Estate Bubbles?
- What Dangers do you see with the EM Equity Benchmark with China's Heavy Weighting?
- India to Benefit from its Fast Rate of Urbanization? Still in Need of Substantial Reform?
- Identify what Country or Region you see Favorable Demographic Trends such as a Growing Middle Class, Promising Consumer Buying Behavior and Economic/Fiscal Reforms
- Which Markets in Frontier Countries can you Profit from Strong Growth and Access a Lower Correlation?
- What can be done to Mitigate Currency Risks?
- The Case for Emerging Markets Corporate Debt
- What Metrics are you using to Determine Relative Value in Sovereign Bonds?
- Public vs. Private Emerging Markets – Benefits and Drawbacks of each
- Active vs. Passive Debate
- What is an Appropriate Long-Term Allocation to Emerging Markets? What should that Allocation look like, (Public Equity, Fixed Income, Private Equity, Frontier Markets, Alternatives, etc.)?
- Choosing an Emerging Markets Fund or Manager – should you be Investing by Region, Country or Sector?
- Given the Current Environment, will Emerging Markets Outperform Developed Markets?

Moderator:

Hayden Gallary, CFA, Managing Director, **Cambridge Associates LLC**

Speaker:

Candace Ronan, CFA, Portfolio Manager, Global Equity, **California State Teachers' Retirement System, (CalSTRS)**

(A) CURRENCY MARKET OVERVIEW

- What are the Factors Driving Currencies?
- What is the Relationship Between Volatility and Currency Returns?
- Can Currencies be Forecasted via Fundamentals, Cycles and Trends?
- Benefits of Active and Dynamic Currency Management
- Widely Confused Difference Between Currency Hedging and Currency as an Asset Class – How do they Differ in terms of Implementation Approaches?
- What are the most Common Reasons Asset Owners give for Not Actively Managing Currency? Are these Reasons Valid or Not?
- What is the Impact Forex can have on Overall Risk and Returns for International Equity and Bond Portfolios?
- Different Skills Required for Currency Hedging vs. Currency Alpha – should a Different Manager be used for Each Approach or is it Possible to be Skilled in Both?
- What are the Merits and Demerits of Adopting a Hedging Program vs. an Alpha Program?

(B) CURRENCY OVERLAY HEDGING

- Given Plan Sponsors Non-U.S. Exposure, what Factors should be Considered in the Determination of Implementing a Currency Hedging Program?
- Is there an Optimum Currency Hedge Ratio for a Plan?
- How much of a Reduction in Portfolio Volatility and Risk should be Expected?
- Can it be More Beneficial to be Unhedged?
- Hedging Costs – how should this factor into your Decision?

(C) CURRENCY ALPHA

- How does Employing a Currency Alpha Strategy fit into an Asset Allocation Framework?
- Benefits of Non-Correlated Returns to Equities, Fixed Income and Alternative Investments
- How does Investing in Currency Diversify and Reduce Risk? Natural Diversifier for the Duration Risk in Bonds?
- How do you Manage Risk Factors?
- What are the Return Expectations?
- When considering Investing in an Active Currency Strategy, what should you look for in a Manager?

Moderator:

Aoifinn Devitt, Chief Investment Officer, **Policemen's Annuity and Benefit Fund of Chicago**

(A) CONSTRUCTION AND SKILLS

- Why is Multi-Asset Investing Attractive to Investors?
- What are the Common Sub-Asset Classes Included in Multi-Asset Strategies?
- Do these Strategies Reduce Correlation, Lower Volatility and Limit Downside Risk or Drawdown? If so, by How Much?
- How do Investors utilize Multi-Asset Strategies in their Portfolios?
- With Dynamic and Tactical Asset Allocation Skills yet to be Put to the Test in recent years, how do you see this Space Evolving in a more Treacherous/Volatile Market?
- Aside from Asset Allocation Skills, what other Skills are Required for the Ability to Generate Alpha and be Successful?
- Constructing the Portfolio - Risk Factor Approach
- How do you Measure Performance?

(B) CRITICISM

- Do you believe Central Bank Policy has Limited the Ability of Multi-Asset Managers?
- Do these Strategies Rely Too Heavily on Market Timing?
- Do you Agree or Disagree with the Willis Towers Watson Report saying Multi-Asset Managers have actually Harmed Performance via Tactical Asset Allocation Decisions?
- The Skill of Moving Opportunistically Between Markets, a Function of Asset Allocation Alpha is an All-to-Rare Commodity - any Truth to this?
- Do you believe that many Multi-Asset Funds have Not Sufficiently Incorporated Risk Controls into the Design of their Products as the Willis Towers Watson Report Noted?
- Reliance on Stable Correlation Relationships although there is No Certainty those Relationships will Persist
- Is Excessive Leverage a Concern?
- High Fees
- Is Transparency often Obscure or Hazy?

PRESENTED BY:

Janus Henderson
INVESTORS

Speaker:

Ashwin Alankar, Ph.D., Senior Vice President, Global Head of Asset Allocation & Risk Management, **Janus Henderson Investors**

(A) CURRENT AND FUTURE STATE OF THE HEDGE FUND INDUSTRY

- Why have Hedge Funds Underperformed? Will this Shift?
- Is Hedge Fund Investor Risk Appetite and Hedge Fund Manager Willingness to Take On Risk High Enough to Generate an Acceptable Level of Return for Hedge Funds?
- Will we see More Hedge Funds Continuing to Shut Down?
- What is an Appropriate Fee Structure for Hedge Funds? How do you Assess the Tradeoff Between Fees and Liquidity?
- As an LP, do you find it Difficult to get Hedge Fund Managers to Provide Accurate Fee Information in a Timely, Efficient Manner? Do you believe we're In Need of a Standardized Reporting Template like ILPA for Private Equity?
- Do Smaller Hedge Funds Outperform and if so, why?
- What is Driving the Increase in Demand for Strategies Uncorrelated with the Capital Markets? Which Low Correlated Strategies are Most Attractive?
- With Crowding on the Rise for Particular Stocks, do you see this as a Risk and a Contrarian Indicator for those Equity Holdings when the Cycle Turns?

(B) IMPLEMENTATION OPTIONS

- Long-Short Equity Hedge Funds – what Differentiates Managers that have been able to Outperform?
- Do you find Opportunities within the Global Macro Space Attractive and if so, why?
- Managed Futures – Diversification and Performance during Periods of Market Stress or Crisis Events. How much can it Decrease the Depth of Portfolio Drawdowns and Volatility?
- Liquid Hedge Fund Products such as UCITS, 40 Act and Hedge Fund Replication – are they a Viable Alternative and Under what Circumstances? How has their Performance and the Lower Fees Fared to Hedge Funds?
- The Role of Alternative Beta/Risk Premia Strategies in a Hedge Fund Portfolio – what are the Appropriate Expectations from a Sharpe Perspective?
- If there was a Hedge Fund Strategy you would Invest in over the next Few Years, which one would it be and why?
- What is the Future of the Fund of Funds Space? How is it Changing? Where will Fees be? What will it take to Stay Competitive?
- How do Emerging Managers Differentiate Themselves in the quest for Institutional Capital?
- What sort of Downside Protection, Drawdown or Return Range do you expect we'll see from each of the Different Hedge Fund Strategies during the Next Market Downturn?
- Implementation Considerations for Due Diligence, Portfolio Function and Manager Selection. What are the Key Traits you should be looking for?

(C) IMPLEMENTATION OPTIONS

- What does a Diversified Portfolio of Hedge Funds look like? How Many Funds do you need? Should you focus on a few better Strategies or is the Size of your Portfolio a Factor?
- What is the Role of Separate Managed Accounts? What are the Benefits? Are they Better than Commingled Funds?
- Any Recent Trends you've seen for Pension Plans as far as Fees, Transparency, Increased Partnership, etc.?
- Importance of Operations Due Diligence. Any recent Developments? How often should Operations be Reviewed?
- Transparency and Risk Aggregation Data – are they Accurate?
- What Monitoring Tools or Reports do you feel give you the most Bang for your Buck when Monitoring Individual Managers and Portfolios?
- What Trends do you see Developing in Regards to the way we Evaluate Liquidity Provisions for Hedge Funds?

Moderator:

Dr. John Claisse, CEO, **Albourne America LLC**

Speaker:

Neil Messing, Head of Hedge Funds, **New York City Office of the Comptroller, Bureau of Asset Management**

10:55 AM – CREDIT STRATEGIES

- Current State of the Credit Market
- Where are we in the Credit Cycle and how does it Differ from the Past?
- What will be the Catalyst that will cause Credit Spreads to Widen and Defaults to Rise?
- What Impact do you see from Global Central Bank Policy on Risk and Opportunities Across Credit Markets going forward?
- How will the Sector you Invest in Perform when Rates Rise? Is that a Concern and how do you Manage that?
- Where are we at with Regulatory Issues Today? How might Policy Impact Fund Managers and Investors Mandates?
- What Subsectors of Credit are Most Attractive given the Stretched Valuations? Any Areas you are Avoiding?
- High Yield Market – is it possible to see a High Yield Meltdown with a Lack of Liquidity? Understanding the Risk Factors and the Strong Correlation to Equities
- Bank Loans Overview
- State of Securitized Markets – RMBS, CMBS and CLO Overview
- Outlook and Considerations for Structured
- Outlook for Emerging Market Debt
- Opportunities and Risks for Europe and Asia
- Do you see Investors being more willing to Trade Liquidity for Yield and should that be of Concern?
- How much should Plan Sponsors be Allocating to Credit? What is the Optimal Structure to a Credit Portfolio?
- Considerations for Selecting a Manager and Strategy
- What are the Trade-offs between Mid-Market and Large Market Credit Investing?
- Public vs. Private Credit
- Credit Investment Mandates – are they Too Narrow? Which Bucket or Asset Class does it fit into and should it be Defined as Opportunistic Credit?

Moderator:

Steve Woodall, CFA, CAIA, Portfolio Manager, **Virginia Retirement System**

Speaker:

Stephen L. Nesbitt, CEO, CIO, **Cliffwater LLC**

11:35 AM – DISTRESSED INVESTING – OPPORTUNISTIC AND SPECIAL SITUATIONS

- When will the Vast Sums of Undeployed Capital come in off the Sidelines? Do you Need an Economic Downturn?
- Does the Interest Rate Environment and Fed Balance Sheet Unwind Affect your Plans?
- What are your Expectations for Default Rates going forward?
- Where do you see the Largest Demand from Clients? What are they Most Interested In?
- Where do you see the Best Opportunities over the next 12-24 Months?
- Which Sectors, Strategies, and Geographies will create the Best Opportunities? Any Areas that should be Avoided?
- What Distressed Opportunities are we seeing the Energy Sector?
- What are the Opportunities and Risks in Europe? Any Countries, Sectors or Types of Deals that Stand Out?
- Do you see Opportunities in Asia or Elsewhere Globally?
- What's the Potential Impact of the Debt Piled up by Corporations for their Share Buybacks?
- Will the Prevalent Covenant-Lite Deals create Problems during the Next Cycle?
- What are your thoughts on the Recent Leverage Trends?
- Do you worry about a Liquidity Problem in ETFs and other Structured Credit Vehicles if there is Credit Event?
- Has the Regulatory Environment Changed the Opportunity Set? How has it Impacted your Firm?
- Marketable Distressed Strategies – how Correlated are they to Public Equities? Might they have Merit or is it a Fad?
- What are the Biggest Challenges you face to Delivering Returns?
- How do Investors go about Choosing the Right Distressed Strategy, Investment Style and Approach?
- How will the Different Implementation Approaches affect Expected Returns? Control vs. Non-Control? Private vs. Public?
- Distressed Debt Vehicles in Hedge Fund Format vs. Private Equity Drawdown Structures – what are the Pros and Cons of Each?
- What Skill Sets/Characteristics should Pension Plans look for in a Distressed Manager?

Moderator:

Keith M. Berlin, Director of Global Fixed Income and Credit, **Fund Evaluation Group, LLC**

12:10 PM – LUNCH

SPONSORED BY:



1:15 PM – COMMODITIES

- Current Market Environment
- With the Lack of Evidence that Inflation has had a Significant Uptick, what Factors do we need to see for us to Believe that Commodities have Bottomed and we are ready to begin a Reflationary Regime?
- Based on Previous Down Equity Markets, what Performance can we Expect from Commodities if we have Market Turbulence? How Strong is the Correlation?
- What are your Views on particular Sub-Sectors and where are the Pockets of Value?
- How are Renewables Affecting Specific Commodities?
- What Currency or Weather Related Impacts are you seeing on Specific Commodities?
- Investing in Commodities through Private Equity vs. Stocks or Indexes – Benefits and Drawbacks of Each
- True or False – Natural Resource Stocks are Not an Efficient Way to get Commodities Exposure
- Are MLPs more Highly Correlated to Commodity Prices than we thought?
- Investing in Long/Short vs. Long Only
- Active vs. Passive
- Any Recent Developments in Commodities Risk Premia? Smart Beta as applied to Commodities?
- What are the Key Criteria that would lead to Manager Outperformance?
- Risk Factors

1:45 PM – ENERGY

- Macro Landscape in Energy – is now the Time to be Investing?
- What are the Best Opportunities and Most Attractive Sectors you are seeing Today?
- What Risks do you see that some Investors might not be Considering?
- How Important are the Credit Markets in the Deployment of Private Capital? What have you seen in regards to the Growth of Credit/Lending Energy Strategies?
- How has the Current Commodity Market Distress Impacted the Balance Sheets of Oil and Gas Companies?
- Public vs. Private Investing in Energy – what are the Advantages and Disadvantages of each?
- Thoughts on Midstream MLPs with their Business of Oil Storage Services and its Cashflow?
- How has the Oilfield Service Industry Impacted Upstream Oil and Gas Operators?
- What does the Future Hold for Shale and Natural Gas?
- ESG Considerations, Climate Change and Portfolio Decarbonization – how do you Deal with LP Concerns on this Issue? Has it Impacted your Fund Commitments?
- How will the Growth of Renewables or Alternative Forms of Energy fit into your Portfolio? Will the Best Opportunities be in the U.S. or in Emerging Markets?

Speaker:

Tom Masthay, CFA, CAIA, FRM, Director, Real Assets, **Texas Municipal Retirement System, (TMRS)**

2:15 PM – REAL ESTATE

- Global Macro Views and Trends in Real Estate
- Is a Correction on the Horizon and How Significant? If so, what is the Single Biggest Risk Factor?
- Challenges of Meeting Target Rate of Return
- What are your Return Expectations for the Core?
- Within Non-Core, which Value-Added and Opportunistic Strategies are Most Appealing?
- What is the Biggest Threat to Commercial in the next few years for this Fully Priced Market?
- Do you see a Trend Towards Direct and Away from Commingled Closed-Ended Funds? If so, will it Continue?
- Is the Bridge Financing Opportunity Attractive from Maturing CMBS?
- Debt vs. Equity Preference?
- What's happening with Leverage?
- Which Property Types are At Risk Today?
- Any Niche Property Types that you Like?
- Analysis of Cap Rates and Vacancy/Occupancy Rates – any Conclusions you can draw?
- Asia and European Real Estate Outlook – Opportunities, Investment Trends and Capital Flows
- Will Co-Investments become more Common?
- Current State of the Real Estate Secondary Market
- Programmatic Joint Ventures – why are these Joint Ventures being done? Will more Pension Plans Team up with Commercial REITs?
- Larger vs. Smaller Fund Size – which ones will Outperform going forward?
- Entry Issues with Open-Ended Funds and Concentration into Fewer Funds?
- What Strategies do you see as the Biggest Risks and the Biggest Rewards/Relative Value for the Future?

Moderator:

Christy Fields, Managing Director – Real Estate, **Pension Consulting Alliance, LLC, (PCA)**

Speaker:

Anthony Breault, Senior Investment Officer, Real Estate, **Oregon State Treasury**

3:00 PM – REFRESHMENT BREAK

3:25 PM – INFRASTRUCTURE MARKET OUTLOOK

- Why should Investors consider Committing Capital to the Infrastructure Space?
- Funding Gap and State of Development of the Infrastructure Asset Class – Where are we now in terms of Appetite/Penetration amongst Investors Allocations? How much Room to Run is there for the Asset Class to Continue to Develop?
- Is there Too Much Money Chasing Too Few Opportunities?
- How has Performance been and what are the Recent Return Expectations?
- How will Opportunities and Returns and be Impacted by Low Oil Prices for an Extended Period?
- What has been the Effects of the Low Interest Rate Environment on Infrastructure and how might that Effect Returns and Leverage Going Forward?
- Which Geographies are Most Appealing? Developed or Emerging Economies?
- Which Sectors are Most Attractive?
- Approach – Greenfield vs. Brownfield?
- Infrastructure Debt – will it deliver for Investors Searching for Yield?
- What are the Biggest Challenges/Risks associated with Infrastructure Investing?
- Opportunities in Public-Private Partnerships?
- Debt Heavy/Equity Shortage Deals – How and When will Pension Investors Overcome this Highly Leveraged Roadblock?
- Listed vs. Unlisted – Which do you Favor in a Rising, Low Volatility Market? Which do you Favor in a Volatile Market for Downside Protection? Does Rising Interest Rates Favor Either?
- Any Advantages or Limitations for Co-Investments? Separate Accounts?
- What are the Advantages of Open-Ended Funds over Closed-Ended Funds? Will we Continue to see a Surge in Open-Ended Funds in the Coming Years?

Speaker:

Paul V. Shantic, Director – Inflation Sensitive Investments, **California State Teachers' Retirement System, (CalSTRS)**



3:40 PM – PRIVATE EQUITY

- Are we at a Market Peak? If so, what Clues Lead you to Believe So?
- Protecting your Current Portfolio – How would you Guard Against your Existing Portfolio?
- What are you doing Differently when Approaching New Investments? How do you Avoid Possible Pitfalls or Getting Involved in Expensive Deals?
- Are High Levels of Dry Powder Here to Stay? Do you Believe it will Impact Returns?
- Thoughts on GP Stakes being Bought by Dyal, Petershill and Others? Any Implications?
- Subscription Lines of Credit – How do the Pros and Cons Stack Up and what are the Risks to LPs? Thoughts on ILPA's Guidelines?
- For Buyouts, what Sectors or Geographies do you Favor? What Sectors do you tend to Avoid in this Environment and why?
- Do you Prefer Buyouts or Growth Equity over the next few years and why?
- Does the Huge Growth in Co-Investments in Recent Years make you Cautious if the Cycle Turns?
- Understanding the Trends and Performance of Co-Investments in Small, Medium, and Large Buyouts. Where do Co-Investments make the Most Sense?
- Where are we in the Private Credit Cycle right now and where can we find Good Returns Without Taking Inordinate Risk?
- State of the Venture Industry – Fundraising Environment, Valuations, and Exit Market
- Venture Capital Winners – Limited Access to the Top Few VCs that Generate the Bulk of the Industry's Returns? What's the Best Approach to this Challenge?
- Secondaries Deal Volume, Pricing, Pressures, and Future Expectations
- Why should Secondaries be a Core Holding?
- Issues, Outlook and Opportunities for European PE
- Have you taken Steps to Diversify your PE Portfolio and find Investments with a Non-Correlation to the PE Space in General? Which of these Non-Correlation Strategies have you Allocated to or Favor?
- Transparency and Fees – As an LP, what do you Need and how do you Get It? What is the SEC's Impact on your Ability to get the Information you Require?
- Have you gotten More Involved in your GPs Valuation Process? How have you Achieved this Transparency Demand?

Speaker:

Rodney June, Chief Investment Officer, **Los Angeles City Employees' Retirement System, (LACERS)**

4:25 PM – CIO ROUNDTABLE

(A) RISKS, ALLOCATIONS AND MACRO-BASED DECISIONS

- In this Low Growth, Low Return and Fully-Valued Environment, how has it Impacted your Investment Program and your Asset Allocation? What Steps have you Taken?
- Is there a Good Way to Hedge your Longevity Risk?
- What's your Opinion on the Sustainability of the Stock Market Rally? Thoughts on Central Banks Monetary Policy, Tapering and Balance Sheet Reduction?
- Are there any Strategies you like that provide a Low or Non-Correlation to Traditional Investments that can Provide Outsized Returns during Periods of Market Stress?
- What Strategies does your Fund utilize that will Protect against Interest Rate Risk and Duration Risk?
- Are you Positioning for a Reflationary Regime or Hedging Against the Risk of Further Deflation and why?
- What De-Risking Strategies or Risk Management Approaches has your Fund Integrated into the Investment Decision Process?
- Does LDI or Risk Parity Make Sense Now Considering Current and Future Market Conditions?
- Do you Incorporate Multi-Asset Investing and do you believe it can Limit Downside Risk?
- Do you believe your Hedge Fund Strategies will provide a Cushion for the next Market Downturn? How do you use them to Reduce Risk?
- Have you Trended Towards a Passive Equity Allocation? When Volatility Rises, do you Believe Active Managers will Outperform?
- What do you feel is the proper Emerging Markets Allocation and are there any Regional or Frontier Strategies that interest you?
- Have you made Long-Term Cash Flow Investments through Partnerships and Co-Investment Structures?
- Do you Believe the Impact of Regulation has Created a Reduction in Market Liquidity? Has it Impacted your Fund or Decisions? Will there be Sufficient Liquidity in the System to Cope with Conditions of Market Stress?

(B) ALIGNMENT OF INTERESTS

- What Changes or Trends have you noticed in Fee Structures/Terms and your Bargaining Power?
- How to Respond to Legislative Demands for more Transparency on Profit Sharing/Carried Interest
- Governance Issues Surrounding Investment Programs - How has this been the Basis for Success or the Lack Thereof at Many Programs?
- Should there be an Industry-Wide Threshold (perhaps 3% - 4%), before Carried Interest Kicks In? Is there a Way to go about Making Progress with this Issue?
- What Tactics work best for you when attempting to Negotiate Private Placement Agreements?
- Do You and Your Investment Departments have the Authority to be a Dynamic, Tactical, and Active Investor In Response to Extreme Economic Conditions?
- Any Important Lessons Learned that you can Share from your Individual Plan Experiences?

Moderator:

Andrew Junkin, CFA, CAIA, President, **Wilshire Consulting**

Speakers:

Russell Read, Chief Investment Officer, **Alaska Permanent Fund Corporation**

Mansco Perry III, CFA, CAIA, Executive Director, Chief Investment Officer, **Minnesota State Board of Investment**

Scott C. Evans, CFA, Deputy Comptroller - Asset Management & Chief Investment Officer, **New York City Office of the Comptroller, Bureau of Asset Management**

Craig Husting, CFA, Chief Investment Officer, **Public School & Education Employee Retirement Systems of Missouri, (PSRS/PEERS)**

5:20 PM – CONFERENCE CONCLUDES

5:20 PM – TICKETS FOR NETWORKING EVENT HANDED OUT IN THE CONFERENCE ROOM

ATTENDEES MUST BE PRESENT TO ATTEND EVENT

6:00 PM – WINE TASTING & DINNER NETWORKING EVENT

HOSTED BY THE PENSION BRIDGE

Join our group at for a wine tasting and dinner at the Press Club, located just next door to the Four Seasons. Meet your industry peers in great setting as California Wine Country comes to the heart of the city. Experience the finest winemakers with new and rare vintages. We'll have a fun wine tasting reception, followed by a tasteful dinner with the highest quality organic ingredients. The Pension Bridge will utilize the 9000 square feet of the award winning "Best Restaurant Design" event space for networking for our high quality conference group.





MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: Katano Kasaine

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

DATE: February 20, 2018

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: 2018 CALAPRS General Assembly

Event Location: Renaissance Indian Wells Hotel, Indian Wells, CA

Event Date: March 3 - 6, 2018

Estimated Event Expense*: \$ 1,300.00 (estimated)

Notes: _____

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

Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

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

Attachments (if any):

Resolution #7003

2018 CALAPRS General Assembly Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and legality


RESOLUTION No. 7003

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

TRAVEL AUTHORIZATION FOR PFRS BOARD MEMBER R. STEVEN WILKINSON TO TRAVEL TO AND ATTEND THE 2018 CALAPRS GENERAL ASSEMBLY CONFERENCE ("2018 CALAPRS CONFERENCE") FROM MARCH 3, 2018 THROUGH MARCH 6, 2018 IN INDIAN WELLS, CA WITH AN ESTIMATED BUDGET OF ONE THOUSAND THREE HUNDRED DOLLARS (\$1,300.00)

WHEREAS, PFRS Board Member R. Steven Wilkinson wishes to attend the 2018 CALAPRS Conference in Indian Wells, CA from March 3, 2018 through March 6, 2018; and

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

WHEREAS, in compliance with the Board Travel Policy, which requires that PFRS Board/Staff Members seek PFRS Board approval prior to travel; and

WHEREAS, in compliance with the Board Travel Policy, the Board/Staff Member has presented costs for travel, lodging and/or registration fees to the 2018 CALAPRS Conference in the amount of approximately \$1,300.00; and

WHEREAS, PFRS Board Member Wilkinson seeks Board approval of the aforementioned estimated costs to travel to Indian Wells, CA to attend the 2018 CALAPRS Conference from March 3, 2018 through March 6, 2018; now, therefore, be it

RESOLVED: PFRS Board Member R. Steven Wilkinson's travel request and estimated budget of \$1,300.00 to attend the 2018 CALAPRS Conference is hereby approved.

IN BOARD MEETING, CITY HALL, OAKLAND, CA _____ **FEBRUARY 28, 2018**

PASSED BY THE FOLLOWING VOTE:

AYES: DANIEL, GODFREY, MELIA, MUSZAR, SPEAKMAN, AND PRESIDENT JOHNSON

NOES:

ABSTAIN: WILKINSON

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

CALAPRS

EDUCATION • COMMUNICATION • NETWORKING

California Association of Public Retirement Systems

California Association of Public Retirement Systems

CALAPRS GENERAL ASSEMBLY

FULL COURT PRESS

ON

PENSION MANAGEMENT



Renaissance Indian Wells Resort, Indian Wells, CA

MARCH 3-6, 2018

CALAPRS GENERAL ASSEMBLY 2018 | PROGRAM

The California Association of Public Retirement Systems, CALAPRS, invites you to attend the General Assembly on March 3-6, 2018 in Indian Wells, CA The General Assembly is an educational conference for retirement system trustees, senior staff, and annual sponsors of CALAPRS.

SATURDAY, MARCH 3

4:00 - 6:00 PM Registration Open

SUNDAY, MARCH 4

10:00 AM Registration Open

2:00 PM – 2:15 PM Opening Remarks

Speakers: Donna Lum, *President, CALAPRS and Deputy Executive Officer, Customer Services and Support, CalPERS*; and Carl Nelson, *General Assembly Chair and Executive Secretary, San Luis Obispo County Pension Trust*

2:15 PM – 3:15 PM Creating a Team Culture

Speaker: Marcie Frost, CEO, *CalPERS*

Marcie Frost leads the nation's largest public pension fund with a global investment portfolio of approximately \$345 billion. CalPERS provides retirement and health benefits to nearly 2 million public employees and their families. In this session, Ms. Frost will discuss her approach to fostering a strong team culture through team engagement, net promoters and quality customer service.

3:15 PM – 3:30 PM Afternoon Refreshment Break

3:30 PM – 4:30 PM The Resilience of Public Pensions - Economic Outlook

Speaker: Nari Rhee, Ph.D., *Director of the Retirement Security Program, University of California, Berkeley Center for Labor Research and Education*

This session will discuss Dr. Nari Rhee's current research on the retirement crisis facing California and the US in the context of declining pension coverage, and policies to improve the retirement income prospects of low- and middle-wage workers.

7:00 PM – 9:30 PM Academy Awards Night Strolling Dinner (at the hotel)

Join us for an evening that includes a big screen showing of the 90th Academy Awards, a competition selecting the Oscar winners, prizes, red carpet photos, great food, and FUN! *Guests welcome.*

MONDAY, MARCH 5

7:30 AM Registration Open

7:30 AM – 8:30 AM Continental Breakfast

8:30 AM – 8:45 AM Opening Remarks

Speakers: Donna Lum, *President, CALAPRS and Deputy Executive Officer, Customer Services and Support, CalPERS*; and Carl Nelson, *General Assembly Chair and Executive Secretary, San Luis Obispo County Pension Trust*

8:45 AM – 10:00 AM Setting Retirees Up for Success

Moderator: Suzanne Jenike, *Assistant CEO, OCERS*

This session will feature a panel discussion focusing on current efforts to help active members prepare for a successful retirement.

10:00 AM – 10:15 AM Morning Refreshment Break

10:15 AM – 11:10 AM The Canadian Model: An Approach to Investments

Speaker: Leo de Bever, *Ret. CEO, Alberta Investment Management Corporation (AIMCo)*

The large Canadian Plans gained a reputation for strong governance, investment innovation and low cost. Can that model be replicated? Where is the innovation frontier today?

11:15 PM – 12:10 PM Investment Risk Mitigation

Moderator: Ian Toner, *CIO, Verus*

Panelist: Mike Connor, *Senior Strategist, PIMCO*

An expert panel led by Ian Toner of Verus will provide an overview of the most relevant aspects of investment risk mitigation.

12:15 PM – 1:15 PM Networking Lunch

1:30 PM – 2:45 PM Why I'm Your Most Essential Advisor

Moderator: Carl Nelson, *Executive Secretary, San Luis Obispo County Pension Trust*

Panelists: Linda Webb, *Retirement Administrator, Ventura County Employees' Retirement Association*; Allan Martin, *Partner, NEPC*; Andy Paulden, *Partner, Brown Armstrong CPAs*;

Harvey Leiderman, *Partner, Reed Smith*; and Paul Angelo, *Senior VP and Actuary, Segal Consulting*

A light-hearted but informative "talent show" in which panel of advisors speak about what they do and each panelist makes a case for why he/she is your most essential advisor. Panelists will respond to questions posed by the moderator and from the audience. At the conclusion, the audience will vote electronically to select the most essential advisor. The panel includes: an Administrator/CEO of a California retirement system; an investment consultant; an auditor; an attorney; and an actuary.

2:45 PM – 3:00 PM Afternoon Refreshment Break

3:00 PM – 4:00 PM Felony Forfeitures

Speakers: Ashley Dunning, *Partner, Nossaman LLP* and Russell Richeda, *Shareholder, Saltzman & Johnson Law Corporation*

Under PEPR, members who have been convicted by a state or federal trial court of any felony under the law for conduct arising from or in the performance of his or her official duties must forfeit all accrued rights and benefits in any public retirement system they are a member of at the time the felony is committed retroactive to the first commission date of the crime. Our speakers will discuss the impact of this law and how it is being implemented.

5:00 PM – 6:00 PM Hosted Reception (at the hotel)

TUESDAY, MARCH 6

7:30 AM – 8:30 AM Continental Breakfast

8:30 AM – 9:30 AM The Behavioral Level of Financial Decision-Making

Speaker: F. Daniel Siciliano, JD., *Co-Director, Rock Center Director's College, Stanford Law School; Director, Federal Home Loan Bank of San Francisco; Managing Director, Vista Point Advisors; and Author, "Boards and Technology – The Competitive Risk and Promise of Exponential Technologies"*
In this session, Daniel Siciliano will address the impact the use of technology has on our behavior and how that can affect the quality of the decisions we make.

9:30 AM – 9:45 AM Morning Refreshment Break

9:45 AM – 10:45 AM Cybersecurity

Speaker: David Coher, *Principal, Southern California Edison*
This session will discuss what your system needs to know to protect your customers, and employees.

10:45 AM – 11:00 AM Closing Remarks & Adjournment

HOW DO I REGISTER?

Registration Fee: \$100/attendee

- Online:
<http://www.calaprs.org/generalassembly>
- Email: register@calaprs.org
- Phone: 1-415-764-4860

HOTEL ACCOMMODATIONS

Renaissance Indian Wells
44-400 Indian Wells Lane
Indian Wells, CA 92210-8708, US
Room Rate: \$224/night + \$1/night resort fee

- Online: <https://goo.gl/TEQX96>
- Phone: 1-760-773-4444; refer to CALAPRS when making a reservation

Cut-Off: February 12, 2018 or until rooms sell out, whichever comes first. Book your room early!

GENERAL ASSEMBLY 2018 PLANNING COMMITTEE

Carl Nelson

*Executive Secretary and CIO
San Luis Obispo County Pension Trust (Chair)*

Steve Delaney

*Chief Executive Officer
Orange County Employees' Retirement System*

David Kehler

*Retirement Administrator
Tulare County Employees' Retirement Association*

Donna Lum

*Deputy Executive Officer, Customer Services and Support
CA Public Employees' Retirement System*

Andrew Roth

*Benefits & Services Executive Officer
California State Teachers' Retirement System*

California Association of Public Employees' Retirement Systems (CALAPRS)

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

P: 415-764-4860 | F: 415-764-4933

info@calaprs.org | www.calaprs.org



MEMORANDUM

TO: Oakland Police & Fire
Retirement Board

FROM: Teir Jenkins

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

DATE: February 20, 2018

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

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

Travel / Education Event: 2018 The Pension Bridge

Event Location: Four Seasons Hotel, San Francisco, CA

Event Date: April 10-11, 2018

Estimated Event Expense*: \$ 239.00 (estimated)

Notes: _____

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

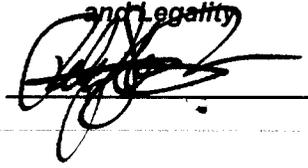
Respectfully submitted,

Teir Jenkins, Investment Officer
Oakland Police and Fire Retirement System

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

Attachments (if any):
Resolution #7004
2018 The Pension Bridge Agenda

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality


RESOLUTION No. 7004

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

TRAVEL AUTHORIZATION FOR PFRS PLAN ADMINISTRATOR KATANO KASAINÉ TO TRAVEL TO AND ATTEND THE 2018 THE PENSION BRIDGE CONFERENCE ("PENSION BRIDGE CONFERENCE") FROM APRIL 10, 2018 TO APRIL 11, 2018 IN SAN FRANCISCO, CA WITH AN ESTIMATED BUDGET OF TWO HUNDRED THIRTY-NINE DOLLARS (\$239.00)

WHEREAS, PFRS Plan Administrator Katano Kasaine wishes to attend the The Pension Bridge Conference in San Francisco, CA from April 10, 2018 to April 11, 2018; and

WHEREAS, PFRS Plan Administrator Kasaine is expected to seek reimbursement of expenses from the Board; and

WHEREAS, in compliance with the Board Travel Policy, which requires that PFRS Board/Staff Members seek PFRS Board approval prior to travel; and

WHEREAS, in compliance with the Board Travel Policy, the Board/Staff Member has presented costs for travel, lodging and/or registration fees to the Pension Bridge Conference in the amount of approximately \$239.00; and

WHEREAS, PFRS Plan Administrator Kasaine seeks Board approval of the aforementioned estimated costs to travel to San Francisco, CA to attend the Pension Bridge Conference from April 10, 2018 to April 11, 2018; now, therefore, be it

RESOLVED: PFRS Plan Administrator Katano Kasaine's travel request and estimated budget of \$239.00 to attend the Pension Bridge Conference is hereby approved.

IN BOARD MEETING, CITY HALL, OAKLAND, CA _____ **FEBRUARY 28, 2018**

PASSED BY THE FOLLOWING VOTE:

AYES: DANIEL, GODFREY, MELIA, MUSZAR, SPEAKMAN, WILKINSON
AND PRESIDENT JOHNSON

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

THE PENSION BRIDGE ANNUAL

April 10th & 11th, 2018 | Four Seasons Hotel, San Francisco

The Pension Bridge Annual Conference provides the highest level of education and networking to the institutional investment community. A mix of Public Funds, Corporate Funds, Foundations, Endowments, Union Funds, Taft-Hartleys, Family Offices, Sovereign Wealth Funds, Consultants and Investment Managers will come together for this exclusive event.

The Pension Bridge Annual provides the industry's only controlled attendance structured event. This helps The Pension Bridge to maintain the best conference ratio in the industry. **There will be over 200 Pension Fund Representatives and Non-Discretionary Consultants in attendance.**

We have allowed for only 100 Manager Firms. This better than 2:1 ratio, combined with participation from the most influential industry figures, creates a more enjoyable environment for all.



THE PENSION BRIDGE ANNUAL

April 10th & 11th, 2018 | Four Seasons Hotel, San Francisco



LEARN FROM THE EXPERTS

ABOUT THE MOST IMPORTANT ISSUES, CHALLENGES, TRENDS, OPPORTUNITIES, AND STRATEGIES THAT WILL SHAPE OUR INDUSTRY FOR TODAY AND THE FUTURE:

- ✓ Macroeconomic View and Future Expectations for the Equity and Bond Markets
- ✓ What does the Future hold for Artificial Intelligence and Machine Learning in Investment Management?
- ✓ Active vs. Passive Management - Will it take a Market Sell-Off to Show the Need for Active Managers?
- ✓ Executive Directors/CEOs Views on the Current and Future State of the Industry
- ✓ Women and their Increasing Role in Investment Management Overview of the Cybersecurity Landscape and the Necessary Steps for Protection
- ✓ Challenges of the Risk Allocation Framework and Considerations when Building a Risk Culture from Within
- ✓ Does Risk Parity Make Sense Now? - Scenario Analysis for Risk Parity Performance
- ✓ Why Tail Risk Hedging is Important Now - Costs vs. Benefits
- ✓ In-Depth View of the Unconstrained Fixed Income Space and ways to Simplify the Sub-Allocations
- ✓ Does ESG Add Value? Best Approaches for ESG Integration in the Investment Process

- ✓ Emerging Markets Valuations Relative to Risk - a Look at Various Regions/Countries
- ✓ Why should Plans Sponsors Actively Manage Currency? - Hedging vs. Alpha
- ✓ The Benefits and Criticisms of Multi-Asset Strategies
- ✓ Current and Future State of the Hedge Fund Industry
- ✓ Impact from Global Central Bank Policy on Risk and Opportunities Across Credit Markets Going Forward
- ✓ Which Sectors, Strategies and Geographies will create the Best Opportunities in the Distressed Space?
- ✓ Investing in Commodities via Private Equity vs. Public - Benefits and Drawbacks of Each
- ✓ Most Attractive Sectors and Opportunities in Energy
- ✓ Top Trends to Watch in Real Estate; Strategies that Offer the Best Value
- ✓ Listed vs. Unlisted Infrastructure - which will Deliver Better Returns in a Volatile Down Market?
- ✓ Protecting your Existing Private Equity Portfolio and Avoiding Getting Involved in Expensive Deals
- ✓ Impactful Industry CIOs Provide their Insights on their Allocations, Risks and Macro-Based Decisions

We remain in a low growth, low return environment with unfavorable demographics in the U.S. The Pension Bridge Annual will uncover various structural transformations and investment ideas that will be beneficial for long-term fiscal sustainability.

In addition to the listed themes above, we will be covering many more challenging issues that are crucial to the investment decision making process during these uncertain economic times. We will learn from the best about how to adapt in our industry which is always evolving and transforming.

THE PENSION BRIDGE ANNUAL HAS TWO GOALS IN MIND

First is to provide the highest level of education with the top speaker faculty. This highly regarded group will bring forth influential insights and concepts. The second goal is to help build relationships between the pension plans, consultants and investment managers. We have provided the best possible environment for this event which is designed to be conducive for networking. We will cap off the event with a fun and enjoyable networking outing necessary for maintaining relationships and connecting with your peers and prospective business contacts.

We look forward to a strong event and a very productive one from both an educational and relationship perspective. We have structured this conference in a manner that will be most productive and beneficial for you. We hope that you will join us to be amongst your industry peers to learn about the most up-to-date insights, investment strategies, and trends.

TUESDAY, APRIL 10TH

Four Seasons, San Francisco

7:00 AM – BREAKFAST

SPONSORED BY:

ClearBridge
Investments

8:00 AM – OPENING REMARKS

8:05 AM – KEYNOTE SPEAKER

Speaker:

Ashbel C. “Ash” Williams, Executive Director & Chief Investment Officer, **Florida State Board of Administration, (SBA)**

Interviewed by:

Kristen Doyle, CFA, Partner, Head of Public Pension Funds, **Aon Hewitt Investment Consulting**

8:35 AM – KEYNOTE SPEAKER – MACROECONOMIC VIEW

- Easy Money Central Bank Policy and the Consequences Down the Road
- Debt to GDP
- Corporate Debt Growth for Financial Engineering
- Oil and High Yield Defaults Outlook
- Are we in a Credit Bubble?
- Margin Debt and Valuation Levels
- Algo's and Passive Investment as a Market Risk
- Inflation/Deflation Argument
- Outlook for Europe and Emerging Markets
- China - Debt Levels, Leverage, and Real Estate Bubble as a Wildcard
- Japan's Demographics and Debt - what might be the Far Reaching Effects?
- Currencies
- Derivatives Risk
- Expectations for Equities and Bonds
- Expectations for the Next Black Swan?
- What are your Best Bets for a Low Growth, Low Return Environment?



Speaker:

J. Kyle Bass, Founder, Chief Investment Officer, **Hayman Capital Management, L.P.**

9:05 AM – ARTIFICIAL INTELLIGENCE IN ASSET MANAGEMENT

- What is the latest you've seen with Big, Established Asset Managers and Hedge Funds Pouring Money into Technology and Data Management to Develop Next-Generation Investment Systems?
- How Long Before AI becomes Mainstream in Hedge Fund Asset Management?
- Investing with Artificial Intelligence via Natural Language Processing so that Algorithms can Systematically Look for Verbal Cues. How are these Quant Hedge Funds doing as far as Inflows and Returns?
- Giving Computers and Data Science More Significant Roles over Humans in the Quant Space – How Big has the Movement Become at the Big Firms for Humans to be Replaced by Robots and Quant Researchers? Might this spread from Equity Trading to Fixed Income?
- Do you believe the AI Quants Combined with Leverage and the Inflows into Smart Beta might one day lead to a Massive Flash Crash or Quant Quake?
- When the next Quant Hedge Fund Sell-Off Unfolds, will the Risk Issues that are now used to address the 2007 Crisis still be applicable today?
- Do you have any Performance Concerns for Funds Relying on Algorithms during a Bear Market? Will the Risk Management side still largely be run by Humans?
- What does the Future Hold for Artificial Intelligence and Machine Learning?
- Do you believe Automated Technology will Eventually Play a Role in the Outsourced CIO Business and Reduce Costs?
- Will Robo-Advice Technology go Beyond Passive Investing and Move into Active? Might it be used by Consultants?
- What are the Roadblocks for AI?

PRESENTED BY: **BLACKROCK**[®]

Speaker:

Jeff Shen, Managing Director, Head of Emerging Markets, Co-Head Scientific Equity, **BlackRock**

9:35 AM – ACTIVE VS. PASSIVE MANAGEMENT

- When making the Active/Passive Decision, what Factors should be Considered?
- Is Active Management a Dying Breed or is it simply at a Cyclical Low?
- Do you believe that the Extraordinary Growth in Passive Management is One of the Factors Contributing to Drive High Valuations?
- Agree or Disagree: With Volatility, Risk Premia, and the Dispersion of Risk being Low for an Extended Period of Time, it has made it Difficult for Active Managers to Shine
- When Volatility and Risk Premia Rise, will a Larger Number of Active Managers Stand Out?
- Do you believe it will take a Substantial Market Sell-Off for Investors to Realize their Need for Active Managers?
- What do Smaller Managers need to do to Compete with Flows going to Large Active Managers?
- How should Active Managers Differentiate Themselves to Justify the Fee Premium over Low-Cost Indexed Funds?
- Importance of Passive Managers to Identify Mispricings and Dislocations
- What are the Hidden Risks of both Passive Investing and Smart Beta?
- What are some Customization or Niche Strategies that will be necessary for both Active and Passive Managers to Adapt?

Moderator:

William Chau, CFA, Senior Manager, Retirement Investments, **Intel Corporation**

Speaker:

Mark Higgins, CFA, Consultant, Principal, **RVK, Inc.**

10:10 AM – REFRESHMENT BREAK

SPONSORED BY:



(A) PENSION HEALTH/GOVERNANCE

- Do you believe Plans will be able to Meet or Beat the Assumed Rate of Return over the next 5 to 10 Years? What about in the Longer Term?
- Should we be Spending Political Capital to Lower Assumed Rate of Return Targets?
- Dealing with Legislature – what is your Biggest Concern? Is Trust a Factor?
- How do you approach Increases in Longevity and Costs for Healthcare Drugs for Retirees? Any possible Solutions?
- Agree or Disagree with this Concept: "We need to disconnect our healthcare and retirement plans from the employer-sponsored model. Employers are not in the health-care business; they aren't in the retirement business."
- Do you see the Benefits of Adopting a Hybrid DB/DC Plan? What are the Drawbacks?
- Best Governance Practices to Keep Plans Optimally Invested, Managed, Funded and in Regulatory Compliance
- How do you ensure your Board Members receive Continual Education of their Fiduciary Roles/Duties and keep them Updated on Risk Factors?
- Have you Educated Internally on the Risks or Steps for Cybersecurity Protection? Do you have Cybersecurity Questions or Guidelines in your Due Diligence of your Managers?

(B) LONG-TERM STRUCTURAL CHANGES FOR FISCAL SUSTAINABILITY

- Do you have Internal Management Capabilities?
- Will we see a Shift to Hunt for Long-Term Cash Flow Investments through Partnerships and Co-Investment Structures? Greater Competition to Follow?
- Have we made Strides to Solve the Talent and Compensation Struggle? Will we see More Compensation-Based Pay to Attract and Retain Talent to be Competitive with the Private Sector?
- Will we see a Continued Shift towards Investing in Passive, Low-Cost Vehicles, Index Funds, and ETFs over Actively Managed Funds? Is it Passive here to stay?
- Requirement for Better Transparency
- Do you believe we'll see a Consolidation of Public Pension Plans Under One Entity, (such as INPRS or IMCO in Canada)? What are the Benefits?
- Making Governance More Effective – Identifying Key Board Member Roles with Expertise in Particular Areas with an Independent Board
- What is your Biggest Threat to your DB Plan? What keeps you up at night?

Moderator:

Gary A. Amelio, Chief Executive Officer, **San Bernardino County Employees' Retirement Association**

Speakers:

Paul Matson, Executive Director, **Arizona State Retirement System**

R. Dean Kenderdine, Executive Director, **Maryland State Retirement and Pension System**

Brian Guthrie, Executive Director, **Teacher Retirement System of Texas**

11:30 AM – WOMEN AND THEIR INCREASING ROLE IN INVESTMENT MANAGEMENT

- What are some Ways we can Encourage Organizations to Embrace Diversity?
- Have we seen any Statistical Performance for Women and Minority-Owned Investing? What about the Performance of Female Hedge Fund and Private Equity Managers?
- Should Pensions put Pressure on Investment Managers to Formalize Family-Leave Policies to Encourage Diversity or is that the Responsibility of the Manager?
- Is there a way to Close the Income Gap?
- What is the Most Common Reason why Investors do not have Specific Women-Owned Investment Mandates? How Big an Issue is Lack of Supply?
- With just 6.5% of Global Private Equity Firms having Partners or Managing Partners that are Women (source: Preqin), how do you approach Beating those Odds?
- What are the Recent Findings from Women in Alternative Investments Report by KPMG? Any Takeaways?
- What is the Gender Retirement Gap and what are the Ways Women can Overcome these Hurdles?
- What Programs or Organizations do you believe are Helpful in the Advancement of Women in the Industry?
- What Can Institutions do to Support Women's Advancement to the Top Levels of Leadership?
- How might Specialization be an Important Way for Women to offer a Diversified Strategy Approach?
- What Career Advancement Advice would you give to Younger Women who are Passionate and Fairly New to Investment Management?

Moderator:

Meredith A. Jones, Partner & Head of Emerging Manager Research, **Aon Hewitt Investment Consulting**

Speakers:

Anne Sheehan, Director of Corporate Governance, **California State Teachers' Retirement System, (CalSTRS)**

Sharmila Chatterjee Kassam, Deputy Chief Investment Officer, **Employees Retirement System of Texas**

Susan E. Oh, CFA, Senior Portfolio Manager, **Pennsylvania Public School Employees' Retirement System**

12:10 PM – CYBERSECURITY

(A) INVESTMENT MANAGERS

- What are the Biggest Cybersecurity Challenges Investment Managers Face Today?
- Overview of the Cybersecurity Landscape – Phishing, Botnet Hackers, Insider Threats, Compromised Business E-mails, and Attempts to Steal Healthcare Data
- Ransomware and the Use of Bitcoin for the Hijacked Information's Return
- What Initiatives should Firms take to Protect Against Phishing and Other Critical Threats?
- With the SEC Flagging Third Party Vendors as a Crack in a Firm's Cybersecurity Shield, what Detailed Measures should be taken to Help a Firm to Avoid a Cybersecurity Breach?
- What are the Biggest Challenges to the Implementation of Corporate Security Analytics?

(B) PENSION PLANS

- What are the Necessary Steps for Cybersecurity Protection for Pension Plans?
- As a Pension Plan, Endowment, Foundation or Family Office, what Cybersecurity Questions should you ask in your Due Diligence of your Investment Managers?
- Have we seen any Education of the Risks, Steps for Protection and Internal Accountability yet?
- Pension Plans' Responsibility starting at the Request for Proposal (RFP) Stage – providing Details for Data Protection and Privacy Provisions
- Should Plan Sponsors have Cybersecurity Insurance Coverage? What is typically Covered in a Policy?

Speaker:

M. K. Palmore, CISM, CISSP, Assistant Special Agent In Charge – Cyber Branch, San Francisco, **FBI**

SPONSORED BY:



1:40 PM – RISK MANAGEMENT AND ADOPTING A RISK CULTURE

(A) KEY CONSIDERATIONS AND TOOLS FOR MANAGING RISKS

- Overview of the Transformation from an Asset Allocation-Centered Process to a More Comprehensive Risk Allocation-Based Process
- Discuss the Challenges that have Prevented Wide-Spread Adoption of a Risk Allocation Framework?
 - (1) What Governance Challenges have you seen?
 - (2) What are the Implementation Challenges?
 - (3) What are the Key Challenges as it relates to Measuring Risk?
 - (4) Balance Between Cost and Comprehensive Risk Approach
 - (5) Challenges of Performance Monitoring, Risk Data and Systems – getting good Risk Information Across All Asset Classes and Fund/Investment Structures, (Pooled Vehicles vs. Separate Accounts)
- How can considering Diversification and Risk Independently help Investors Build More Efficient Portfolios?
- What Developments have we seen for Combining Several Risk Premiums as a part of Portfolio Diversification?
- How has taking a Risk Allocation Approach changed the Structure of your Plan's Fixed Income Investments? Understanding Return Seeking Fixed Income and Traditional Risk Reducing Fixed Income
- What Irregularities have we seen in Portfolios as Asset Classes are Redrawn and Renamed via Risk Allocation? Are we still too Over-Reliant on Equities?

(B) TOP PENSION RISKS WE SHOULD BE MOST WARY OF

- Understanding Asset Class Correlation and Behavior Risk – Tendency of Interest Rate and Inflation Shocks Driving Both Equities and Bonds in the Same Direction, (Correlations Change)
- Drawdown Risk
- Transparency and Liquidity Risk – Basing it on a Cost/Benefit Evaluation
- What's the Best Approach to Liquidity Risk as it applies to Meeting Future Cash Flow Obligations?
- Leverage Risk – what are the Best Approaches to keep these Risks within Acceptable Parameters?
- Monitoring Counterparty Risk being taken by Managers – any New Measures?
- Equity, Credit, Duration, Inflation/Deflation, Currency, Geopolitical Risk Considerations
- How does Stress Testing or Scenario Analysis factor into your Process?
- What should Keep CIOs and Staff Up at Night?

(C) COMMUNICATION

- How do you Communicate your Risk Tolerances with your Board, Managers, and Media?
- How has the Role of Fiduciary Responsibility Changed in this New Era of Risk?
- What should Boards/Organizations Consider when Building a Risk Culture?
- How can Fiduciaries Adapt and Safeguard Against Today's Challenges?
- How do you go about Educating a Board on Risk?
- Have you Developed a Process for Monitoring Risk being taken by your Money Managers?
- What Metrics Aid in the Decision-Making Process?
- How does a Plan's Size affect the Approach to Pension Risk Management?

Moderator:

Vijoy Chattergy, CAIA, Chief Investment Officer, **Employees' Retirement System of the State of Hawaii**

Speakers:

Luis J. Roman, Ph.D., Senior Investment Officer, Director of Risk Management, **Massachusetts Pension Reserves Investment Management Board, (PRIM)**

Timothy F. McCusker, FSA, CFA, CAIA, Chief Investment Officer, Partner, **NEPC, LLC**

Bruce H. Cundick, CFA, CPA, Chief Investment Officer, **Utah Retirement Systems**

2:30 PM – RISK PARITY

- Risk Parity Explained
- Do you Consider it a Drawback that there's Only a Positive Weight to an Asset with No Ability to go Short?
- Active Strategy? Passive? Extent to which a Risk Parity Portfolio is Managed?
- Risk Parity's Role in a Portfolio and Benchmarking – why might these tend to Complicate and Potentially Discourage Investor Adoption/Implementation? What Progress have we seen towards Adopting an Appropriate Benchmark?
- Does Risk Parity Make Sense Now if we Expect Low Market Returns in the Future?
- Is it possible that Bonds will Become Less Likely to Protect against a Large Drawdown in Equities?
- Should we be Worried about Leverage or Leveraging the Inappropriate Assets? Is there an Over-Reliance on Bonds with Current Valuations?
- Do Commodities Make Sense in Risk Parity if Inflation Remains Low?
- Performance in the Past Decade and Longer – how does Risk Parity look over time Compared to Other Asset Mix Models?
- Leverage and Illiquidity Do Not Mix – any Approaches to Avoid this Combination?
- Do you View it as a Flaw that Portfolio Construction Approaches only consider Volatility Risk, Not Tail Risk or Drawdown Risk?
- Could Tail Risk Parity be More Effective? Thoughts on the Concept of Measuring Expected Tail Loss Rather Than Volatility – Cheaper Hedges for Protection, Reducing Tail Risks while Retaining More Upside than Risk Parity?
- Aside from the Money Concentrated in the Top “Founding Firms,” how should we Approach Managers with Short Track Records?

3:05 PM – REFRESHMENT BREAK

3:35 PM – TAIL RISK HEDGING

- Why is Tail Risk Hedging Important Now?
- Understanding Tail Risk Frequency, Severity and Impact
- Why are the Markets Vulnerable to a Substantial Decline Today? Does the Impact of Central Bank Tapering and the Fed Reducing its Balance Sheet Weigh on you?
- Understanding the Risk of Correlated Global Markets for Developed Countries
- How can you Quantify the Costs vs. the Benefits?
- What are the Merits of an Option Overlay Strategy In Lieu of Owning a Tail Risk Hedge?
- What Risks can be Efficiently Hedged in the Financial Markets?
- What Types of Strategies and Approaches are used to Hedge?
- Where have you seen it Work Successfully and Not So Well?
- What are the Implementation Challenges?
- Why is there often Difficulty Implementing a Tail Risk Program within the context of a Committee and how can we overcome this?
- Are there Alternative Ways to Deal with Tail Risk?
- Using Information from the Derivatives Markets to assess Stress Points – where we are seeing Tail Risks Building?
- Does the Growth in the VIX Universe pose a Risk?
- Pension Plans developing a Contingency Plan – What are the Best Practices to Navigate through Stressful Periods?
- Any Experiences you can Share among your Clients with Tail Risk Hedging?

4:05 PM – UNCONSTRAINED FIXED INCOME

- Assessing the Current Environment – Fed and Global Central Bank Policy, Interest Rates, Spreads, U.S. Dollar, Foreign Investment in U.S. Treasuries, Global Fixed Income Landscape, and Default Rate Expectations
- What are your Best Ideas for ways to Simplify the Sub-Allocations within the Fixed Income Space? Any Preferred Allocation Breakdowns or Weightings?
- With the Proliferation of Products which are Diverse, what is the Return Objective?
- Portfolio Construction – Need for Increased Disaggregation of Alpha Sources
- Understanding Return Sources/Attribution and Correlation that Unconstrained Funds have had with other Fixed Income Sectors and Equity Markets
- Impact of the Non-Linearity of Risk Correlations and Volatility Not Being Stable through time. Is that something you look to Measure in case of Market Dislocations?
- How are you Taking Advantage of Current Market Dislocations?
- What are the Implications of Reduced Liquidity?
- How should Investors think about Transparency of Positioning in Unconstrained Fixed Income?
- What Progress have we seen for a Factor or Risk Premium Approach for Assessing Risk?
- Do you see a Supply/Demand Imbalance in Long-Duration Fixed Income?
- Using Structured Products, Swaps, and Derivatives to Create Alpha and Hedge Volatility
- Emerging Markets Local Fixed Income – what are the Opportunities? Currency Risk Factors? Should Currency Exposures be Hedged or Unhedged?
- What are your Expectations and Outlook for Corporate Debt?
- Taxable Municipals vs. Corporate Bonds – Which Make More Sense Now?
- Do you view Bank Loans as a Hedge in Rising Rate Environment?
- If Trump Moves on GSE Reform (as he's indicated), how would that Impact the MBS Market?
- Where do you see the Greatest Risks in the Debt Markets and what might be the Trigger Points that Enhance that Potential?
- Understanding how to Select Alternative Managers – Multi-Sector, Multi-Region and Multi-Currency Skill Set
- How do you Define Success for Unconstrained Fixed Income Strategies?

Moderator:

Scottie D. Bevell, Senior Investment Officer - Global Bonds and Real Return, **Teachers' Retirement System of Illinois**

4:50 PM – ENVIRONMENTAL, SOCIAL AND GOVERNANCE, (ESG)

- Do we have Proof that ESG Integration Adds Value?
- ESG Fund Performance vs. Traditional Funds
- Do Firms with Good Performance on SASB Topics Outperform Firms with Poor Performance on those Topics?
- How do you Approach ESG from a Fiduciary Standpoint and for the Development of your Plan's Investment Beliefs?
- How should ESG be best Incorporated into the Investment and Due Diligence Process?
- Factors Needed to make ESG Mainstream and Integrated into Every Investment Process – Agreement on Weightings, Scoring and Definitions
- What are the Perceived Obstacles to applying an ESG Framework to the Stock Selection Process?
- Considerations for Investing in a Passive ESG Index – thoughts on Low Carbon Index? Combining ESG with Smart Beta?
- Climate Change and Investment – what's the Relationship and how do you Integrate Climate Risks into your Process?
- What should Pension Funds be asking their Existing Active Managers in terms of whether they are looking at Climate Risk or Opportunity?
- Understanding the Importance of Supply Chain Management
- Will there come a time when Plan Sponsors Only Invest with UN PRI Investment Manager Signatory Firms? Has the UN PRI been Strict or Lenient on Signatories for the Integration of their Principles?
- What are the most Recent Trends we've seen for the Sustainability Movement in Real Estate and the Demand to be Green?
- Understanding Relevant Benchmarks for ESG Risk Measurement

Speaker:

Thomas Henley, Senior Managing Director of Strategic Opportunities, **UAW Retiree Medical Benefits Trust**

5:25 PM – COCKTAIL RECEPTION

6:40 PM – COCKTAIL RECEPTION CONCLUDES

WEDNESDAY, APRIL 11TH

Four Seasons, San Francisco

7:00 AM – BREAKFAST

8:00 AM – EMERGING MARKETS

- Macro Environment and Recent Developments
- How have EM Headwinds Impacted your Deployment?
- What would be the Effects on Emerging Markets if we see Weak or Negative Growth in the U.S or Instability in Eurozone?
- What are Realistic Return Expectations? How might that Differ based on Region?
- How do Valuations look Relative to Risk?
- Are you Investing in Higher Growth Markets such as Southeast Asia, Africa or Latin America? Which particular Countries? Do you see Higher Risk, Returns and Diversification Factors here?
- Outlook for China – are you Concerned about their Credit and Real Estate Bubbles?
- What Dangers do you see with the EM Equity Benchmark with China's Heavy Weighting?
- India to Benefit from its Fast Rate of Urbanization? Still in Need of Substantial Reform?
- Identify what Country or Region you see Favorable Demographic Trends such as a Growing Middle Class, Promising Consumer Buying Behavior and Economic/Fiscal Reforms
- Which Markets in Frontier Countries can you Profit from Strong Growth and Access a Lower Correlation?
- What can be done to Mitigate Currency Risks?
- The Case for Emerging Markets Corporate Debt
- What Metrics are you using to Determine Relative Value in Sovereign Bonds?
- Public vs. Private Emerging Markets – Benefits and Drawbacks of each
- Active vs. Passive Debate
- What is an Appropriate Long-Term Allocation to Emerging Markets? What should that Allocation look like, (Public Equity, Fixed Income, Private Equity, Frontier Markets, Alternatives, etc.)?
- Choosing an Emerging Markets Fund or Manager – should you be Investing by Region, Country or Sector?
- Given the Current Environment, will Emerging Markets Outperform Developed Markets?

Moderator:

Hayden Gallary, CFA, Managing Director, **Cambridge Associates LLC**

Speaker:

Candace Ronan, CFA, Portfolio Manager, Global Equity, **California State Teachers' Retirement System, (CalSTRS)**

(A) CURRENCY MARKET OVERVIEW

- What are the Factors Driving Currencies?
- What is the Relationship Between Volatility and Currency Returns?
- Can Currencies be Forecasted via Fundamentals, Cycles and Trends?
- Benefits of Active and Dynamic Currency Management
- Widely Confused Difference Between Currency Hedging and Currency as an Asset Class – How do they Differ in terms of Implementation Approaches?
- What are the most Common Reasons Asset Owners give for Not Actively Managing Currency? Are these Reasons Valid or Not?
- What is the Impact Forex can have on Overall Risk and Returns for International Equity and Bond Portfolios?
- Different Skills Required for Currency Hedging vs. Currency Alpha – should a Different Manager be used for Each Approach or is it Possible to be Skilled in Both?
- What are the Merits and Demerits of Adopting a Hedging Program vs. an Alpha Program?

(B) CURRENCY OVERLAY HEDGING

- Given Plan Sponsors Non-U.S. Exposure, what Factors should be Considered in the Determination of Implementing a Currency Hedging Program?
- Is there an Optimum Currency Hedge Ratio for a Plan?
- How much of a Reduction in Portfolio Volatility and Risk should be Expected?
- Can it be More Beneficial to be Unhedged?
- Hedging Costs – how should this factor into your Decision?

(C) CURRENCY ALPHA

- How does Employing a Currency Alpha Strategy fit into an Asset Allocation Framework?
- Benefits of Non-Correlated Returns to Equities, Fixed Income and Alternative Investments
- How does Investing in Currency Diversify and Reduce Risk? Natural Diversifier for the Duration Risk in Bonds?
- How do you Manage Risk Factors?
- What are the Return Expectations?
- When considering Investing in an Active Currency Strategy, what should you look for in a Manager?

Moderator:

Aoifinn Devitt, Chief Investment Officer, **Policemen's Annuity and Benefit Fund of Chicago**

(A) CONSTRUCTION AND SKILLS

- Why is Multi-Asset Investing Attractive to Investors?
- What are the Common Sub-Asset Classes Included in Multi-Asset Strategies?
- Do these Strategies Reduce Correlation, Lower Volatility and Limit Downside Risk or Drawdown? If so, by How Much?
- How do Investors utilize Multi-Asset Strategies in their Portfolios?
- With Dynamic and Tactical Asset Allocation Skills yet to be Put to the Test in recent years, how do you see this Space Evolving in a more Treacherous/Volatile Market?
- Aside from Asset Allocation Skills, what other Skills are Required for the Ability to Generate Alpha and be Successful?
- Constructing the Portfolio - Risk Factor Approach
- How do you Measure Performance?

(B) CRITICISM

- Do you believe Central Bank Policy has Limited the Ability of Multi-Asset Managers?
- Do these Strategies Rely Too Heavily on Market Timing?
- Do you Agree or Disagree with the Willis Towers Watson Report saying Multi-Asset Managers have actually Harmed Performance via Tactical Asset Allocation Decisions?
- The Skill of Moving Opportunistically Between Markets, a Function of Asset Allocation Alpha is an All-to-Rare Commodity - any Truth to this?
- Do you believe that many Multi-Asset Funds have Not Sufficiently Incorporated Risk Controls into the Design of their Products as the Willis Towers Watson Report Noted?
- Reliance on Stable Correlation Relationships although there is No Certainty those Relationships will Persist
- Is Excessive Leverage a Concern?
- High Fees
- Is Transparency often Obscure or Hazy?

PRESENTED BY:

Janus Henderson
— INVESTORS —

Speaker:

Ashwin Alankar, Ph.D., Senior Vice President, Global Head of Asset Allocation & Risk Management, **Janus Henderson Investors**

(A) CURRENT AND FUTURE STATE OF THE HEDGE FUND INDUSTRY

- Why have Hedge Funds Underperformed? Will this Shift?
- Is Hedge Fund Investor Risk Appetite and Hedge Fund Manager Willingness to Take On Risk High Enough to Generate an Acceptable Level of Return for Hedge Funds?
- Will we see More Hedge Funds Continuing to Shut Down?
- What is an Appropriate Fee Structure for Hedge Funds? How do you Assess the Tradeoff Between Fees and Liquidity?
- As an LP, do you find it Difficult to get Hedge Fund Managers to Provide Accurate Fee Information in a Timely, Efficient Manner? Do you believe we're In Need of a Standardized Reporting Template like ILPA for Private Equity?
- Do Smaller Hedge Funds Outperform and if so, why?
- What is Driving the Increase in Demand for Strategies Uncorrelated with the Capital Markets? Which Low Correlated Strategies are Most Attractive?
- With Crowding on the Rise for Particular Stocks, do you see this as a Risk and a Contrarian Indicator for those Equity Holdings when the Cycle Turns?

(B) IMPLEMENTATION OPTIONS

- Long-Short Equity Hedge Funds – what Differentiates Managers that have been able to Outperform?
- Do you find Opportunities within the Global Macro Space Attractive and if so, why?
- Managed Futures – Diversification and Performance during Periods of Market Stress or Crisis Events. How much can it Decrease the Depth of Portfolio Drawdowns and Volatility?
- Liquid Hedge Fund Products such as UCITS, 40 Act and Hedge Fund Replication – are they a Viable Alternative and Under what Circumstances? How has their Performance and the Lower Fees Fared to Hedge Funds?
- The Role of Alternative Beta/Risk Premia Strategies in a Hedge Fund Portfolio – what are the Appropriate Expectations from a Sharpe Perspective?
- If there was a Hedge Fund Strategy you would Invest in over the next Few Years, which one would it be and why?
- What is the Future of the Fund of Funds Space? How is it Changing? Where will Fees be? What will it take to Stay Competitive?
- How do Emerging Managers Differentiate Themselves in the quest for Institutional Capital?
- What sort of Downside Protection, Drawdown or Return Range do you expect we'll see from each of the Different Hedge Fund Strategies during the Next Market Downturn?
- Implementation Considerations for Due Diligence, Portfolio Function and Manager Selection. What are the Key Traits you should be looking for?

(C) IMPLEMENTATION OPTIONS

- What does a Diversified Portfolio of Hedge Funds look like? How Many Funds do you need? Should you focus on a few better Strategies or is the Size of your Portfolio a Factor?
- What is the Role of Separate Managed Accounts? What are the Benefits? Are they Better than Commingled Funds?
- Any Recent Trends you've seen for Pension Plans as far as Fees, Transparency, Increased Partnership, etc.?
- Importance of Operations Due Diligence. Any recent Developments? How often should Operations be Reviewed?
- Transparency and Risk Aggregation Data – are they Accurate?
- What Monitoring Tools or Reports do you feel give you the most Bang for your Buck when Monitoring Individual Managers and Portfolios?
- What Trends do you see Developing in Regards to the way we Evaluate Liquidity Provisions for Hedge Funds?

Moderator:

Dr. John Claisse, CEO, **Albourne America LLC**

Speaker:

Neil Messing, Head of Hedge Funds, **New York City Office of the Comptroller, Bureau of Asset Management**

10:55 AM – CREDIT STRATEGIES

- Current State of the Credit Market
- Where are we in the Credit Cycle and how does it Differ from the Past?
- What will be the Catalyst that will cause Credit Spreads to Widen and Defaults to Rise?
- What Impact do you see from Global Central Bank Policy on Risk and Opportunities Across Credit Markets going forward?
- How will the Sector you Invest in Perform when Rates Rise? Is that a Concern and how do you Manage that?
- Where are we at with Regulatory Issues Today? How might Policy Impact Fund Managers and Investors Mandates?
- What Subsectors of Credit are Most Attractive given the Stretched Valuations? Any Areas you are Avoiding?
- High Yield Market – is it possible to see a High Yield Meltdown with a Lack of Liquidity? Understanding the Risk Factors and the Strong Correlation to Equities
- Bank Loans Overview
- State of Securitized Markets – RMBS, CMBS and CLO Overview
- Outlook and Considerations for Structured
- Outlook for Emerging Market Debt
- Opportunities and Risks for Europe and Asia
- Do you see Investors being more willing to Trade Liquidity for Yield and should that be of Concern?
- How much should Plan Sponsors be Allocating to Credit? What is the Optimal Structure to a Credit Portfolio?
- Considerations for Selecting a Manager and Strategy
- What are the Trade-offs between Mid-Market and Large Market Credit Investing?
- Public vs. Private Credit
- Credit Investment Mandates – are they Too Narrow? Which Bucket or Asset Class does it fit into and should it be Defined as Opportunistic Credit?

Moderator:

Steve Woodall, CFA, CAIA, Portfolio Manager, **Virginia Retirement System**

Speaker:

Stephen L. Nesbitt, CEO, CIO, **Cliffwater LLC**

11:35 AM – DISTRESSED INVESTING – OPPORTUNISTIC AND SPECIAL SITUATIONS

- When will the Vast Sums of Undeployed Capital come in off the Sidelines? Do you Need an Economic Downturn?
- Does the Interest Rate Environment and Fed Balance Sheet Unwind Affect your Plans?
- What are your Expectations for Default Rates going forward?
- Where do you see the Largest Demand from Clients? What are they Most Interested In?
- Where do you see the Best Opportunities over the next 12-24 Months?
- Which Sectors, Strategies, and Geographies will create the Best Opportunities? Any Areas that should be Avoided?
- What Distressed Opportunities are we seeing the Energy Sector?
- What are the Opportunities and Risks in Europe? Any Countries, Sectors or Types of Deals that Stand Out?
- Do you see Opportunities in Asia or Elsewhere Globally?
- What's the Potential Impact of the Debt Piled up by Corporations for their Share Buybacks?
- Will the Prevalent Covenant-Lite Deals create Problems during the Next Cycle?
- What are your thoughts on the Recent Leverage Trends?
- Do you worry about a Liquidity Problem in ETFs and other Structured Credit Vehicles if there is Credit Event?
- Has the Regulatory Environment Changed the Opportunity Set? How has it Impacted your Firm?
- Marketable Distressed Strategies – how Correlated are they to Public Equities? Might they have Merit or is it a Fad?
- What are the Biggest Challenges you face to Delivering Returns?
- How do Investors go about Choosing the Right Distressed Strategy, Investment Style and Approach?
- How will the Different Implementation Approaches affect Expected Returns? Control vs. Non-Control? Private vs. Public?
- Distressed Debt Vehicles in Hedge Fund Format vs. Private Equity Drawdown Structures – what are the Pros and Cons of Each?
- What Skill Sets/Characteristics should Pension Plans look for in a Distressed Manager?

Moderator:

Keith M. Berlin, Director of Global Fixed Income and Credit, **Fund Evaluation Group, LLC**

12:10 PM – LUNCH

SPONSORED BY:



1:15 PM – COMMODITIES

- Current Market Environment
- With the Lack of Evidence that Inflation has had a Significant Uptick, what Factors do we need to see for us to Believe that Commodities have Bottomed and we are ready to begin a Reflationary Regime?
- Based on Previous Down Equity Markets, what Performance can we Expect from Commodities if we have Market Turbulence? How Strong is the Correlation?
- What are your Views on particular Sub-Sectors and where are the Pockets of Value?
- How are Renewables Affecting Specific Commodities?
- What Currency or Weather Related Impacts are you seeing on Specific Commodities?
- Investing in Commodities through Private Equity vs. Stocks or Indexes – Benefits and Drawbacks of Each
- True or False – Natural Resource Stocks are Not an Efficient Way to get Commodities Exposure
- Are MLPs more Highly Correlated to Commodity Prices than we thought?
- Investing in Long/Short vs. Long Only
- Active vs. Passive
- Any Recent Developments in Commodities Risk Premia? Smart Beta as applied to Commodities?
- What are the Key Criteria that would lead to Manager Outperformance?
- Risk Factors

1:45 PM – ENERGY

- Macro Landscape in Energy – is now the Time to be Investing?
- What are the Best Opportunities and Most Attractive Sectors you are seeing Today?
- What Risks do you see that some Investors might not be Considering?
- How Important are the Credit Markets in the Deployment of Private Capital? What have you seen in regards to the Growth of Credit/Lending Energy Strategies?
- How has the Current Commodity Market Distress Impacted the Balance Sheets of Oil and Gas Companies?
- Public vs. Private Investing in Energy – what are the Advantages and Disadvantages of each?
- Thoughts on Midstream MLPs with their Business of Oil Storage Services and its Cashflow?
- How has the Oilfield Service Industry Impacted Upstream Oil and Gas Operators?
- What does the Future Hold for Shale and Natural Gas?
- ESG Considerations, Climate Change and Portfolio Decarbonization – how do you Deal with LP Concerns on this Issue? Has it Impacted your Fund Commitments?
- How will the Growth of Renewables or Alternative Forms of Energy fit into your Portfolio? Will the Best Opportunities be in the U.S. or in Emerging Markets?

Speaker:

Tom Masthay, CFA, CAIA, FRM, Director, Real Assets, **Texas Municipal Retirement System, (TMRS)**

2:15 PM – REAL ESTATE

- Global Macro Views and Trends in Real Estate
- Is a Correction on the Horizon and How Significant? If so, what is the Single Biggest Risk Factor?
- Challenges of Meeting Target Rate of Return
- What are your Return Expectations for the Core?
- Within Non-Core, which Value-Added and Opportunistic Strategies are Most Appealing?
- What is the Biggest Threat to Commercial in the next few years for this Fully Priced Market?
- Do you see a Trend Towards Direct and Away from Commingled Closed-Ended Funds? If so, will it Continue?
- Is the Bridge Financing Opportunity Attractive from Maturing CMBS?
- Debt vs. Equity Preference?
- What's happening with Leverage?
- Which Property Types are At Risk Today?
- Any Niche Property Types that you Like?
- Analysis of Cap Rates and Vacancy/Occupancy Rates – any Conclusions you can draw?
- Asia and European Real Estate Outlook – Opportunities, Investment Trends and Capital Flows
- Will Co-Investments become more Common?
- Current State of the Real Estate Secondary Market
- Programmatic Joint Ventures – why are these Joint Ventures being done? Will more Pension Plans Team up with Commercial REITs?
- Larger vs. Smaller Fund Size – which ones will Outperform going forward?
- Entry Issues with Open-Ended Funds and Concentration into Fewer Funds?
- What Strategies do you see as the Biggest Risks and the Biggest Rewards/Relative Value for the Future?

Moderator:

Christy Fields, Managing Director – Real Estate, **Pension Consulting Alliance, LLC, (PCA)**

Speaker:

Anthony Breault, Senior Investment Officer, Real Estate, **Oregon State Treasury**

3:00 PM – REFRESHMENT BREAK

3:25 PM – INFRASTRUCTURE MARKET OUTLOOK

- Why should Investors consider Committing Capital to the Infrastructure Space?
- Funding Gap and State of Development of the Infrastructure Asset Class – Where are we now in terms of Appetite/Penetration amongst Investors Allocations? How much Room to Run is there for the Asset Class to Continue to Develop?
- Is there Too Much Money Chasing Too Few Opportunities?
- How has Performance been and what are the Recent Return Expectations?
- How will Opportunities and Returns and be Impacted by Low Oil Prices for an Extended Period?
- What has been the Effects of the Low Interest Rate Environment on Infrastructure and how might that Effect Returns and Leverage Going Forward?
- Which Geographies are Most Appealing? Developed or Emerging Economies?
- Which Sectors are Most Attractive?
- Approach – Greenfield vs. Brownfield?
- Infrastructure Debt – will it deliver for Investors Searching for Yield?
- What are the Biggest Challenges/Risks associated with Infrastructure Investing?
- Opportunities in Public-Private Partnerships?
- Debt Heavy/Equity Shortage Deals – How and When will Pension Investors Overcome this Highly Leveraged Roadblock?
- Listed vs. Unlisted – Which do you Favor in a Rising, Low Volatility Market? Which do you Favor in a Volatile Market for Downside Protection? Does Rising Interest Rates Favor Either?
- Any Advantages or Limitations for Co-Investments? Separate Accounts?
- What are the Advantages of Open-Ended Funds over Closed-Ended Funds? Will we Continue to see a Surge in Open-Ended Funds in the Coming Years?

Speaker:

Paul V. Shantic, Director – Inflation Sensitive Investments, **California State Teachers' Retirement System, (CalSTRS)**



3:40 PM – PRIVATE EQUITY

- Are we at a Market Peak? If so, what Clues Lead you to Believe So?
- Protecting your Current Portfolio – How would you Guard Against your Existing Portfolio?
- What are you doing Differently when Approaching New Investments? How do you Avoid Possible Pitfalls or Getting Involved in Expensive Deals?
- Are High Levels of Dry Powder Here to Stay? Do you Believe it will Impact Returns?
- Thoughts on GP Stakes being Bought by Dyal, Petershill and Others? Any Implications?
- Subscription Lines of Credit – How do the Pros and Cons Stack Up and what are the Risks to LPs? Thoughts on ILPA's Guidelines?
- For Buyouts, what Sectors or Geographies do you Favor? What Sectors do you tend to Avoid in this Environment and why?
- Do you Prefer Buyouts or Growth Equity over the next few years and why?
- Does the Huge Growth in Co-Investments in Recent Years make you Cautious if the Cycle Turns?
- Understanding the Trends and Performance of Co-Investments in Small, Medium, and Large Buyouts. Where do Co-Investments make the Most Sense?
- Where are we in the Private Credit Cycle right now and where can we find Good Returns Without Taking Inordinate Risk?
- State of the Venture Industry – Fundraising Environment, Valuations, and Exit Market
- Venture Capital Winners – Limited Access to the Top Few VCs that Generate the Bulk of the Industry's Returns? What's the Best Approach to this Challenge?
- Secondaries Deal Volume, Pricing, Pressures, and Future Expectations
- Why should Secondaries be a Core Holding?
- Issues, Outlook and Opportunities for European PE
- Have you taken Steps to Diversify your PE Portfolio and find Investments with a Non-Correlation to the PE Space in General? Which of these Non-Correlation Strategies have you Allocated to or Favor?
- Transparency and Fees – As an LP, what do you Need and how do you Get It? What is the SEC's Impact on your Ability to get the Information you Require?
- Have you gotten More Involved in your GPs Valuation Process? How have you Achieved this Transparency Demand?

Speaker:

Rodney June, Chief Investment Officer, **Los Angeles City Employees' Retirement System, (LACERS)**

4:25 PM – CIO ROUNDTABLE

(A) RISKS, ALLOCATIONS AND MACRO-BASED DECISIONS

- In this Low Growth, Low Return and Fully-Valued Environment, how has it Impacted your Investment Program and your Asset Allocation? What Steps have you Taken?
- Is there a Good Way to Hedge your Longevity Risk?
- What's your Opinion on the Sustainability of the Stock Market Rally? Thoughts on Central Banks Monetary Policy, Tapering and Balance Sheet Reduction?
- Are there any Strategies you like that provide a Low or Non-Correlation to Traditional Investments that can Provide Outsized Returns during Periods of Market Stress?
- What Strategies does your Fund utilize that will Protect against Interest Rate Risk and Duration Risk?
- Are you Positioning for a Reflationary Regime or Hedging Against the Risk of Further Deflation and why?
- What De-Risking Strategies or Risk Management Approaches has your Fund Integrated into the Investment Decision Process?
- Does LDI or Risk Parity Make Sense Now Considering Current and Future Market Conditions?
- Do you Incorporate Multi-Asset Investing and do you believe it can Limit Downside Risk?
- Do you believe your Hedge Fund Strategies will provide a Cushion for the next Market Downturn? How do you use them to Reduce Risk?
- Have you Trended Towards a Passive Equity Allocation? When Volatility Rises, do you Believe Active Managers will Outperform?
- What do you feel is the proper Emerging Markets Allocation and are there any Regional or Frontier Strategies that interest you?
- Have you made Long-Term Cash Flow Investments through Partnerships and Co-Investment Structures?
- Do you Believe the Impact of Regulation has Created a Reduction in Market Liquidity? Has it Impacted your Fund or Decisions? Will there be Sufficient Liquidity in the System to Cope with Conditions of Market Stress?

(B) ALIGNMENT OF INTERESTS

- What Changes or Trends have you noticed in Fee Structures/Terms and your Bargaining Power?
- How to Respond to Legislative Demands for more Transparency on Profit Sharing/Carried Interest
- Governance Issues Surrounding Investment Programs - How has this been the Basis for Success or the Lack Thereof at Many Programs?
- Should there be an Industry-Wide Threshold (perhaps 3% - 4%), before Carried Interest Kicks In? Is there a Way to go about Making Progress with this Issue?
- What Tactics work best for you when attempting to Negotiate Private Placement Agreements?
- Do You and Your Investment Departments have the Authority to be a Dynamic, Tactical, and Active Investor In Response to Extreme Economic Conditions?
- Any Important Lessons Learned that you can Share from your Individual Plan Experiences?

Moderator:

Andrew Junkin, CFA, CAIA, President, **Wilshire Consulting**

Speakers:

Russell Read, Chief Investment Officer, **Alaska Permanent Fund Corporation**

Mansco Perry III, CFA, CAIA, Executive Director, Chief Investment Officer, **Minnesota State Board of Investment**

Scott C. Evans, CFA, Deputy Comptroller - Asset Management & Chief Investment Officer, **New York City Office of the Comptroller, Bureau of Asset Management**

Craig Husting, CFA, Chief Investment Officer, **Public School & Education Employee Retirement Systems of Missouri, (PSRS/PEERS)**

5:20 PM – CONFERENCE CONCLUDES

5:20 PM – TICKETS FOR NETWORKING EVENT HANDED OUT IN THE CONFERENCE ROOM

ATTENDEES MUST BE PRESENT TO ATTEND EVENT

6:00 PM – WINE TASTING & DINNER NETWORKING EVENT

HOSTED BY THE PENSION BRIDGE

Join our group at for a wine tasting and dinner at the Press Club, located just next door to the Four Seasons. Meet your industry peers in great setting as California Wine Country comes to the heart of the city. Experience the finest winemakers with new and rare vintages. We'll have a fun wine tasting reception, followed by a tasteful dinner with the highest quality organic ingredients. The Pension Bridge will utilize the 9000 square feet of the award winning "Best Restaurant Design" event space for networking for our high quality conference group.





AGENDA REPORT

TO: Oakland Police and Fire Retirement Board

FROM: Katano Kasaine

SUBJECT: Audit Committee Agenda Pending List

DATE: February 28, 2018

In an effort to keep the PFRS Audit Committee informed of outstanding items to be scheduled for an upcoming audit committee meeting. When staff has received enough information on the agenda items below, staff will add it to the next agenda for Audit Committee review and/or action.

	SUBJECT	PROPOSED SCHEDULED MEETINGS	STATUS
1	City of Oakland Insurance for PFRS Board Members	3/28/2018	Pending additional information from City Ins. Broker
2	Actuary Valuation for July 1, 2017	3/28/2018	Pending approval of PFRS Actuarial Experience Study
3	PFRS Benefits Overpayment / Plan Underpayment Policy	3/28/2018	Pending additional discussion with City Attorney
4	Approval of Write-offs for uncollectable accounts	not scheduled	Pending approval of PFRS Over/ Under Policy
5	2007 IFS Management Audit Update	TBD	
5	2026 PFRS Full Funding deadline discussion	TBD	

Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

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

Oakland Police and Fire Retirement Board meetings are held in wheelchair accessible facilities. Contact Retirement Systems, 150 Frank Ogawa Plaza, Suite 3332 or call (510) 238-7295 for additional information.



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

AGENDA

AUDIT 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, February 28, 2018 – 10:30 am
One Frank H. Ogawa Plaza, Hearing Room 3
Oakland, California 94612**

- - - ORDER OF BUSINESS - - -

- 1. Subject:** **January 31, 2018 PFRS Investment Committee Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: **APPROVE** January 28, 2018 Investment Committee meeting minutes.

- 2. Subject:** **Investment Manager Performance Review – Northern Trust Investments**
From: Northern Trust Investments

Recommendation: **ACCEPT** an Informational Report regarding review of Northern Trust Investments, a PFRS Large Cap Core Domestic Equities Investment Manager.

- 3. Subject:** **Investment Manager Overview – Northern Trust Investments**
From: Pension Consulting Alliance (PCA)

Recommendation: **RECOMMEND BOARD APPROVAL** of evaluation and review of Northern Trust Investments, a PFRS Large Cap Core Domestic Equities Investment Manager.

- 4. Subject:** **Investment Manager Report presented by new representative from NWQ**
From: NWQ

Recommendation: **ACCEPT** an Informational Report presented by new representative from NWQ.

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
FEBRUARY 28, 2018**

ORDER OF BUSINESS, continued

5. **Subject:** **Resolution No. 7008 - Placement of Investment Manager to watch status**
From: Staff of the PFRS Board
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7008 - Placement of NWQ, a small cap value Investment Manager, onto watch status.
6. **Subject:** **(1) Informational report from PCA & Staff regarding On-site visit of Hansberger Growth Investors and (2) Recommendation for Request for Information for an active International Equity Investment Manager**
From: PCA and Staff of the PFRS Board
-
- Recommendation:** (1) **ACCEPT** an informational report from PCA & Staff regarding On-site visit of Hansberger Growth Investors, and (2) **RECOMMEND BOARD APPROVAL** of PCA recommendation that PFRS conduct a Request for Information for an active international equity investment manager.
7. **Subject:** **Investment Market Overview**
From: Pension Consulting Alliance (PCA)
-
- Recommendation:** **ACCEPT** an informational report on the global investment markets through January 31, 2018.
8. **Subject:** **Investment Fund Performance Report for the Quarter Ending December 31, 2017**
From: Pension Consulting Alliance
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of the Investment Fund Performance Report for the Quarter Ending December 31, 2017.
9. **Subject:** **Resolution No. 7007 - Renewal of Service Contract – Northern Trust Investments**
From: Staff of the PFRS Board and PCA
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 7007 – resolution exercising a one-year option to extend the agreement with Northern Trust Investments to provide large-cap core domestic equity asset class investment manager services for the City of Oakland Police and Fire Retirement System Board commencing April 19, 2018 through April 19, 2019

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
FEBRUARY 28, 2018**

ORDER OF BUSINESS, continued

10. **Subject:** **Alternative Risk Premia/Trend Manager Search – Proposed Finalists to be interviewed at an upcoming PFRS Investment Committee Meeting**
From: Pension Consulting Alliance
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of a PCA recommendation regarding the Alternative Risk Premia/Trend Manager Search – Proposed Finalists to be interviewed at an upcoming PFRS Investment Committee Meeting.
11. **Subject:** **2018 Capital Market Returns memo**
From: Pension Consulting Alliance
-
- Recommendation:** **ACCEPT** an informational report from PCA regarding its 2018 Capital Market Returns memo.
12. **Subject:** **PFRS Calendar Year 2018 Strategic Investment Plan**
From: Pension Consulting Alliance
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of the PFRS 2018 Strategic Investment Plan.
13. **Future Scheduling**
14. **Open Forum**
15. **Adjournment of Meeting**

AN INVESTMENT AND FINANCIAL MATTERS COMMITTEE MEETING of the Oakland Police and Fire Retirement System (“PFRS”) was held January 31, 2018 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present:

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

Additional Attendees:

- Katano Kasaine, Plan Administrator
- Pelayo Llamas, Deputy City Attorney / PFRS Legal Counsel
- David Low & Teir Jenkins, Staff Members
- David Sancewich & Sean Copus, Pension Consulting Alliance (PCA)

The meeting was called to order at 10:43 am.

1. **Approval of Investment Committee meeting minutes** – Member Melia made a motion to approve the November 29, 2017 Investment Committee meeting minutes, second by Member Wilkinson. Motion passed.

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

2. **Investment Manager Performance Review – NWQ** – Anthony Maramarco from NWQ (PFRS’s investment manager (Active Small Cap Value Domestic Equities class) presented a performance and management overview NWQ. This included discussion of the change in ownership of NWQ to Nuveen Investments. Following Committee and investment manager discussion, member Wilkinson made a motion to accept the informational report, second by member Melia. Motion passed.

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

3. **Review and recommended Board action to place Investment Manager NWQ on “watch” status** – Sean Copus from Pension Consulting Alliance “PCA” presented its review of the ownership and other changes recently occurring in investment manager NWQ. Mr. Copus said the information reported by Mr. Maramarco warrants the Board placing NWQ onto “watch” status. Following some discussion by the Investment Committee and PCA, Member Wilkinson made a motion to recommend Board approval to place NWQ onto “watch” status, second by member Melia. Motion passed.

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

4. **\$14.1 million 1st Quarter 2018 Member Benefits Drawdown** – Mr. Copus of PCA reported the funds distribution for member benefits payments from January 2018 through March 2018. Investment Officer Teir Jenkins reported that \$14.1 million would be drawn from the City contribution and PFRS funds for this period’s member benefits payments. Following some additional discussion, member Melia made a motion to recommend Board approval of the \$14.1 million member benefits drawdown for the January 2018 through March 2018 period, second by Member Wilkinson. Motion passed.

[GODFREY – Y / MELIA – Y / WILKINSON – Y]

(AYES: 3 / NOES: 0 / ABSTAIN: 0)

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

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

6. **Preliminary Investment Fund Performance Report for the Quarter Ending December 31, 2017** – Mr. Copus presented the details of the Investment Fund Performance Report for the Quarter Ending December 31, 2017. David Sancewich reported the strong performance of the PFRS Funds compared to peer pension plans. Plan Administrator Katano Kasaine reported that the performance report would be presented to City Council at their March 2018 meeting. Following committee discussion, member Wilkinson made a motion to approve the Investment Fund Performance Report for the Quarter Ending December 31, 2017, second by member Melia. Motion passed.

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

7. **Resolution No. 6993 – Renewal of Service Contract – Earnest Partners** – Member Wilkinson made a motion to recommend Board approval of Resolution No. 6993, second by Member Melia. Motion passed.

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

8. **Resolution No. 6994 – Renewal of Service Contract – Fisher Investments**– Member Wilkinson made a motion to recommend Board approval of Resolution No. 6994, second by Member Melia. Motion passed.

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

9. **Open Forum** – No Report

10. **Future Scheduling** – The next Investment Committee meeting was tentatively scheduled for February 28, 2018.

The meeting adjourned at 11:26 am.

JAIME T. GODFREY, COMMITTEE CHAIRMAN

DATE

NORTHERN TRUST ASSET MANAGEMENT

City of Oakland Police and Fire Retirement System

Annual Portfolio Review



CITY OF OAKLAND

Tamara Doi Beck

Senior Vice President, Director, Public Funds and Taft-Hartley
Northern Trust Asset Management

TDB7@ntrs.com

303.335.1416



NORTHERN TRUST

ABOUT THE PRESENTER



Tamara Doi Beck
Senior Vice President,
Director, Public Funds &
Taft Hartley

Tamara Doi Beck

Tamara Doi Beck is Director, Public Funds & Taft-Hartley Plans at Northern Trust Asset Management. In her role, Tamara will deliver investment solutions, including equity, fixed income, and alternative asset classes, for these institutional segments on the West Coast. Tamara has covered this region since 2003 and has 18 years of financial industry experience, all of it developing business and managing client relationships with institutional investment programs.

Tamara joined from Janus Capital Group, where she was Managing Director, responsible for new business development with public, corporate, endowment and foundation plans. Previously, she was Director of Business Development for LMC Group Investments and Senior Vice President for Neuberger Berman. Tamara also held several roles at Morgan Stanley Investment Management for over six years, most recently as Vice President of Institutional Sales on the Public Funds Team. She also served as a Coalition Programs Associate for Ceres, the Coalition for Environmentally Responsible Economies.

Tamara earned a BA from Tufts University and graduated summa cum laude with highest thesis honors. She is a Board of Director for the Young Americans Center for Financial Education and serves on the Investors in Education Committee for the Neighborhood Youth Association. She holds Series 3, 7 and 63 licenses.

TABLE OF CONTENTS

- Northern Trust Asset Management Overview
- Portfolio Review and Attribution
- Brokerage Usage
- Appendix

PRINCIPLES THAT ENDURE



NORTHERN TRUST

Service

Relentless drive to provide exceptional service.

Expertise

Resolving complex challenges with multi-asset class capabilities.

Integrity

Acting with the highest ethics, utmost honesty and unfailing reliability.

Northern Trust's core principles of service, expertise, and integrity have remained constant for over 125 years, guiding Northern Trust's evolution to a multi-faceted global financial services provider.

Throughout our history and changing market environments, we have led the financial services industry by aligning our efforts with these guiding principles.

Today, we remain committed to these founding principles which continue to unite and drive our partners around the globe — delivering our clients unparalleled service and expertise, with integrity.

NORTHERN TRUST CORPORATION

Serving the world's most-sophisticated clients – from sovereign entities and the wealthiest individuals, to the largest global corporations and hedge funds.

GLOBAL PLATFORM



As of December 31, 2017

¹Standard and Poor's, senior debt

²For additional information on these awards, see important information in the Appendix.

AT A GLANCE

- Founded in 1889
- Headquartered in Chicago, IL
- Locations in 24 countries
- Serving clients in 29 countries
- 16,500 global employees
- Diversified revenue streams
- A+ debt rating; well-capitalized¹



World's
most admired
companies[®]

Fortune Magazine²
10th consecutive year

World's
most ethical
companies[®]

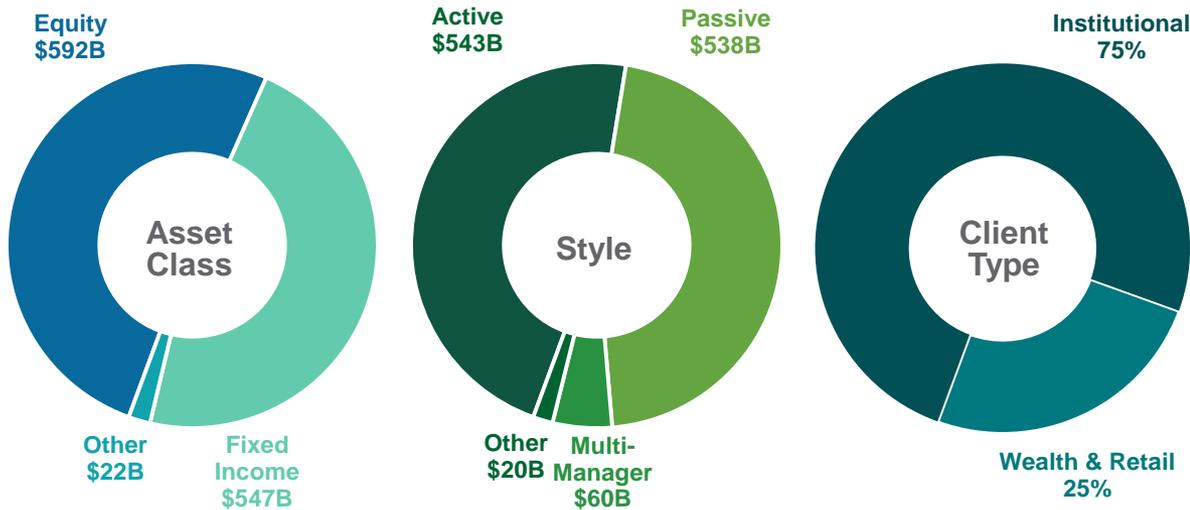
*Ethisphere
Institute²*



NORTHERN TRUST ASSET MANAGEMENT

A leading global investment manager with a client-centric culture rooted in a fiduciary heritage.

TOTAL ASSETS UNDER MANAGEMENT



A TRUSTED PARTNER

Leveraging the strength of Northern Trust

Global network of investment professionals with deep expertise

Demonstrated ability to thrive in various market environments

Progressive thought leadership and unique insights

Solving complex global challenges with innovative solutions

Focused on placing the needs of our clients above all else

\$1.2 trillion
TOTAL AUM* | World's **14th largest** asset manager

*Represents total assets managed by the subsidiaries of Northern Trust Corporation as of December 31, 2017. The above rankings are not indicative of future performance. Unless otherwise noted, rankings are based on total worldwide assets under management of \$942.4 billion as of December 31, 2016 by *Pensions & Investments* magazine's 2017 Special Report on the Largest Money Managers.

ASSET MANAGEMENT EXPERTISE

Investment solutions and asset allocation informed by deep capital markets analysis. Comprehensive asset class capabilities from passive and factor-based, to fundamental active and multi-manager.

Capital Markets Expertise

Equity

Factor-Based
Active
Passive
Tax Advantaged
Multi-Manager

Fixed Income

Active
Passive
Cash Management
Multi-Manager

Alternatives

Hedge Funds
Private Equity
Private Credit
Real Assets
Infrastructure
Real Estate

Solutions

ESG
Retirement
Target Date
Multi-Manager
Investment Advisory
Focus Research

Asset Allocation

Strategic
Tactical

..... Forward-looking, historically aware investment approach

GLOBAL PRODUCT VEHICLES

Collective Funds | Common Contractual Funds (CCF) | Common Funds | Exchange Traded Funds (ETFs) | Fonds vor Gemene Rekening (FGR)

Investment Company Variable Capital (ICVC) | Managed Accounts | Mutual Funds | Separate Accounts

NORTHERN TRUST ASSET MANAGEMENT ORGANIZATION



Shudrawn Thomas
President
Northern Trust Asset Management



Bob Browne, CFA
Executive Vice President
Chief Investment Officer



Jason Tyler
Executive Vice President
Global Head, Institutional Group



Matt Peron
Executive Vice President
Head of Global Equity



Colin Robertson
Executive Vice President
Head of Fixed Income



Bob Morgan
Executive Vice President
Head of Alternative Investments



John Abunassar
Senior Vice President
Practice Lead, Sales & Distribution

PUBLIC FUNDS / TAFT HARTLEY SALES & SERVICE TEAM



Bob Parise
Senior Vice President
Practice Lead, Public Fund & Taft Hartley
Phone: 312.444.7673
Email: BP142@ntrs.com



Tamara Doi Beck
Senior Vice President
Director, Public Funds & Taft Hartley
Phone: 303.335.1416
Email: TDB7@ntrs.com



William Mac Nickey
Senior Vice President
Director, Public Funds & Taft Hartley
Phone: 312.557.3992
Email: wmn1@ntrs.com



Ashley Hartman Alson
Vice President
Director, Public Funds & Taft Hartley
Phone: 214.740.5844
Email: AH253@ntrs.com



Fred Porzelt
Vice President
Associate Relationship Manager
Phone: 312.557.8336
Email: fjp1@ntrs.com



Mike Nieves
Second Vice President
Associate Relationship Manager
Phone: 312.444.4950
Email: mn80@ntrs.com



Kimberley Schneider
Vice President
Associate Relationship Manager
Phone: 312.444.7907
Email: kas8@ntrs.com



Lance Rushing
Second Vice President
Associate Relationship Manager
Phone: 312.557.3259
Email: lr161@ntrs.com

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City of Oakland Police and Fire Retirement System

Performance and Market Value Summary of Holdings as of December 31, 2017

CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

PERFORMANCE & MARKET VALUE SUMMARY OF HOLDING – AS OF DECEMBER 31, 2017

	Market Value (USD)	Performance (Values in %)							
		1 Month	3 Months	Year to Date	1 Year	3 Year	5 Year	10 Year	Since Inception
Legal Agreement: CITY OF OAKLAND POLICE AND FIRE RETIREMENT BOARD									
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM-(OAKRU1) (NT Reference Account 2698026)	\$76,601,083.17								05/31/2010
Total Fund Gross of Fees		1.11	6.57	21.62	21.62	11.19	15.64		14.85
Russell 1000		1.11	6.59	21.69	21.69	11.23	15.71		14.92
Total MV of CITY OF OAKLAND POLICE AND FIRE RETIREMENT BOARD	\$76,601,083.17								
Total MV of Assets	\$76,601,083.17								

Past performance is no guarantee of future results.

Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index.

PERFORMANCE AS OF DECEMBER 31, 2017

City of Oakland Police and Fire Retirement System-(OAKRU1)

Market Value:
\$76,601,083.17



Annualized for periods greater than one year. Performance is gross of fees and does not reflect the deduction of investment advisor complete fees. Client's return will be reduced by the advisory fees. Past performance does not guarantee future results. Please see Appendix for additional performance history & disclosure. It is not possible to invest directly in any index.

FOR ONE-ON-ONE USE ONLY.

CHARACTERISTICS AS OF DECEMBER 31, 2017

City of Oakland Police and Fire Retirement System-(OAKRU1)

Characteristics	Fund	Index	Sector Distribution	Fund	Index
Avg. Wtd. Market Cap (\$Mil)	\$177,538.40	\$177,560.39	Consumer Discretionary	12.50%	12.50%
Median Cap. \$Mil (by Port.Wt.)	\$83,067.05	\$83,067.05	Consumer Staples	7.70%	7.70%
Avg. Capitalization (\$Mil)	\$29,008.81	\$29,008.81	Energy	5.91%	5.91%
5-Year Historic EPS Growth	13.14%	13.14%	Financials	14.91%	14.91%
5-Year Projected EPS Growth	12.25%	12.25%	Health Care	13.15%	13.15%
Trailing P/E Ratio	23.59	23.59	Industrials	10.59%	10.59%
Forward 12-Month P/E Ratio	20.10	20.10	Information Technology	23.32%	23.33%
P/B Ratio	3.21	3.21	Materials	3.37%	3.37%
Dividend Yield	1.82%	1.82%	Real Estate	3.62%	3.62%
Return on Equity	18.28%	18.28%	Telecommunication Services	1.99%	1.99%
Number of Equity Holdings	979	978	Utilities	2.94%	2.93%
**5-Year Beta	1.00	1.00			

Top Ten Holdings	Fund	Top Ten Holdings	Index
Apple Inc.	3.43%	Apple Inc.	3.43%
Microsoft Corporation	2.53%	Microsoft Corporation	2.53%
Amazon.com, Inc.	1.83%	Amazon.com, Inc.	1.83%
Facebook, Inc. Class A	1.63%	Facebook, Inc. Class A	1.63%
Berkshire Hathaway Inc. Class	1.51%	Berkshire Hathaway Inc. Class	1.51%
Johnson & Johnson	1.49%	Johnson & Johnson	1.49%
Jpmorgan Chase & Co.	1.46%	Jpmorgan Chase & Co.	1.46%
Exxon Mobil Corporation	1.40%	Exxon Mobil Corporation	1.40%
Alphabet Inc. Class C	1.25%	Alphabet Inc. Class C	1.25%
Alphabet Inc. Class A	1.24%	Alphabet Inc. Class A	1.24%

**Please note Beta is calculated using the prior month's portfolio and benchmark returns.

Information is provided to illustrate typical sectors and securities in which the portfolio may invest and to reflect representative portfolio characteristics. It should not be considered investment advice or a recommendation to buy or sell any security. There is no guarantee that securities remain in the portfolio or that securities sold have not been repurchased. It should not be assumed that any investments were profitable or will prove to be profitable. Past performance does not guarantee future results.

Brokerage Usage

BROKERAGE: SELECTING PREFERRED TRADING PARTNERS

- Northern Trust's MWDBE Program is a longstanding, formal program to identify minority brokers. Governance is managed by steering committee.
- A documented RFI process combining both quantitative and qualitative analysis for selecting brokers who are included in the program.

Current Slate of Firms

Broker Name	Designation	Equity	Fixed Income
Loop Capital Markets	AA	X	X
Mischler Financial Group	DV	X	X
Penserra Securities LLC	H	X	X
Williams Capital Group	AA	X	X
Samuel A. Ramirez & Co.*	H	X	X
Cabrera Capital Markets*	H	X	X
Drexel Hamilton	DV		X
Siebert Cisneros Shank	W		X

AA – African American
 DV – Disabled Veteran
 H – Hispanic
 W – Women

*Firms new to the list vs. 2014

BROKERAGE USAGE

City of Oakland Police and Fire Retirement System

Total Brokerage Usage as of December 31, 2017

Money Manager	Total Broker Commissions	All Brokers	
		Commissions	% of total
<i>Northern Trust Asset Management</i>	\$1,069.95	\$1,069.95	100.00%
CSFB			0.00%
Citi		0.19	0.02%
Deutsche Bank			0.00%
Goldman Sachs		50.82	4.75%
ITG		332.26	31.05%
JP Morgan			0.00%
Loop Capital		257.69	24.08%
Merrill Lynch		428.93	40.09%
Morgan Stanley			0.00%
Weeden and Co.		0.06	0.01%
		\$1,069.95	100.00%

Local Brokerage Usage as of December 31, 2017

Money Manager	Total Broker Commissions	Local Broker	
		Commissions	% of total
<i>Northern Trust Asset Management</i>	\$1,069.95	\$257.69	24.08%
Blaylock Robert Van			0.00%
LAM Securities			0.00%
Liberty group, LLC			0.00%
Loop Capital		257.69	100.00%
Siebert, Brandford, Shank & Co.			0.00%
		\$257.69	100.00%

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Appendix

IMPORTANT INFORMATION

2014-2017 World's Most Ethical Companies

Honorees are chosen by Ethisphere's network of leaders and the World's Most Ethical Companies Methodology Advisory Panel. Ethisphere's proprietary rating system is comprised of a series of questions based on the EQ Framework focusing on a comprehensive sampling of a company's corporate governance, risk, sustainability, social responsibility, compliance or ethics.

<http://worldsmoethicalcompanies.ethisphere.com/honorees>

2017 One of the World's Most Admired Companies

Fortune's survey partners at Hay Group starts with approximately 1,500 companies: the Fortune 1,000 -- the 1,000 largest U.S. companies ranked by revenue; non-U.S. companies in Fortune's Global 500 database with revenues of \$10 billion or more. Hay then selects the highest-revenues companies in each industry, surveying a total of 680 companies from 28 countries. To create the 51 industry lists, Hay polled executives, directors and analysts to rate companies in their own industry on nine criteria, from investment value to social responsibility. A company's score must rank in the top half of its industry survey to be listed.

<http://fortune.com/worlds-most-admired-companies>

(click on `See our methodology and credits')

The information contained herein is intended for use with current or prospective clients of Northern Trust Investments, Inc. The information is not intended for distribution or use by any person in any jurisdiction where such distribution would be contrary to local law or regulation. This information is obtained from sources believed to be reliable, and its accuracy and completeness are not guaranteed. Information does not constitute a recommendation of any investment strategy, is not intended as investment advice and does not take into account all the circumstances of each investor. Information shown is current as of the date appearing in this material only and is subject to change without notice. Indices and trademarks are the property of their respective owners. All rights reserved.

Products and services provided by subsidiaries of Northern Trust Corporation may vary in different markets and are offered in accordance with local regulation. For more information, read our legal and regulatory information about individual market offices (available at northerntrust.com/disclosures).

Past performance is no guarantee of future results.

Northern Trust Asset Management is composed of Northern Trust Investments, Inc. Northern Trust Global Investments Limited, Northern Trust Global Investments Japan, K.K, NT Global Advisors Inc., 50 South Capital Advisors, LLC and investment personnel of The Northern Trust Company of Hong Kong Limited and The Northern Trust Company.

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Northern Trust Asset Management is composed of Northern Trust Investments, Inc. Northern Trust Global Investments Limited, Northern Trust Global Investments Japan, K.K, NT Global Advisors Inc., 50 South Capital Advisors, LLC and investment personnel of The Northern Trust Company of Hong Kong Limited and The Northern Trust Company.

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Date: February 28, 2018

To: Oakland Police and Fire Retirement System (OPFRS)

From: Pension Consulting Alliance, LLC (PCA)

CC: David Sancewich – PCA
Sean Copus, CFA – PCA
Teir Jenkins – OPFRS
Katano Kasaine – OPFRS

RE: Northern Trust – Manger Update

Manager: Northern Trust

Inception Date: 6/01/2010 OPFRS AUM (1/31/2018): \$80.8 million (21.2%)
Product Name: Russell 1000 Index Strategy Management Fee: 6 bps (\$48,474.41)*

Investment Strategy: Large Cap Core Equity Firm-wide AUM (12/31/17): \$1,161 billion
Benchmark: Russell 1000 Index Strategy AUM (12/31/17): \$29.3 billion

*Estimated \$ amount based on manager account AUM as of 1/31/2018

Summary & Recommendation

Northern Trust has served as Oakland PFRS's passive large cap core equity manager since June 2010. In that time Norther Trust performed within expectations for a passive manager and has experienced no major organizational changes. **Due to Northern Trust's consistent performance and stable organizational operations, PCA does not recommend any special action be taken in regard to the passive large cap core portfolio or manager.**

Discussion

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

Performance

OPFRS Portfolio Annualized Returns (as of 12/31/2017)

Manager	Mkt Value (\$000)	Asset Class	3 MO	1 YR	3 YR	5 YR	Since Inception	Inception Date
Northern Trust	76,601	Large Cap Core	6.6	21.7	11.2	15.7	14.9	6/2010
Russell 1000 Index	---	---	6.6	21.7	11.2	15.7	14.9	---
Excess Return	---	---	0.0	0.0	0.0	0.0	0.0	---
Tracking Error	---	---	0.0	0.0	0.1	0.1	0.2	---

The Northern Trust Russell 1000 Core Index portfolio has consistently matched its benchmark over all time periods measured with minimal tracking error. The performance of the portfolio has been in line with PCA's expectations of a passive manager.

Product and Organization Review Summary

Northern Trust		Areas of Potential Impact			
	Level of Concern [^]	Investment process (client portfolio)	Investment Team	Performance Track Record	Team/ Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None - X	Watch Status		Termination	

[^]None, low, medium, or high

Organizational Changes

Since Northern Trust's previous contract renewal one year ago there have been minimal changes to the passive strategy portfolio management team. During 2017, two portfolio managers left the team and were promptly replaced. This amount of turnover is consistent with previous years and is not considered an issue given that the team consists of 25 total portfolio managers. Brent Reeder, who is considered the primary manager for the Russell 1000 Core product, has been with the fund since 1998.

Investment Process, per manager

The Northern Trust Russell 1000 Index fund seeks investment results, before expenses, approximating the aggregate price and dividend performance of the securities included in the Russell 1000 Index. The fund invests at least 80% of its net assets in equity securities in the index and uses proprietary quantitative techniques to minimize trading costs.

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The information contained in this report may include forward-looking statements. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the Firm, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect PCA's current judgment, which may change in the future.

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NWQ Investment Management Company, LLC

Presented for

CITY OF OAKLAND POLICE AND FIRE RETIREMENT BOARD

February 28, 2018

Presented by

MICHAEL MULLANE, CFA
Managing Director
Client Portfolio Manager

This presentation has been prepared for the exclusive use by City of Oakland Police and Fire Retirement Board (the "Client") and includes certain information that is confidential and proprietary to NWQ Investment Management Company, LLC ("NWQ"). Such information is provided solely for the purpose of due diligence and evaluation of NWQ's current investment management services provided under agreement with the Client and is restricted for such purposes. Other use or dissemination of this information is unauthorized.

from NUVEEN



TABLE OF CONTENTS

1. Investment Philosophy and Process
2. Portfolio Review
3. Professional Credentials



IMPORTANT DISCLOSURES

The viewpoints stated herein reflect the opinions of NWQ Investment Management Company, LLC and are based on publicly available research and forecast data. NWQ makes no representations or warranties as to the accuracy or reliability of such data and/or forecasts, which are subject to change without notice. Actual events may differ substantially from those presented herein. Past performance is no guarantee of future results.

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It is important to remember that there are risks inherent in any investment and there is no assurance that any investment or asset class will provide positive performance over time. Value style investing presents the risk that the holdings or securities may never reach their full market value because the market fails to recognize what the portfolio management team considers the true business value or because the portfolio management team has misjudged those values. In addition, value style investing may fall out of favor and underperform growth or other style investing during given periods. Non-U.S. investing presents additional risks such as the potential for adverse political, currency, economic, social or regulatory developments in a country including lack of liquidity, excessive taxation, and differing legal and accounting standards. These risks are magnified in emerging and frontier markets.

Information pertaining to the investment philosophy or process is provided for discussion purposes only. This information reflects the viewpoints of the portfolio management team as of the date hereof, and is subject to change.

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TAB 1



INVESTMENT PHILOSOPHY

- Invest in companies that possess three key attributes:
 - Attractive valuation
 - Catalysts and/or inflection points
 - Favorable risk/reward

ANALYST-DRIVEN RESEARCH PROCESS

- Security selection driven by seasoned analysts conducting disciplined, bottom-up research.

OPPORTUNISTIC APPROACH

- Capitalize on opportunities created by investor over-reaction, misperception, and short-term focus.

RISK CONTROL

- Strong focus on providing favorable risk/reward for each investment within a diversified portfolio.



GLOBAL INVESTMENT TEAM

AS OF 12/31/17

INVESTMENT PROFESSIONAL	ROLE	COVERAGE	YEARS OF EXPERIENCE
Peter Boardman	Portfolio Manager, Equity Analyst	Consumer, Industrials	31
Jon D. Bosse, CFA	Chief Investment Officer, Portfolio Manager, Equity Analyst	Energy	36
Susi Budiman, CFA, FRM	Co-Head of Fixed Income, Portfolio Manager/Credit Analyst	Preferred/Investment Grade	18
Jae H. Chung, CFA	Equity Analyst	Technology	17
Russell W. Collins	Equity Analyst	Industrials	11
Andy C. Hwang	Portfolio Manager, Equity Analyst	Consumer, Industrials, Technology	22
Thomas J. Lavia, CFA	Director of Research, Equity Analyst	Technology, Healthcare	20
Cindy Henn Olsen, CFA	Equity Analyst	Consumer	13
Steve T. Peña	Credit Analyst/Risk Analytics, Equity Analyst	REITs & BDCs	17
Jonathan S. Prugel	Equity Analyst	Energy, Utilities	10
Thomas J. Ray, CFA	Co-Head of Fixed Income, Portfolio Manager/Credit Analyst	Convertibles	27
Greg P. Robitshek, CFA	Trader/Analyst	Hybrid/Investment Grade	18
Jujhar S. Sohi, CFA, ACA	Equity Analyst	Healthcare, Financials	14
Jim T. Stephenson, CFA	Portfolio Manager, Equity Analyst	Media/Telecommunications, Transportation, Materials	27
Phyllis G. Thomas, CFA	Chair - Investment Oversight Committee, Portfolio Manager, Equity Analyst	Paper & Forest Products	46
Ray O. Wicklander, CPA, CFA	Equity Analyst	Financials, Real Estate	14

A team of 6 Research Analysts supports the senior members of the Investment Team.

TAB 2



ABSOLUTE PERFORMANCE¹

Year To Date 2018		Inception Through 02/15/18	
Market Value 12/31/17	\$9,984,000	Market Value 01/13/06	\$10,875,000
Contributions	\$0	Contributions	\$6,556,000
Withdrawals	\$0	Withdrawals	\$(16,400,000)
Adjusted Value	\$9,984,000	Adjusted Value	\$1,031,000
Market Value 02/15/18	\$10,031,000	Market Value 02/15/18	\$10,031,000
Net Gain/(Loss)	\$47,000	Net Gain/(Loss)	\$9,000,000

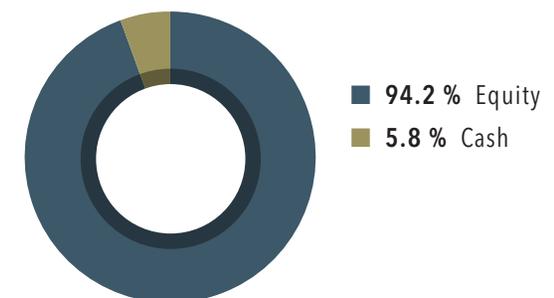
CLIENT OBJECTIVES

Inception:	01/13/06
Benchmark:	100% Russell 2000 Value

RELATIVE PERFORMANCE - AS OF 02/15/18¹

	MTD 2018	YTD 2018	Three Years	Five Years	Seven Years	Ten Years	Since Inception ²
Total Account	(1.8)	0.5%	10.5%	14.5%	13.3%	10.6%	8.6%
Russell 2000 Value	(2.7)	(1.5)	8.9	10.8	10.0	8.7	7.1

ASSET ALLOCATION - AS OF 01/31/18¹



¹ Total Account performance results are gross of fees unless indicated. Performance results and market values are preliminary due to pending account reconciliation with custodial records. A final report is available upon request. Performance calculations from January 1, 2008 to the present are based on daily account market valuations. Returns for 2008 reported prior to August 2008 have been restated to reflect daily account valuations. Returns prior to January 1, 2008 reflect a monthly performance calculation and market valuation. Account cash flows will impact the daily and monthly return calculation differently. Benchmark returns reflect the actual returns of all relevant benchmarks that were in place during the reporting period. Additional information is available upon request. Past performance is no guarantee of future results.

² Inception date: January 13, 2006. Periods of two years and greater are annualized.

Source: Eagle PACE.



PERFORMANCE REVIEW

CITY OF OAKLAND POLICE AND FIRE RETIREMENT BOARD

RELATIVE PERFORMANCE - AS OF 12/31/17¹

	Year 2017	Year 2016	Year 2015	Year 2014	Year 2013	Year 2012	Year 2011	Year 2010	Year 2009	Year 2008	Year 2007	Year 2006 ²
Total Account	14.0%	21.8%	(2.4)%	8.6%	42.4%	17.9%	1.6%	33.7%	31.8%	(44.6)%	(3.4)%	13.9%
Russell 2000 Value	7.8	31.7	(7.5)	4.2	34.5	18.1	(5.5)	24.5	20.6	(28.9)	(9.8)	17.8

¹ Total Account performance results are gross of fees unless indicated. Performance results and market values are preliminary due to pending account reconciliation with custodial records. A final report is available upon request. Performance calculations from January 1, 2008 to the present are based on daily account market valuations. Returns for 2008 reported prior to August 2008 have been restated to reflect daily account valuations. Returns prior to January 1, 2008 reflect a monthly performance calculation and market valuation. Account cash flows will impact the daily and monthly return calculation differently. Benchmark returns reflect the actual returns of all relevant benchmarks that were in place during the reporting period. Additional information is available upon request. Past performance is no guarantee of future results.

² Inception date: January 13, 2006. Periods of two years and greater are annualized.

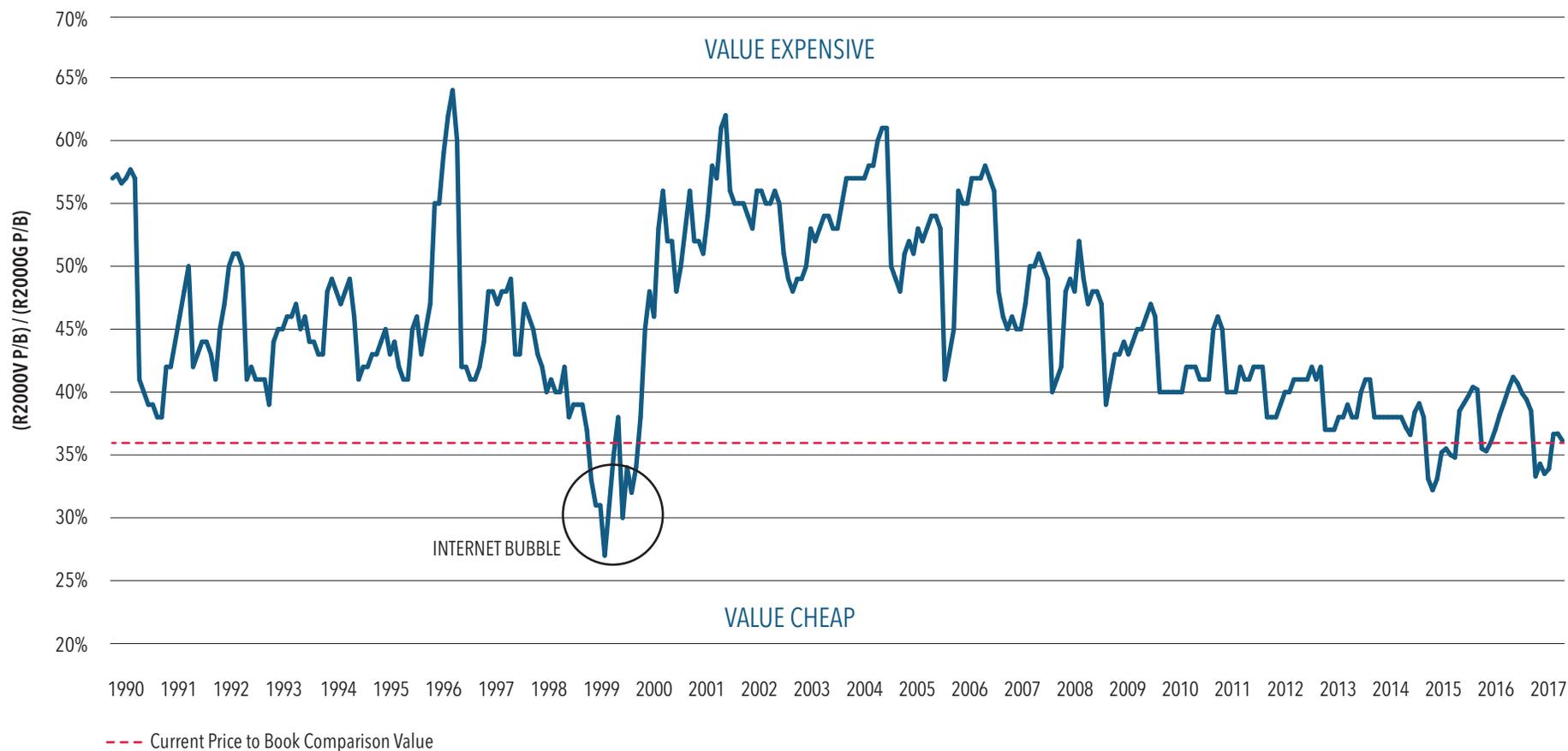
Source: Eagle PACE.



PRICE TO BOOK COMPARISON: RUSSELL 2000 VALUE INDEX VS. RUSSELL 2000 GROWTH INDEX

AS OF 12/31/17

VALUE EXTREMELY UNDERVALUED VERSUS GROWTH



Source: FactSet, as of 12/31/2017. Index data does not reflect taxes, transaction costs, investment management fees or other fees and expenses that would reduce performance in an actual account. It is not possible to invest in an index. Past performance is no guarantee of future results.



PORTFOLIO OVERVIEW

CITY OF OAKLAND POLICE AND FIRE RETIREMENT BOARD
AS OF 01/31/18

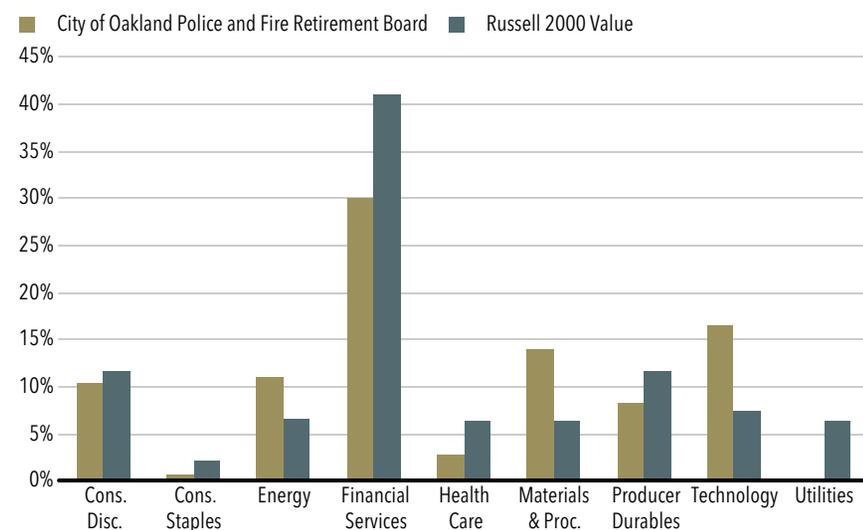
TOP 10 HOLDINGS

Name	Portfolio Weight
Western Alliance BanCorp.	4.2%
Carrizo Oil & Gas Inc.	3.8
PDC Energy Inc.	3.4
Mellanox Technologies Ltd.	3.4
Bank of N.T. Butterfield & Son Ltd. (The)	3.4
Albany International Corp. (Cl.A)	3.0
Mitel Networks Corp.	2.9
Hooker Furniture Corp.	2.8
HomeStreet Inc.	2.7
TRI Pointe Group Inc.	2.7

CAPITALIZATION DISTRIBUTION

	Cap Range	Portfolio	Benchmark
% Mid/Small	\$3.7B - \$10.7B	23.1%	14.9%
% Small	Below \$3.7B	76.9	84.9

PORTFOLIO SECTOR WEIGHTS - NWQ VS. BENCHMARK



PORTFOLIO CHARACTERISTICS

	Portfolio	Benchmark
Capitalization		
\$-Wtd. Median	\$2.2 B	\$1.9 B
Median	\$2.0 B	\$0.8 B
Wtd. Avg.	\$2.6 B	\$2.2 B
Trailing 12 Months P/E¹	19.5x	18.1x
Forward P/E¹	15.4x	16.3x
Price to Sales	1.2x	0.7x
Price to Book Value	2.1x	1.5x
Yield	1.0%	1.8%
Debt to Capital	28.5%	45.5%
Future EPS Growth¹	16.3%	12.7%

¹ Excludes negative values and outliers.

Holdings data may not reflect reconciliation of all transactions which have occurred after the date reflected in this report. Past performance is no guarantee of future results.

Sources: Portfolio Data: FactSet; Index Data: Russell Investment Group.

TAB 3



**PHYLLIS G. THOMAS, CFA**

*Senior Managing Director
Chair, Investment Oversight Committee
Portfolio Manager*

Prior to joining NWQ in 1990, Phyllis held the position of Vice President and Senior Portfolio Manager with The Boston Company where she managed institutional portfolios for three years. Previous to this, she spent seven years at Beneficial Standard Investment Management Company as a Senior Portfolio Manager for the company's equity funds and outside advisory accounts.

Phyllis graduated from Northern Illinois University and received her M.B.A. from the University of California, Los Angeles. She earned the designation of Chartered Financial Analyst in 1979 and is a member of the CFA Institute. Phyllis is past President of the Los Angeles Society of Financial Analysts, Co-chairman of the FIM-West Conference, and past Chairman of the Long Range Planning Committee. She is a Trustee of the Park Century School and Chair of the Finance Committee, and is a Board member and Treasurer of the Huntington Lake Volunteer Fire Department.

**ANDREW C. HWANG**

*Managing Director
Portfolio Manager
Equity Analyst*

Prior to joining NWQ in 1998, Andy spent three years with InterGlobal Financial Corporation, a boutique futures dealer, where he headed research and trading strategies. Previous to this, Andy spent two years as a Senior Account Executive for individual futures clients.

Andy graduated from the University of California, Los Angeles with a B.A. in Economics/International Area Studies, and received his M.B.A. in Finance at the Marshall School of Business at the University of Southern California.

**MICHAEL MULLANE, CFA**

*Managing Director
Client Portfolio Manager*

Prior to rejoining NWQ in 2016, Michael was an Investment Strategist and Client Portfolio Manager for Nuveen affiliate, Tradewinds Global Investors, LLC. Prior to that, he was a client portfolio manager here at NWQ. Before joining us, Michael worked as an international and global equity analyst at Merrill Lynch and as an equity strategist at Commerzbank Securities. Michael has several years of industry experience working outside of the United States.

Michael graduated from the University of East Anglia in the U.K., with a B.S. in Mathematics with Economics. He received his M.B.A. with distinction from Warwick Business School. He earned his Chartered Financial Analyst designation and is a member of the CFA Institute.



AGENDA REPORT

TO: Oakland Police and Fire
Retirement Board

FROM: Katano Kasaine

SUBJECT: Resolution No. 7008 - Placement of NWQ
on to Watch Status

DATE: February 23, 2018

EXECUTIVE SUMMARY

The Staff of the Board of the Oakland Police and Fire Retirement System recommends Board approval of Resolution No. 7008 placing NWQ, a small cap value domestic equity investment manager for the PFRS Fund, onto watch status.

BACKGROUND

The PFRS Board approved the placement of NWQ, a small cap value domestic equity investment manager for the PFRS fund, onto watch status at it January 31, 2018 Board meeting. Staff submits Resolution No. 7008 (**Attachment 1**) for PFRS Board approval.

Respectfully submitted,

Katano Kasaine, Plan Administrator
Oakland Police and Fire Retirement System

Attachment(2):

- Resolution No. 7008 - *Placement of NWQ, a Small Cap Value Domestic Equities Investment Manager of the Oakland Police and Fire Retirement System, onto watch status*
- January 31, 2018 DRAFT Board Meeting Minutes

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

*Approved to Form
and Legality*

RESOLUTION No. 7008

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

**PLACEMENT OF NWQ, A SMALL CAP VALUE DOMESTIC EQUITIES
INVESTMENT MANAGER OF THE OAKLAND POLICE AND FIRE
RETIREMENT SYSTEM (PFRS), ONTO WATCH STATUS**

WHEREAS, the Oakland City Charter section 2601(e) gives the Police and Fire Retirement System's Board of Administration (PFRS Board) the power to make all necessary rules and regulations for its guidance, and that the PFRS Board shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, at its January 31, 2018 meeting, the PFRS Board reviewed the performance and administration of NWQ, a small cap value domestic equities investment manager for the PFRS Fund; and

WHEREAS, The PFRS Board Investment Consultant, Pension Consulting Alliance (PCA), and the Investment Committee of the PFRS board agreed that conditions currently exist which merit the placement of NWQ onto watch status, pursuant to monitoring procedures detailed in the PFRS Investment Policy, until a follow-up performance and administrative review is made; therefore, now, be it

RESOLVED: That the PFRS Board hereby directs staff to place NWQ, a small cap value domestic equities investment manager of the Oakland Police and Fire Retirement System, onto watch status.

IN BOARD MEETING, CITY HALL, OAKLAND, CA FEBRUARY 28, 2018

PASSED BY THE FOLLOWING VOTE:

AYES: DANIEL, GODFREY, MELIA, MUSZAR, SPEAKMAN, WILKINSON
AND PRESIDENT JOHNSON

NOES:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

B11. **Revision of the PFRS Education & Travel Policy** – Member Speakman reported that discussion of the PFRS Education & Travel Policy was postponed until the next Audit Committee meeting.

B12. **Review of PFRS Rules and Regulations** – Member Speakman reported that discussion of the PFRS Rules and Regulations was postponed until to the next Audit Committee meeting.

C. PFRS INVESTMENT COMMITTEE MEETING – JANUARY 31, 2018

C1. **Investment Manager Performance Review – NWQ** – Member Godfrey reported that NWQ appeared at the Investment Committee meeting and presented its company performance and management review. This included discussion of the change in ownership of NWQ to Nuveen Investments. Member Godfrey made a motion to accept the information report from NWQ, second by member Muszar. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C2. **Investment Manager Overview, Board action to place Investment Manager NWQ on “watch” status** – Pension Consulting Alliance “PCA” presented its review of the ownership and other changes recently occurring in investment manager NWQ. Mr. Copus said the information reported by Mr. Maramarco warrants the Board placing NWQ onto “watch” status. Following some discussion, Member Wilkinson made a motion to approve the placement of NWQ onto “watch” status, second by member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C3. **\$14.1 million 1st Quarter 2018 Member Benefits Drawdown** – Member Godfrey reported PCA’s recommendation to make a \$14.1 million drawdown for 1st Quarter member benefits payments. Member Melia made a motion to approve the recommendation of a \$14.1 million drawdown for 1st Quarter member benefits payments, second by Member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C4. **Investment Market Overview** – Sean Copus reported on the global economic factors affecting the PFRS Fund. Member Godfrey made a motion accept the Informational Report from PCA, second by Member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C5. **Preliminary Investment Fund Performance Report for the Quarter Ending December 31, 2017** – Mr. Copus presented details of the Investment Fund Performance Report for the Quarter Ending December 31, 2017. Member Godfrey made a motion to approve the Investment Fund Performance Report for the Quarter Ending December 31, 2017, second by member Melia. Motion passed.

Date: February 27, 2018

To: Oakland Police and Fire Board of Retirement

From: Pension Consulting Alliance, LLC (PCA)

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

RE: Hansberger– International Equity Onsite Review

Recap of PCA/OPFRS onsite meeting to review the Hansberger International Equity Fund

Meeting Date	February 5, 2018
Manager Attendees	Thomas Tibbles, CFA, CEO, CIO Alyssa Light, CFO, CCO and VP Brian O’Connell, Marketing
PCA/OPFRS Attendees	David Sancewich, Managing Director (PCA) Jamie Godfrey, Investment Chair (OPFRS)

Summary and Findings

PCA and OPFRS met with Hansberger on February 5, 2018 to review the organization and product performance of its International Equity strategy on behalf of OPFRS. From PCA’s perspective, the overall team presented effectively and covered the key active philosophy and implementation issues associated with this mandate. As highlighted in the comments below, Hansberger covered both its business and investment philosophies. Hansberger is a well-regarded investment organization of seasoned investment professionals located in Toronto, CA.

Recommendation

Given the recent organizational and investment process changes at the firm, PCA recommends that OPFRS conduct an RFI for other investment managers within the international equity universe and that Hansberger be allowed to rebid as part of this process. Hansberger was placed on watch in November of 2017.

Meeting Recap and Details

Hansberger was being interviewed as part of on-going due diligence on behalf of the international equity portfolio in which OPFRS is invested with an allocation of \$17.7 million as of 12/31/2017.

During the onsite visit, PCA and OPFRS met with several individuals of Hansberger’s senior staff. A full list of attendees and presenters, as well as their professional titles, can be found on the previous page.

Key Meeting Takeaways / Onsite Observations

- The firm is 10% employee owned with Tom Tibbles the majority employee owner. The remaining 90% is owned by Madison Asset Management.
- The firm talked about the current ownership structure and the changes since the retirement of Barry Lockhart, who was one of the original funding members.
- They talked about the changes to the investment process including the shift to a more quantitative investment process.
- We discussed the outlook of the organization and the roles of other individuals within the investment team.

Ownership and Organizational Structure

Originally funded by OPFRS in 2006, Hansberger is an SEC Registered Investment Advisor that manages the international equity strategy in which OPFRS is invested. Hansberger currently has approximately \$400 million of assets under management.

Track Record

As of 12/31/2017, OPFRS had a market value of roughly \$17 million. Net of Fees, the portfolio slightly trailed its 9% annual target by 50 bps.

OPFRS/Hansberger Performance Results,
12/31/2017 (gross of fees)

Manager	Mkt Value (\$000)	Asset Class	Quarter	1 YR	3 YR	5 YR	Since Inception	Inception Date*
Hansberger	17,759	International.	6.5	38.3	12.9	9.9	5.5	2/2006
MSCI ACWI ex-USA NR	---	---	5.1	27.8	8.3	7.3	4.8	---
Excess Return	---	---	1.4	10.5	4.6	2.6	0.7	---

Investment Philosophy & Process, per manager

The philosophy of the international growth strategy is based on the belief that superior growth companies with attractive valuations provide the best opportunities for investment. The team seeks to identify companies that have consistently exhibited the ability to maintain a competitive market advantage through innovative product design, exceptional management, strong market share and superior profitability. Hansberger believes these companies have a true franchise with the potential to generate various degrees of economic rents while growing faster than the economy. Short term variations in results, expectations and capital markets produce numerous opportunities to acquire shares in these companies at valuations that HGI deems attractive relative to their forecast long-term prospects.

HGI's investment process is disciplined and stringently adhered to regardless of the investment environment. HGI starts with a universe of approximately 10,000 international companies. Their first step is to narrow this universe through a series of screens that identify those companies with superior growth characteristics; including:

- Superior profitability
- Secular growth
- Sustainable competitive advantage
- Strong capital structure

These screens are intended to identify those companies that have consistently been industry and market leaders or have this ability. The result is HGI's "Star List" of excellent companies. It is from this select group of superior companies that they draw stocks when they construct portfolios.

Companies in the Star List are rated based on their relative valuation and relative price momentum. HGI narrows the universe to the top 100 to 125 stocks in their ranking at this point. They then further examine these companies for inclusion in the portfolio. Due to the extensive use of computer power, each analyst has to follow only 25 to 30 stocks at one time.

At this stage HGI goes beyond a purely quantitative analysis to incorporate a rigorous fundamental analysis of each company. Their fundamental analysis is meant to identify those issues that purely quantitative approaches overlook – in other words, they are seeking information that the numbers alone will not tell them. They scrutinize a company's product line, management, market share, product distribution and other elements that are prerequisites to its success and staying power within the market. This is a purely

bottom-up process. If the stocks do not fundamentally exhibit strong growth potential, they are dropped from further consideration.

HGI's fundamental analysis further distills their investment candidates. Ultimately, they narrow the candidate list to 45 to 65 stocks which they use to build their portfolio.

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PCA INVESTMENT MARKET RISK METRICS

Monthly Report



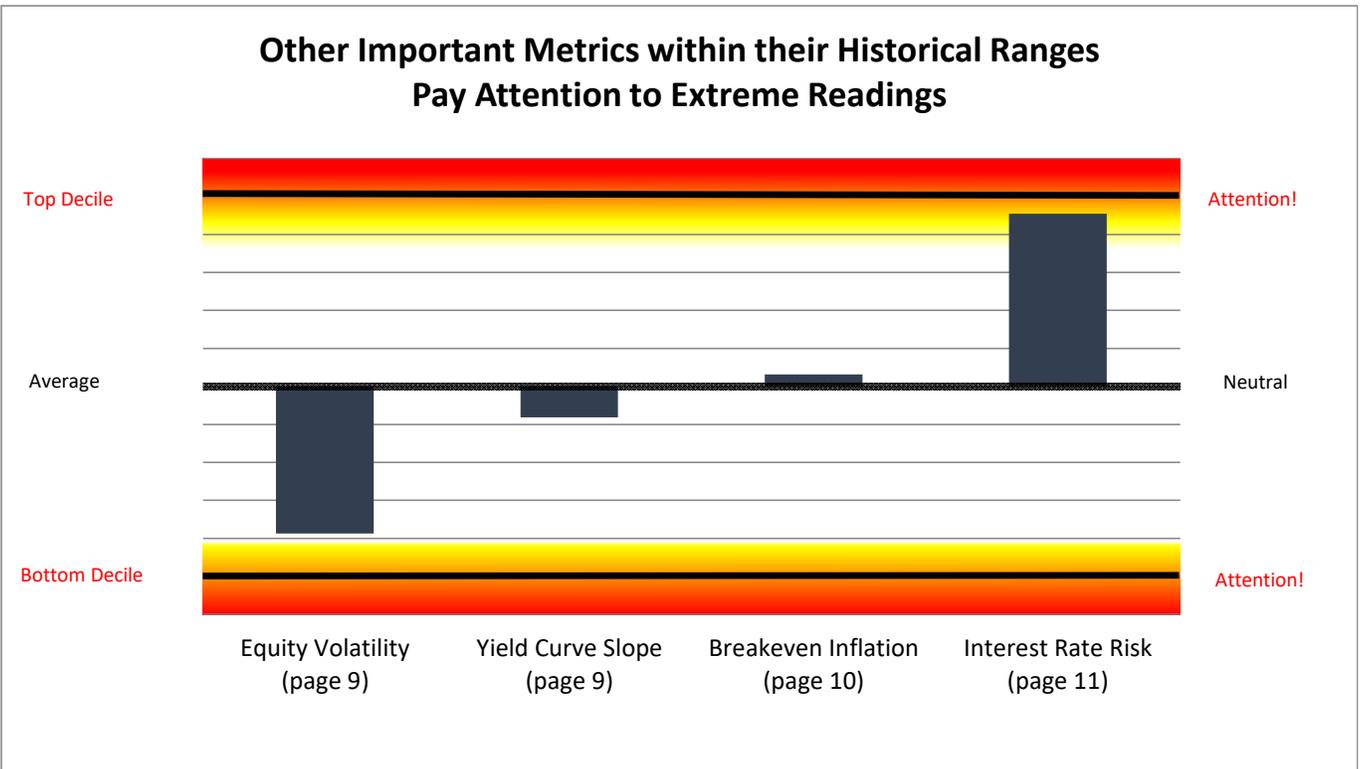
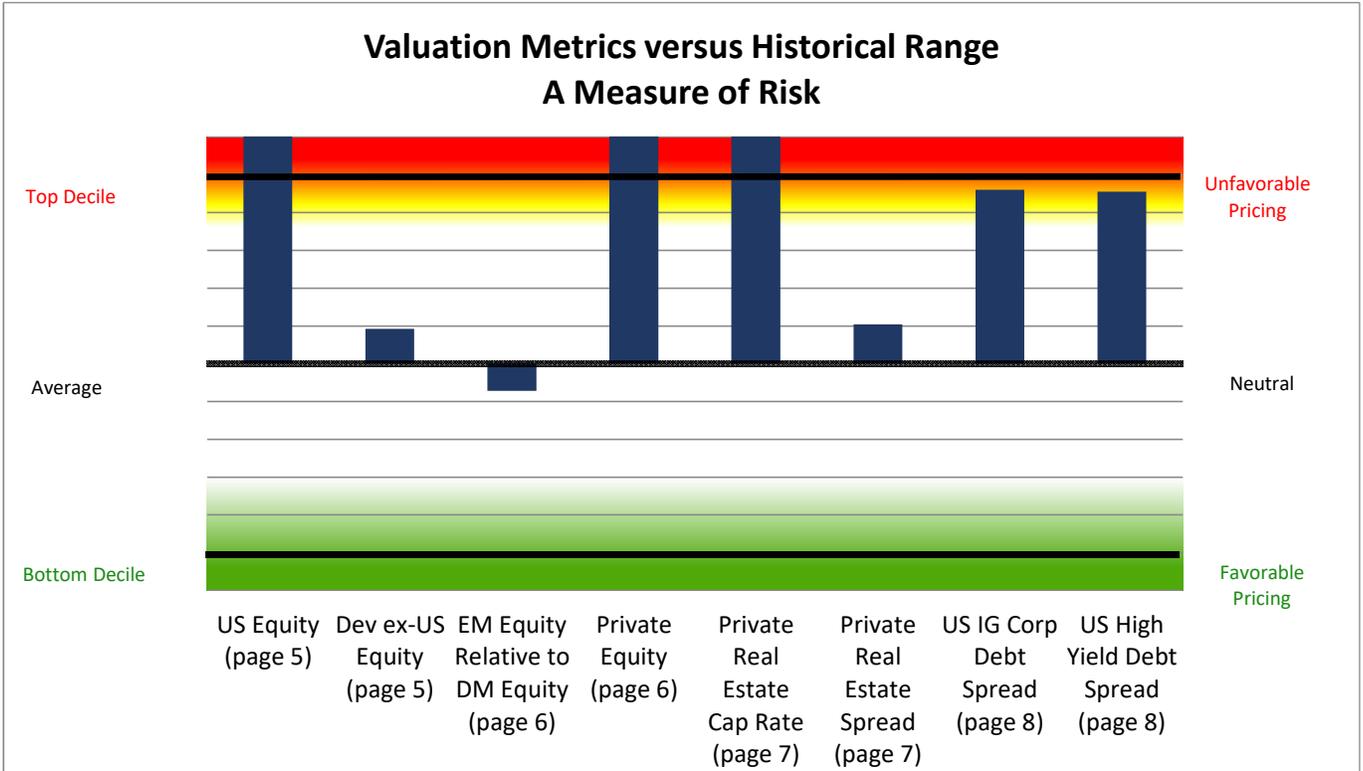
February 2018
(as of 1/31/18)

Takeaways

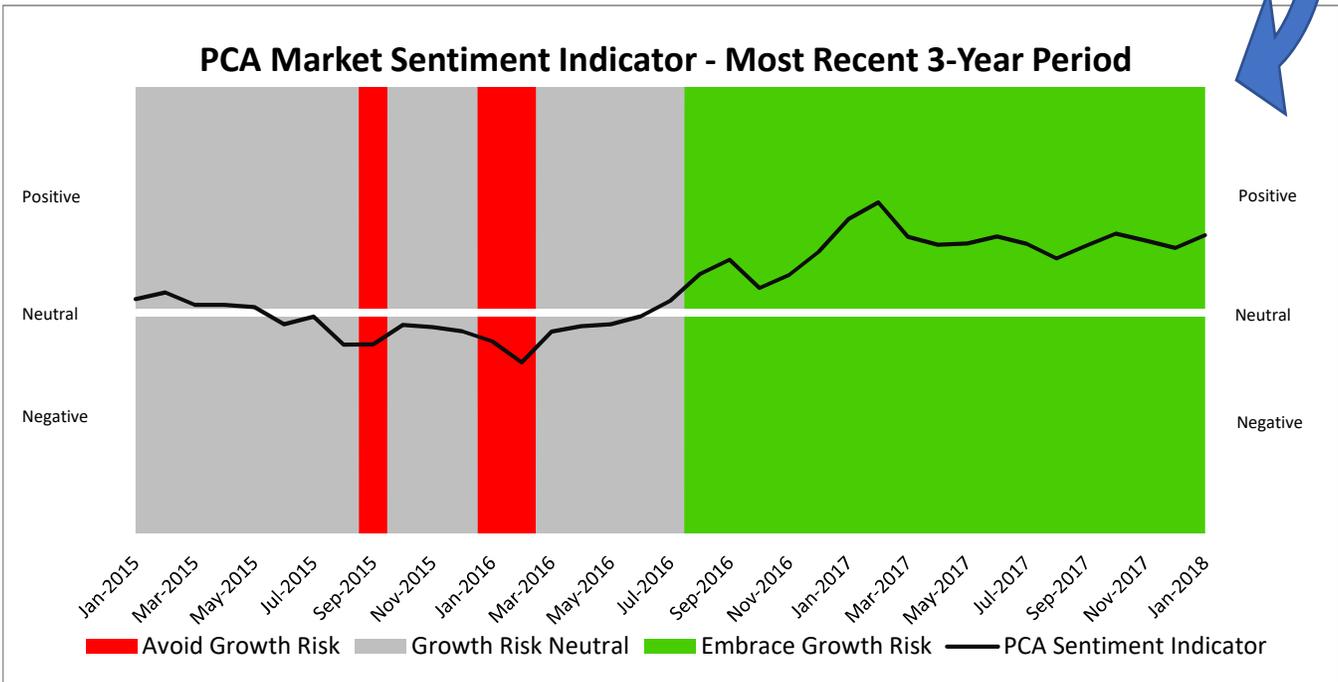
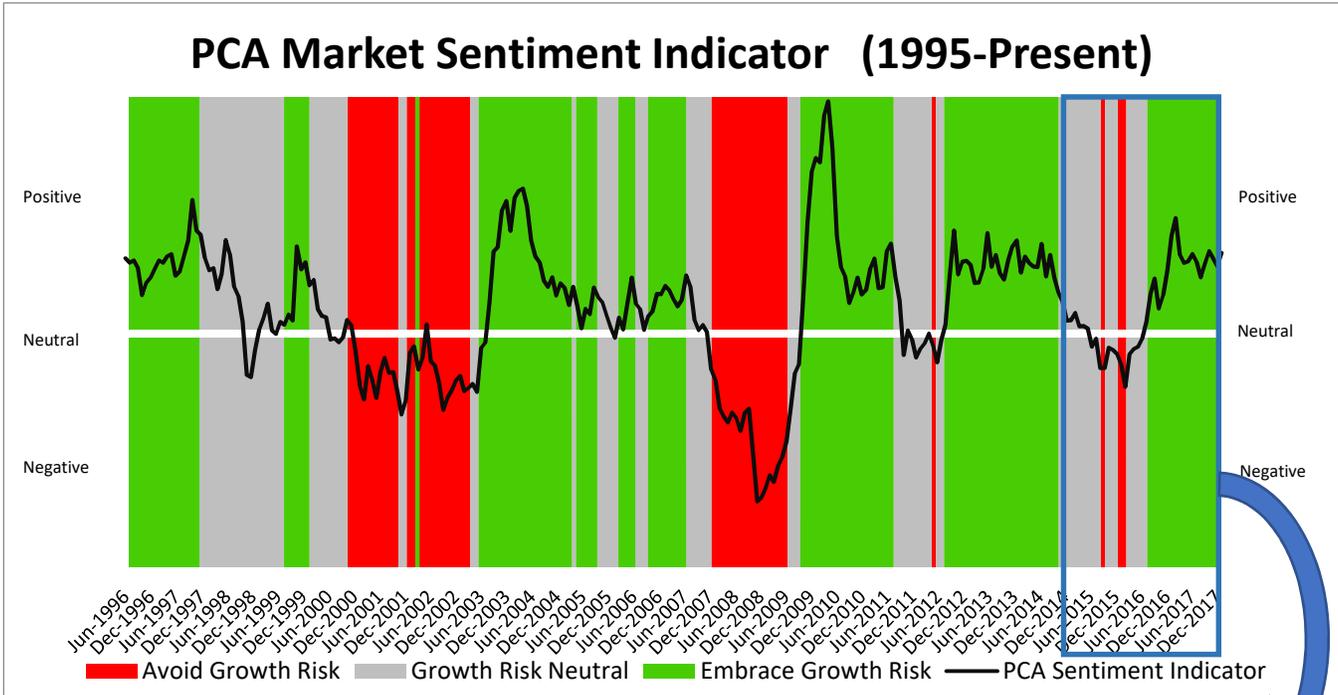
- January and the beginning of February were two polar opposites. January saw risk-oriented assets generate mid-single digit returns on low volatility, whereas February saw certain risk-oriented assets decline by over 4% in one day.
- U.S. Treasury interest rates continued to tick up in January with little change to the yield curve shape.
- While implied equity market volatility (i.e., VIX) remained relatively stable in January, this metric increased to near 50 on an intraday basis in early February.
- Due to recent price increases, Non-U.S. Developed and Emerging Market equity valuations are no longer as cheap relative to their own histories (currently in-line with long-term averages), but they remain modestly cheap relative to U.S. levels.
- Credit spreads remained tight (risk seeking) in both U.S. investment grade and high yield markets (page 8).
- Inflation indicators generally remained well behaved. Commodity prices and breakeven inflation levels experienced modest increases in January. Recent macroeconomic data (e.g., GDP, CPI, wages, etc.) suggest that modest inflation may finally return in the intermediate-term. This notion of inflation was a concern during some of early-February's declines.
- PCA's sentiment indicator (page 4) remains positive. The sentiment indicator remains solidly **green**.

¹See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

Risk Overview



Market Sentiment



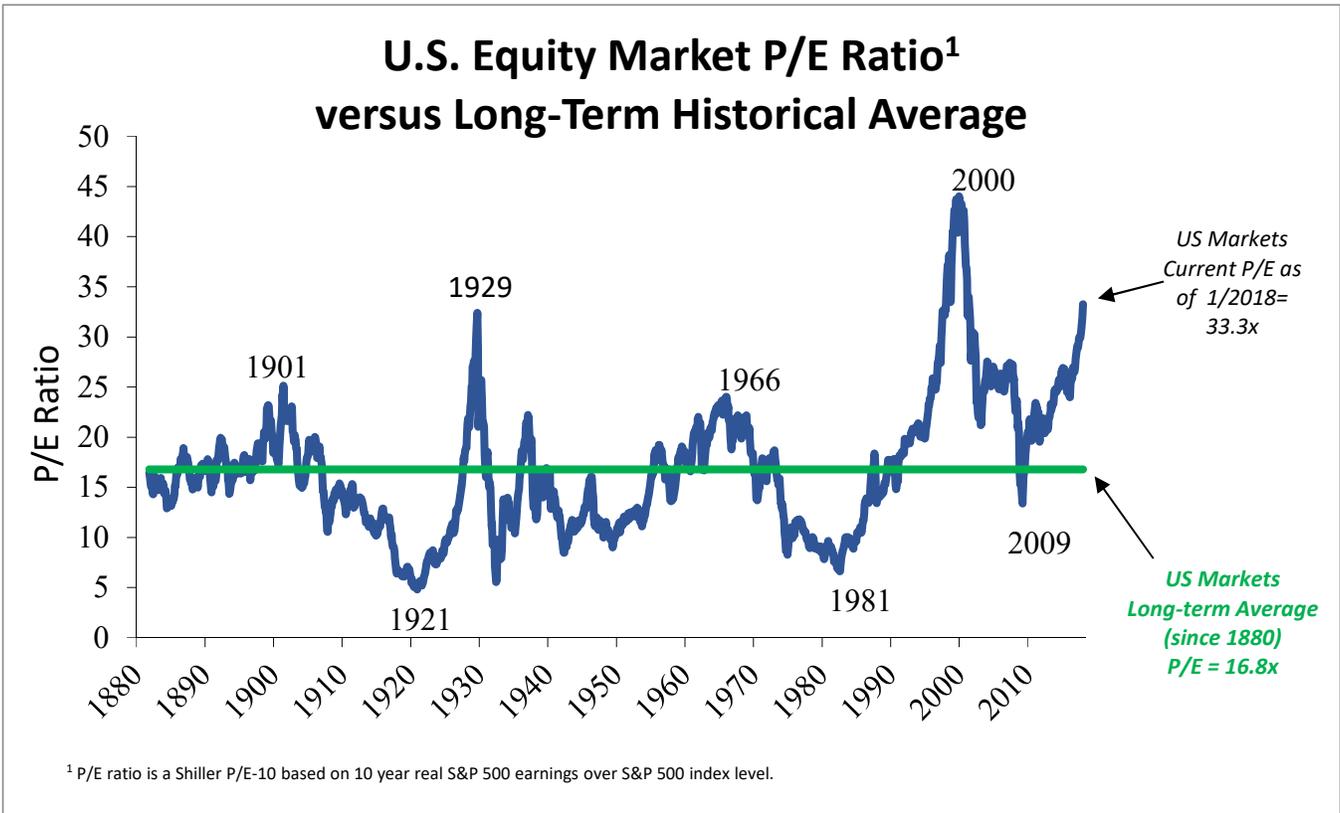
Information Behind Current Sentiment Reading

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

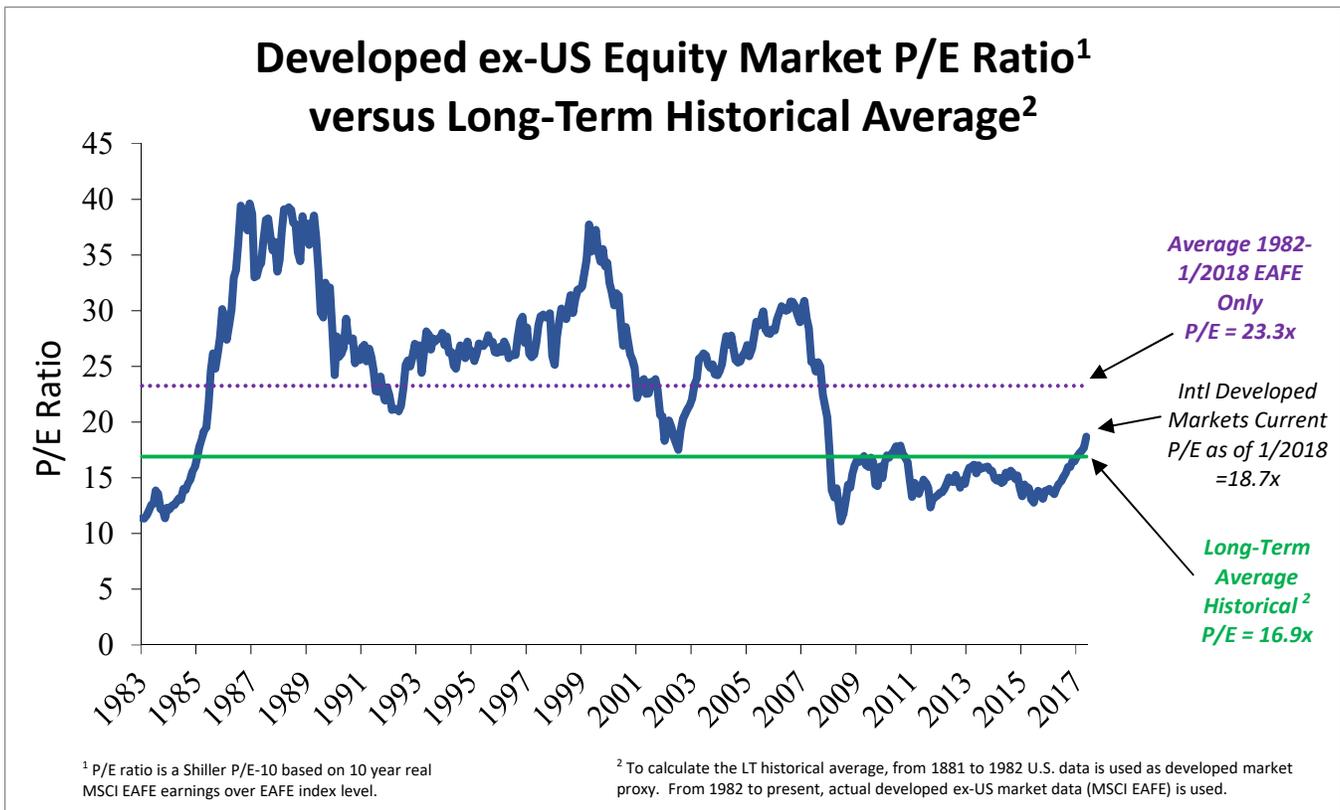
Positive	
Positive	
Agree	

Growth Risk Visibility (Current Overall Sentiment)	Positive	
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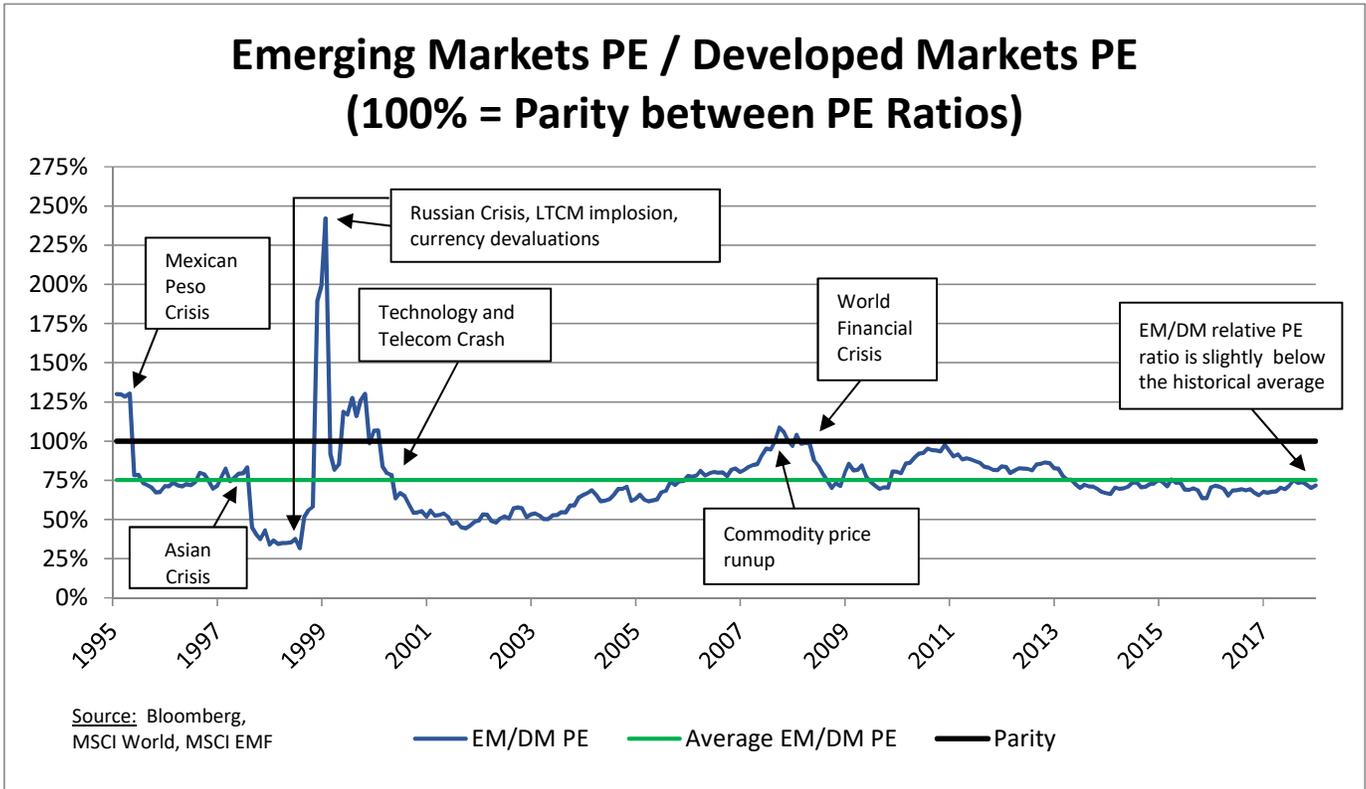
Developed Public Equity Markets



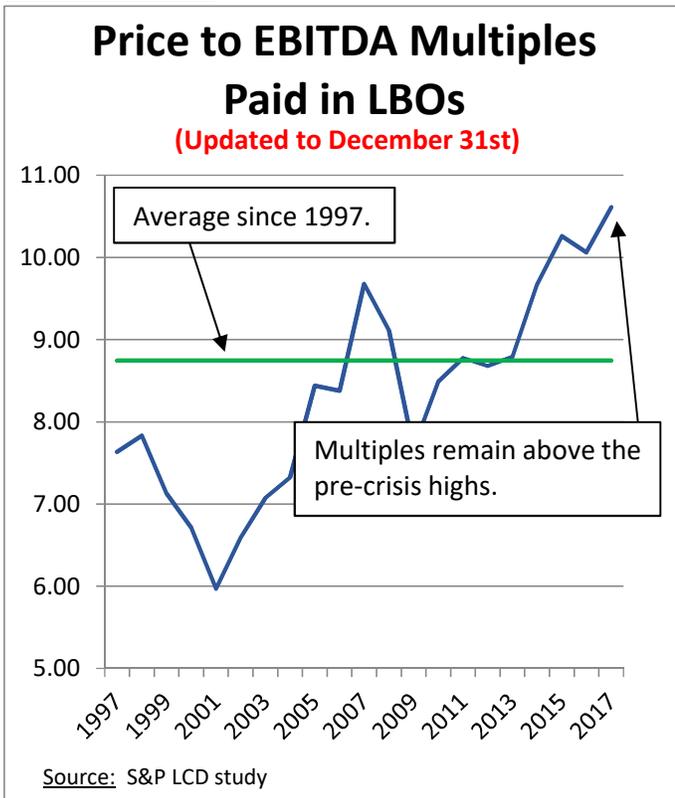
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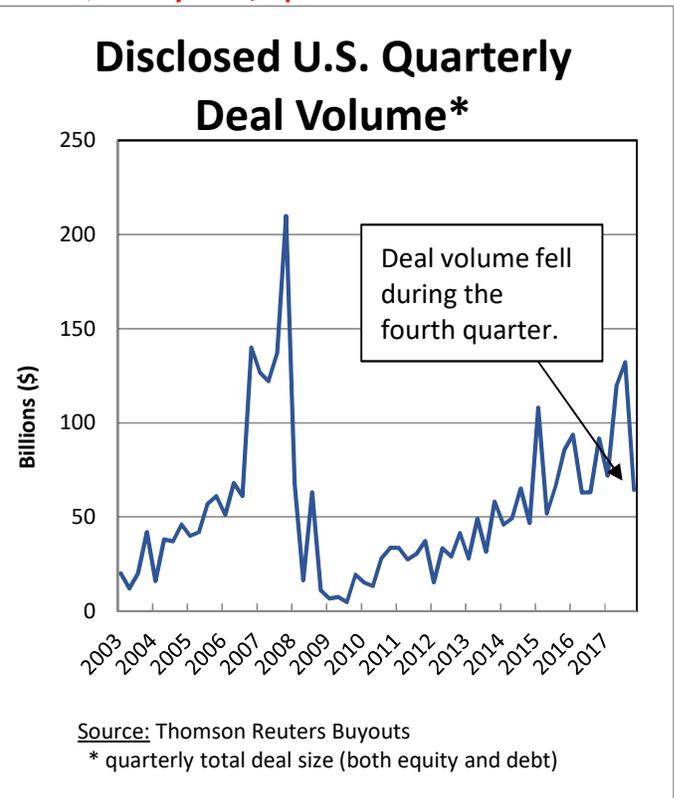
Emerging Market Public Equity Markets



US Private Equity

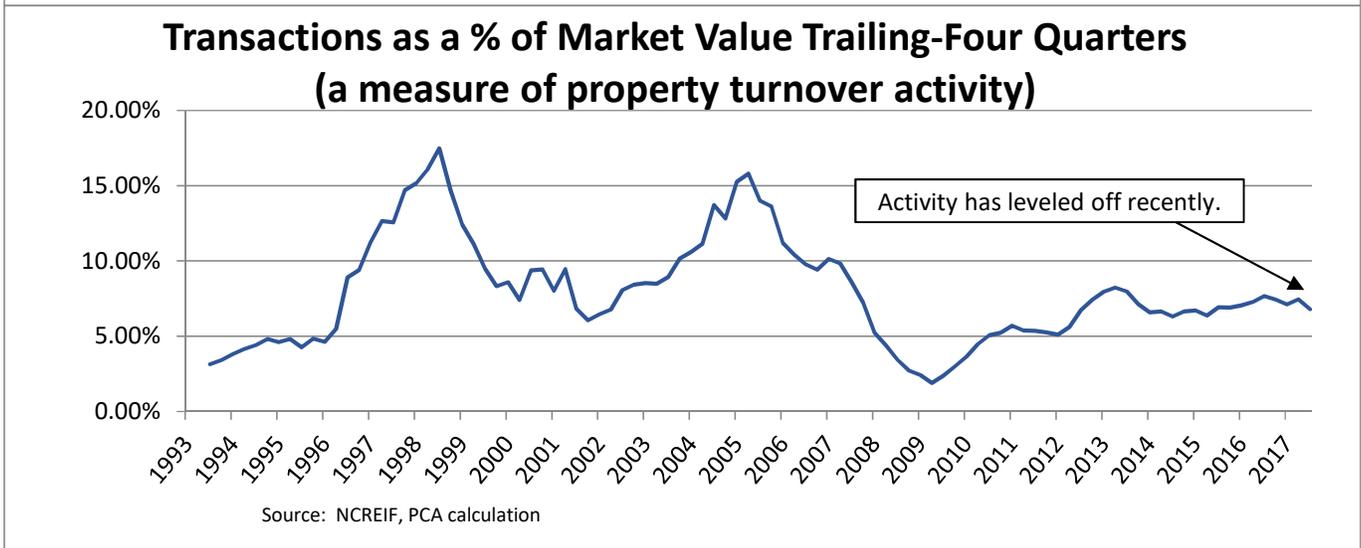
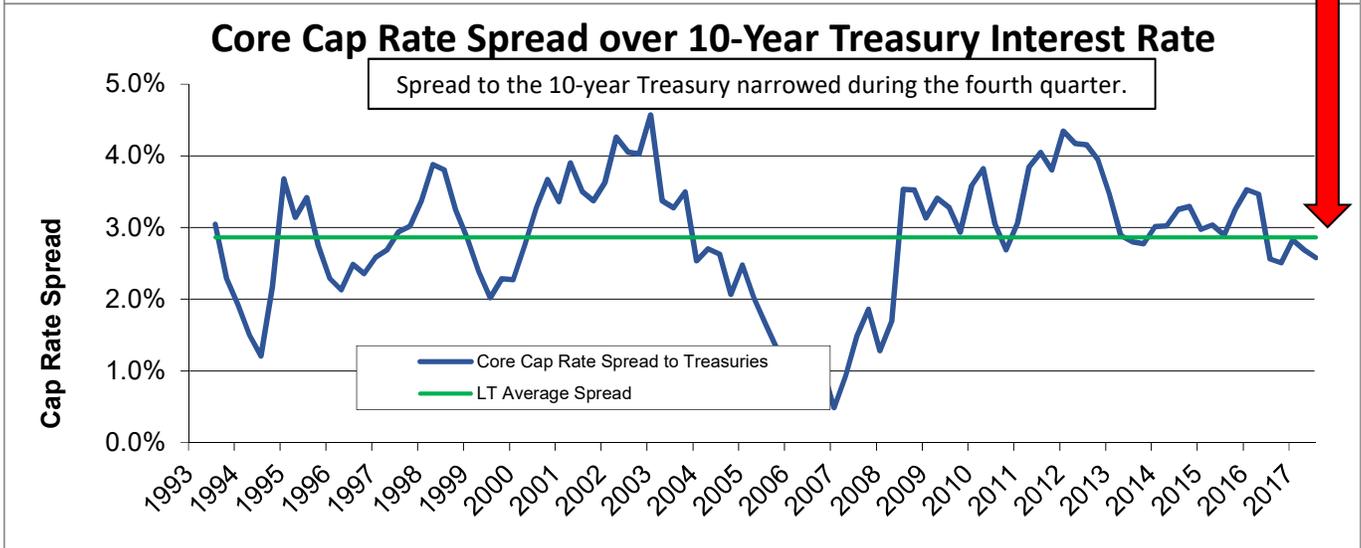
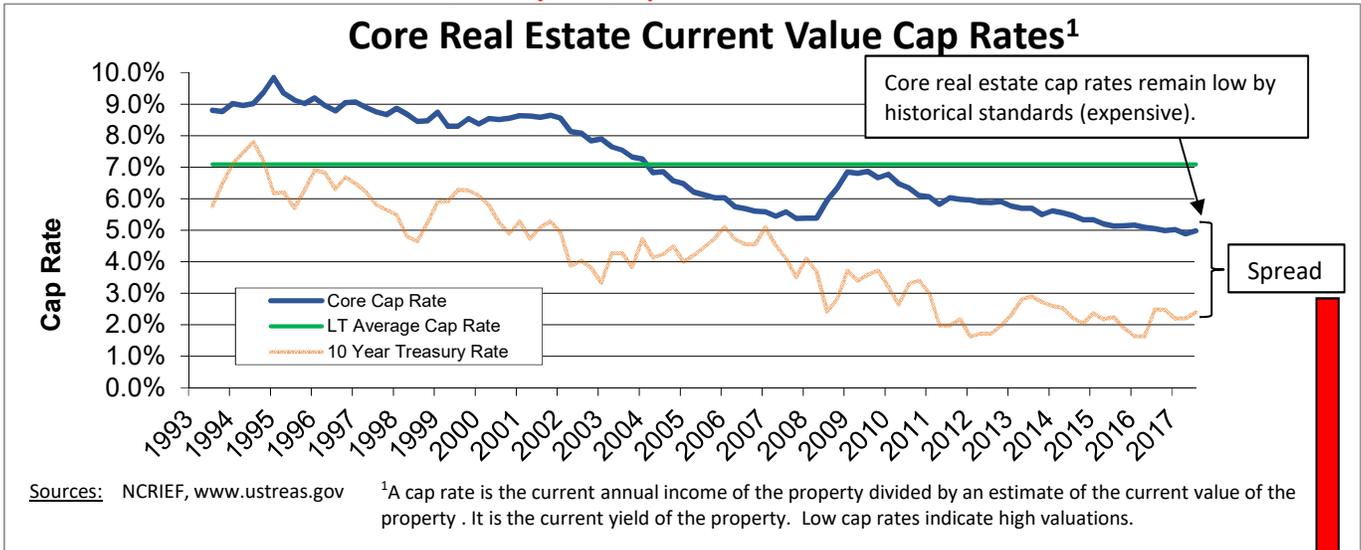


Quarterly Data, Updated to December 31st



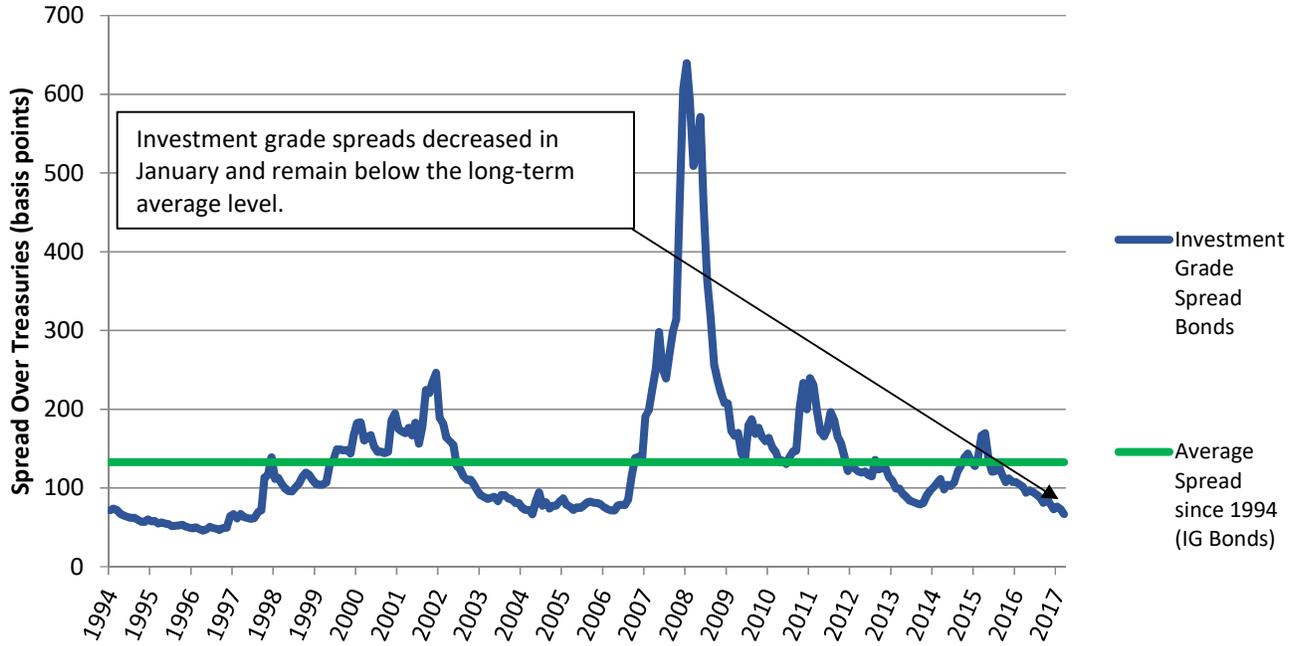
Private Real Estate

Quarterly Data, Updated to December 31st.



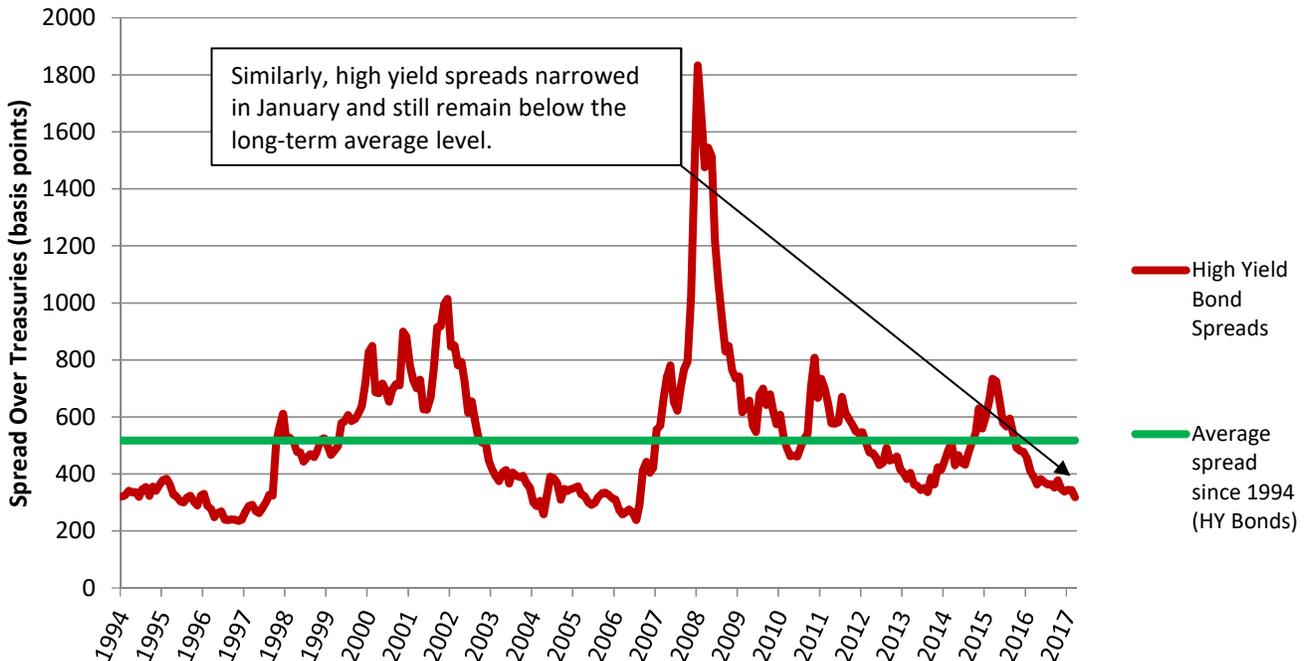
Credit Market US Fixed Income

Investment Grade Corporate Bond Spreads



Source: LehmanLive: Barclays Capital US Corporate Investment Grade Index Intermediate Component.

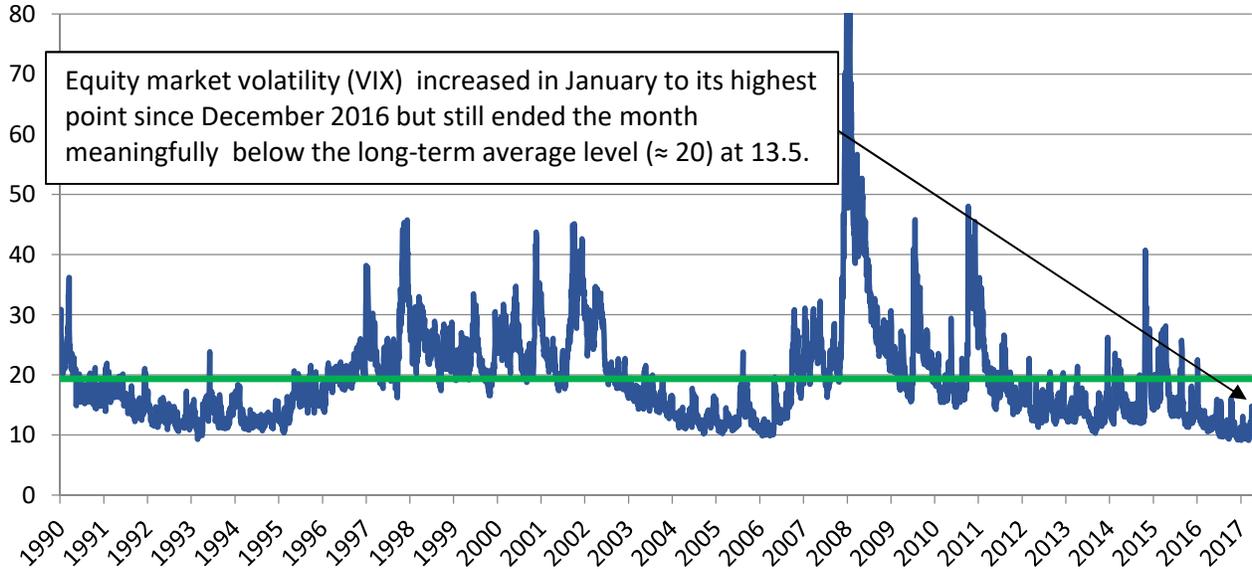
High Yield Corporate Bond Spreads



Source: LehmanLive: Barclays Capital U.S. Corporate High Yield Index.

Other Market Metrics

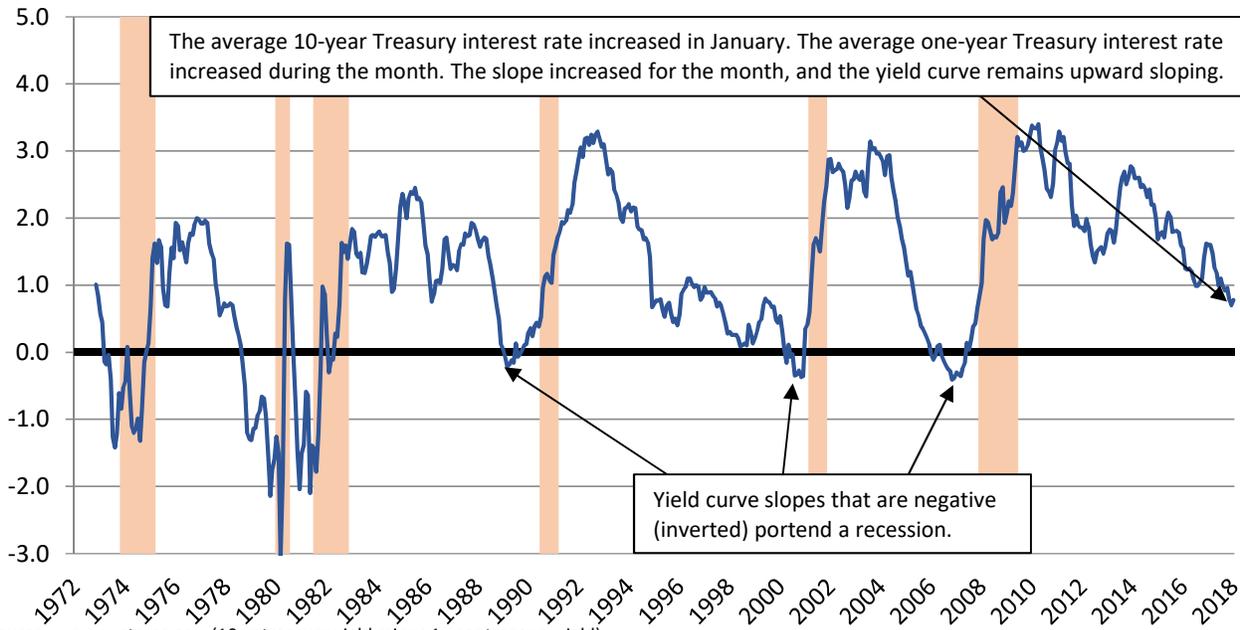
VIX - a measure of equity market fear / uncertainty



Source: <http://www.cboe.com/micro/vix/historical.aspx>

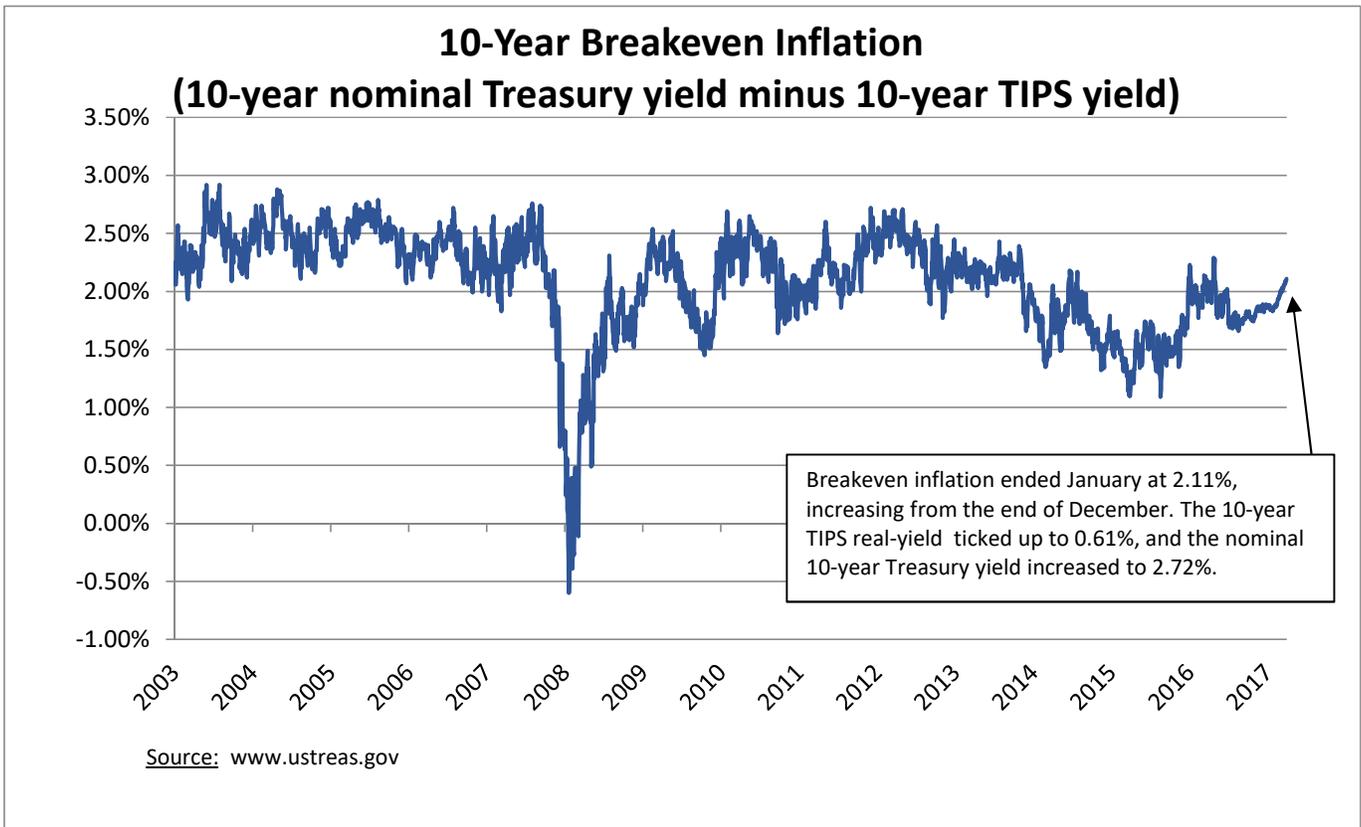
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Yield Curve Slope

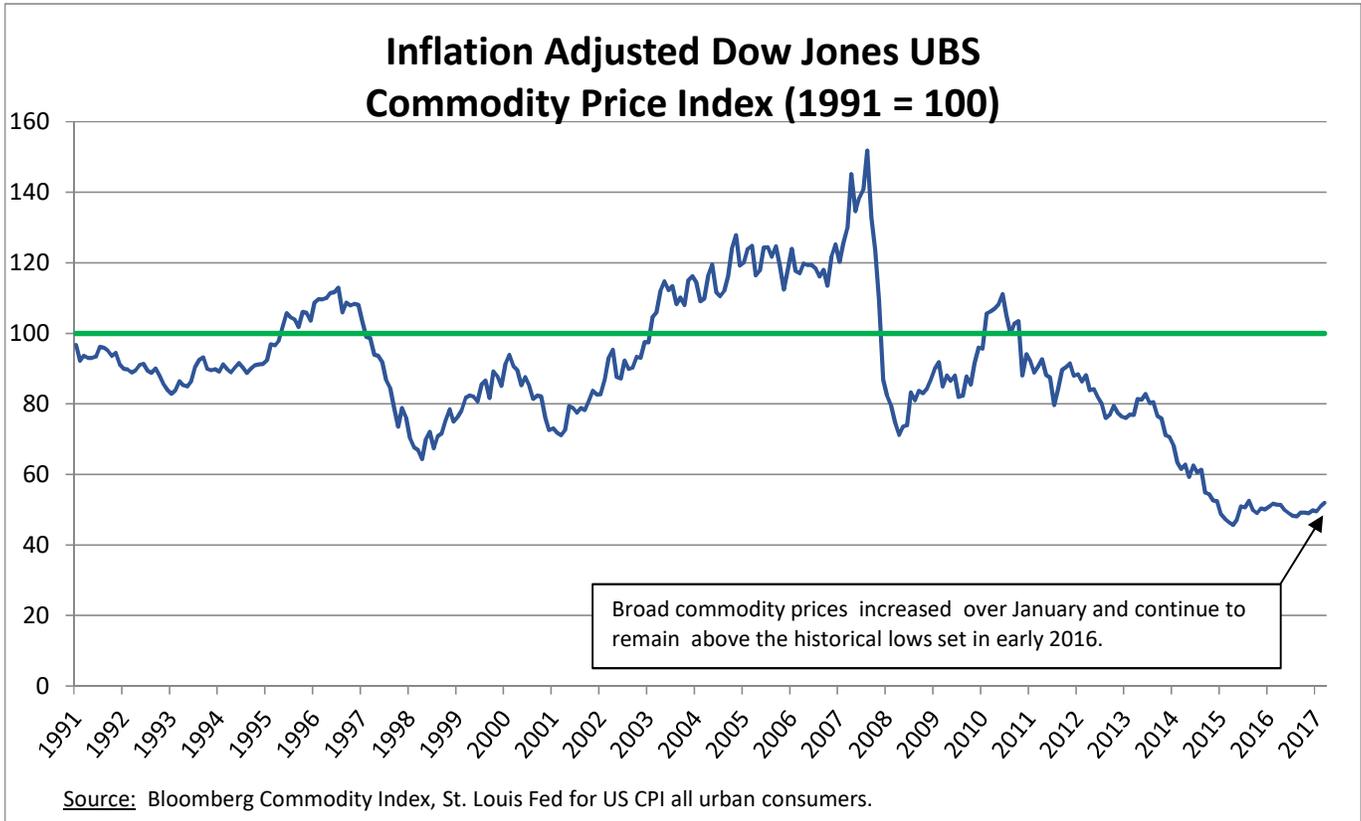


Source: www.ustreas.gov (10 yr treasury yield minus 1 year treasury yield)

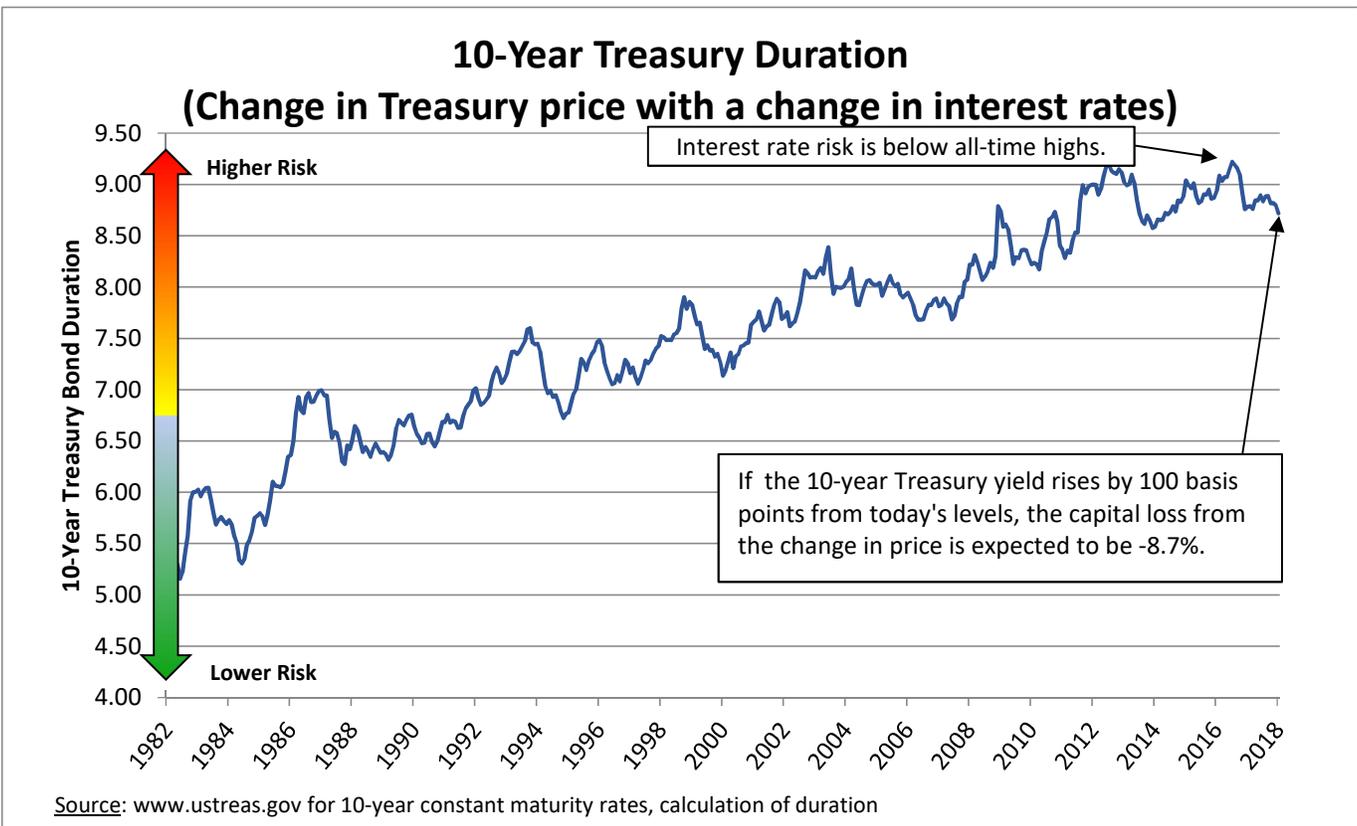
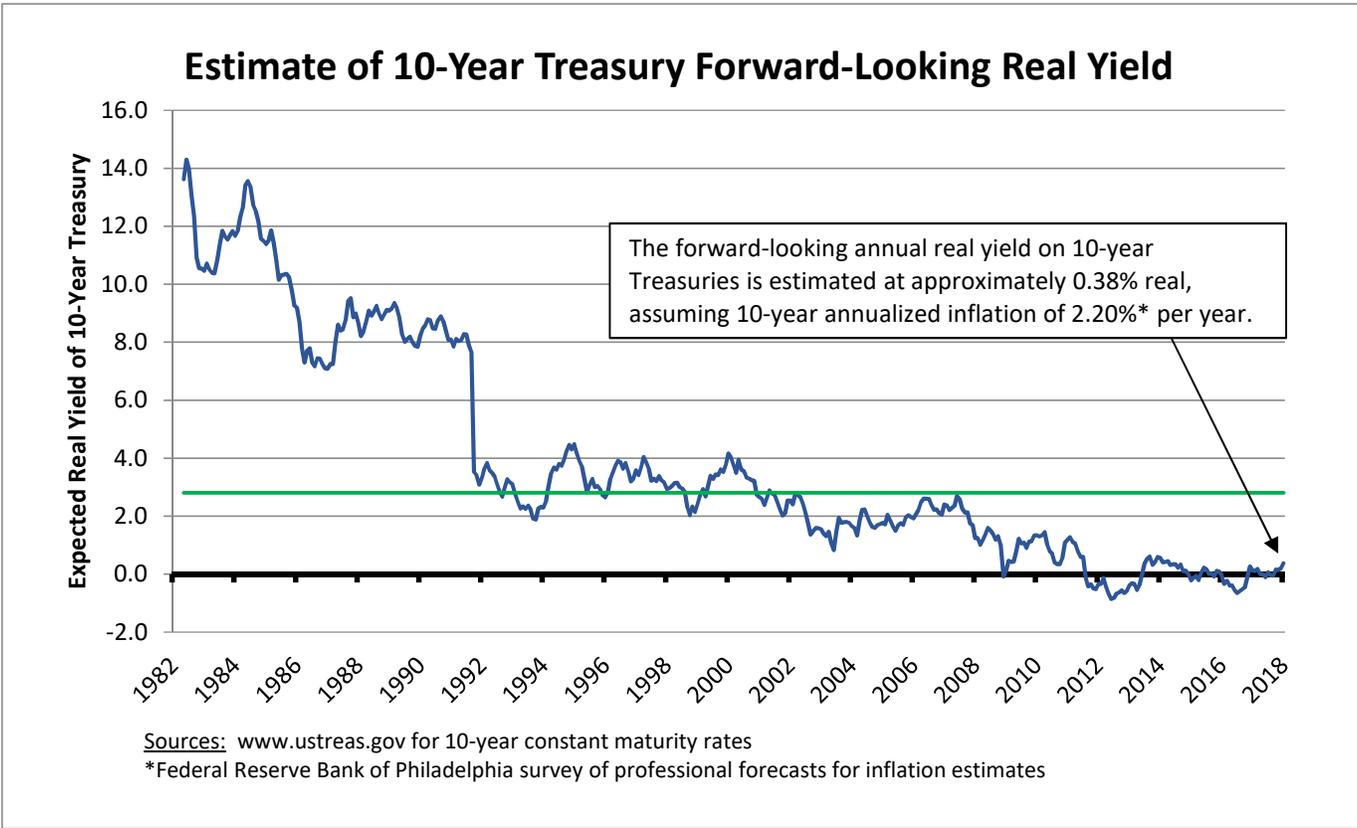
Measures of Inflation Expectations



(Please note the difference in time scales)



Measures of U.S. Treasury Interest Rate Risk



Appendix

Appendix

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.

Appendix

METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

Emerging Market Equity Markets:

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

To represent the Emerging Markets P/E Ratio, we have chosen the MSCI Emerging Market Free Index, which has P/E data back to January 1995 on Bloomberg. To represent the Developed Markets PE Ratio, we have chosen the MSCI World Index, which also has data back to January 1995 on Bloomberg. Although there are issues with published, single time period P/E ratios, in which the denominator effect can cause large movements, we feel that the information contained in such movements will alert investors to market activity that they will want to interpret.

US Private Equity Markets:

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

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

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

U.S Private Real Estate Markets:

Metrics: US Cap Rates, Cap Rate Spreads, and Transactions as a % of Market Value

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The data, published by NCREIF, describes completed and leased properties (core) on an unleveraged basis. We chose to use current value cap rates. These are capitalization rates from properties that were revalued during the quarter. This data relies on estimates of value and therefore tends to be lagging (estimated prices are slower to rise and slower to fall than transaction prices). The data is published quarterly.

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

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

Credit Markets US Fixed Income:

Metric: Spreads

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

Appendix

METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

Measure of Equity Market Fear / Uncertainty

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

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

Measure of Monetary Policy

Metric: Yield Curve Slope

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

Measures of US Inflation Expectations

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

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

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

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

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

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

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.

PCA Market Sentiment Indicator

Explanation, Construction and Q&A

By:

Pension Consulting Alliance, LLC.

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

This paper explores:

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



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PCA Market Sentiment Indicator

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

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

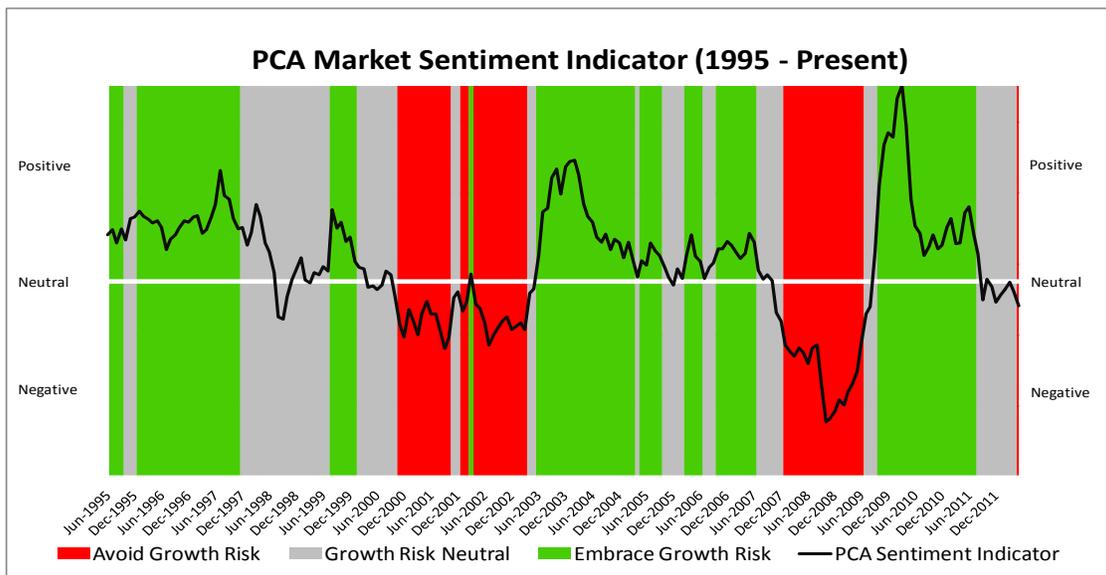
What is the PCA Market Sentiment Indicator (PMSI)?

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

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

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

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



PCA Market Sentiment Indicator

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

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

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

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

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

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

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

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

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

The logo for Pension Consulting Alliance (PCA) is displayed in a large, black, serif font. It is positioned in the upper right corner of the page, to the left of the company's full name. The background of the top half of the page features a serene sunset over a body of water, with several dark, vertical wooden posts or pilings in the foreground. Some of these posts have stacks of smooth, dark stones balanced on top of them. The sky transitions from a warm orange and red near the horizon to a cool blue at the top. A thick, light blue curved line sweeps across the bottom of the image, separating the top section from the white background below.

PCA

PENSION
CONSULTING
ALLIANCE

Q4 2017

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.

TABLE OF CONTENTS

<u>Tab</u>	<u>Section</u>
A	TOTAL PORTFOLIO SUMMARY
B	ECONOMIC OVERVIEW
C	INVESTMENT MARKET RISK METRICS
D	TOTAL PORTFOLIO REVIEW
E	MANAGER MONITORING / PROBATION LIST
F	INDIVIDUAL MANAGER PERFORMANCE
	Appendix

TOTAL PORTFOLIO SUMMARY

As of December 31, 2017, the City of Oakland Police and Fire Retirement System (OPFRS) portfolio had an aggregate value of \$380.5 million. This represents a \$17.2 million increase in value, and (\$3.2) million in benefit payments, over the quarter. During the previous one-year period, the OPFRS Total Portfolio increased in value by \$60.9 million, and withdrew (\$36.0) million for benefit payments.

Asset Allocation Trends

The asset allocation targets (see table on page 20) reflect those as of December 31, 2017. Target weightings do not yet reflect the interim phase of the Plan's recently approved asset allocation (effective 5/31/2017).

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

Recent Investment Performance

During the most recent quarter, the OPFRS Total Portfolio generated an absolute return of 4.7%, gross of fees, outperforming its policy benchmark by 0.4%. The portfolio outperformed its benchmark by 1.7% over the 1-year period, outperformed by 0.3% over the 3-year period, and outperformed by 0.5% over the 5-year period.

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

	Quarter	Fiscal YTD	1 Year	3 Year	5 Year
Total Portfolio ¹	4.7	9.0	18.4	8.9	9.7
Policy Benchmark ²	4.3	8.1	16.7	8.6	9.2
Excess Return	0.4	0.9	1.7	0.3	0.5
Reference: Median Fund ³	3.7	7.2	15.3	7.3	9.2
Reference: Total Net of Fees ⁴	4.6	8.8	18.0	8.5	9.3

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

² Evolving Policy Benchmark consists of 48% Russell 3000, 12% MSCI ACWI ex U.S., 20% Bbg BC Universal, and 20% CBOE BXM

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

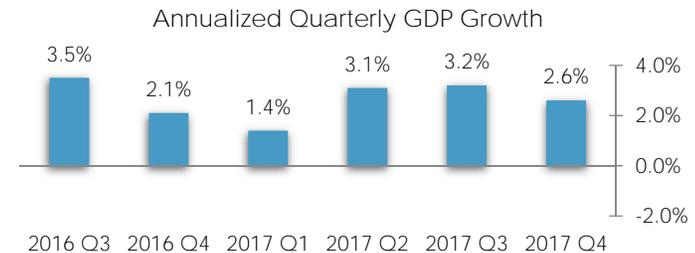
⁴ Longer-term (>1 year) Net of fee returns are estimated based on OPFRS manager fee schedule (approximately 42 bps).

ECONOMIC & MARKET OVERVIEW – 4Q 2017

Overview: Real US GDP growth increased by 2.6% (advance estimate) in the fourth quarter of 2017. GDP growth was driven by increases in consumer spending, business investment, housing investment, as well as federal and state local government spending. At quarter-end, the unemployment rate was unchanged at 4.1%. The seasonally adjusted Consumer Price Index for All Urban Consumers increased by 2.6% on an annualized basis during the quarter. Commodities increased during the fourth quarter, bringing the 1-year return into positive territory at 1.7%. Global equity returns were positive for the quarter at 5.8% (MSCI ACWI). The US Dollar depreciated against the Euro and the Pound by (1.6%) and (0.9%), respectively. Conversely, the US Dollar appreciated against the Yen by 20 basis points.

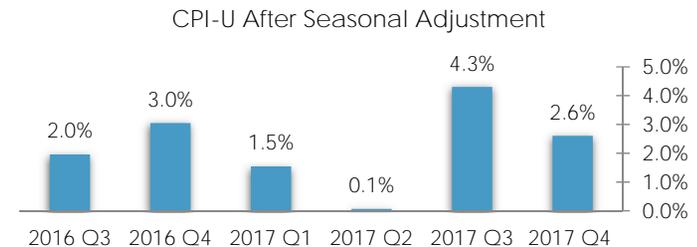
Economic Growth

- Real GDP increased at an annualized rate of 2.6 percent in the fourth quarter of 2017.
- Real GDP growth was driven by increases in consumer spending, business investment, housing investment, as well as federal and state and local government spending.
- GDP growth was partially offset during the quarter by declines in inventories and an increase in imports.



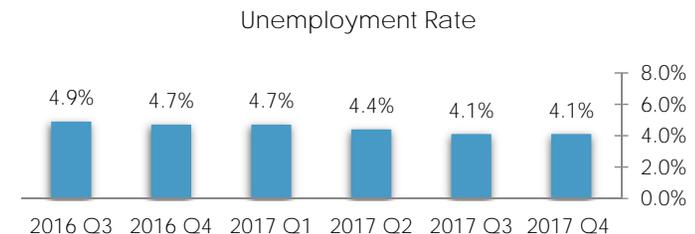
Inflation

- The Consumer Price Index for All Urban Consumers (CPI-U) increased 2.6 percent during the fourth quarter on an annualized basis after seasonal adjustment.
- Quarterly percentage changes may be adjusted between data publications due to periodic updates in seasonal factors.
- Core CPI-U increased by 0.9 percent for the quarter on an annualized basis after seasonal adjustment.
- Over the last 12 months, core CPI-U increased 1.4 percent after seasonal adjustment.



Unemployment

- The US economy gained approximately 611,000 jobs in the fourth quarter of 2017.
- The unemployment rate remained unchanged at 4.1% at quarter-end.
- The majority of jobs gained occurred in goods-producing, leisure and hospitality, and professional and business services. The primary contributors to jobs lost were in utilities and retail trade.

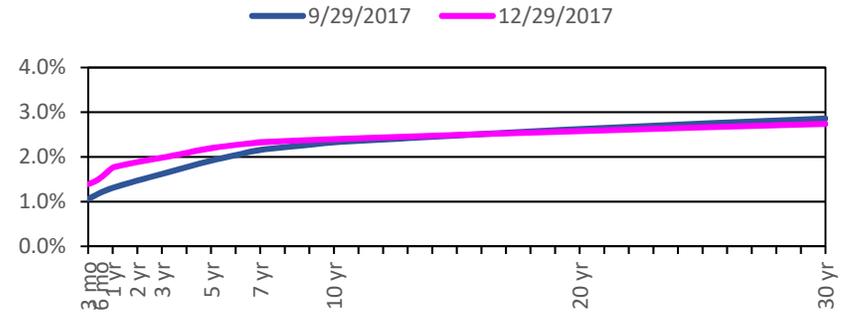


ECONOMIC & MARKET OVERVIEW – 4Q 2017

Interest Rates & US Dollar

- The yield curve marginally flattened over the quarter with shorter yields rising, middle yields staying relatively unchanged, and longer-term yields declining.
- The Federal Reserve increased the federal funds rate to between 1.25 percent and 1.50 percent.
- The US Dollar depreciated against the Euro and the Pound by (1.6%) and (0.9%), respectively. Conversely the US Dollar appreciated against the Yen by 0.2%.

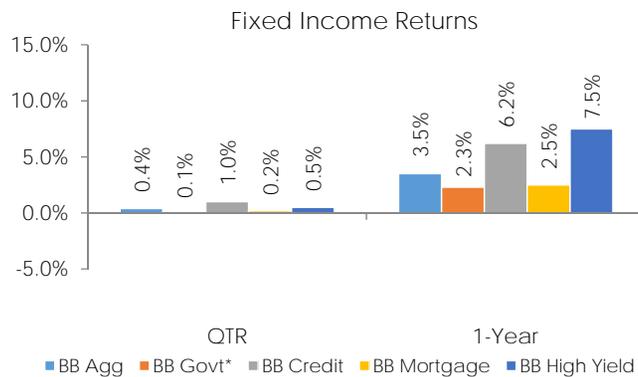
Treasury Yield Curve Changes



Source: US Treasury Department

Fixed Income

- US bonds were essentially flat over the quarter except for Credit which returned 1.0%.
- Over the trailing 1-year period, High Yield materially outperformed all other sectors producing a 7.5% return. Government bonds (US Treasuries and Agencies) trailed all other bond sectors with a return of 2.3%.



*US Treasuries and Agencies

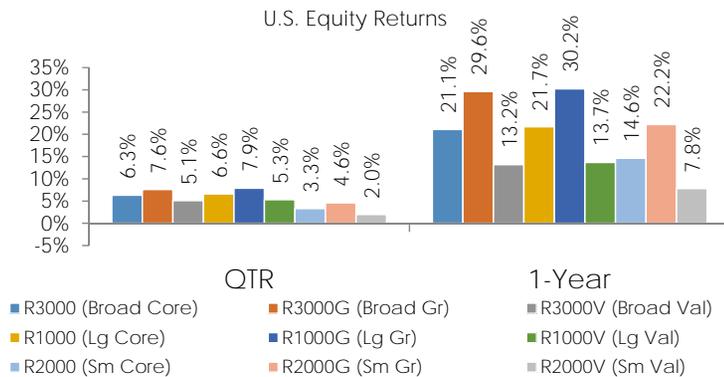
US Fixed Income Sector Performance (BB Aggregate Index)			
Sector	Weight	QTR	1 Year
Governments*	40.5%	0.3%	2.6%
Agencies	3.4%	0.1%	3.0%
Inv. Grade Credit	25.6%	1.2%	6.4%
MBS	28.1%	0.2%	2.5%
ABS	0.5%	0.0%	1.6%
CMBS	1.8%	0.4%	3.4%

*US Treasuries and Government Related

ECONOMIC & MARKET OVERVIEW – 4Q 2017

US Equities

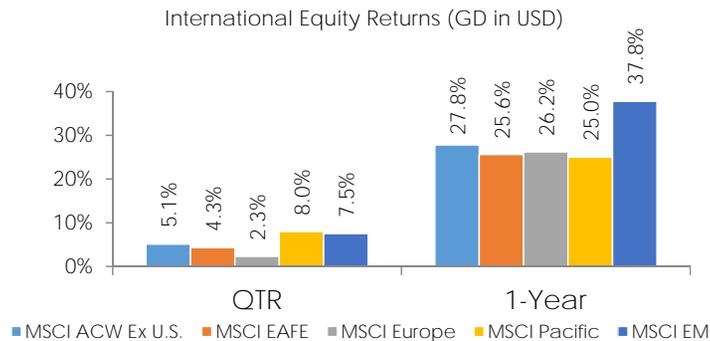
- During the quarter, growth stocks outperformed value stocks across the market cap spectrum. In terms of market capitalization, large cap stocks provided the strongest returns across styles. Large cap growth stocks returned this quarter's strongest return at 7.9%, and small cap value provided the weakest result at 2.0%.
- During the trailing 1-year period, US equities provided positive double-digit returns, with the top performer, large cap growth, returning 30.2%. Conversely, small cap value trailed all other market caps and styles with a return of 7.8%.



US Equity Sector Performance (Russell 3000 Index)			
Sector	Weight	QTR	1 Year
Information Tech.	22.8%	9.1%	39.7%
Financials	15.1%	8.2%	22.4%
Health Care	13.3%	3.5%	31.3%
Consumer Disc.	12.5%	10.5%	28.4%
Industrials	11.0%	8.0%	29.8%
Consumer Staples	7.3%	7.3%	14.7%
Energy	5.8%	7.2%	0.5%
Real Estate	3.9%	3.1%	12.8%
Materials	3.5%	7.5%	26.3%
Utilities	3.0%	1.6%	14.4%
Telecom.	1.9%	3.4%	0.8%

International Equities

- International equities performed well over the quarter as each region provided positive returns. The best performer was the Pacific with a return of 8.0%. Europe trailed all other regions with a return of 2.3%.
- Over the trailing 1-year period, international equities provided double digit returns across the board. Emerging markets led all other regions with a return of 37.8%, while the Pacific underperformed all other regions with a 25.0% return.



International Equity Region Performance (GD in USD) (MSCI ACWI ex US)			
Sector	Weight	QTR	1 Year
Europe Ex. UK	31.5%	1.0%	27.8%
Emerging Markets	24.8%	7.5%	37.8%
Japan	16.6%	8.5%	24.4%
United Kingdom	12.3%	5.7%	22.4%
Pacific Ex. Japan	8.3%	7.1%	26.0%
Canada	6.6%	4.5%	16.9%

ECONOMIC & MARKET OVERVIEW – 4Q 2017

Market Summary – Long-term Performance*

Indexes	Month	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Global Equity							
MSCI AC World Index	1.6%	5.8%	24.6%	9.9%	11.4%	5.2%	6.6%
Domestic Equity							
S&P 500	1.1%	6.6%	21.8%	11.4%	15.8%	8.5%	7.2%
Russell 3000	1.0%	6.3%	21.1%	11.1%	15.6%	8.6%	7.4%
Russell 3000 Growth	0.7%	7.6%	29.6%	13.5%	17.2%	9.9%	6.8%
Russell 3000 Value	1.3%	5.1%	13.2%	8.7%	14.0%	7.2%	7.5%
Russell 1000	1.1%	6.6%	21.7%	11.2%	15.7%	8.6%	7.4%
Russell 1000 Growth	0.8%	7.9%	30.2%	13.8%	17.3%	10.0%	6.9%
Russell 1000 Value	1.5%	5.3%	13.7%	8.7%	14.0%	7.1%	7.4%
Russell 2000	-0.4%	3.3%	14.6%	10.0%	14.1%	8.7%	7.9%
Russell 2000 Growth	0.1%	4.6%	22.2%	10.3%	15.2%	9.2%	6.7%
Russell 2000 Value	-1.0%	2.0%	7.8%	9.5%	13.0%	8.2%	8.6%
Russell Microcap	-0.5%	1.8%	13.2%	8.9%	14.3%	7.7%	---
CBOE BXM Index	0.7%	2.8%	13.0%	8.4%	8.8%	4.9%	6.2%
International Equity (GD)							
MSCI AC World Index ex USA	2.3%	5.1%	27.8%	8.3%	7.3%	2.3%	6.1%
MSCI EAFE	1.6%	4.3%	25.6%	8.3%	8.4%	2.4%	5.7%
MSCI Pacific	1.7%	8.0%	25.0%	10.4%	9.2%	3.6%	5.3%
MSCI Europe	1.5%	2.3%	26.2%	7.3%	8.0%	2.0%	5.9%
MSCI EM (Emerging Markets)	3.6%	7.5%	37.8%	9.5%	4.7%	2.0%	8.1%
Fixed Income							
BB Universal	0.4%	0.4%	4.1%	2.8%	2.5%	4.3%	5.2%
Global Agg. - Hedged	0.2%	0.8%	3.0%	2.7%	3.1%	4.2%	5.0%
BB Aggregate Bond	0.5%	0.4%	3.5%	2.2%	2.1%	4.0%	5.0%
BB Government	0.3%	0.0%	2.3%	1.4%	1.3%	3.2%	4.6%
BB Credit Bond	0.8%	1.0%	6.2%	3.6%	3.2%	5.4%	5.7%
BB Mortgage Backed Securities	0.3%	0.2%	2.5%	1.9%	2.0%	3.8%	4.9%
BB High Yield	0.3%	0.5%	7.5%	6.4%	5.8%	8.0%	6.8%
BB WGIL All Maturities - Hedged	1.1%	2.5%	3.4%	4.1%	3.0%	4.6%	---
Emerging Markets Debt	0.4%	0.6%	8.2%	6.4%	3.9%	7.0%	8.5%
Real Estate							
NCREIF	0.7%	2.1%	7.6%	10.4%	11.5%	5.0%	8.9%
FTSE NAREIT All Equity Index	-0.1%	2.4%	9.3%	6.9%	9.9%	7.7%	8.7%
Commodity Index							
Bloomberg Commodity Index	3.0%	4.7%	1.7%	-5.0%	-8.5%	-6.8%	0.8%

* Performance is annualized for periods greater than one year.

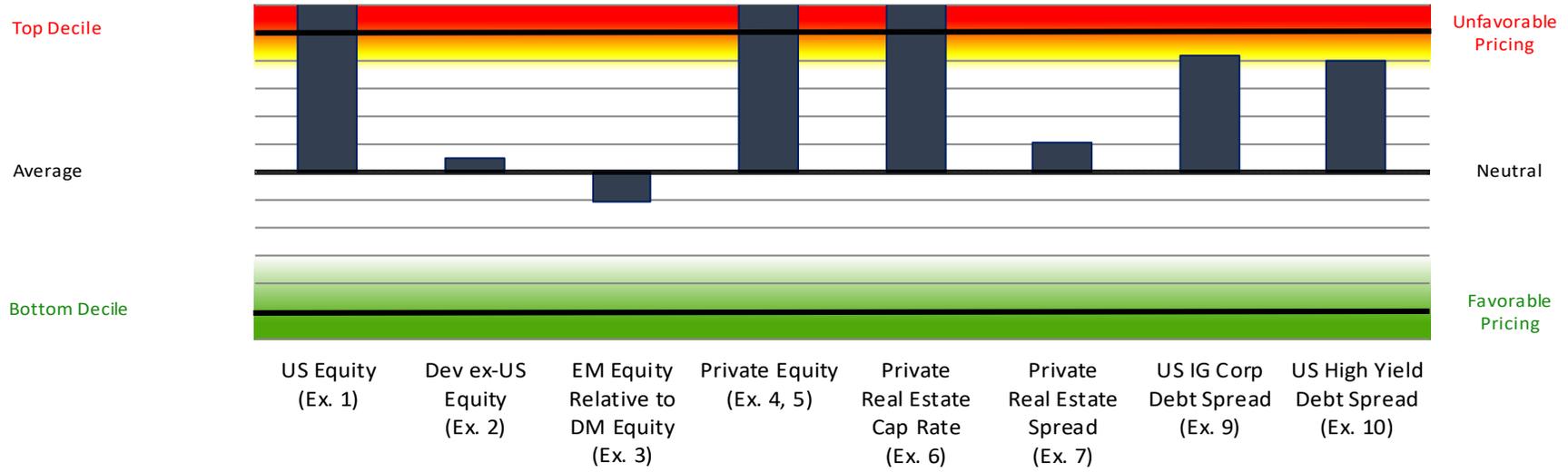
Investment Market Risk Metrics

Takeaways

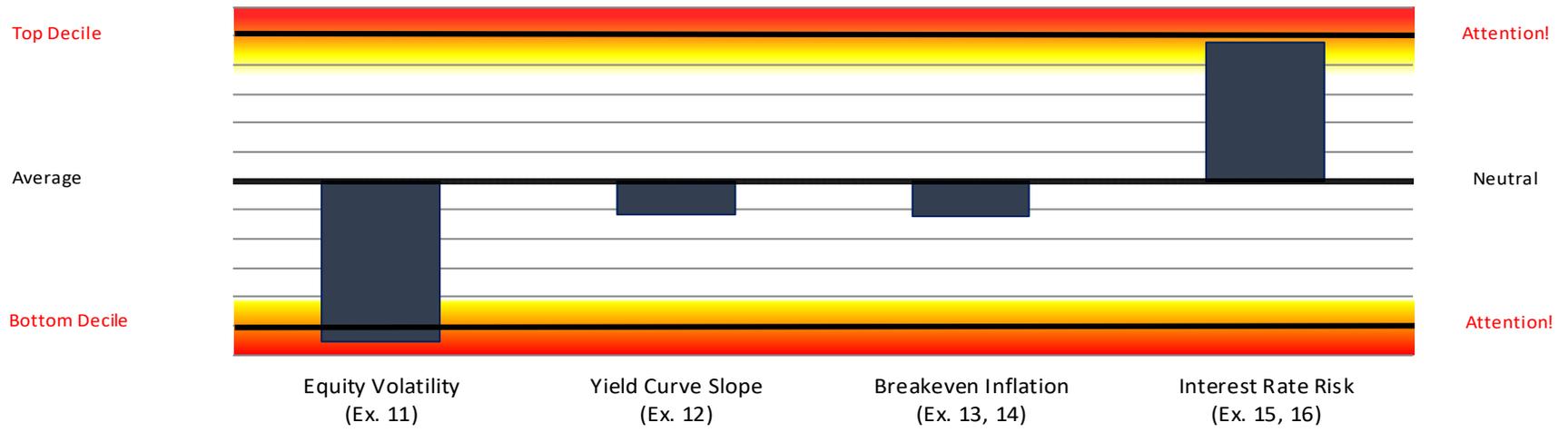
- December completed an extremely strong calendar year for nearly all growth risk-based assets. Despite material divergences within certain areas (e.g., value vs. growth, small vs. large, etc.), aggregate growth risk-based indices produced moderate-to-strong returns in the fourth quarter and throughout 2017. Additionally, traditional safe-haven assets (e.g., U.S. Treasuries) also produced positive returns over the course of 2017.
- The yield curve marginally flattened over the quarter with shorter yields rising, middle yields staying relatively unchanged, and longer-term yields declining.
- Implied equity market volatility (i.e., VIX) remained near historic lows throughout the quarter. This behavior has been directly mirrored by actual equity market volatility as well as macroeconomic data volatility throughout the globe.
- Due to recent price increases, Non-U.S. Developed and Emerging Market equity valuations are no longer as cheap relative to their own histories (currently in-line with long-term averages), but they remain modestly cheap relative to U.S. levels.
- Credit spreads remain tight (risk seeking) in both U.S. investment grade and high yield markets.
- Inflation indicators generally remain well behaved. Commodity prices and breakeven inflation levels experienced modest increases in December. Recent macroeconomic data (e.g., GDP, CPI, wages, etc.) suggest that modest inflation may finally return in the intermediate-term.
- PCA's sentiment indicator (page 4) remains positive. The sentiment indicator remains solidly green.

¹ See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

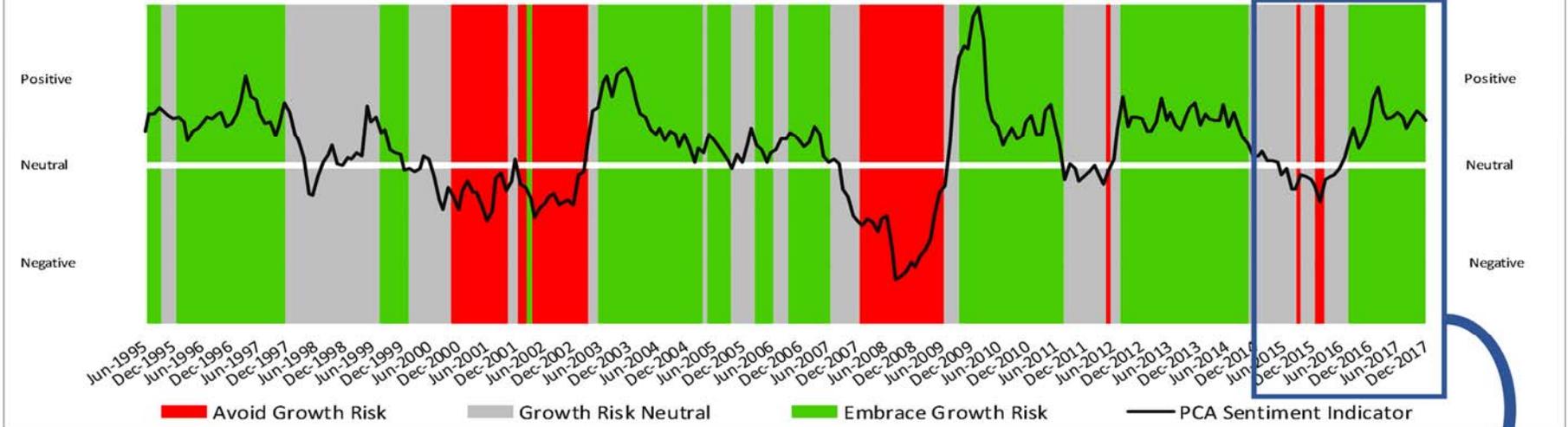
Valuation Metrics versus Historical Range A Measure of Risk



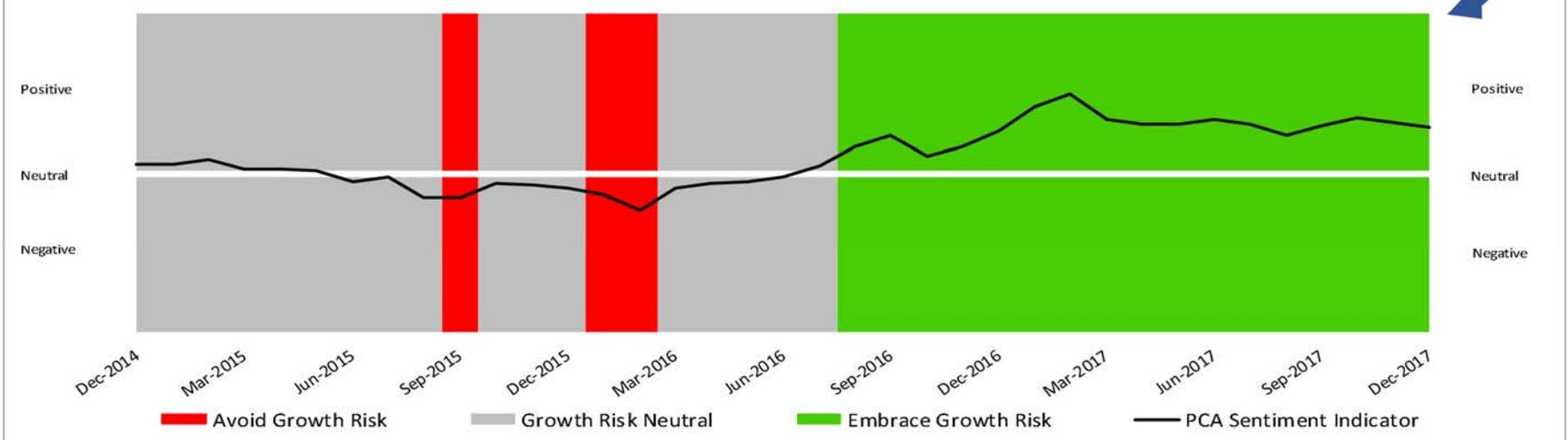
Other Important Metrics within their Historical Ranges Pay Attention to Extreme Readings



PCA Market Sentiment Indicator (1995-Present)



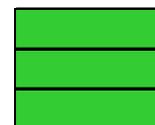
PCA Market Sentiment Indicator - Most Recent 3-Year Period



Information Behind Current Sentiment Reading

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

Positive
 Positive
 Agree



Growth Risk Visibility (Current Overall Sentiment)

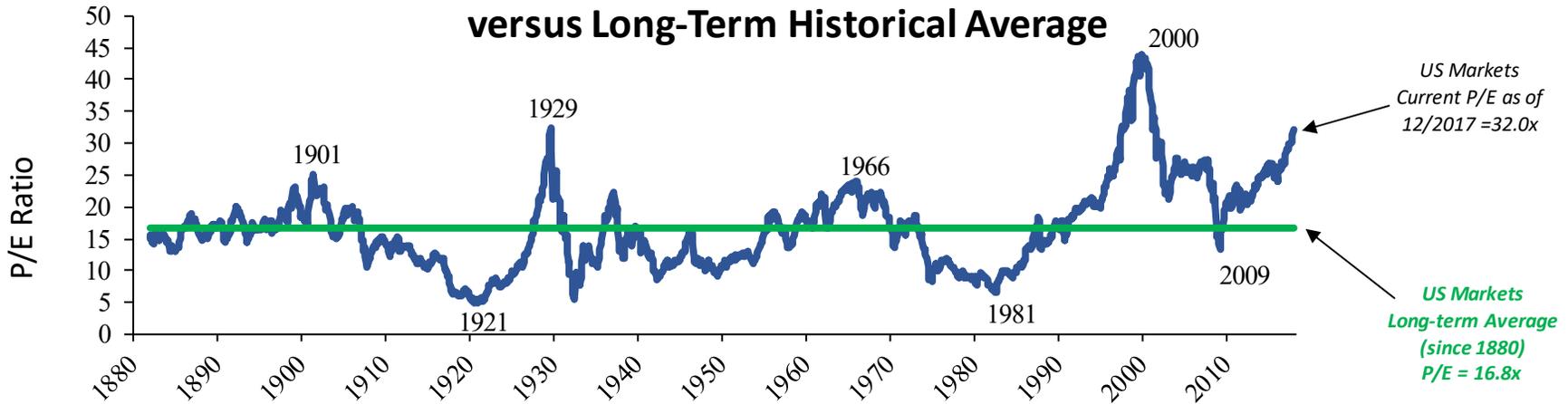
Positive



Developed Public Equity Markets

Exhibit 1

U.S. Equity Market P/E Ratio¹ versus Long-Term Historical Average

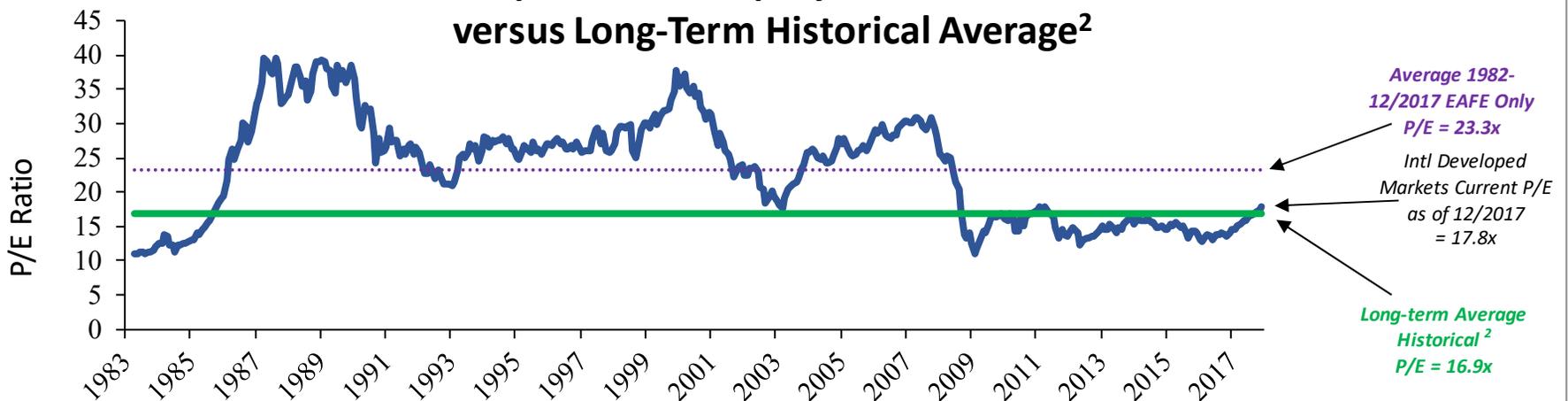


¹ P/E ratio is a Shiller P/E-10 based on 10 year real S&P 500 earnings over S&P 500 index level.

(Please note different time scales)

Exhibit 2

Developed ex-U.S. Equity Market P/E Ratio¹ versus Long-Term Historical Average²



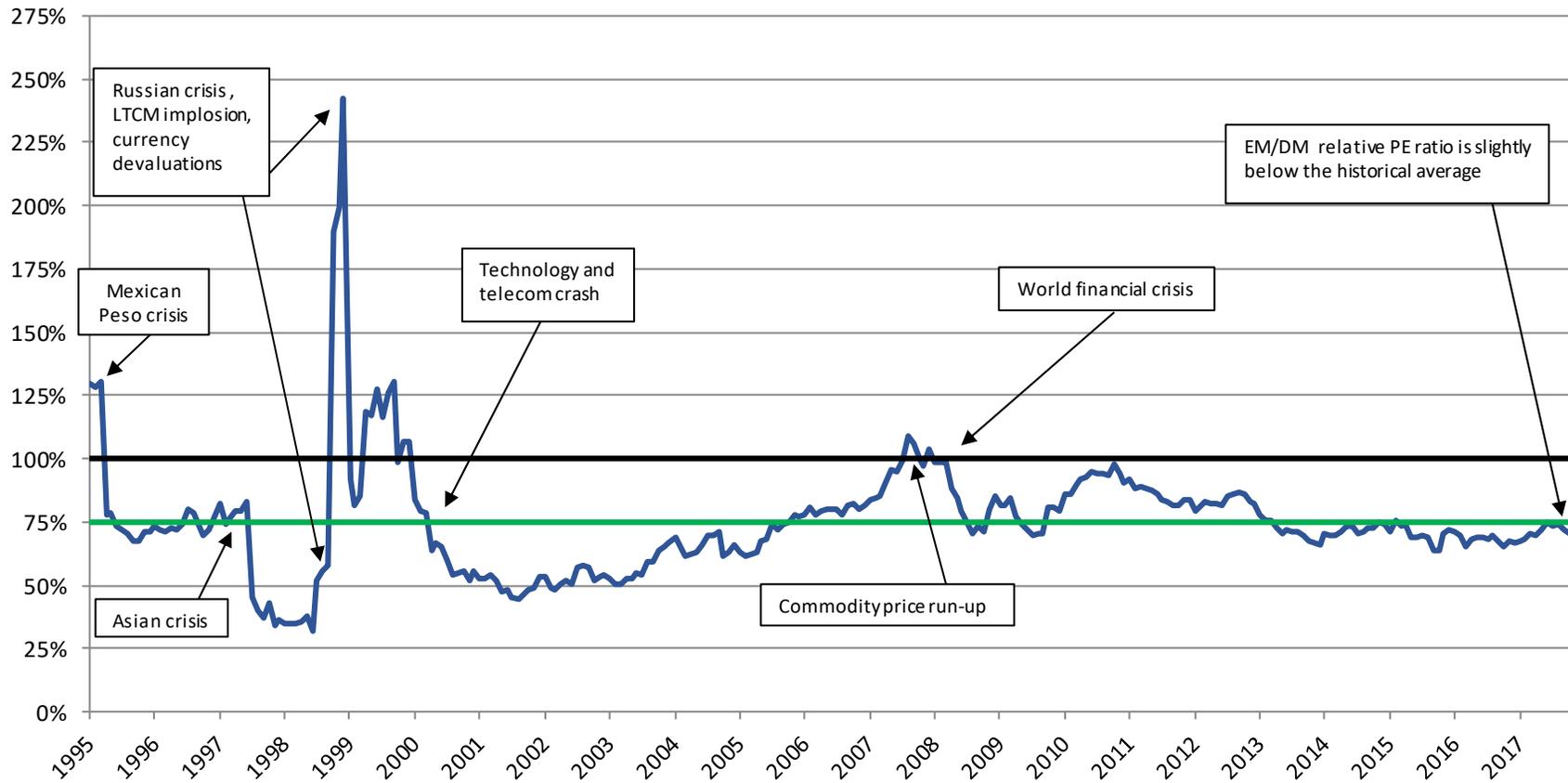
¹ P/E ratio is a Shiller P/E-10 based on 10 year real MSCI EAFE earnings over EAFE index level.

² To calculate the LT historical average, from 1881 to 1982 U.S. data is used as developed market proxy. From 1982 to present, actual developed ex-US market data (MSCI EAFE) is used.

Emerging Markets Public Equity Markets

Exhibit 3

Emerging Markets PE / Developed Markets PE (100% = Parity between PE Ratios)



Source: Bloomberg, MSCI World, MSCI EMF

— EM/DM PE

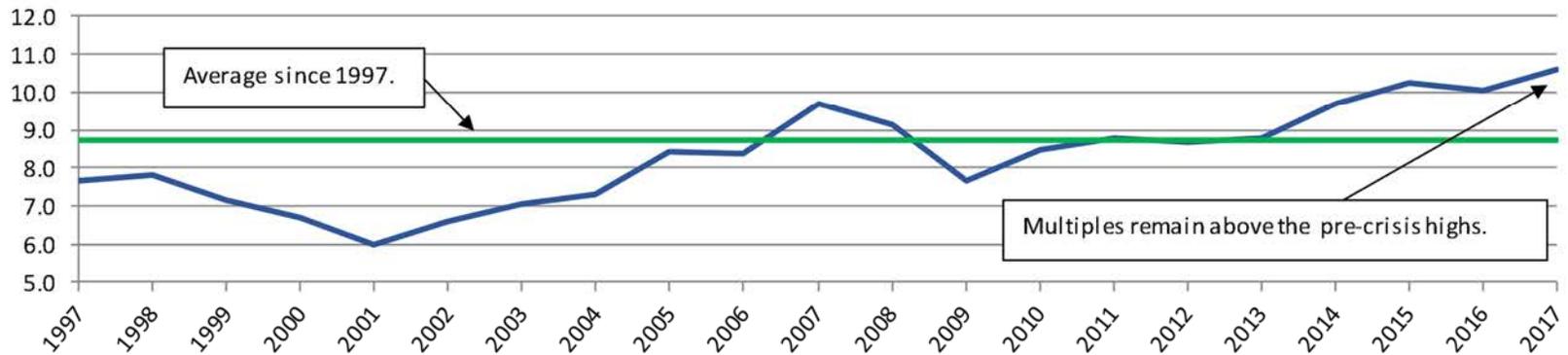
— Average EM/DM PE

— Parity

U.S. Private Equity Markets

Exhibit 4

Price to EBITDA Multiples Paid in LBOs

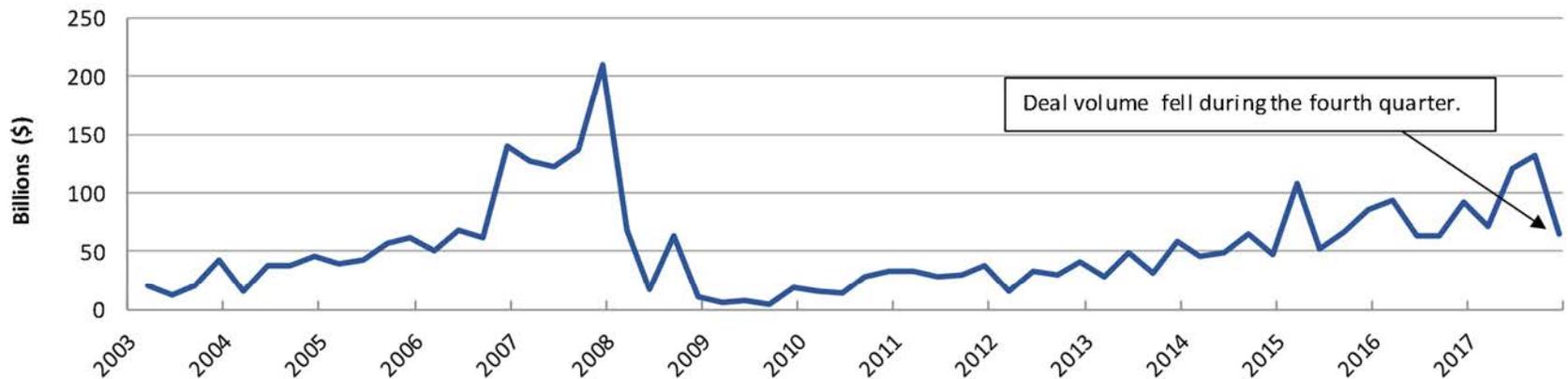


Source: S&P LCD study

(Please note different time scales)

Exhibit 5

Disclosed U.S. Quarterly Deal Volume*



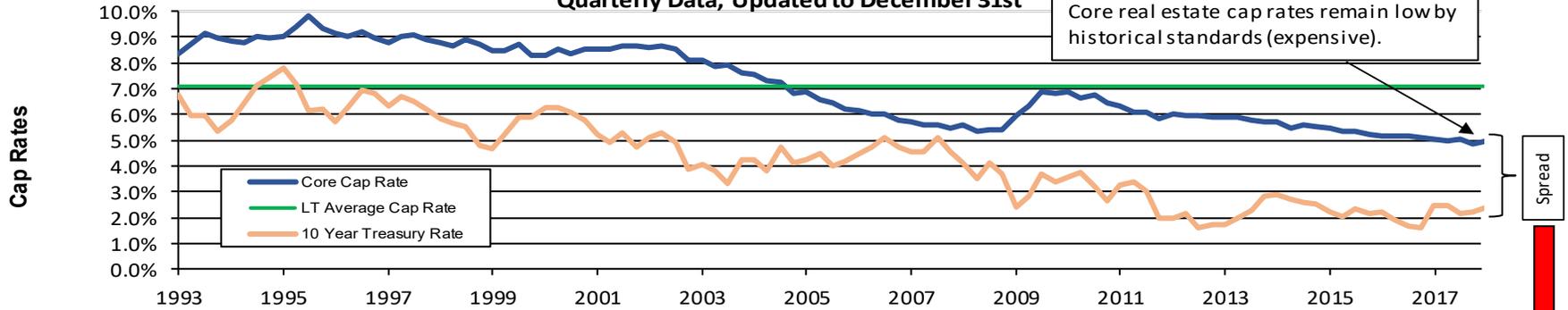
Source: Thomson Reuters Buyouts

* quarterly total deal size (both equity and debt)

Private Real Estate Markets

Exhibit 6

Current Value Cap Rates¹ Quarterly Data, Updated to December 31st



Source: NCREIF

¹A cap rate is the current annual income of the property divided by an estimate of the current value of the property. It is the current yield of the property. Low cap rates indicate high valuations.

Exhibit 7

Core Cap Rate Spread over 10-Year Treasury Interest Rate

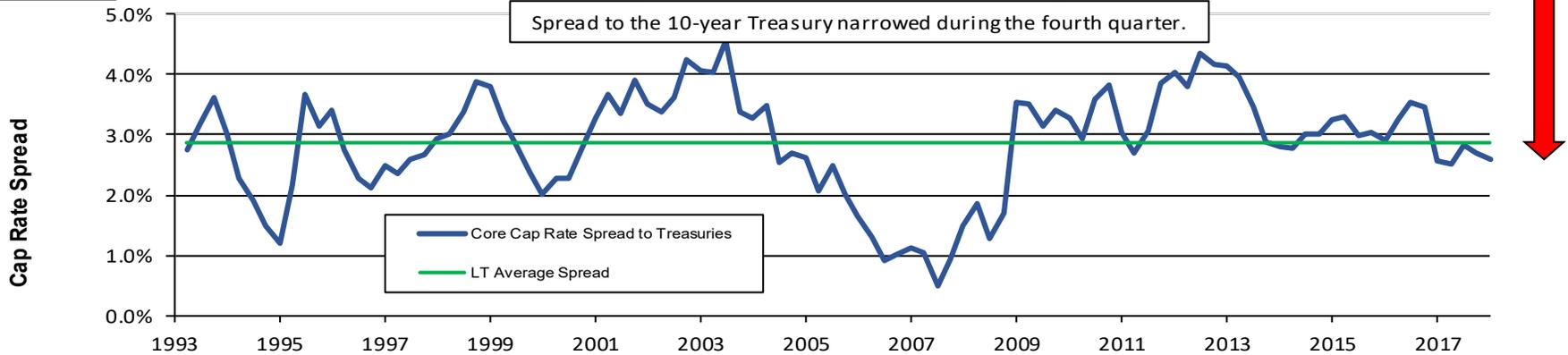
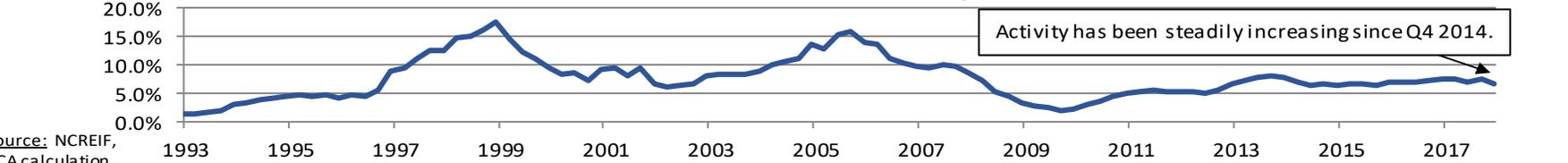


Exhibit 8

Transactions as a % of Market Value Trailing-Four Quarters

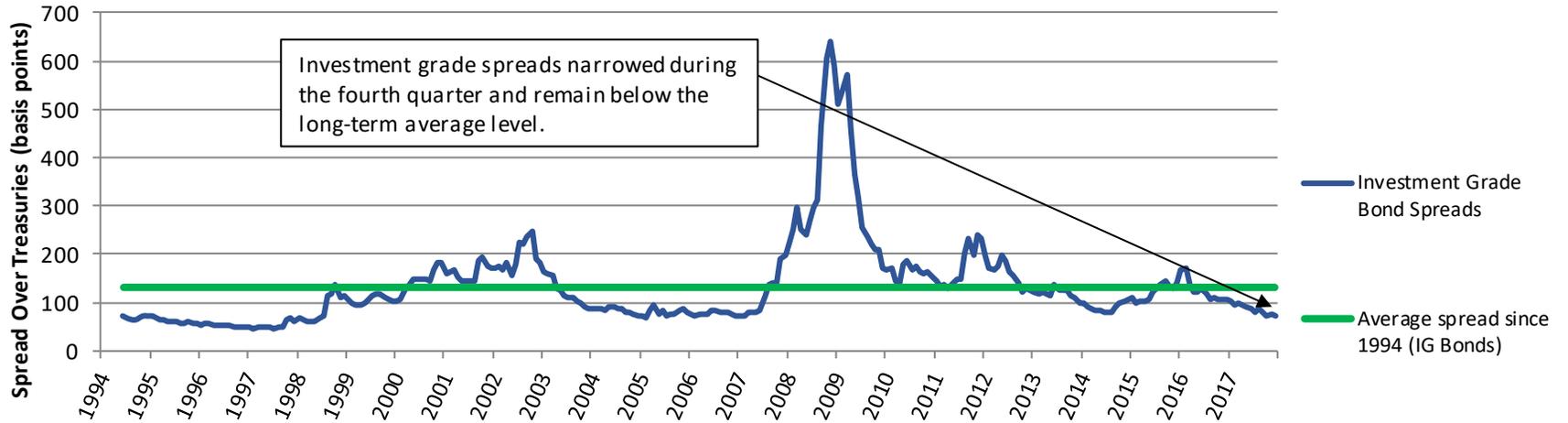


Source: NCREIF, PCA calculation

Credit Markets U.S. Fixed Income

Exhibit 9

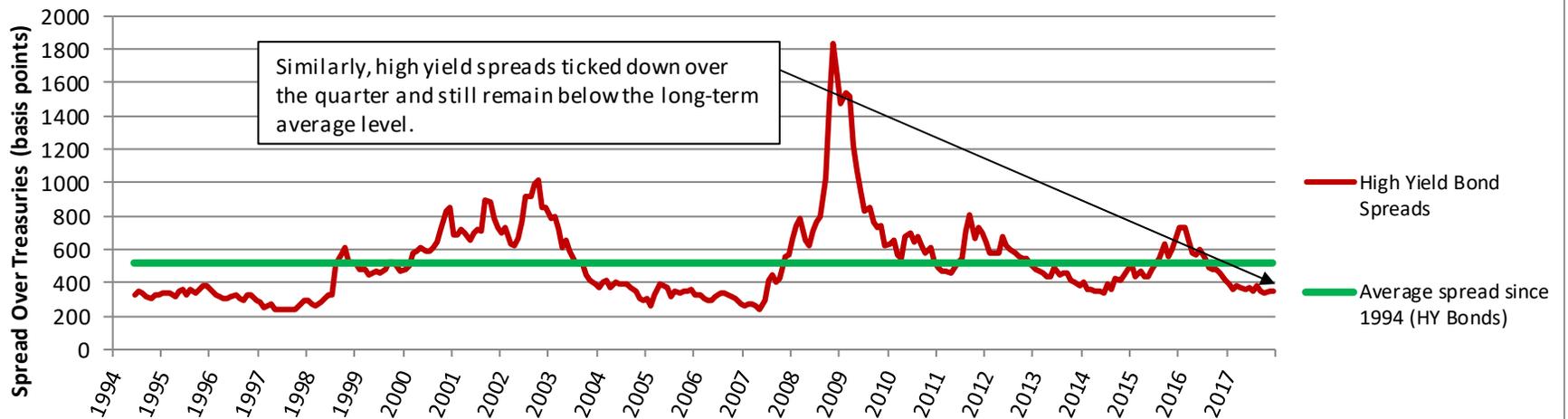
Investment Grade Corporate Bond Spreads



Source: LehmanLive: Barclays Capital US Corporate Investment Grade Index Intermediate Component.

Exhibit 10

High Yield Corporate Bond Spreads

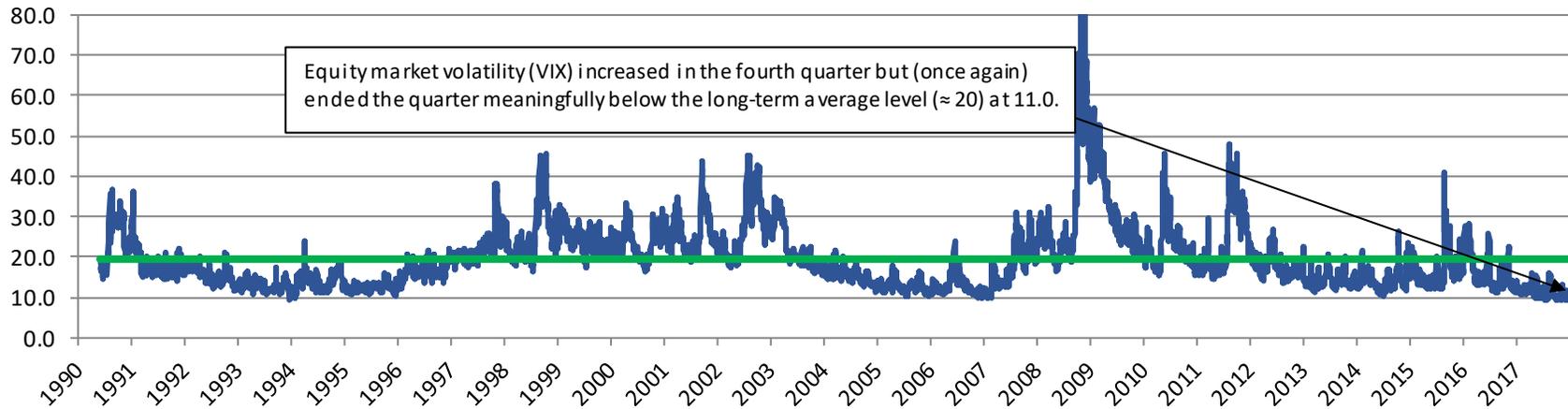


Source: LehmanLive: Barclays Capital U.S. Corporate High Yield Index.

Other Market Metrics

Exhibit 11

VIX - a measure of equity market fear / uncertainty

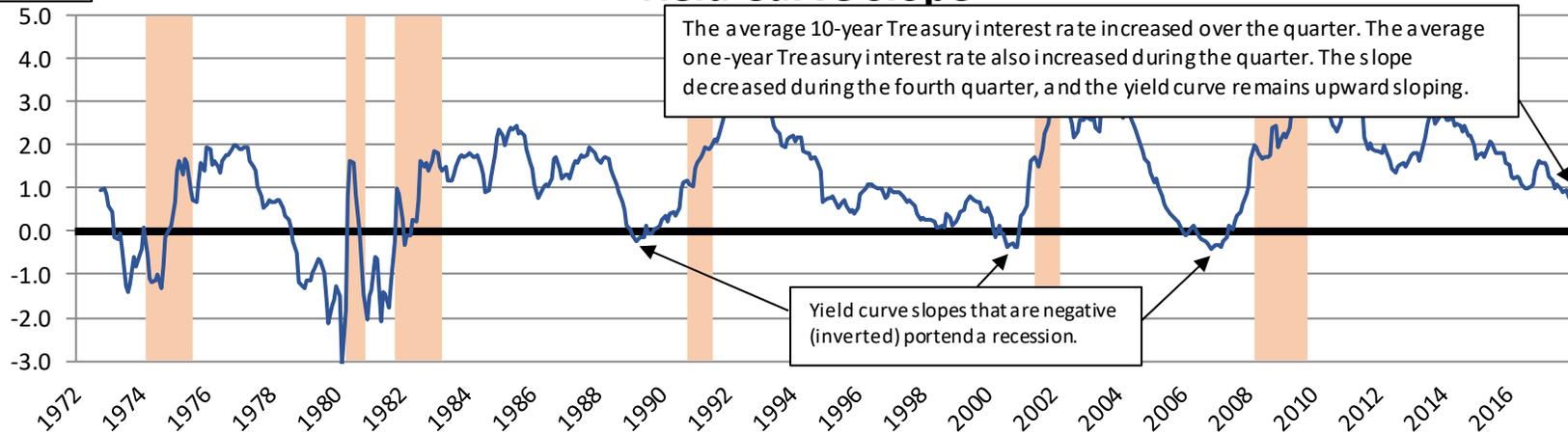


Source: <http://www.cboe.com/micro/vix/historical.aspx>

(Please note different time scales)

Exhibit 12

Yield Curve Slope

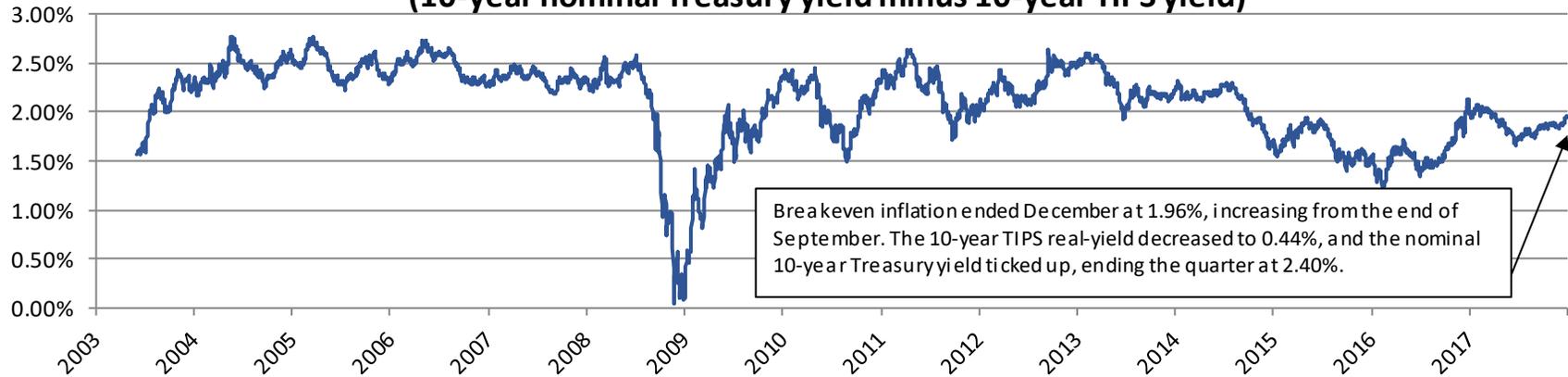


Source: www.ustreas.gov (10-year treasury yield minus 1-year treasury yield)

Measures of Inflation Expectations

Exhibit 13

10-Year Breakeven Inflation (10-year nominal Treasury yield minus 10-year TIPS yield)

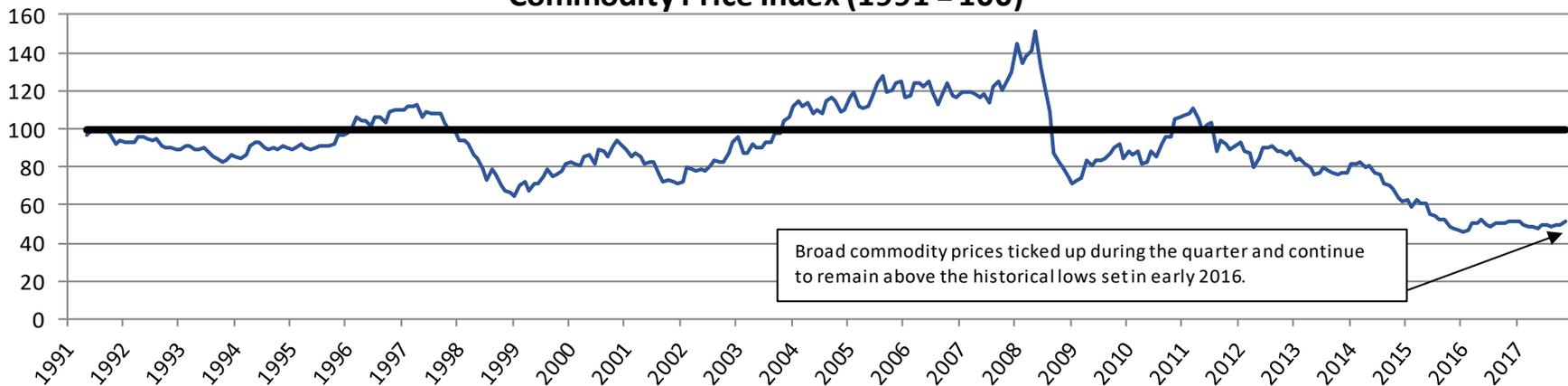


Source: www.ustreas.gov
Daily Yield Curve Rates (10-year nominal treasury yield minus 10-year TIPS yield)

(Please note different time scales)

Exhibit 14

Inflation Adjusted Bloomberg Commodity Price Index (1991 = 100)

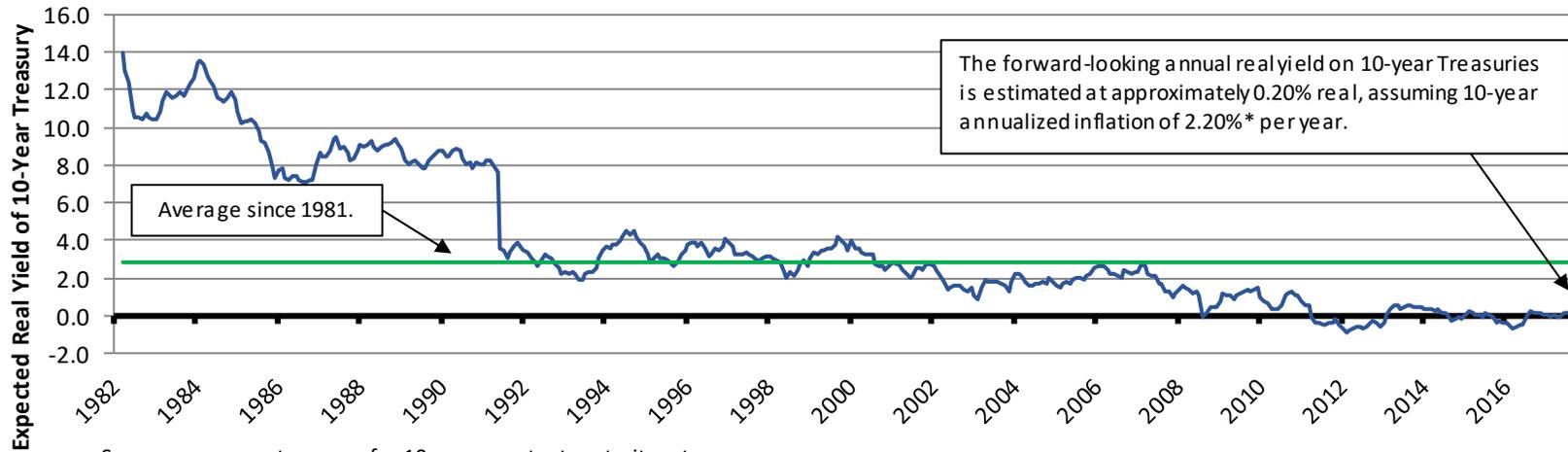


Source: Bloomberg Commodity Index, St. Louis Fed for US CPI all urban consumers.

Measures of U.S. Treasury Interest Rate Risk

Exhibit 15

Estimate of 10-Year Treasury Forward-Looking Real Yield



Sources: www.ustreas.gov for 10-year constant maturity rates

*Federal Reserve Bank of Philadelphia survey of professional forecasts for inflation estimates

Exhibit 16

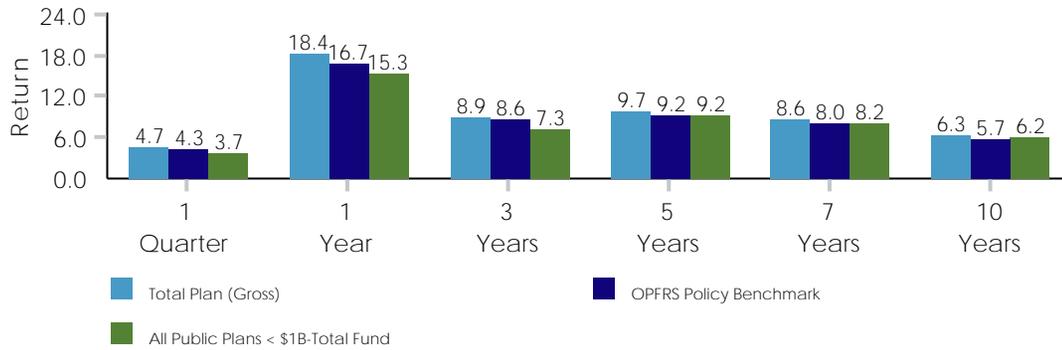
10-Year Treasury Duration (Change in Treasury price with a change in interest rates)



Source: www.ustreas.gov for 10-year constant maturity rates, calculation of duration

Performance and Market Values As of December 31, 2017

Investment Performance



Portfolio Valuation (000's)

	1 Quarter	1 Year
OPFRS Total Plan		
Beginning Market Value	366,459	355,573
Net Contributions	-3,208	-35,998
Gain/Loss	17,207	60,884
Ending Market Value	380,459	380,459

Asset Class Performance (gross of fees)

	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
OPFRS Total Plan	4.7	18.4	8.9	9.7	8.6	6.3
<i>OPFRS Policy Benchmark*</i>	<i>4.3</i>	<i>16.7</i>	<i>8.6</i>	<i>9.2</i>	<i>8.0</i>	<i>5.7</i>
Domestic Equity	6.9	22.1	11.4	15.7	13.6	9.0
<i>Russell 3000 (Blend)**</i>	<i>6.3</i>	<i>21.1</i>	<i>11.1</i>	<i>15.6</i>	<i>13.5</i>	<i>8.6</i>
International Equity	4.5	31.3	10.3	8.8	6.3	2.5
<i>MSCI ACWI Ex US (Blend)^</i>	<i>5.1</i>	<i>27.8</i>	<i>8.3</i>	<i>7.3</i>	<i>5.4</i>	<i>2.3</i>
Fixed Income	0.9	4.9	3.3	2.7	3.9	4.7
<i>Bloomberg Barclays Universal (Blend)^^</i>	<i>0.4</i>	<i>4.1</i>	<i>2.8</i>	<i>2.5</i>	<i>3.6</i>	<i>4.3</i>
Covered Calls	3.6	15.8	10.1	-	-	-
<i>CBOE BXM</i>	<i>2.8</i>	<i>13.0</i>	<i>8.4</i>	-	-	-
Cash	0.4	1.1	0.6	0.3	-	-
<i>Citigroup 3 Month T-Bill Index</i>	<i>0.3</i>	<i>0.8</i>	<i>0.4</i>	<i>0.2</i>	-	-

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

** 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

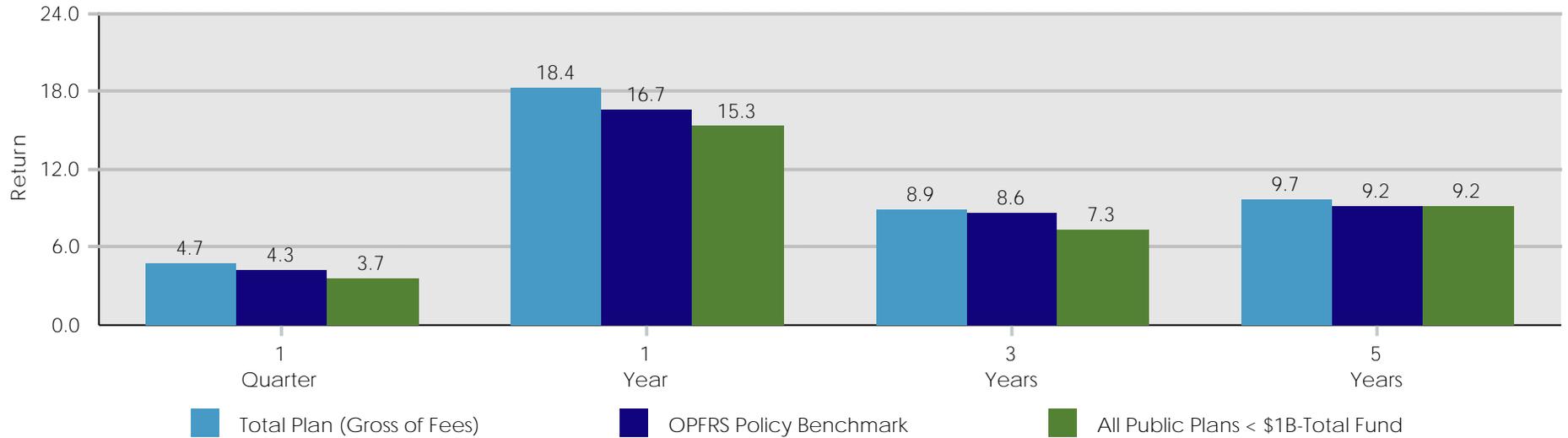
^ International Equity Benchmark consists of MSCI EAFE thru 12/31/04, and MSCI ACWI x US thereafter.

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

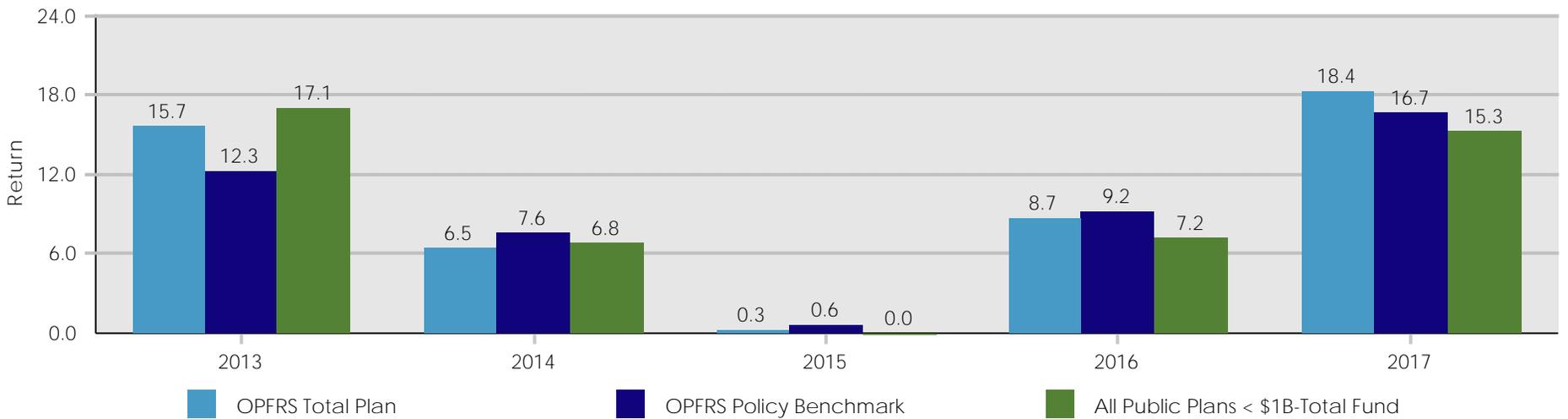
OPFRS Portfolio Relative Performance Results

As of December 31, 2017

Trailing Period Performance (annualized)



12-month Performance- As of December 31, 2017



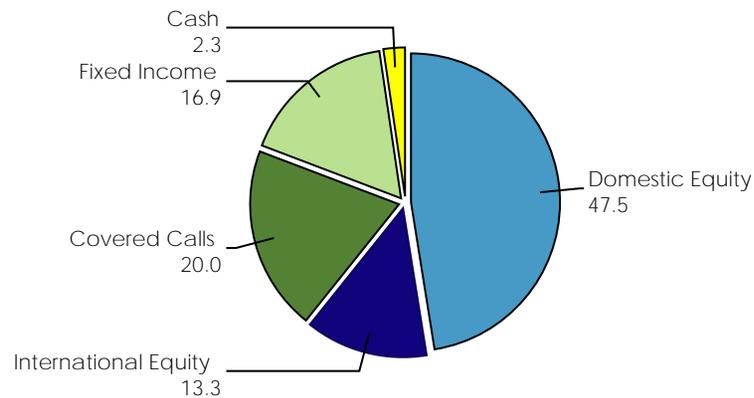
Actual vs. Target Allocation
As of December 31, 2017

	Asset Allocation (\$000)	Asset Allocation (%)	Target Allocation* (%)	Variance (%)
OPFRS Total Plan	380,459	100.0	100.0	0.0
Domestic Equity	180,626	47.5	48.0	-0.5
International Equity	50,507	13.3	12.0	1.3
Total Fixed Income	64,217	16.9	20.0	-3.1
Covered Calls	76,220	20.0	20.0	0.0
Cash	8,888	2.3	0.0	2.3

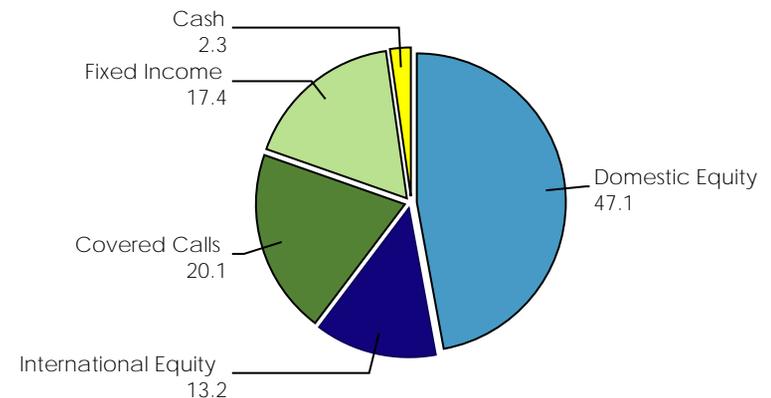
*Target weightings reflect the Plan's evolving asset allocation (effective 3/31/2014).

Actual Asset Allocation Comparison

December 31, 2017 : \$380,457,349



September 30, 2017 : \$366,457,715



Manager Performance - Gross of Fees

As of December 31, 2017

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	76,601	6.6	21.7	11.2	15.7	14.9	06/2010
<i>Russell 1000 Index</i>		<i>6.6</i>	<i>21.7</i>	<i>11.2</i>	<i>15.7</i>	<i>14.9</i>	
Excess Return		0.0	0.0	0.0	0.0	0.0	
Large Cap Value							
SSgA Russell 1000 Value Index	25,165	5.4	13.8	8.8	---	9.2	11/2014
<i>Russell 1000 Value Index</i>		<i>5.3</i>	<i>13.7</i>	<i>8.7</i>	<i>---</i>	<i>9.1</i>	
Excess Return		0.1	0.1	0.1	---	0.1	
Large Cap Growth							
SSgA Russell 1000 Growth Index	27,648	7.9	30.1	13.8	---	13.8	11/2014
<i>Russell 1000 Growth Index</i>		<i>7.9</i>	<i>30.2</i>	<i>13.8</i>	<i>---</i>	<i>13.8</i>	
Excess Return		0.0	-0.1	0.0	---	0.0	
Mid Cap Core							
EARNEST Partners - Active	29,427	7.8 (11)	26.2 (7)	14.2 (3)	16.6 (30)	9.9 (37)	04/2006
<i>Russell Midcap Index</i>		<i>6.1</i>	<i>18.5</i>	<i>9.6</i>	<i>15.0</i>	<i>8.8</i>	
Excess Return		1.7	7.7	4.6	1.6	1.1	
Small Cap Value							
NWQ - Active	9,985	5.9 (15)	13.9 (29)	10.6 (48)	15.9 (27)	8.4 (68)	02/2006
<i>Russell 2000 Value Index</i>		<i>2.0</i>	<i>7.8</i>	<i>9.5</i>	<i>13.0</i>	<i>7.1</i>	
Excess Return		3.9	6.1	1.1	2.9	1.3	
Small Cap Growth							
Rice Hall James	11,800	8.8 (3)	---	---	---	12.6 (31)	07/2017
<i>Russell 2000 Growth Index</i>		<i>4.6</i>	<i>---</i>	<i>---</i>	<i>---</i>	<i>11.1</i>	
Excess Return		4.2	---	---	---	1.5	

Over the latest three-month period ending December 31, 2017, All three of OPFRS's active Domestic Equity managers outperformed their respective benchmarks.

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

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

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

Manager Performance - Gross of Fees

As of December 31, 2017

Domestic Equity

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

EARNEST Partners, the Plan's mid cap core manager, completed another strong quarter, outperforming its Russell Midcap benchmark by 1.7%. Performance continues to be especially strong over the 1-year period as the portfolio has returned 26.2%, outperforming the benchmark by 7.7%. EARNEST has also outperformed over the 3- and 5-year periods by 4.6% and 1.6%, respectively.

NWQ, the Plan's small cap value manager, outperformed the Russell 2000 Value Index by 3.9% over the latest quarter. Thanks in part to its strong quarter, NWQ now outperforms its benchmark over the 1-, 3-, and 5-year periods by 6.1%, 1.1%, and 2.9%, respectively.

Rice Hall James, the Plan's new small cap growth manager had a very strong first full quarter managing OPFRS funds, returning 8.8% over the 3-month period, outperforming the Russell 2000 Growth index by 4.2%.

Manager Performance - Gross of Fees

As of December 31, 2017

International Equity

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Active International							
Fisher Investments	17,772	2.9 (87)	29.7 (24)	9.4 (35)	8.4 (67)	5.9 (77)	04/2011
<i>MSCI AC World ex USA</i>		<i>5.1</i>	<i>27.8</i>	<i>8.3</i>	<i>7.3</i>	<i>5.1</i>	
Excess Return		-2.2	1.9	1.1	1.1	0.8	
Hansberger	17,759	6.5 (14)	38.3 (11)	12.9 (10)	9.9 (32)	5.5 (69)	02/2006
<i>MSCI AC World ex USA</i>		<i>5.1</i>	<i>27.8</i>	<i>8.3</i>	<i>7.3</i>	<i>4.8</i>	
Excess Return		1.4	10.5	4.6	2.6	0.7	
Passive International							
SSgA	14,976	4.2	25.5	8.2	8.2	7.9	08/2002
<i>MSCI EAFE Index</i>		<i>4.3</i>	<i>25.6</i>	<i>8.3</i>	<i>8.4</i>	<i>8.0</i>	
Excess Return		-0.1	-0.1	-0.1	-0.2	-0.1	

Over the latest three-month period ending December 31, 2017, one of OPFRS's active International Equity managers outperformed its 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.

Hansberger, one of OPFRS' active international equity managers, outperformed the MSCI ACWI x US Index during the quarter by 1.4%. Hansberger has had an especially impressive 12-month period, outperforming its benchmark by 10.5% with an absolute return of 38.3%. Hansberger has also outperformed over the 3- and 5-year periods by 4.6% and 2.6%, respectively.

Fisher, one of OPFRS' active international equity managers, underperformed the MSCI ACWI x US Index by (2.2%) during the quarter. However, over the latest 1-, 3-, and 5-year periods the fund has outperformed its benchmark by 1.9%, 1.1%, 1.1%, respectively.

Manager Performance - Gross of Fees

As of December 31, 2017

Fixed Income

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Core Fixed Income							
Ramirez	33,988	1.1 (1)	5.2 (6)	---	---	5.2 (6)	01/2017
<i>Bloomberg Barclays U.S. Aggregate Index</i>		0.4	3.5	---	---	3.5	
Excess Return		0.7	1.7	---	---	1.7	
Core-Plus Fixed Income							
Reams	22,656	0.3 (94)	3.4 (95)	2.6 (87)	2.3 (94)	5.7 (59)	02/1998
<i>Bbg Barclays Universal (Blend)</i>		0.4	4.1	2.8	2.5	5.1	
Excess Return		-0.1	-0.7	-0.2	-0.2	0.6	
High Yield / Bank Loans							
DDJ Capital	7,573	1.8 (3)	11.8 (2)	---	---	7.6 (12)	02/2015
<i>BofA Merrill Lynch U.S. High Yield Index</i>		0.4	7.5	---	---	6.3	
Excess Return		1.4	4.3	---	---	1.3	

Over the latest three-month period, ending December 31, 2017, two of OPFRS' three active Fixed Income managers outperformed their respective benchmarks.

Ramirez, the Plan's core fixed income manager, produced an excess quarterly return of 70 basis points by returning 1.1% compared to the Bbg BC US Aggregate return of 0.4%. Over its first full year managing OPFRS assets, Ramirez has returned 5.2% and outperformed its benchmark by 1.7%.

Reams, the Plan's core plus fixed income manager, trailed its benchmark, the Bbg BC Universal, by (10) basis points over the quarter. During the latest 1-year period, the portfolio underperformed its benchmark by (70) basis points and also underperformed over the 3-year period by (20) basis points. Reams has also underperformed by (20) basis points over the 5-year period, returning an annualized 2.3%.

DDJ, the Plan's High Yield & Bank Loan manager, outperformed its benchmark, the BofAML US High Yield Master II index, by 1.4% over the most recent quarter. The DDJ portfolio has returned 11.8% over the latest 1-year period, outperforming the benchmark by 4.3%, and has now earned an annualized excess return of 1.3% since its inception in early 2015.

Manager Performance - Gross of Fees

As of December 31, 2017

Covered Calls

Manager - Style	Mkt Value (\$000)	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date
Covered Calls Composite							
Covered Calls	76,220	3.6	15.8	10.1	---	9.4	04/2014
CBOE BXM		2.8	13.0	8.4	---	7.5	
Excess Return		0.8	2.8	1.7	---	1.9	
CC - Passive Allocation							
Parametric BXM	36,873	2.9	13.5	9.3	---	8.3	04/2014
CBOE BXM		2.8	13.0	8.4	---	7.5	
Excess Return		0.1	0.5	0.9	---	0.8	
CC - Active Allocation							
Parametric DeltaShift	39,346	4.3	18.0	10.4	---	11.3	04/2014
CBOE BXM		2.8	13.0	8.4	---	7.5	
Excess Return		1.5	5.0	2.0	---	3.8	

During the latest three-month period ending December 31, 2017, OPFRS' aggregate Covered Calls portfolio has outperformed its benchmark over all time periods measured.

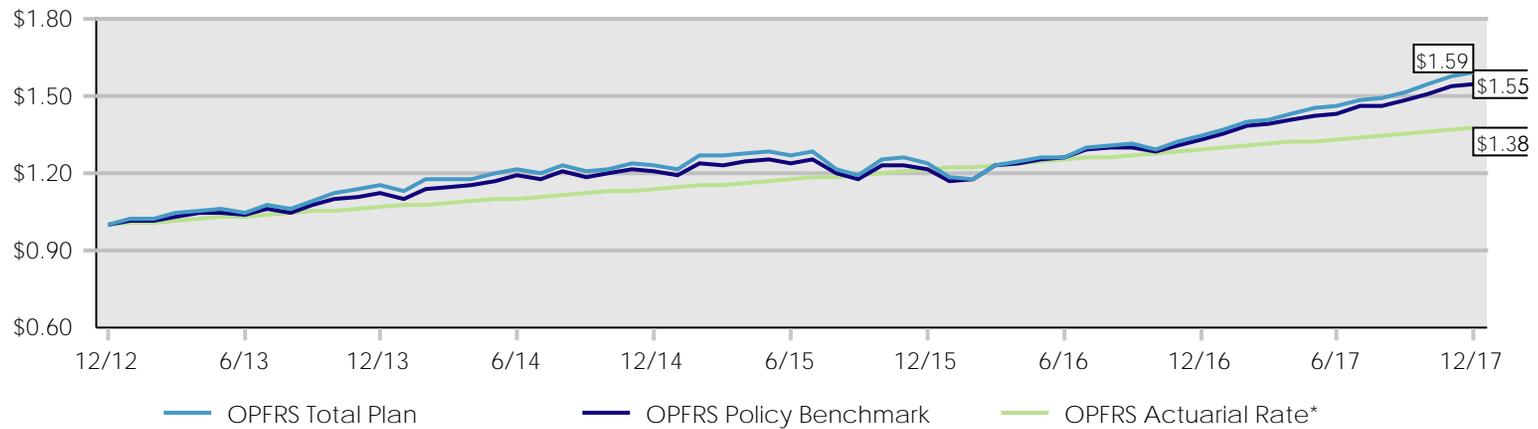
Parametric BXM Portfolio, the Plan's passive covered calls allocation outperformed its CBOE BXM index by 10 basis points over the most recent quarter. Over the most recent 1- and 3-year periods, the replication strategy has outperformed its benchmark by 50 and 90 basis points, respectively.

Parametric Delta Shift Portfolio, the Plan's active covered calls allocation has outperformed the CBOE BXM benchmark by 1.5% over the most recent quarter, and has outperformed the benchmark by 5.0% and 2.0% over the most recent 1- and 3-year periods, respectively.

OPFRS Total Portfolio 5-Year Performance

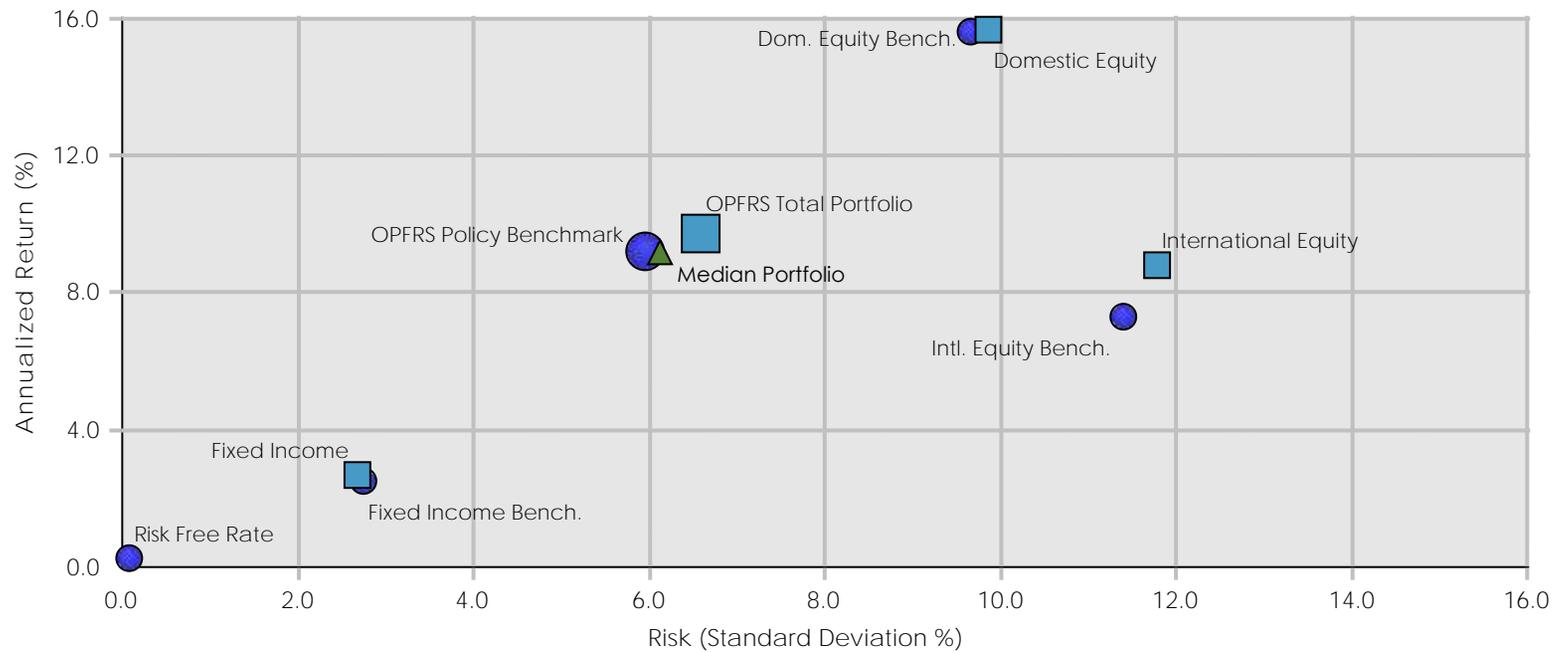
As of December 31, 2017

Growth of \$1 (5-year)

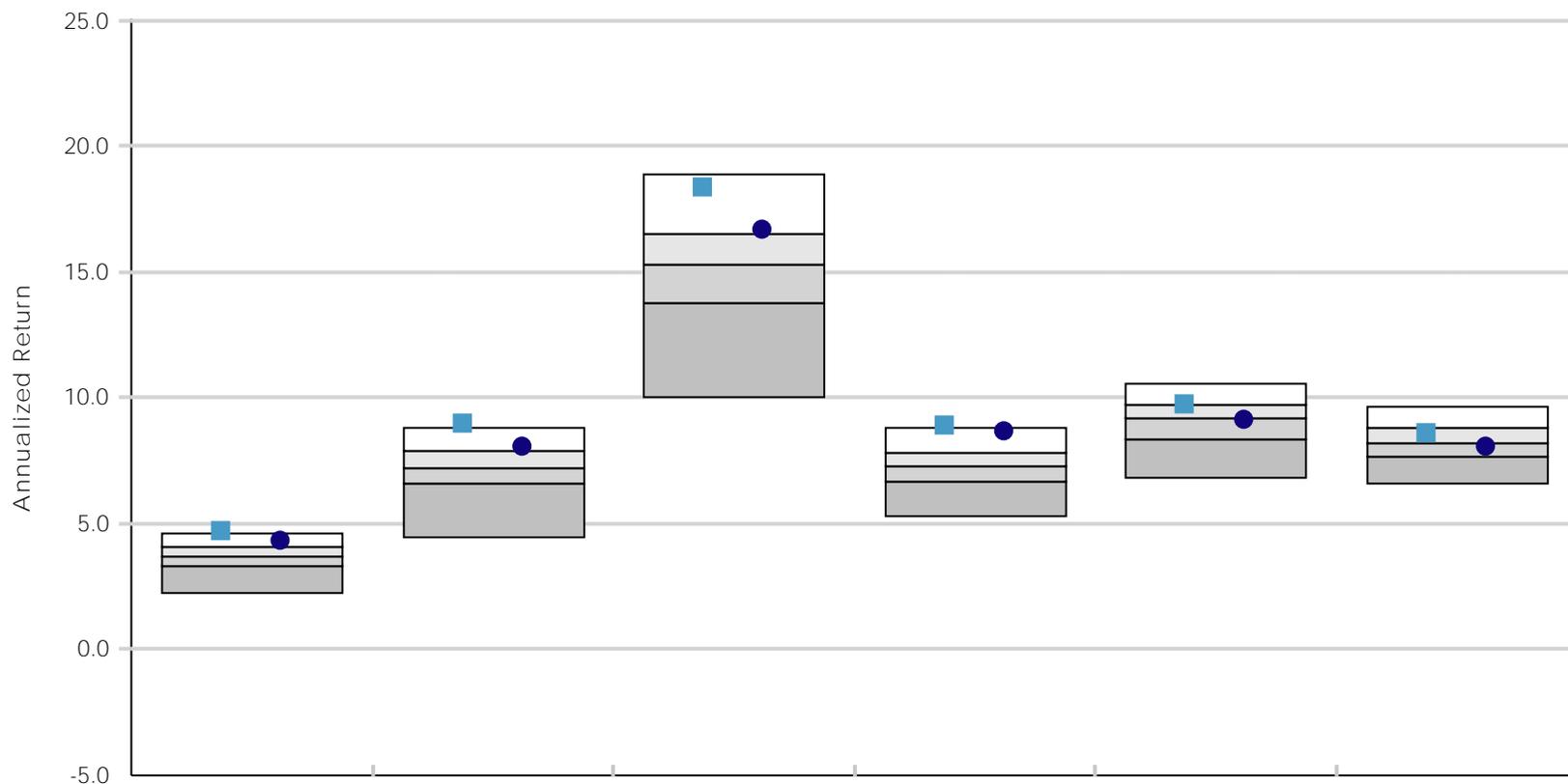


* The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, and 6.5% currently

Risk/Return Performance (5-year)



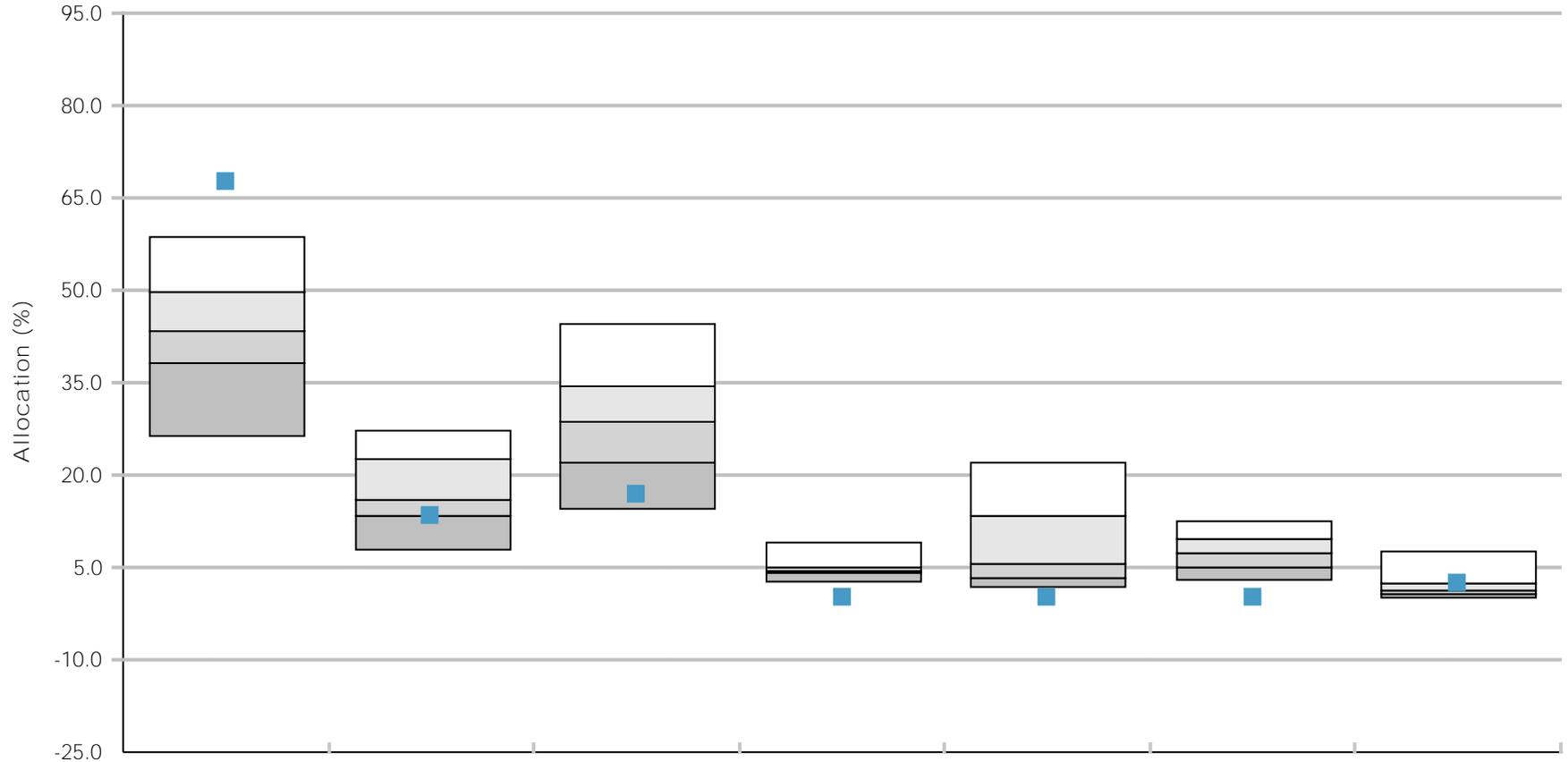
Plan Sponsor Peer Group Analysis
As of December 31, 2017



	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years
■ OPFRS Total Plan	4.7 (5)	9.0 (4)	18.4 (7)	8.9 (5)	9.7 (26)	8.6 (37)
● OPFRS Policy Benchmark	4.3 (15)	8.1 (18)	16.7 (20)	8.6 (8)	9.2 (52)	8.0 (61)
5th Percentile	4.6	8.8	18.9	8.8	10.6	9.6
1st Quartile	4.0	7.9	16.5	7.9	9.7	8.8
Median	3.7	7.2	15.3	7.3	9.2	8.2
3rd Quartile	3.3	6.6	13.8	6.7	8.3	7.7
95th Percentile	2.2	4.5	10.0	5.3	6.8	6.6
Population	453	453	448	432	418	403

Parenteses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor TF Asset Allocation
As of December 31, 2017



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ OPFRS Total Plan	67.5 (2)	13.3 (76)	16.9 (92)	0.0	0.0 (100)	0.0	2.3 (24)
5th Percentile	58.8	27.2	44.6	9.2	22.1	12.6	7.7
1st Quartile	49.7	22.5	34.3	5.1	13.4	9.8	2.3
Median	43.3	15.9	28.7	4.5	5.5	7.2	1.3
3rd Quartile	38.3	13.3	21.9	4.1	3.3	4.9	0.7
95th Percentile	26.4	8.0	14.6	2.6	1.7	2.9	0.1
Population	485	458	482	127	114	296	433

Parenteses contain percentile rankings.
Calculation based on monthly periodicity.

Monitoring/Probation Status

As of December 31, 2017
Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern	Months Since Corrective Action	Performance [^] Since Corrective Action	Date of Corrective Action*
Reams	On Watch	Organizational	7	1.1%	5/31/2017
BBG BC Universal (Blend)	---	---	7	1.3%	---
Hansberger	On Watch	Organizational	1	15.8%	11/30/2017
MSCI ACWI ex-USA			1	12.0%	

[^] 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

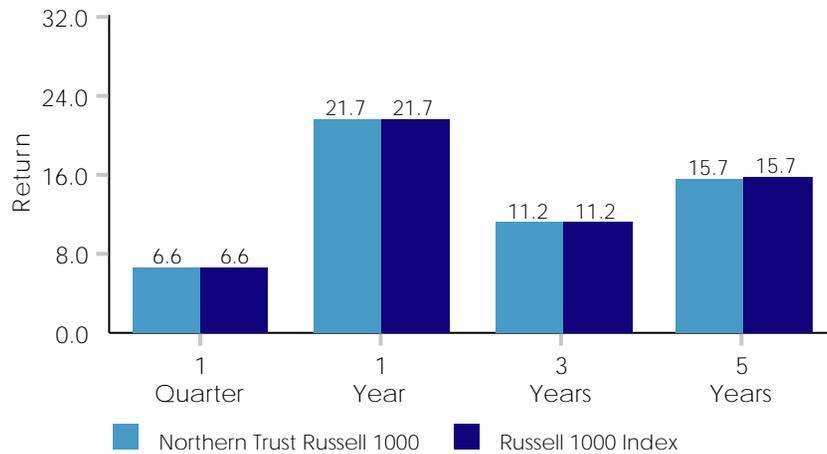
VRR – Value Relative Ratio – is calculated as: manager cumulative return / benchmark cumulative return.

Northern Trust Russell 1000 - gross of fees

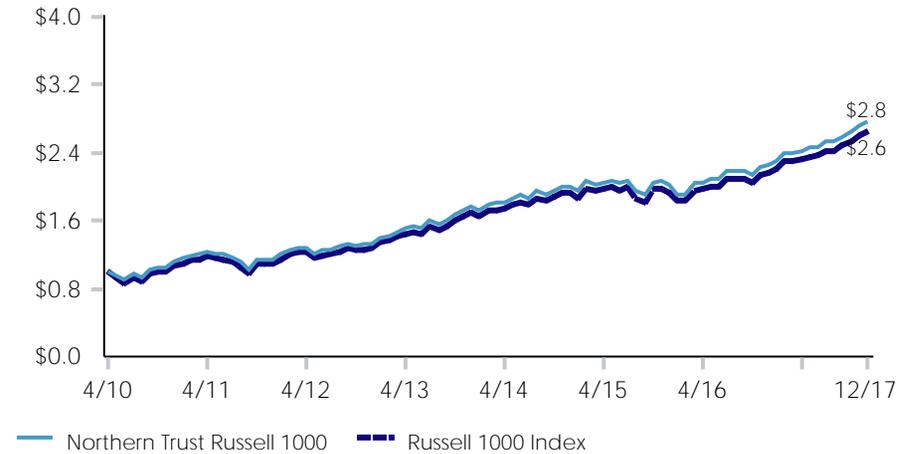
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Northern Trust Russell 1000	1.04	0.96	0.35	1.18	1.44	0.99	99.50	93.97	05/01/2010
Russell 1000 Index	0.00	1.00	-	1.10	0.00	1.00	100.00	100.00	05/01/2010

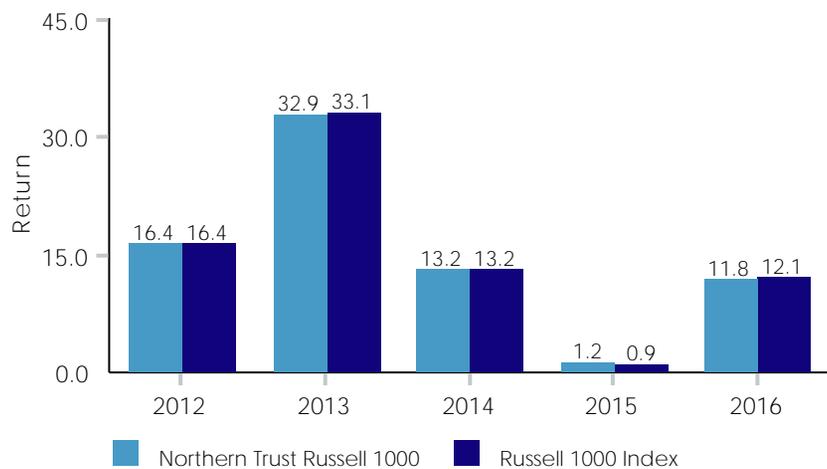
Trailing Period Performance



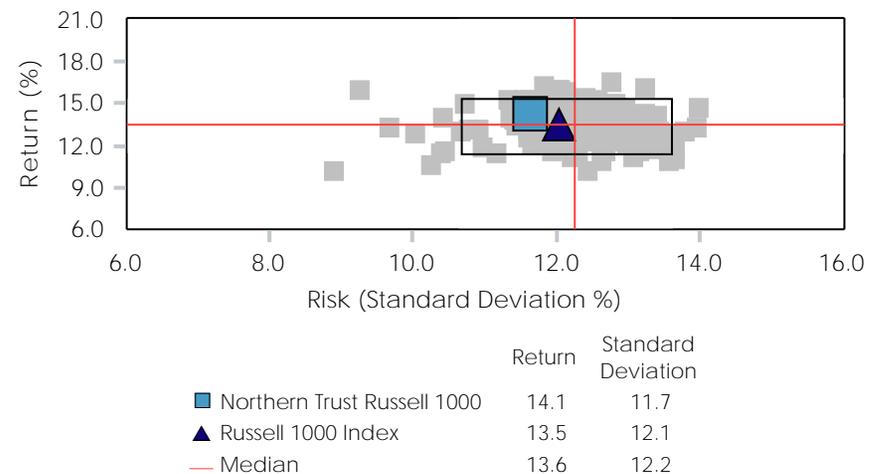
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

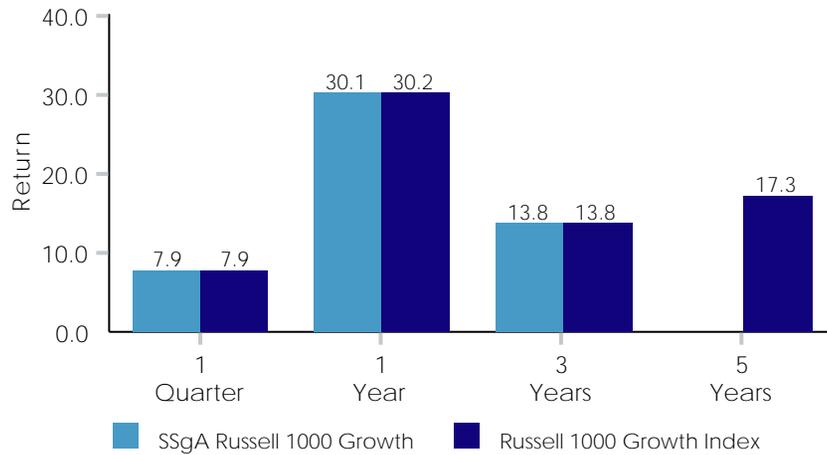


SSgA Russell 1000 Growth - gross of fees

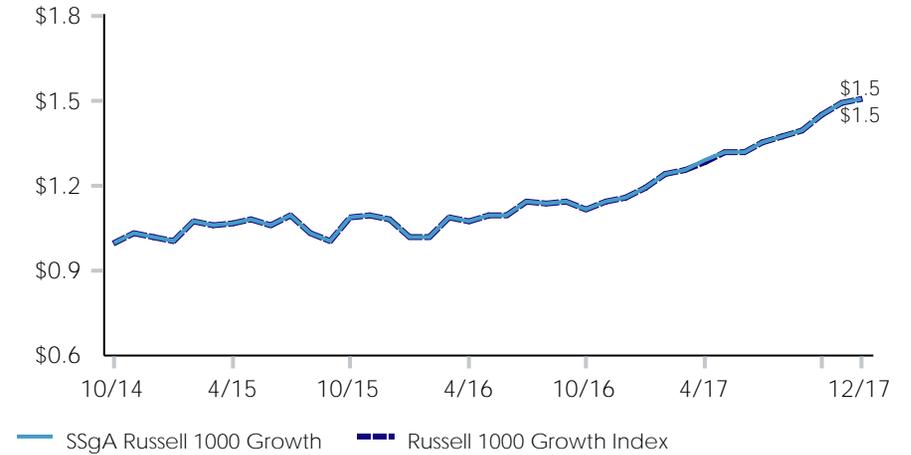
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
SSgA Russell 1000 Growth	0.01	1.00	0.20	1.27	0.04	1.00	100.02	99.96	11/01/2014
Russell 1000 Growth Index	0.00	1.00	-	1.27	0.00	1.00	100.00	100.00	11/01/2014

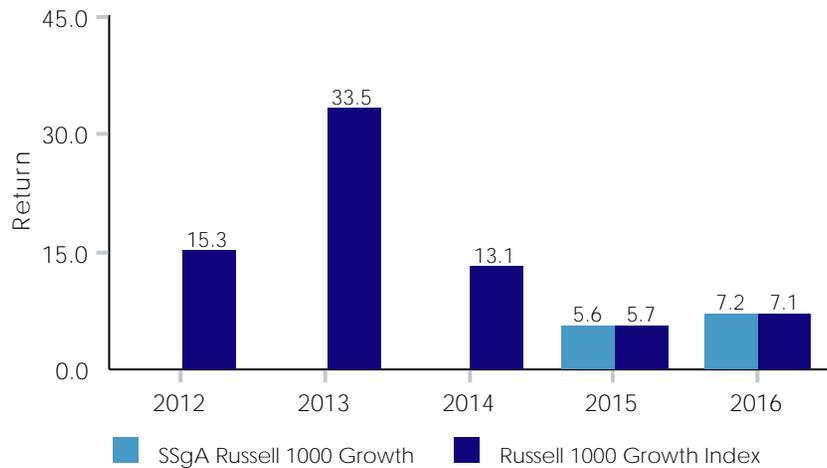
Trailing Period Performance



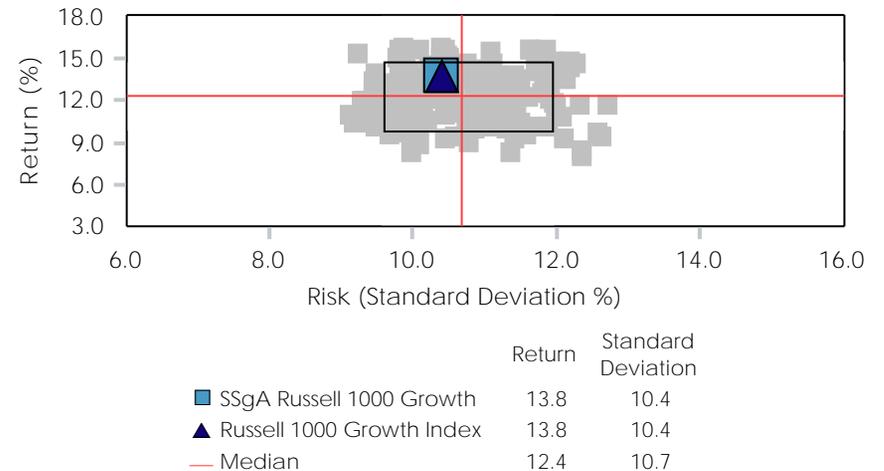
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

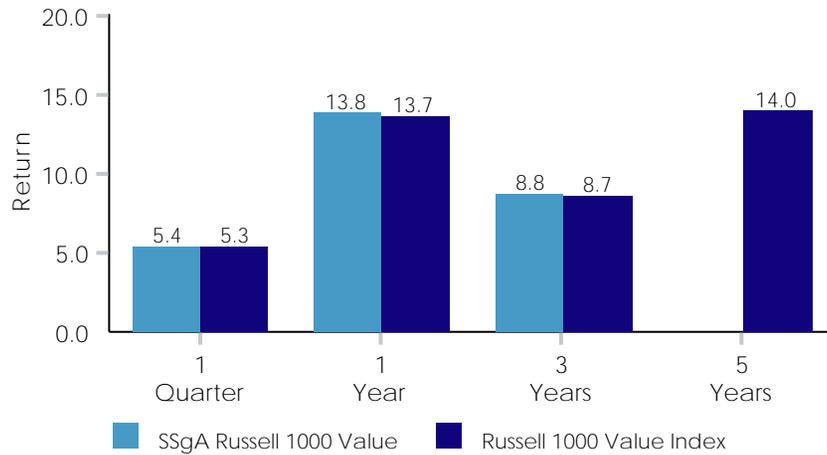


SSgA Russell 1000 Value - gross of fees

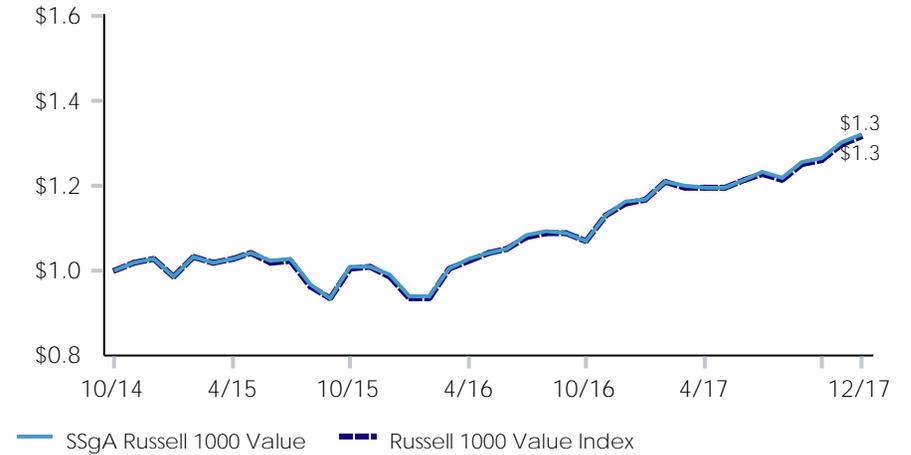
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
SSgA Russell 1000 Value	0.12	1.00	1.51	0.90	0.07	1.00	100.25	99.31	11/01/2014
Russell 1000 Value Index	0.00	1.00	-	0.89	0.00	1.00	100.00	100.00	11/01/2014

Trailing Period Performance



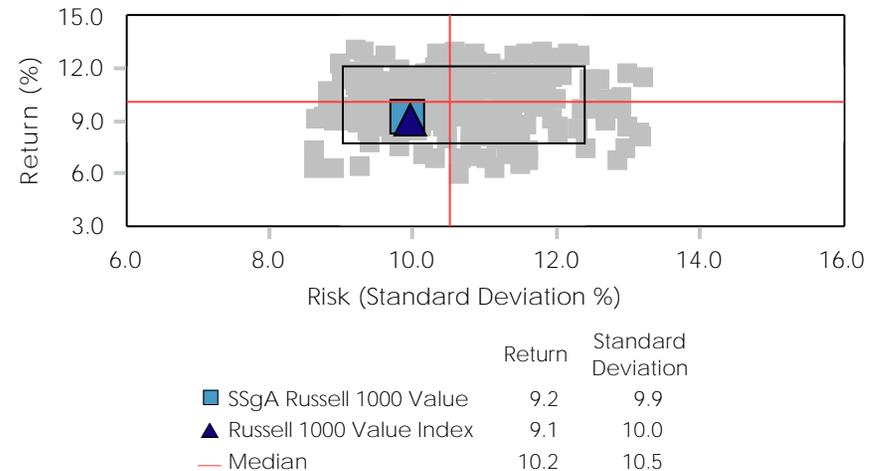
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

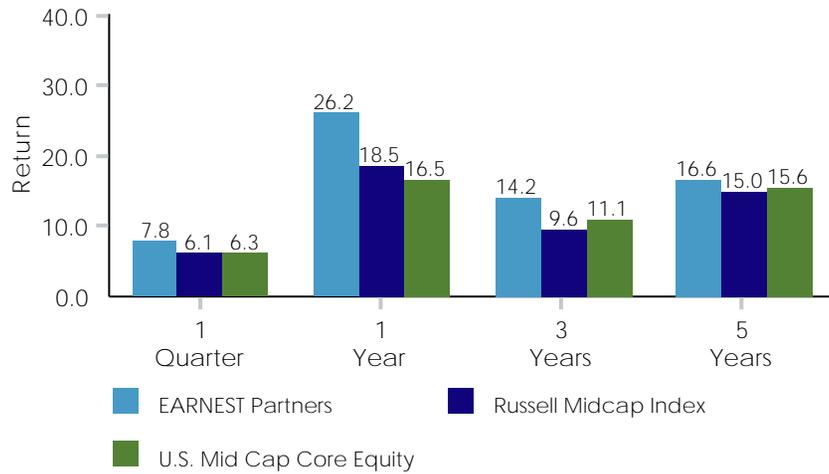


EARNEST Partners - gross of fees

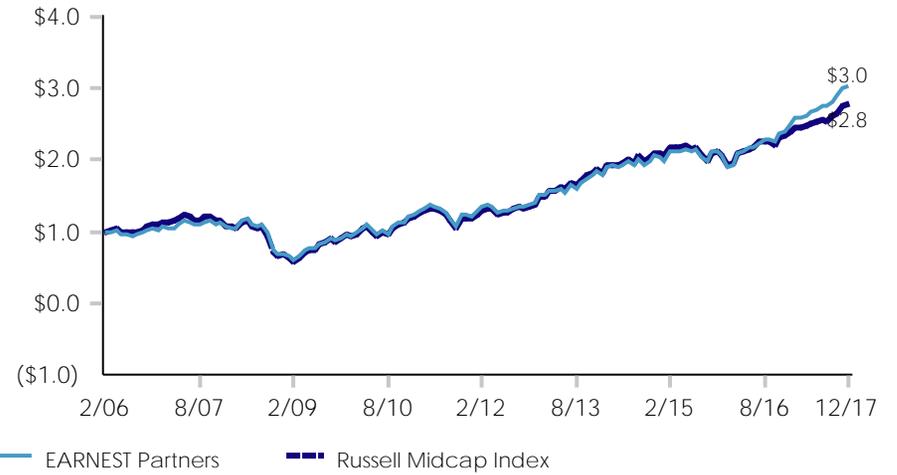
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
EARNEST Partners	0.90	0.99	0.24	0.58	3.45	0.96	100.00	95.06	03/01/2006
Russell Midcap Index	0.00	1.00	-	0.54	0.00	1.00	100.00	100.00	03/01/2006
U.S. Mid Cap Core Equity Median	-	-	-	-	-	-	-	-	-

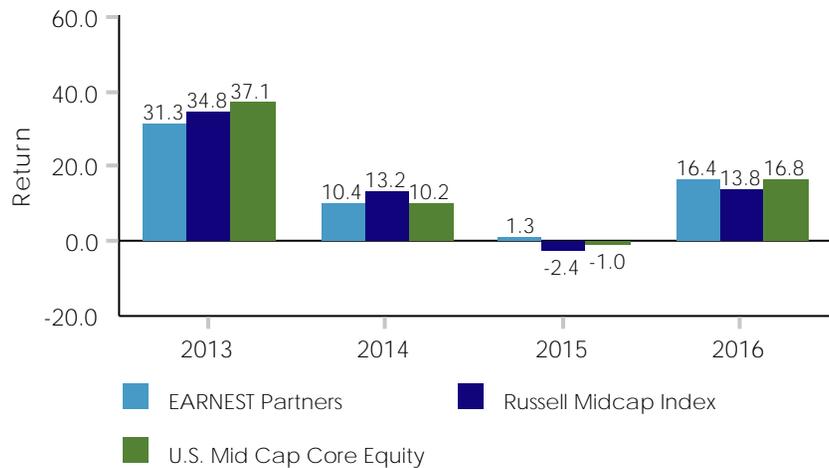
Trailing Period Performance



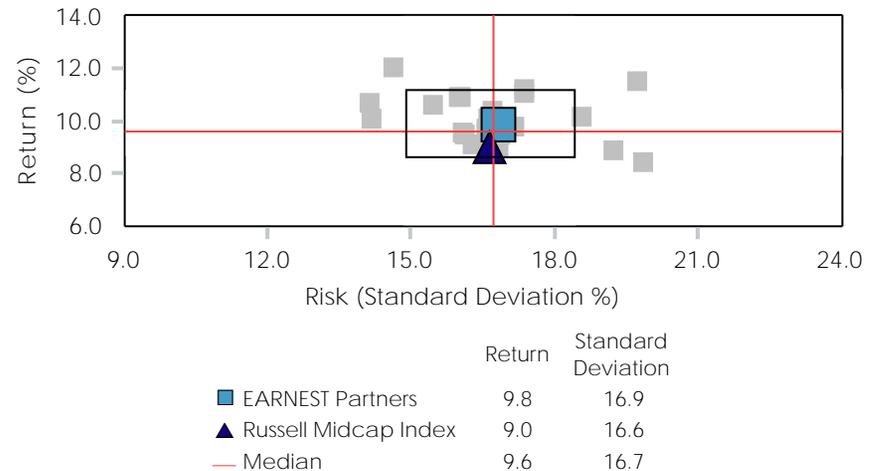
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception



NWQ - gross of fees

As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
NWQ	0.78	1.01	0.12	0.45	7.07	0.88	102.52	99.43	01/01/2006
Russell 2000 Value Index	0.00	1.00	-	0.43	0.00	1.00	100.00	100.00	01/01/2006
U.S. Small Cap Value Equity Median	-	-	-	-	-	-	-	-	-

Trailing Period Performance



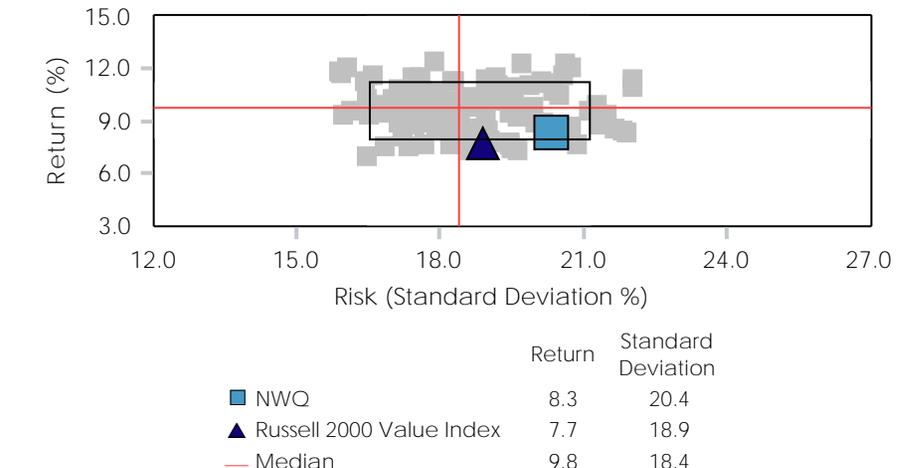
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception



Rice Hall James - gross of fees

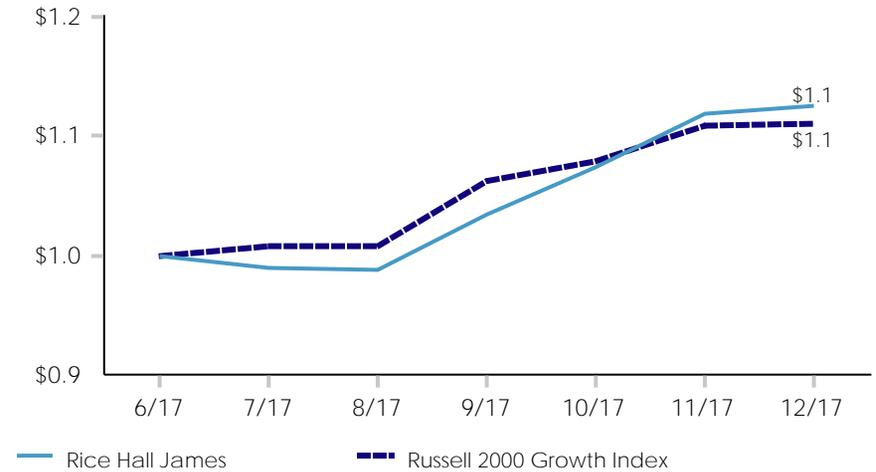
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Rice Hall James	0.26	0.99	0.18	0.84	1.32	0.67	114.21	204.88	07/01/2017
Russell 2000 Growth Index	0.00	1.00	-	0.89	0.00	1.00	100.00	100.00	07/01/2017
IM U.S. Small Cap Growth Equity (SA+CF) Median	-	-	-	-	-	-	-	-	-

Trailing Period Performance



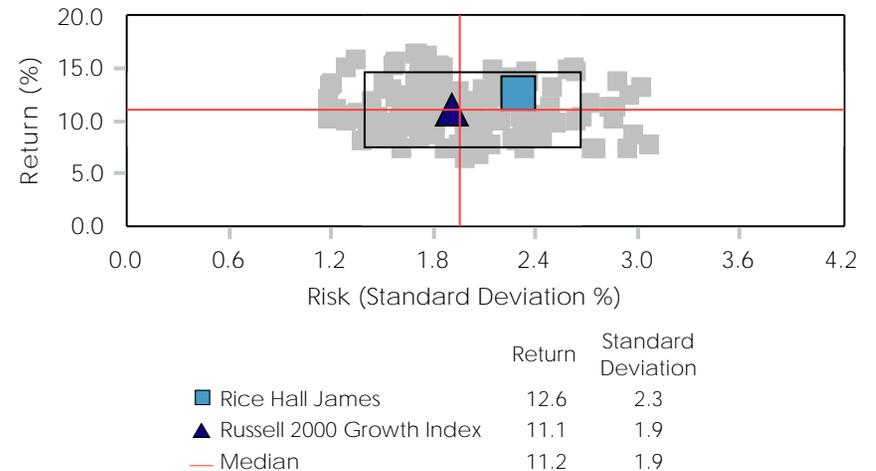
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

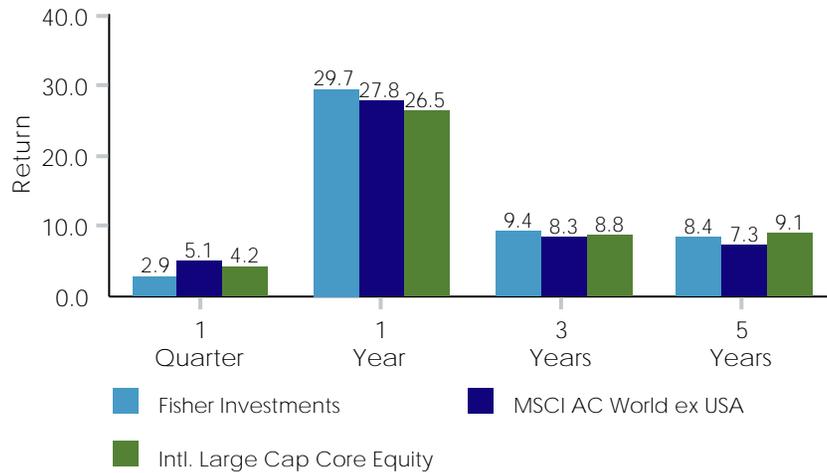


Fisher Investments - gross of fees

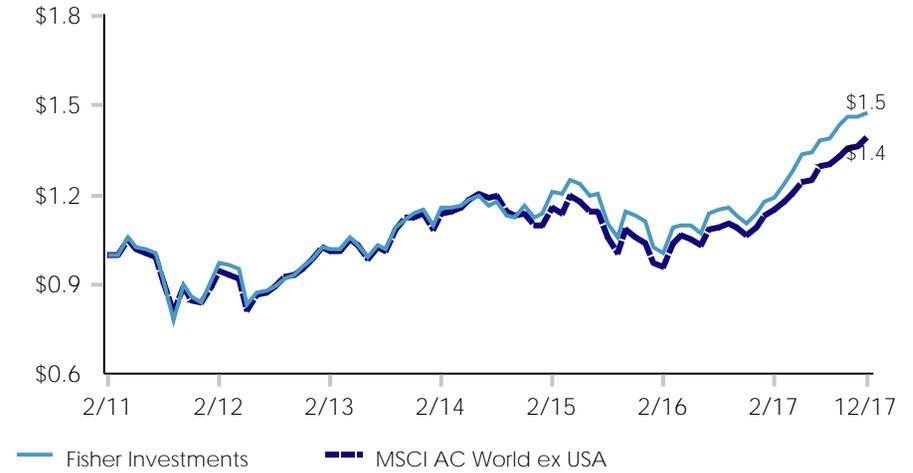
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Fisher Investments	0.55	1.09	0.29	0.43	3.62	0.95	106.59	102.24	03/01/2011
MSCI AC World ex USA	0.00	1.00	-	0.41	0.00	1.00	100.00	100.00	03/01/2011
Intl. Large Cap Core Equity Median	-	-	-	-	-	-	-	-	-

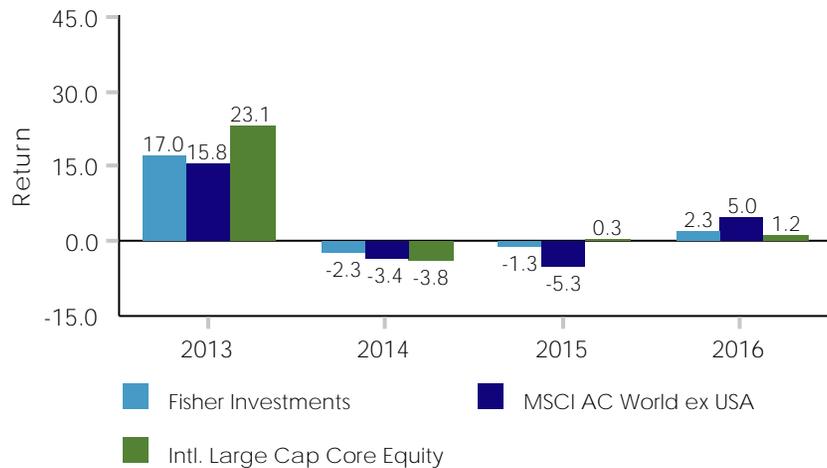
Trailing Period Performance



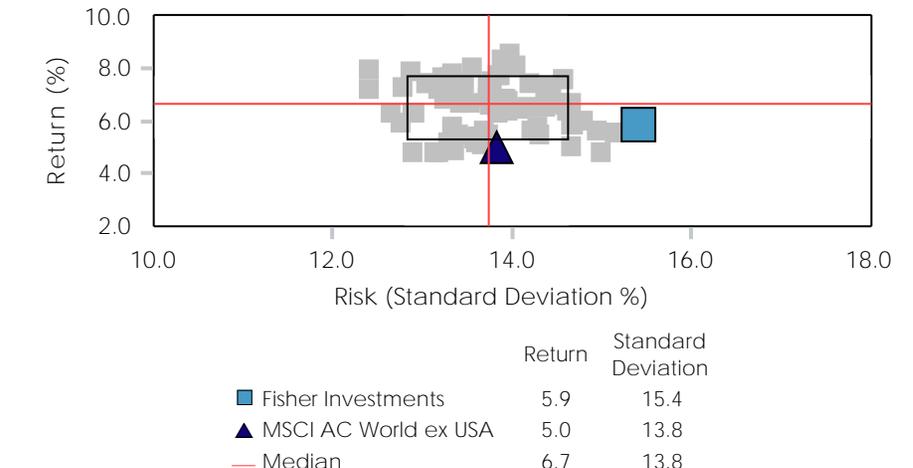
Growth of \$1 - Since Inception



Calendar Year Performance



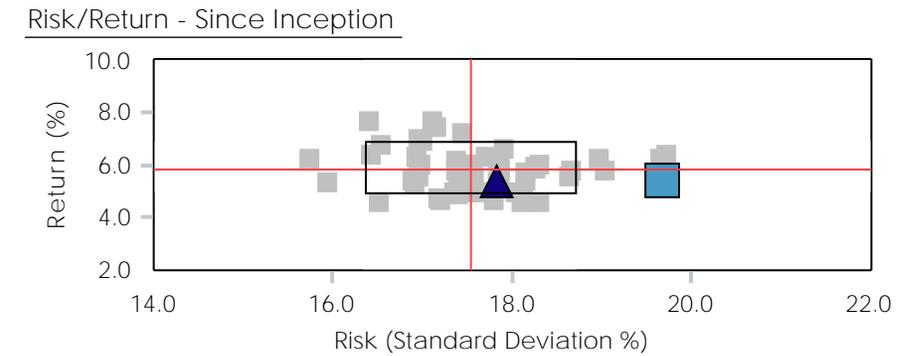
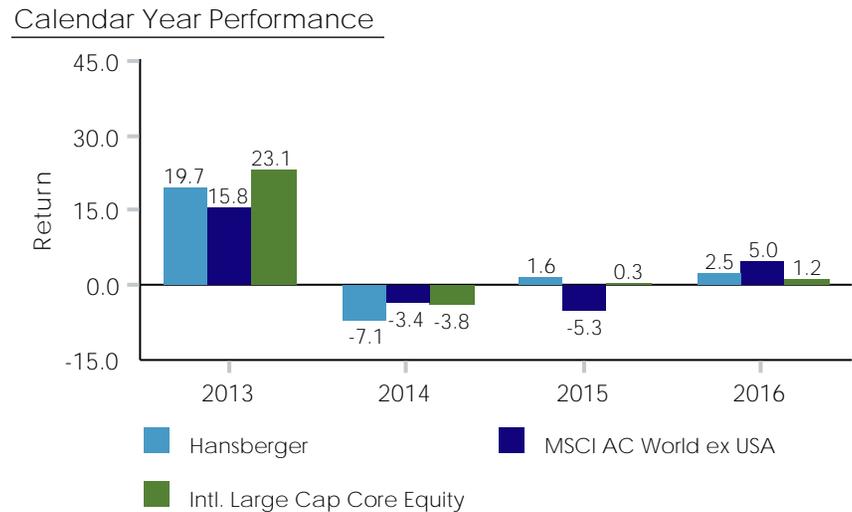
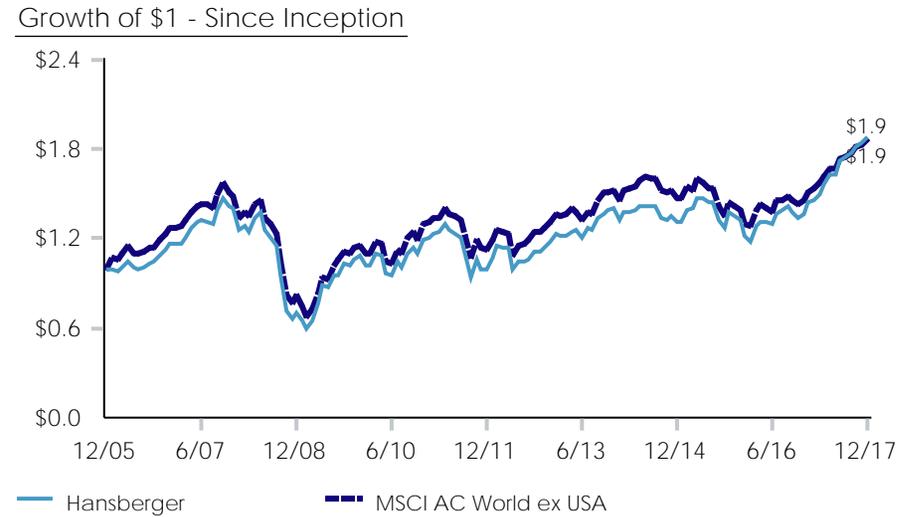
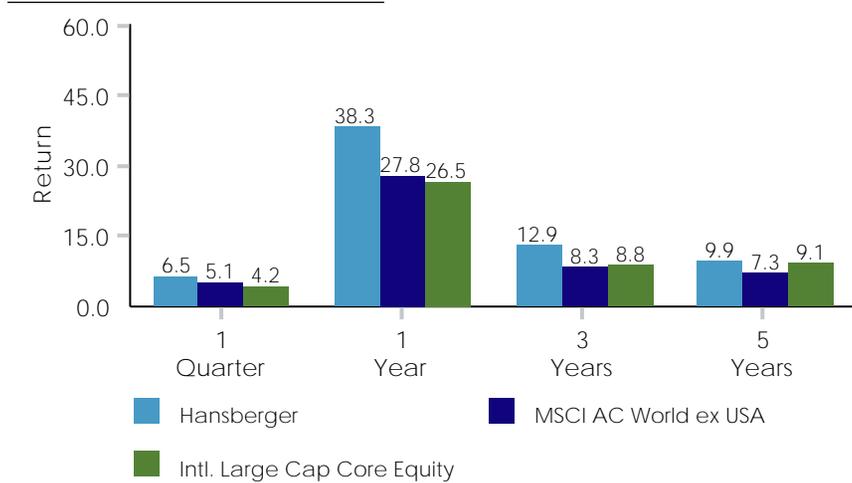
Risk/Return - Since Inception



Hansberger - gross of fees

As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Hansberger	-0.09	1.08	0.10	0.32	4.48	0.95	105.23	104.83	01/01/2006
MSCI AC World ex USA	0.00	1.00	-	0.33	0.00	1.00	100.00	100.00	01/01/2006
Intl. Large Cap Core Equity Median	-	-	-	-	-	-	-	-	-



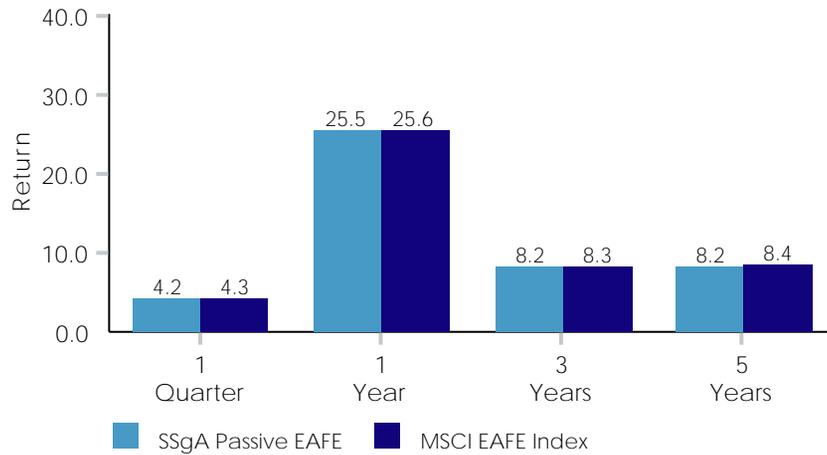
	Return	Standard Deviation
Hansberger	5.4	19.7
MSCI AC World ex USA	5.4	17.8
Median	5.8	17.6

SSgA Passive EAFE - gross of fees

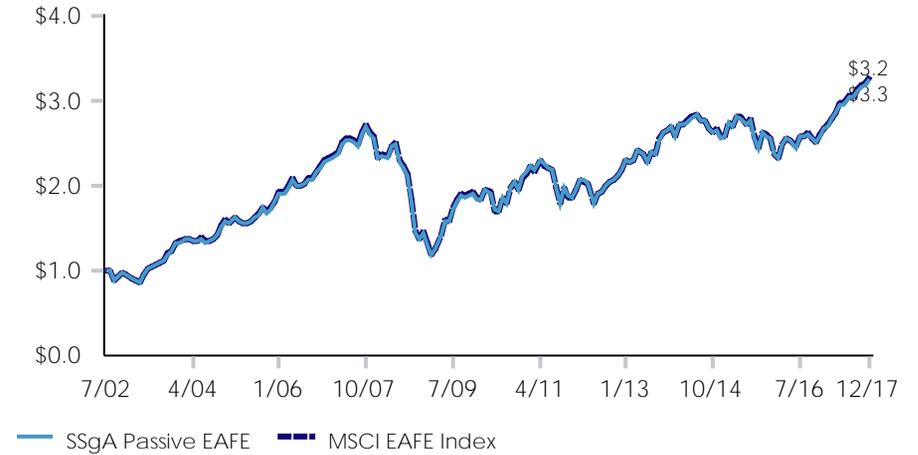
As of December 31, 2017

	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	-0.14	0.48	0.45	1.00	99.27	99.24	08/01/2002
MSCI EAFE Index	0.00	1.00	-	0.48	0.00	1.00	100.00	100.00	08/01/2002

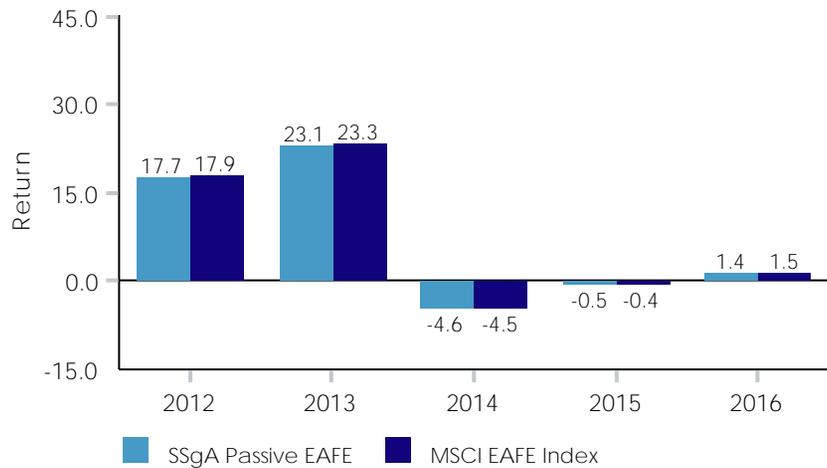
Trailing Period Performance



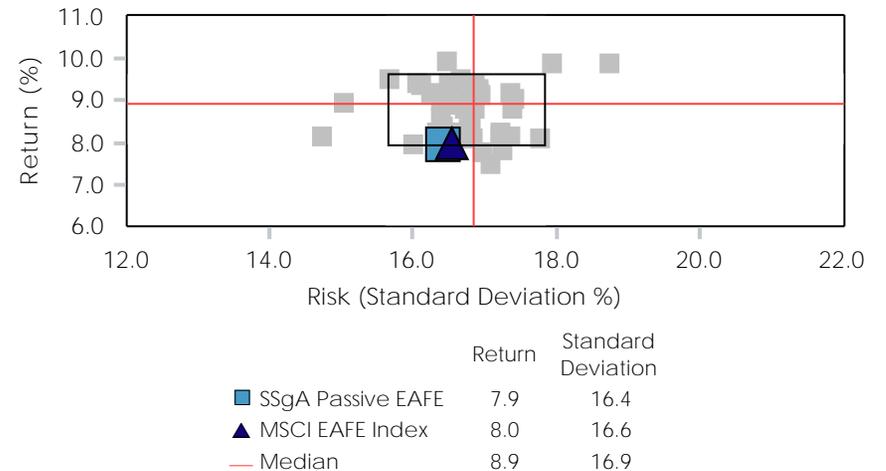
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

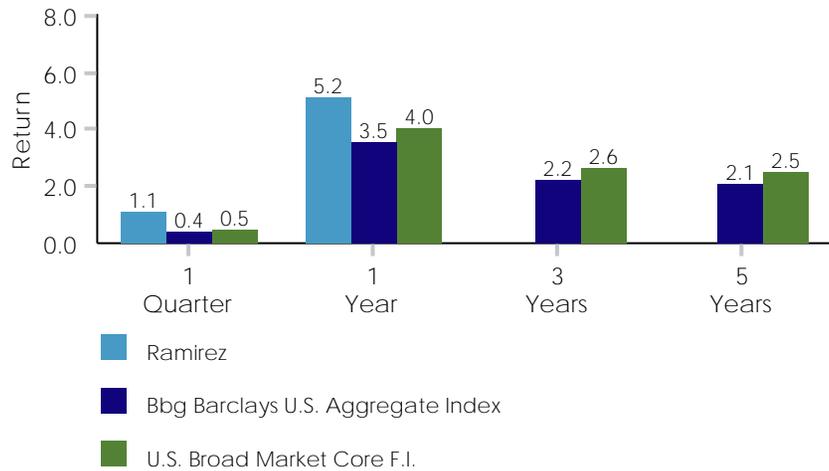


Ramirez - gross of fees

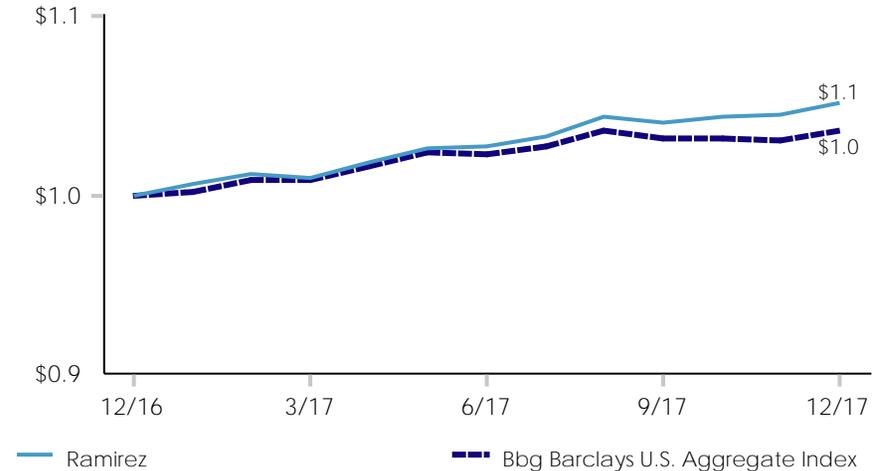
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Ramirez	1.81	0.93	3.04	2.91	0.51	0.88	126.65	45.48	01/01/2017
Bbg Barclays U.S. Aggregate Index	0.00	1.00	-	1.81	0.00	1.00	100.00	100.00	01/01/2017
U.S. Broad Market Core F.I. Median	-	-	-	-	-	-	-	-	-

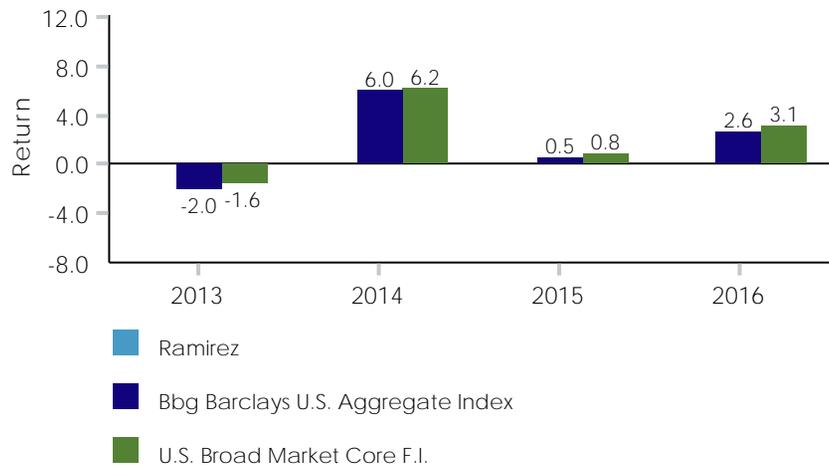
Trailing Period Performance



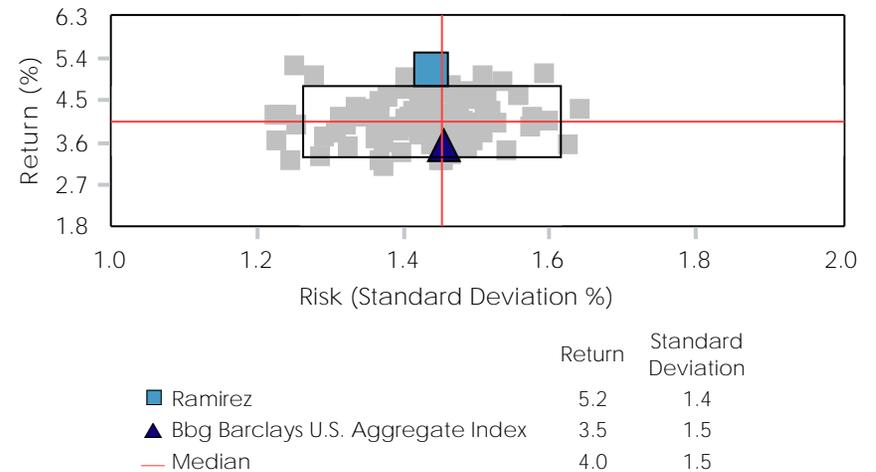
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception

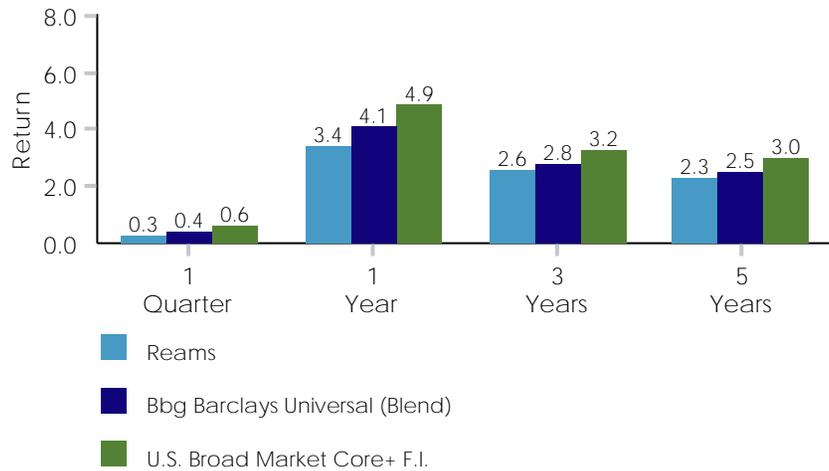


Reams - gross of fees

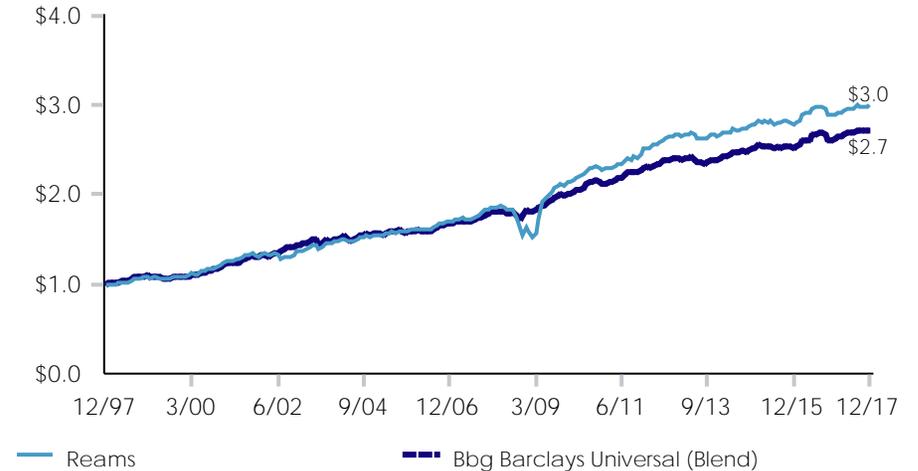
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
Reams	0.27	1.06	0.14	0.68	4.09	0.43	108.77	104.11	01/01/1998
Bbg Barclays Universal (Blend)	0.00	1.00	-	0.93	0.00	1.00	100.00	100.00	01/01/1998
U.S. Broad Market Core+ F.I. Median	-	-	-	-	-	-	-	-	-

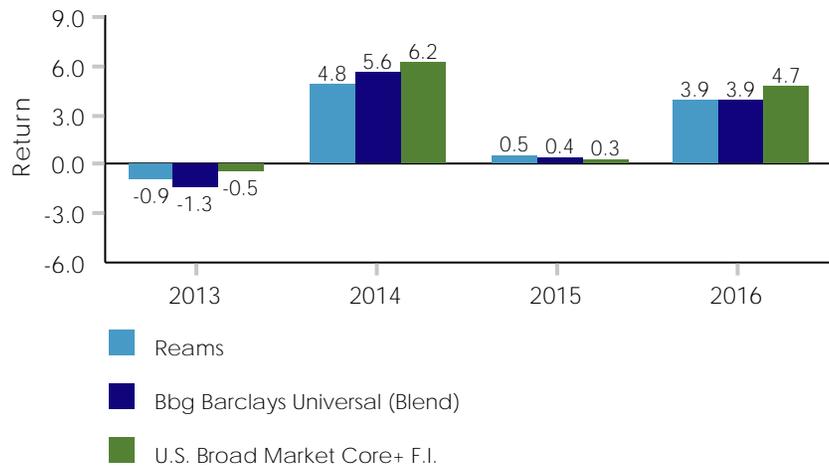
Trailing Period Performance



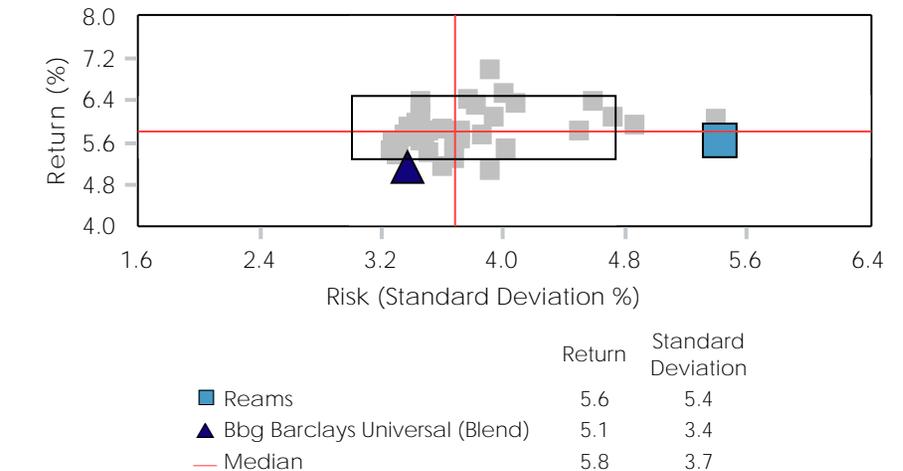
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception



DDJ Capital - gross of fees

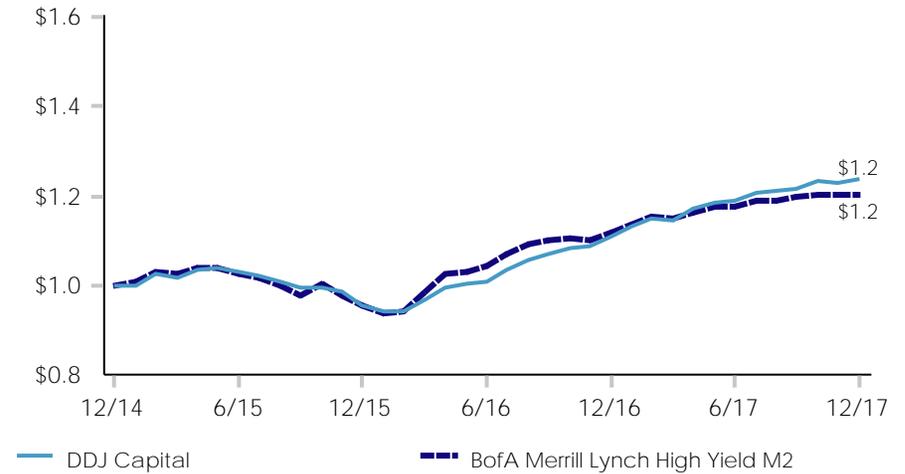
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
DDJ Capital	2.71	0.72	0.31	1.47	2.89	0.73	97.03	74.06	01/01/2015
BofA Merrill Lynch High Yield M2	0.00	1.00	-	1.07	0.00	1.00	100.00	100.00	01/01/2015
U.S. High Yield Bonds Median	-	-	-	-	-	-	-	-	-

Trailing Period Performance



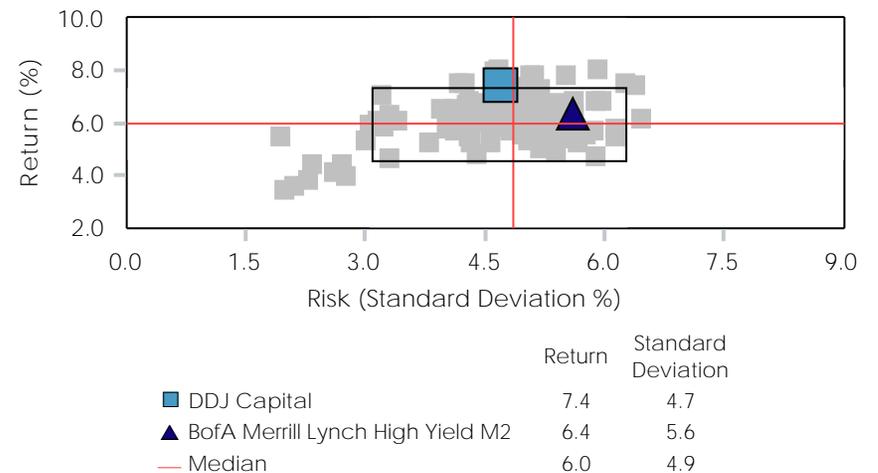
Growth of \$1 - Since Inception



Calendar Year Performance



Risk/Return - Since Inception



CC - Parametric - gross of fees

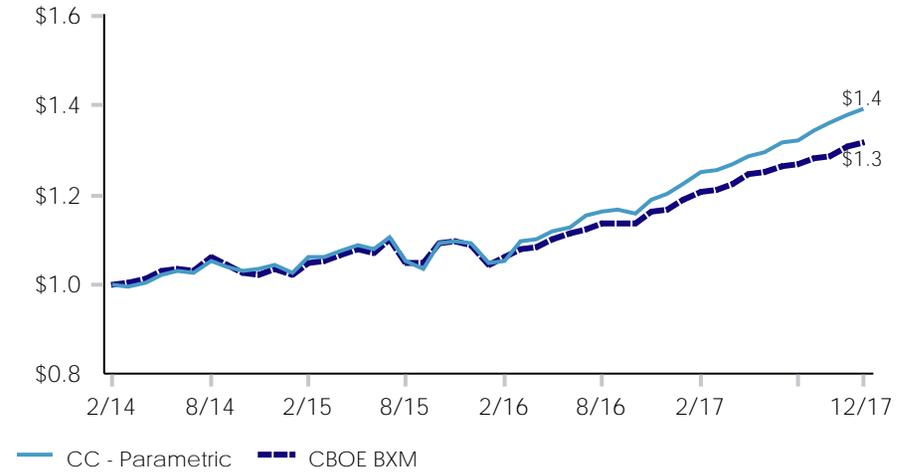
As of December 31, 2017

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Market Capture	Down Market Capture	Inception Date
CC - Parametric	1.13	1.05	0.70	1.38	2.17	0.88	113.86	101.90	03/01/2014
CBOE BXM	0.00	1.00	-	1.28	0.00	1.00	100.00	100.00	03/01/2014
U.S. Large Cap Core Equity Median	-	-	-	-	-	-	-	-	-

Trailing Period Performance



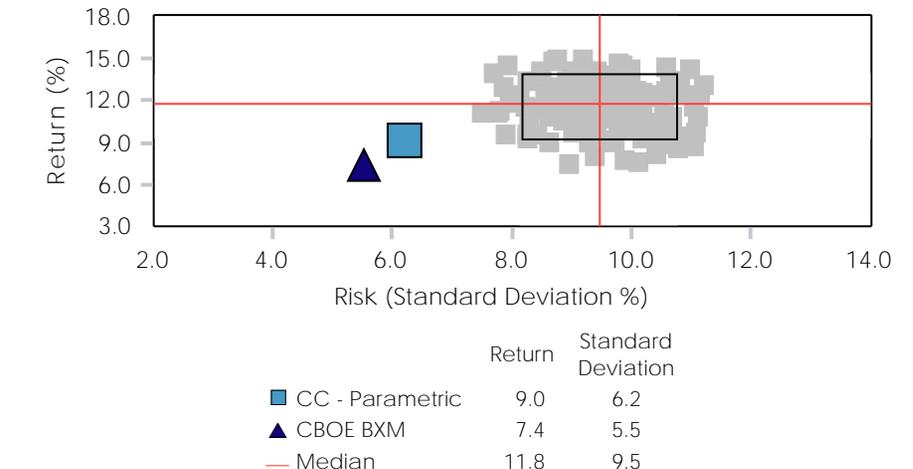
Growth of \$1 - Since Inception



Calendar Year Performance

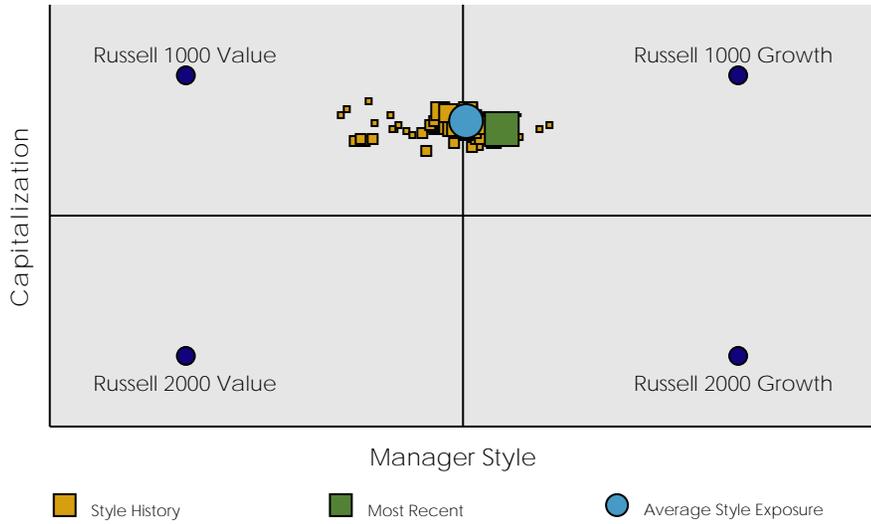


Risk/Return - Since Inception



Domestic Equity Analysis
As of December 31, 2017

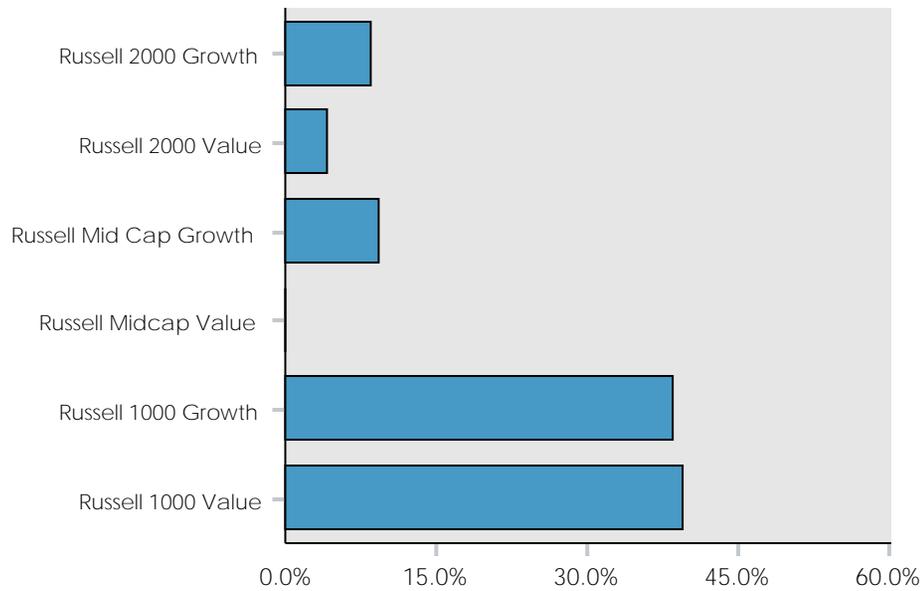
Style Map (5-Year)



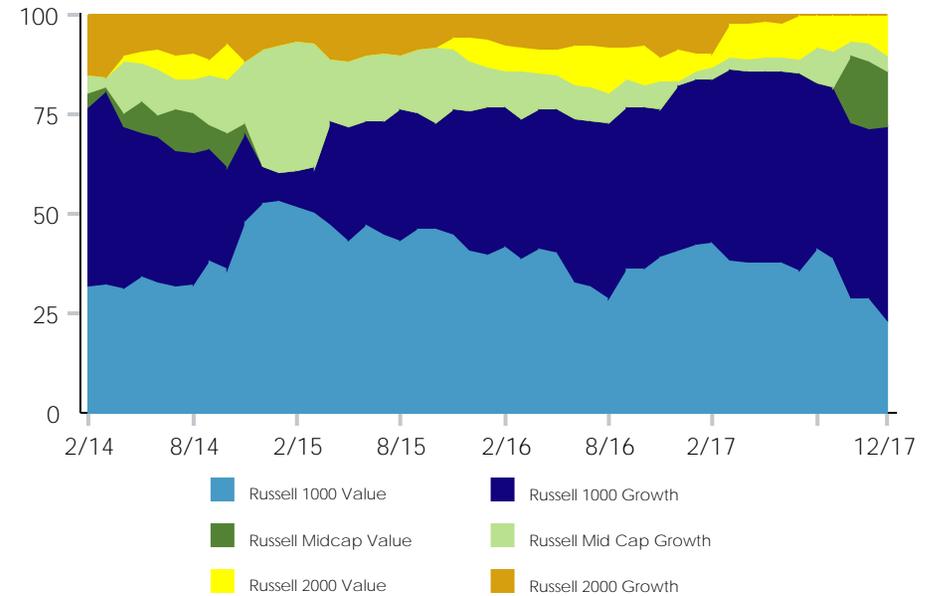
Growth of \$1 (5-Year)



Style Exposure

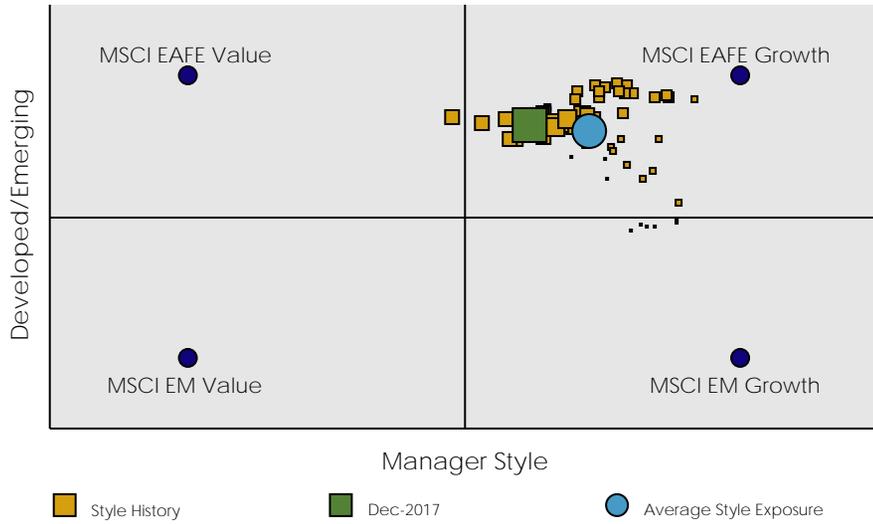


Style History (5-Year)

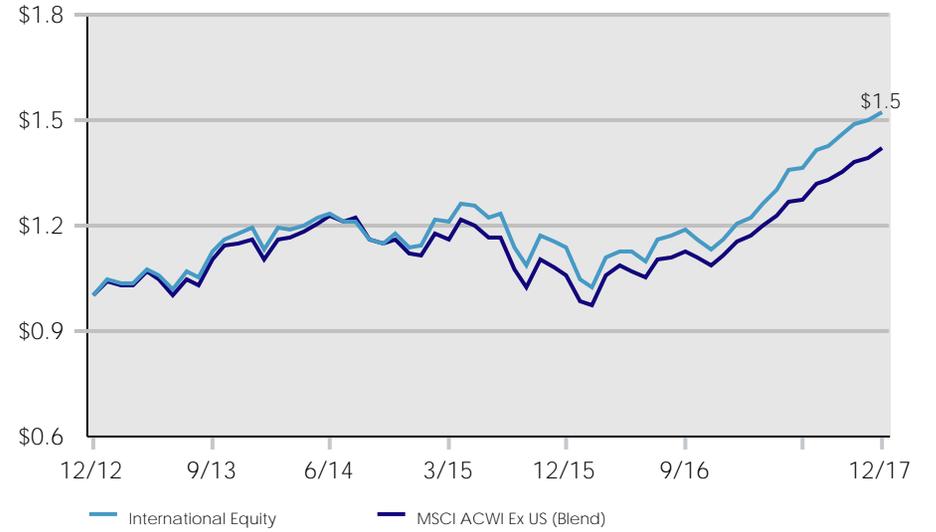


International Equity Analysis
As of December 31, 2017

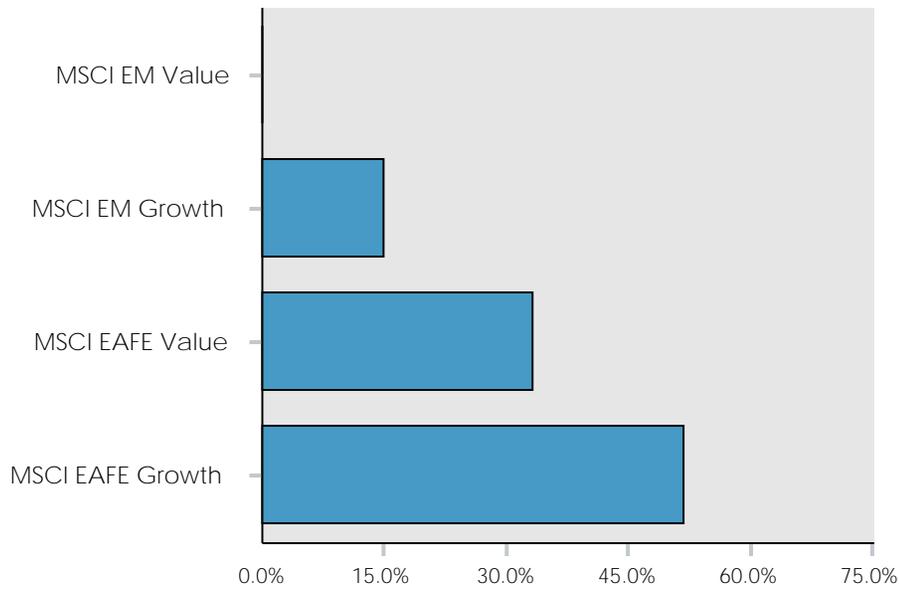
Style Map (5-Year)



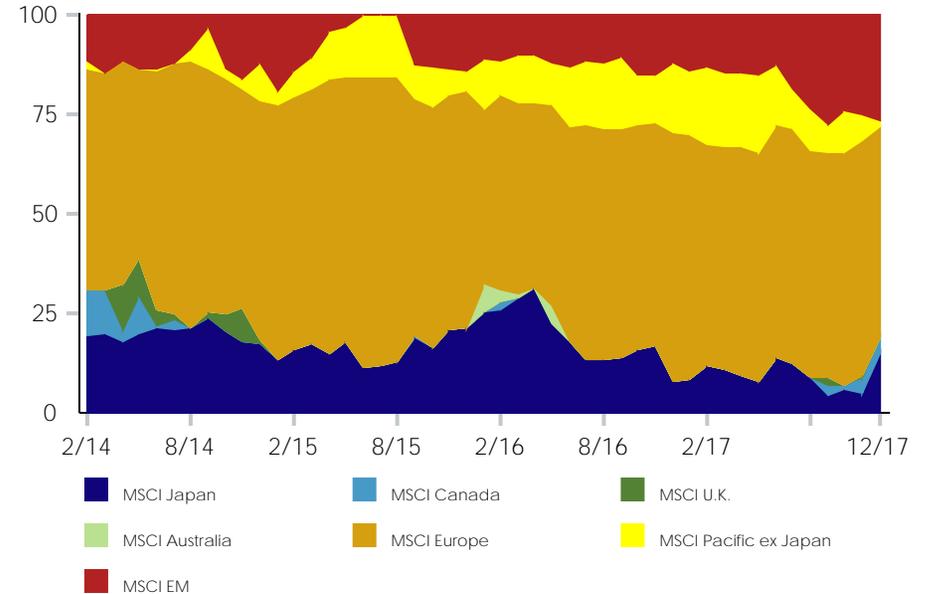
Growth of \$1 (5-Year)



Style Exposure



Style History (5-Year)

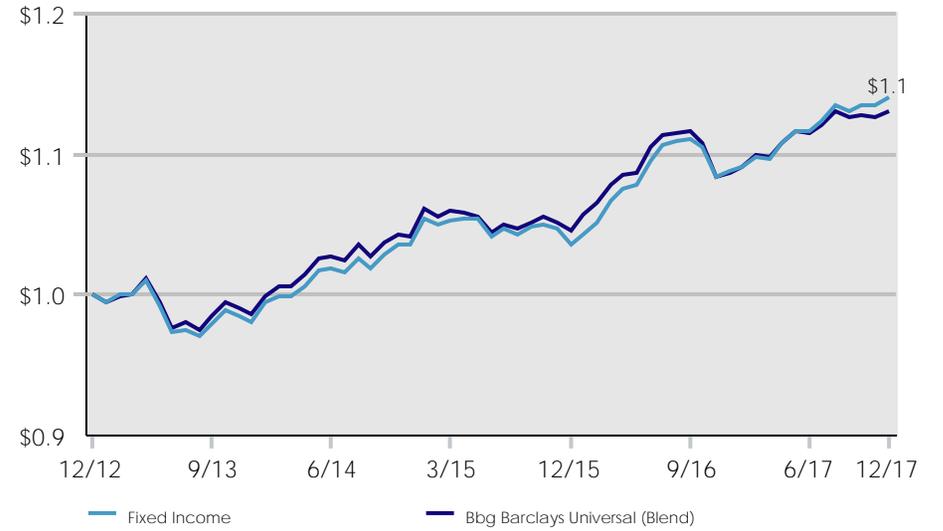


Fixed Income Analysis
As of December 31, 2017

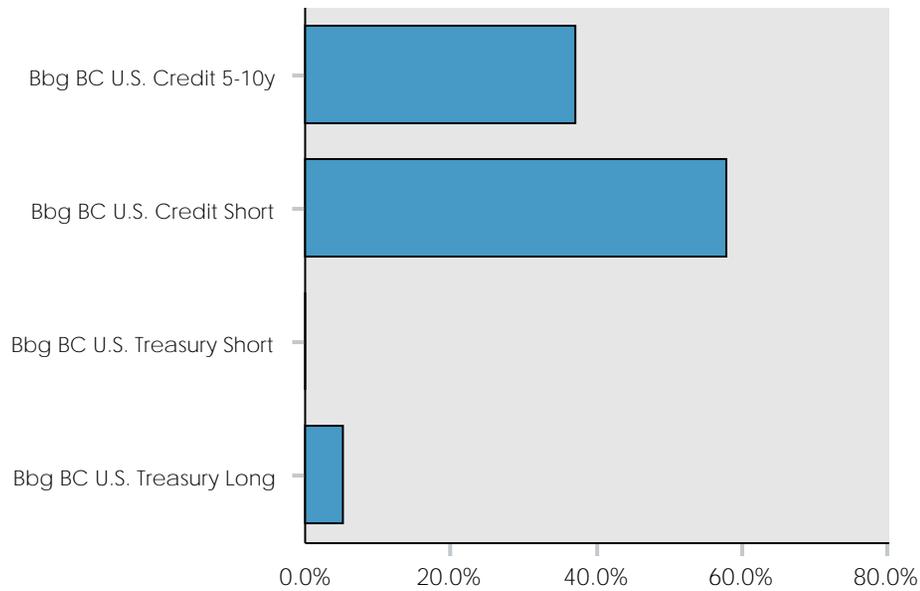
Style Map (5-Year)



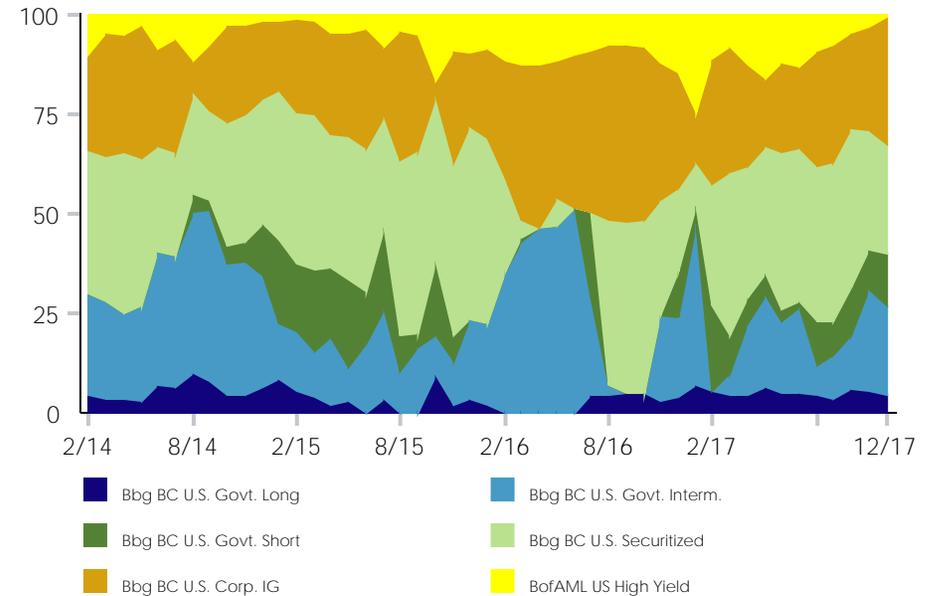
Growth of \$1 (5-Year)



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 Investor Services, Standard and Poor's Corporation, or Fitch Investor's Service, in that order with all issues having at least one year to maturity and an outstanding par value of at least \$100 million) and includes exposures to high yield CMBS securities. All returns are market value weighted inclusive of accrued interest.

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

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

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

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

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

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

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

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

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

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

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

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. PCA estimates the expected annualized real yield by subtracting an estimate of expected 10 year inflation (produced by the Survey of Professional Forecasters as collected by the Federal Reserve Bank of Philadelphia), from the 10 year Treasury constant maturity interest rate.

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

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

What is the PCA Market Sentiment Indicator (PMSI)?

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

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

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

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

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

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

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

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

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

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

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

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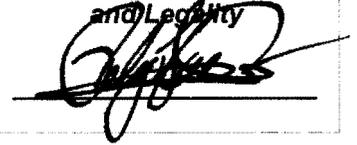
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OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality



RESOLUTION No. 7007

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION AUTHORIZING A ONE-YEAR OPTION TO EXTEND THE AGREEMENT WITH NORTHERN TRUST INVESTMENTS TO PROVIDE LARGE CAP CORE DOMESTIC EQUITY ASSET CLASS INVESTMENT MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM BOARD COMMENCING APRIL 19, 2018 THROUGH APRIL 19, 2019

WHEREAS, the City of Oakland Police and Fire Retirement System Board ("Board") approved a motion on October 28, 2009 to enter into an agreement ("The Agreement") with Northern Trust Investments, N.A. ("Investment Counsel"), effective April 19, 2010 through April 19, 2015, to provide management, advice, and counsel to the Police and Fire Retirement Fund ("Fund") for the investment of the Fund's Large Cap Core Domestic Equity Asset Class; and

WHEREAS, Section XX of said Agreement allows for modification to the Agreement only by written agreement of all parties; and

WHEREAS, Section IV(B) grants the Board the option to extend the term of the Agreement for three additional one-year terms by giving Investment Counsel written notice of its intent to exercise its option not less than sixty days prior to the expiration of the term or extended term of the Agreement; and

WHEREAS, on April 19, 2015, the Agreement was amended in writing, and the Board approved the first of three one-year term extensions by a motion of the Board, which expired on April 19, 2016 (the First Amendment); and

WHEREAS, on March 30, 2016, the Board approved by motion the exercise of the second one-year term extension option, which term expired on April 19, 2017 (the Second Amendment); and

WHEREAS, on March 29, 2017, the Board approved by Resolution No. 6959 the exercise of the third one-year term extensions option, which expires on April 19, 2018, as well as an amendment to the Agreement providing for unlimited one-year extension options; and

Date: February 28, 2018
To: Oakland Police and Fire Retirement System (OPFRS)
From: Pension Consulting Alliance, LLC (PCA)
CC: David Sancewich – PCA
Sean Copus, CFA – PCA
Teir Jenkins – OPFRS
Katano Kasaine - OPFRS
RE: Northern Trust – Contract Renewal

Manager: Northern Trust

Inception Date:	5/01/2010	OPFRS AUM (1/28/2018):	\$80.8 million (21.2%)
Product Name:	Russell 1000 Index Strategy	Management Fee:	6 bps (\$48,474.41)*
Investment Strategy:	Large Cap Core Equity	Firm-wide AUM (12/31/17):	\$1,161 billion
Benchmark:	Russell 1000 Index	Strategy AUM (12/31/17):	\$29.3 billion

*Estimated based on manager account AUM as of 1/31/2018

Summary and Recommendation

PCA recommends that OPFRS renew its contract with Northern Trust before the current contract date of expiration. OPFRS contracts reserve the right for the Board to terminate the agreement, with or without cause, at any time upon 30 calendar days' prior written notice. In making this recommendation, PCA considered investment performance and recent organizational / personnel issues. Since the last contract renewal, Northern Trust has exhibited acceptable performance and organizational stability, therefore PCA believes that there are no issues that should prevent a contract extension for this manager.

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Date: February 28, 2018

To: Oakland Police and Fire Retirement System (OPFRS)

From: Pension Consulting Alliance, LLC. (PCA)

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

RE: Alternative Risk Premia/Trend Manager Search – Proposed Finalists

This memo provides OPFRS with a summary of the Alternative Risk Premia (“ARP”) manager search process and provides a recommendation for three potential finalist managers for further consideration.

Recommendation

PCA recommends the following managers as finalist candidates, with further onsite due diligence for the final selected firm. The candidates listed below were selected based on PCA’s review of the managers’ responses to the PCA-directed RFI. PCA recommends selecting three managers for interviews with the Board at its March 2018 meeting.

Proposed Finalists*

Firm	Strategy
AQR	Liquid Enhanced Alternative Premia (“LEAP”)
Lombard Odier	Alternative Risk Premia
Parametric	Systematic Alternative Risk Premia (“SARP”)

*Alphabetical Order

Discussion

During 4Q2017, the OPFRS Board directed PCA to begin a manager search to identify high quality managers to fund a new crisis risk offset class as part of a newly adopted asset allocation. PCA has been researching this market segment for several years and has intimate knowledge of the major participants. In addition, PCA released a public RFI in October of 2017 to facilitate a manager search process for another client and refresh our universe pool by obtaining as wide of a distribution as possible. The majority of relevant offerings submitted as responses to the October 2017 RFI, PCA had prior experience with. The RFI was advertised in FinDaily’s marketing production and on PCA’s website along with various other publications. PCA received responses from 48 firms (listed on the following page). These firms represent the primary participants with respect to ARP investment management. PCA did not release another RFI for the OPFRS search given the relatively small number of firms with ARP strategies, relative to other more traditional market segments such as US Equity. Full details regarding the manager search process are provided on the following page.

Firms* (48) / Strategies** (51)		
Aberdeen	Credit Suisse	Man Group
Acadian	DE Shaw	Mizuho
AGF	Franklin Templeton	Mount Lucas
AllianceBernstein	Fulcrum	Neuberger Berman
AllianzGI	GAM	NNIP
AQR	Goldman Sachs	One River Asset Management
ARP Investments	Graham	PanAgora
Aspect	GSA Capital	Parametric
Bainbridge (2)	Harmonic	PIMCO
Berenberg	Harvest (2)	QMA (2)
BlackRock	HSBC	Record
Boronia	Janus	Societe Generale
Brevan Howard	JP Morgan	Sunrise Capital
Campbell	Kepos	Systematica
Cantab	LGT	Wellington
CFM	Lombard Odier	Windham

*Alphabetical

**(#) indicates number of strategies submitted for consideration if >1

Alternative Risk Premia Manager Search Process

PCA has been researching this market segment for several years and has intimate knowledge of the major participants. In addition, PCA released a public RFI in October of 2017 to facilitate a manager search process for another client and refresh our universe pool by obtaining as wide of a distribution as possible. The majority of relevant offerings submitted as responses to the October 2017 RFI, PCA had prior experience with. PCA believes the RFI was well received by the institutional marketplace, and the responding firms represent best-in-class managers within the ARP segment. These firms represent the primary participants with respect to ARP investment management. PCA did not release another RFI for the OPFRS search given the relatively small number of firms with ARP strategies relative to other more traditional market segments such as US Equity. PCA utilized the list of 48 firms / 51 strategies to perform an initial review seeking to identify those that would fit the OPFRS mandate of providing a solution including both market neutral risk premia paired with directional trend following. PCA's initial review focused on the criteria below:

- Harvests multiple risk premia (e.g., value, momentum, carry, defensive, etc.)
- Utilizes multiple asset classes (e.g., equities (stocks), fixed income, currencies, commodities)
- Mostly market neutral implementation (excluding allocations to trend following strategies)
- Favorable liquidity terms
- Low flat fee implementation

Following the initial review, PCA removed 27 strategies from further consideration for one or more of the following reasons: implemented in only one asset class, harvests only one risk premium,

significant exposure to directional strategies, no exposure to trend following, poor liquidity terms (>1-month), high fees (>1.5% estimated flat fee), and no commingled fund format available.

PCA then performed a more detailed review of the remaining 24 strategies by assessing portfolio construction, experience of the firm and team, proposed fees, liquidity terms, and available investment vehicles. Through this process, PCA viewed firms and strategies with the following attributes more favorably:

- Harvests a robust set risk premia with a straight-forward approach
- De minimums allocation to "alpha" components
- Mostly market neutral implementation, aside from any directional trend following allocation
- Straight-forward portfolio construction with a bias towards equal risk weighting concepts
- Reasonable level of volatility (8-12% on average)
- Firm and team with robust experience managing alternative risk premia and / or other systematic alternative trading strategies

Through the secondary review process, ten firms / strategies below were identified as semi-finalists, with the top three recommended as potential finalists. PCA views all ten strategies below as high-quality offerings. Additional information on the three proposed finalists can be found on the following pages.

Semi-Finalists & Proposed Finalists

Rank	Firm	Strategy
1	Parametric	Systematic Alternative Risk Premia ("SARP")
2	AQR	Liquid Enhanced Alternative Premia ("LEAP")
3	Lombard Odier	Alternative Risk Premia
4	ARP	Alternative Risk Premia
5	GSA	Diversified Alternatives
6	Kepos	Exotic Beta
7	Wellington	Alt Beta

Firm:	AQR
AUM:	~\$200 billion

Strategy:	LEAP
AUM:	\$312 million
Inception:	January 2017
Target Volatility:	12%
Liquidity:	2x Per Month
Management Fee:	1.50%

Firm / Team Overview:

AQR has been managing alternative investment strategies since the firms' inception in 1998 and offered its first alternative risk premia strategy in 2001. AQR is more than 70% owned by principals at the firm, with the remainder owned by Affiliated Managers Group. The firm has 871 employees based in Greenwich, CT with offices in Boston, Chicago, Hong Kong, London, Los Angeles, and Sydney. The LEAP strategy is managed by a team of 11 investment professionals that oversee research and portfolio management, including the refinement of existing alternative risk premia strategies and the pursuit of new strategies. AQR is seen as a pioneer and leader in the ARP space and has a strong team led by Ronen Israel, a Principal at AQR, and several award-winning researchers.

Portfolio Construction:

The team focuses on identifying robust return sources and diversifying across as many uncorrelated risk premia as possible. Portfolio construction is a systematic process that begins with scoring each investment universe based on each identified risk premia. AQR then uses these ranks to build a market neutral portfolio where they are long the highest ranked securities and short the lowest ranked securities. Within each asset group (individual stocks, equity indices, fixed income and currencies) each premia receives a roughly equal risk weighting. At the total portfolio level, each asset group is also sized to receive a roughly equal risk weighting. Some adjustments are made to balance maximum diversification with liquidity, leverage, and market breadth considerations. Trend is the only piece of the portfolio that is not managed in a market neutral fashion. The strategy seeks to achieve a net Sharpe Ratio of 0.7 over a complete market cycle with a 12% volatility and low correlation to traditional asset classes.

Risk Premia Summary:

Asset Classes → Risk Premia ↓	Individual Stocks	Equity Indices	Fixed Income	Commodities	Currencies
Value	✓	✓	✓		✓
Momentum	✓	✓	✓		✓
Carry			✓		✓
Defensive	✓	✓	✓		
Trend		✓	✓		✓
Volatility		✓	✓		

Firm:	Lombard Odier
AUM:	~\$50 billion

Strategy:	Alternative Risk Premia
AUM:	\$603 million
Inception:	August 2014
Target Volatility:	14%
Liquidity:	Monthly
Management Fee:	1.00%

Firm / Team Overview:

Six partners of Compagnie Odie SCA, ultimately own Lombard Odier Investment Management (LOIM). LOIM is a \$47 billion global multi-asset boutique with expertise across traditional and alternative strategies. The team has been managing systematic investment strategies since 1994 and launched their first hedge fund replication strategy in 2009. Laurent Joué and Marc Pellaud, two senior portfolio managers, manage the firm's alternative risk premia and commodity strategies. They have been working together since 2009, and they currently manage approximately \$1.1 billion. They are a part of the broader systematic team, which totals 29 employees who oversee approximately \$19 billion. Each team individual is involved in research, which is driven either by specific needs or the Academic Board, which appoints research heads and team members from across divisions.

Portfolio Construction:

The team first categorizes each premia as either left or right tail based on their return distribution profile. Left tail strategies tend to be market neutral and typically include income/carry strategies, while right tail strategies tend to be directional, including both trend and momentum strategies. As a further comparison, left tail strategies tend to exhibit low volatility but negative skew from being exposed to potential large losses during risk-off scenarios, while right tail strategies exhibit positive skew with the potential to deliver outsized returns during periods of prolonged (negative or positive) trends. However, right tail strategies will suffer in trendless markets or periods of sharp reversals. Risk is allocated equally between the two categories of premia that are believed to be complimentary. The team does not believe in timing premia and relies on a risk allocation process instead, which targets smoother returns in different market conditions. Proprietary risk measures are used that focus on the potential for extreme losses, skewness, conditional correlations, and liquidity.

Risk Premia Summary:

Asset Classes → Risk Premia ↓	Individual Stocks	Equity Indices	Rates & Credit	Commodities	Currencies
Value	✓	✓		✓	✓
Momentum	✓				
Carry		✓	✓	✓	✓
Quality & Low Risk	✓				
Trend		✓	✓	✓	✓
ESG/Carbon	✓				
Volatility		✓			✓

Firm:	Parametric
AUM:	~\$225 billion

Strategy:	SARP
AUM:	\$123 million
Inception:	April 2017
Target Volatility:	10-13%
Liquidity:	Daily
Management Fee:	0.65%

Firm / Team Overview:

SARP is a Parametric strategy based on investment research developed by Research Affiliates. Parametric has reviewed and validated the research and is responsible for managing the strategy. Research Affiliates acts as a non-discretionary sub-advisor and, on a regular basis, provides Parametric with a model portfolio with constituents and target weights based upon the SARP strategy. Parametric independently verifies the model before making any adjustments. Research Affiliates and Parametric collaborate on ongoing research to support the strategy, but the Parametric Investment Committee has ultimate responsibility for the oversight of the strategy, and all potential modifications must be approved by the Investment Committee. Parametric and Research Affiliates have been partners since 2009 on approximately \$12.3 billion in liquid equities as of June 30, 2017. Parametric's main offices are located in Seattle, WA and Minneapolis, MN. The firm focuses on custom beta, systematic strategies and overlays. Research Affiliates is based in Newport Beach, CA. The firm focuses on developing research in a variety of asset classes and partnering with asset managers to offer them to clients. As of September 30, 2017, over \$199 billion in assets are managed using investment strategies developed by Research Affiliates.

Portfolio Construction:

On a monthly basis, Parametric rank orders the investible universe for each of the 12 style indices, which drives target allocations for the following month. Both value and carry are implemented by going long the top third and short the bottom third of the ranked securities in an equal size so that the total exposure nets to zero. Momentum style indices are implemented in a time series format that is long all securities with positive momentum and short those with negative momentum (trailing 12-month return) and thus does not net to zero. Implementation of the volatility premium is conditional based on profitable momentum factors during the previous month and a VIX level of greater than 15, which historically results to a volatility overlay 50% of the time. The strategy is expected to have a long-term volatility of 10-12% with a target Sharpe ratio of 0.8, net of fees.

Risk Premia Summary:

Asset Classes → Risk Premia ↓	Individual Stocks	Equity Indices	Fixed Income	Commodities	Currencies
Value		✓	✓	✓	✓
Momentum					
Carry		✓	✓	✓	✓
Defensive					
Trend		✓	✓	✓	✓
Volatility		✓			

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Date: February 28, 2018

To: Board of Oakland Police and Fire Retirement System (OPFRS)

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

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

RE: Review of OPFRS Strategic Allocation in Light of 2018 Capital Market Assumptions

Summary

On an annual basis, PCA conducts a review of OPFRS' current long-term policy target, applying PCA's 2018 capital market assumptions. This memo summarizes the implications of these return assumptions when applied to the OPFRS Investment Portfolio. Applying PCA's 2018 capital market assumptions to the OPFRS policy portfolio (utilizing PCA's long-term inflation expectation of 2.25%), the expected nominal long-term compound return is 5.65% over the next 10 years (see table on following page)¹. This translates to a 3.40% real return (i.e., after inflation).

Discussion

Inflation expectations remained unchanged from PCA's 2017 capital market assumptions as market breakeven inflation, realized inflation, the Federal Reserve Bank of Cleveland's expectation, and other consensus estimates generally forecast inflation between 1.90% and 2.25%. Cash is continued to be forecast with a 0% real return with the average 3-month Treasury Bill yielding approximately 2.25% over the next 10-years as forward curves indicate slowly rising rates. In general, fixed income return expectations increased as current yields are generally higher than last year, and forward curves forecast a tepid pace to interest rate increases, which will ultimately benefit long-term investors in these segments. Equity return expectations universally decreased as strong recent returns coupled with high valuations led to modestly unattractive return expectations on an absolute basis. International equity return expectations are marginally more attractive relative to the U.S. With the exception of private equity, no stand-alone class is forecasted to achieve a compound return above 7.00% over the next 10 years. It is also important to note that the long-term expected portfolio compound return assumes net-of-fee returns, with no attempt to seek added value via active management.

¹ We note that these assumptions can vary from actuarial assumptions utilized by decision-makers to determine overall plan contributions. Typically, the horizon utilized for such decisions is significantly longer (typically 30+ years). As a result, reasonable actuarial assumptions may differ from the 10-year figures discussed above. In addition, there may be a difference between other actuary/investment consultant economic assumptions (such as inflation) due to the unique environment faced by a specific retirement system or plan.

OPFRS Long-Term Policy Portfolio Expectations Based on PCA's 2018 CMA's
2018 Assumptions

Investment Class	Target * %	2018 Assumptions		
		Exp. Arith. Return	Exp. Comp. Return	Expected Std. Dev.
U.S. Equity	40%	7.25%	5.75%	19.00%
International Equity	12%	8.70%	6.85%	21.50%
Fixed Income	21%	3.55%	3.40%	5.50%
Covered Calls	5%	6.50%	5.85%	12.65%
CRO	20%	5.00%	4.70%	8.50%
Credit	2%	4.00%	3.80%	7.00%
Cash	0%	2.25%	2.25%	1.25%
Inflation	---	2.25%	2.25%	1.25%

*Long-term Target Allocation

Expected 10-year Mean Variance Outcomes

Expected Portfolio Arithmetic Annual Return	6.10%
Expected Portfolio Annual Risk	10.05%
Expected Nominal Portfolio Compound Return (with PCA Inflation)	5.65%
Expected Real Portfolio Compound Return	4.10%
Expected Nominal Portfolio Compound Return (with Milliman Inflation)	6.60%

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2018 TEN-YEAR CAPITAL MARKET ASSUMPTIONS

TABLE OF CONTENTS

2018 vs. 2017 Assumptions	2
Summary & Highlights	2
Detailed Assumptions	3-4



2018 vs. 2017 ASSUMPTIONS

A comparison of PCA's 2018 10-year compound asset class total return assumptions versus those in 2017.

ASSET CLASSIFICATION	2017 COMPOUND EXPECTED RETURN	2018 COMPOUND EXPECTED RETURN	CHANGE from 2017 to 2018
Cash	2.25	2.25	0.00
Treasury Inflation Protected Securities	2.75	2.75	0.00
U.S. Treasuries Only Fixed Income	2.10	2.65	0.55
U.S. Core Fixed Income	2.90	3.40	0.50
U.S. Credit Fixed Income	3.50	3.75	0.25
Core Real Estate (unlevered)	5.00	5.00	0.00
Domestic Equity	6.25	5.75	-0.50
International Equity	7.25	6.80	-0.45
Global Equity	7.15	6.70	-0.45
Private Equity	8.50	7.90	-0.60
Inflation	2.25	2.25	0.00

2018 SUMMARY & HIGHLIGHTS

- Expected returns are fundamental-based and reflect a building block methodology:
(Inflation) + (Real Risk-Free Rate of Cash) + (Premium over Real Risk-Free Rate)
- The methodology/algorithm to convert arithmetic returns to geometric returns (or vice versa) will impact a portfolio's estimated expected return. PCA uses a horizon-dependent algorithm to convert between the two.
- Data points related to current yields, forward curves, economic growth, default rates, and other quantitative-based measures form the basis of most class return expectations. Surveys and practitioner insight are marginally incorporated into certain projections (e.g., inflation).
- We project cash returns to match inflation over the next 10-year period.
- The spread between fixed income and equity expected returns narrowed from 2017. This largely reflects valuation increases across the equity landscape and higher yields across the fixed income segment.
- Based on these assumptions, an allocation of 60% global public equities, 20% core bonds, 10% core real estate (20% LTV), and 10% private equity has an expected compound return of approximately 6.5%.
- Excluding private equity, no standalone class is projected to produce a return above 7% over the next 10 years.

Summary of Investment Class Assumptions

	Expected Arithmetic Average Nominal Annual Return	Expected Geometric ¹ Compound Nominal Annual Return	Expected Risk of Nominal Returns (Ann. SD)	Cash	TIPS	TSY	CoreFxd	Credit	RealEst	USEq	IntlEq	GlblEq	PrivEq
Cash	2.25	2.25	1.25										
Treasury Infl. Protected Securities	3.00	2.75	7.00	0.20									
U.S. Treasuries Only Fixed Income	2.85	2.65	6.50	0.30	0.55								
U.S. Core Fixed Income	3.55	3.40	5.50	0.25	0.60	0.75							
U.S. Credit Fixed Income	4.00	3.75	7.00	0.00	0.65	0.40	0.70						
Core Real Estate (unlevered)	5.50	5.00	10.00	0.30	0.05	0.00	0.00	0.00					
Domestic Equity	7.25	5.75	19.00	0.00	0.00	-0.25	0.00	0.35	0.40				
International Equity	8.70	6.80	21.50	0.00	0.00	-0.35	0.00	0.25	0.30	0.80			
Global Equity	8.25	6.70	19.50	0.00	0.00	-0.30	0.00	0.30	0.35	0.90	0.90		
Private Equity	10.75	7.90	27.00	0.00	0.00	-0.30	0.00	0.30	0.30	0.85	0.80	0.80	
Inflation	2.25	2.25	1.50	0.50	0.45	-0.20	-0.15	0.10	0.35	0.20	0.20	0.20	0.10

Key Takeaways and Significant Changes from PCA's 2017 Ten-Year Assumptions

- PCA's inflation expectation remains the same as last year at 2.25%. U.S. breakeven inflation, realized inflation, the Federal Reserve Bank of Cleveland's expectation, and other consensus estimates generally forecast inflation to be between 1.90% and 2.25%.
- PCA continues to forecast a 0% real return to cash.
- PCA marginally decreased volatility expectations across the public equity classes. These decreases reflect the likelihood of the current low volatility environment persisting in the near-term followed by a reversion to more historical averages.
- Fixed income return expectations increased across the board. Current yields are generally higher than last year and forward curves forecast a tepid pace to interest rate increases, which will ultimately benefit long-term investors in these segments.
- Equity return expectations universally decreased. Strong recent returns coupled with high valuations lead to modestly unattractive return expectations on an absolute basis. International equity markets exhibit marginally more attractive return expectations compared to the U.S.
- With the exception of Private Equity, no standalone class is forecasted to achieve a compound return above 7% over the next 10 years.

Indices/Assets Used in Modeling Asset Class Assumptions

Asset Class	Index/Asset
Cash	3-month U.S. Treasury Bills
TIPS	Bloomberg Barclays U.S. TIPS Index, Simulated TIPS series per Bridgewater
U.S. Treasuries Only Fixed Income	Bloomberg Barclays U.S. Government Index
U.S. Core Fixed Income	Bloomberg Barclays U.S. Aggregate Index, Bloomberg Barclays U.S. Govt/Credit Index
U.S. Credit Fixed Income	Bloomberg Barclays U.S. Credit Index (includes IG & HY)
Core Real Estate	NCREIF NPI Index
Domestic Equity	Russell 3000 Index, S&P 500 Index
International Equity	MSCI ACWI ex-U.S. Index, MSCI EAFE Index
Global Equity	MSCI ACWI Index
Private Equity	Cambridge Indices, VCJ Venture Capital Index

¹ Geometric returns are comparable to actuarial assumption rates for pension funds (i.e., compound/annualized returns).

2018 Ten-Year Return, Risk, and Correlation Assumptions (Traditional Classes)

Last revision: 01/2018

Expected Inflation, Arithmetic Average Annual Risk Free Rates & Annual Risk Premiums for Various Classes - %

Category	Expectation - Annual %	Comments
Inflation	2.25	Long-term inflation expectations are the same as last year. The TIPS breakeven inflation rate, one important data point indicative of equilibrium pricing of inflation expectations, was just south of 2% as of December 2017. The real rate on 10-year TIPS was somewhat volatile during 2017 but ultimately ended the year in-line with the beginning of the year. Realized inflation over the last two years has been around 2.0%, notably increasing from prior years. Market-based measures, Federal Reserve-generated models, and forecasts from a variety of market participants are generally forecasting inflation to be within the 1.90%-2.25% range over the next 10 years. A variety of economic factors such as GDP growth, unemployment, wages, interest rates, and commodity prices, among others, indicate that inflation is likely to be on the rise in the medium-term. The trajectory of all of these factors led PCA to forecast inflation at the higher-end of the consensus range.
Real Risk-Free Rates		
Short-Term (Cash)	0.00	The Federal Reserve continued to raise short-term lending rates throughout 2017. The target range is now 1.25%-1.50%. As of 12/31/17, short-term U.S. Treasury Bills were inside of that range. Forward curves for U.S. Treasuries indicate slowly rising rates over the next 10 years, with the average 3-month U.S. Treasury Bill yielding approximately 2.25% over this period. Expectations are for short-term rates to converge with inflation (on average), resulting in a zero real rate over the investment horizon.
Longer-Term (10-Year Real TIPS Yield)	0.45	The expected long-term real risk free rate is the current 10-year TIPS real yield. As of December 2017, the 10-Year TIPS real yield was approximately 0.45%, slightly decreasing from 0.50% in December 2016. Note, this is a rate, not an investment class. It is different from the TIPS asset class.
Risk Premiums Over Short-Term Risk-Free Rate		
U.S. Treasury Inflation Linked Securities (TIPS)	0.75	As of December 2017, the yield-to-worst (YTW) on the BB U.S. Treasury Index was 2.2%. The YTW on the BB U.S. Aggregate Index was 2.7%. The YTW on credit indices ranged from approximately 3.0% to 6.0% (depending on credit quality). Throughout 2017, the yield curve generally flattened as short and intermediate rates rose (on average), while longer term rates (10-30 years) declined modestly. The Fed raised rates three times in 2017, and credit spreads narrowed during the year. The broad markets (e.g., forward curves) are generally forecasting slowly rising rates over the next 10 years. Current expected returns assume near-term price declines with reinvestment at higher rates, modest spread widening, and historical default rates for credit-related securities.
U.S. Treasuries Only Fixed Income	0.60	
U.S. Core Fixed Income	1.30	
U.S. Credit Fixed Income	1.75	
Core Real Estate (unlevered)	3.25	Cap rates remained stable throughout 2017. Estimate assumes slowly rising interest rates and a stable-to-rising cap rate level, reverting towards historical averages.
Domestic Equity	5.00	On average over the past nine years, the <u>realized</u> U.S. equity risk premium has been well above historical averages. After another year of above average realized returns in public equities, valuations (especially in the U.S.) are stretched. Our assumptions take into account earnings/yield, earnings/GDP growth/reversion, and expected valuation changes. Current U.S. equity valuations are well above historical averages and higher from a year ago. Non-U.S. equity valuations are in-line with their historical averages. We assume a modestly higher return for Non-U.S. equities due to both valuation differences and inherent risk.
International Equity	6.45	
Global Equity	6.00	
Alternative Investments/Private Equity	8.50	Expected long-term illiquidity premium over U.S. public equity of 3.50% (arithmetic).

Notes:

PCA developed its average annual return premiums and standard deviation estimates using a combination of approaches. First, for major asset classes with an appropriate amount of history, PCA studied historical time series over both one-year and five-year holding periods to uncover any specific trends in the time series data. For example, domestic stock return premiums exhibit cyclical behavior, with each full cycle lasting approximately 40-50 years. Statistical procedures were used to identify such trends and extrapolate these trends 10-15 years forward. Second, PCA examined fundamental variables underlying several major asset classes and computed expectations based on consensus views of these variables. PCA also reviewed outlook opinions from a handful of leading investment banks and investment advisory firms. PCA compiled these opinions to develop consensus expectations for the major asset classes. PCA then used these consensus expectations as reference checks against its own expectations. Finally, PCA professionals discussed and debated asset expectations internally until a consensus view developed.

In recognizing that asset class risks are not always stable, PCA also examined risk trends utilizing similar statistical procedures. PCA also calculated risks weighting more recent periods heavier than earlier periods. In certain instances, weighted standard deviations differed materially from basic standard deviations. In these cases, PCA utilized weighted standard deviations as a base line for analysis.

In recognizing that correlations are also not always stable, PCA analyzed the current behavior of the correlations among major pairs of asset classes. In analyzing the correlation trends among pairs of assets, we focused on correlation trends across non-overlapping five-year holding periods. Using statistical procedures highlighted above, we extrapolated the trends of these correlations into the future to gain a sense of their level and direction. Correlations across different time horizons (monthly, quarterly, annual, etc.) were analyzed to improve robustness. Similar to analyzing risks, we also applied a decay factor to return history and calculated weighted correlations where appropriate.

The investment class risk premia estimated for classes that consist of publicly traded securities are market "beta" returns and do not assume returns to active management, nor active management fees. The risk premia for investment classes that, by definition, are actively managed (e.g., private real estate, hedge fund of funds, private equity), have been developed "net" of customary investment management fees, which are intrinsic to the indices from which the premia were developed.

Given the complexities associated with developing capital market expectations, we advise users of the above information to rely on judgment as well as optimization approaches in setting strategic allocations to any set of investment classes. Please note that all information shown is based on qualitative and quantitative analyses. Exclusive reliance on the above is not advised. This information is not intended as a recommendation to invest in any particular asset class or as a promise of future performance. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

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Date: February 27, 2018

To: Oakland Police and Fire Retirement System (OPFRS)

From: Pension Consulting Alliance, LLC. (PCA)

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

RE: 2018 Preliminary Strategic Investment Agenda

Approximately once a year, PCA develops a list of projects that we expect to work closely with OPFRS to complete over the next twelve-plus months (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. PCA welcomes any suggestions and/or modifications to the proposed timeline.

2018 Preliminary Investment Project Agenda

Expected Completion Date	Task
February 2018	<ul style="list-style-type: none"> • 2018 Capital Markets Review • Review of Hansberger • Finalist Recommendation for new CRO strategic class • Quarterly Performance Report (4Q 2017) • Manager Update: Northern Trust
March 2018	<ul style="list-style-type: none"> • Finalist Interviews: CRO • Investment Policy: Update
April 2018	<ul style="list-style-type: none"> • Flash Performance (1Q 2018) • Cash Flow Report (2Q 2018) • Update: Defensive Equity search
May 2018	<ul style="list-style-type: none"> • Quarterly Performance Report (1Q 2018) • Finalist Recommendations: Defensive Equity • TBD: Educational topic • Manager Update: Reams

Expected Completion Date	Task
June 2018	<ul style="list-style-type: none"> • Asset Allocation Review and Update • Finalist Interviews: Defensive Equity
July 2018	<ul style="list-style-type: none"> • Flash Performance Report (2Q2018) • Asset Class Review: Domestic Equity • TBD: Educational Topic
August 2018	<ul style="list-style-type: none"> • PCA Performance Report (2Q 2018) • Cash Flow Report (3Q 2018) • Manager Update: Fisher
September 2018	<ul style="list-style-type: none"> • Flash Performance (1Q2018) • Investment Policy: Update and review • TBD: Educational Topic
October 2018	<ul style="list-style-type: none"> • Flash Performance Report (3Q 2018) • Cash Flow Report (2Q2018)
November 2018	<ul style="list-style-type: none"> • PCA Performance report (3Q2018) • Cash Flow Report (4Q2018) • Manager Update: Ramirez
December 2018	<ul style="list-style-type: none"> • TBD: Depends on meeting schedule

Bold are priority strategic items.

This agenda continues forward with the implementation of a new potential asset allocation and update to the investment policy as a result of the asset liability modeling in 2017.

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

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

AGENDA

RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr.
President

Jaime T. Godfrey
Vice President

Robert J. Muszar
Member

Steven Wilkinson
Member

Martin J. Melia
Member

John C. Speakman
Member

Christine Daniel
Member

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

Wednesday, February 28, 2018 – 12:00 pm
One Frank H. Ogawa Plaza, Hearing Room 3
Oakland, California 94612

- - - ORDER OF BUSINESS - - -

- A. Subject: November 29, 2017 PFRS Board Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: APPROVE November 29, 2017 PFRS Board meeting minutes.
- B. Subject: January 31, 2018 PFRS Board Meeting Minutes**
From: Staff of the PFRS Board

Recommendation: APPROVE January 31, 2018 PFRS Board meeting minutes.
- C. AUDIT AND OPERATIONS COMMITTEE AGENDA – FEBRUARY 28, 2018**

 - C1. Subject: PRFS fund experience study and changes to the rate of return, inflation, longevity and other key actuary assumptions**
From: Cheiron, Inc., PFRS Plan Actuary

Recommendation: APPROVE the PRFS fund experience study and changes to the rate of return, inflation, longevity and other key actuary assumptions.
 - C2. Subject: Administrative Expenses Report**
From: Staff of the PFRS Board

Recommendation: ACCEPT an informational report regarding PFRS Administrative Expenses from July 1, 2017 through December 31, 2017.
 - C3. Subject: Revision of the PFRS Education & Travel Policy**
From: Staff of the PFRS Board

Recommendation: APPROVE the revision of the PFRS Education & Travel Policy.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
FEBRUARY 28, 2018

ORDER OF BUSINESS, continued

- C4. Subject:** Review of PFRS Rules and Regulations
From: Staff of the PFRS Board
-
- Recommendation:** DISCUSSION and review of PFRS Rules and Regulations.
- C5. Subject:** Resolution No. 7002 - Travel Authorization for PFRS Board Member Jaime Godfrey to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Seven Hundred Twenty-seven Dollars (\$727.00)
From: Staff of the PFRS Board
-
- Recommendation:** APPROVE Resolution No. 7002 - Travel Authorization for PFRS Board Member Jaime Godfrey to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Seven Hundred Twenty-seven Dollars (\$727.00).
- C6. Subject:** Resolution No. 7003 - Travel Authorization for PFRS Board Member R. Steven Wilkinson to Travel and Attend the 2018 CALAPRS General Assembly Conference (“CALAPRS Conference”) from March 3, 2018 to March 6, 2018 in Indian Wells, CA with an Estimated Budget of One Thousand Three Hundred Dollars (\$1,300.00)
From: Staff of the PFRS Board
-
- Recommendation:** APPROVE Resolution No. 7003 - Travel Authorization for PFRS Board Member R. Steven Wilkinson to Travel and Attend the 2018 CALAPRS General Assembly Conference (“CALAPRS Conference”) from March 3, 2018 to March 6, 2018 in Indian Wells, CA with an Estimated Budget of One Thousand Three Hundred Dollars (\$1,300.00).
- C7. Subject:** Resolution No. 7004 - Travel Authorization for PFRS Plan Administrator Katano Kasaine to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00)
From: Staff of the PFRS Board
-
- Recommendation:** APPROVE Resolution No. 7004 - Travel Authorization for PFRS Plan Administrator Katano Kasaine to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00).

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
FEBRUARY 28, 2018

ORDER OF BUSINESS, continued

D. **INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – FEBRUARY 28, 2018**

- D1. **Subject:** Investment Manager Performance Review – Northern Trust Investments
From: Northern Trust Investments
-
- Recommendation:** **ACCEPT** an Informational Report regarding review of Northern Trust Investments, a PFRS Large Cap Core Domestic Equities Investment Manager.
- D2. **Subject:** Investment Manager Overview – Northern Trust Investments
From: Pension Consulting Alliance (PCA)
-
- Recommendation:** **APPROVE** evaluation and review of Northern Trust Investments, a PFRS Large Cap Core Domestic Equities Investment Manager.
- D3. **Subject:** Investment Manager Report presented by new representative from NWQ
From: NWQ
-
- Recommendation:** **ACCEPT** an Informational Report presented by new representative from NWQ.
- D4. **Subject:** Resolution No. 7008 - Placement of Investment Manager to watch status
From: Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 7008 - Placement of NWQ, a small cap value Investment Manager, onto watch status.
- D5. **Subject:** (1) Informational report from PCA & Staff regarding On-site visit of Hansberger Growth Investors and (2) Recommendation for Request for Information for an active International Equity Investment Manager
From: PCA and Staff of the PFRS Board
-
- Recommendation:** (1) **ACCEPT** an informational report from PCA & Staff regarding On-site visit of Hansberger Growth Investors, and (2) **APPROVE** PCA recommendation that PFRS conduct a Request for Information for an active international equity investment manager.
- D6. **Subject:** Investment Market Overview
From: Pension Consulting Alliance (PCA)
-
- Recommendation:** **ACCEPT** an informational report on the global investment markets through January 31, 2018.
- D7. **Subject:** Investment Fund Performance Report for the Quarter Ending December 31, 2017
From: Pension Consulting Alliance
-
- Recommendation:** **APPROVE** the Investment Fund Performance Report for the Quarter Ending December 31, 2017.

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
FEBRUARY 28, 2018**

ORDER OF BUSINESS, continued

- D8. Subject: Resolution No. 7007 - Renewal of Service Contract – Northern Trust Investments**
From: Staff of the PFRS Board and PCA
-
- Recommendation:** **APPROVE** Resolution No. 7007 – resolution exercising a one-year option to extend the agreement with Northern Trust Investments to provide large-cap core domestic equity asset class investment manager services for the City of Oakland Police and Fire Retirement System Board commencing April 19, 2018 through April 19, 2019.
- D9. Subject: Alternative Risk Premia/Trend Manager Search – Proposed Finalists to be interviewed at an upcoming PFRS Investment Committee Meeting**
From: Pension Consulting Alliance
-
- Recommendation:** **APPROVE** a PCA recommendation regarding the Alternative Risk Premia/Trend Manager Search – Proposed Finalists to be interviewed at an upcoming PFRS Investment Committee Meeting.
- D10. Subject: 2018 Capital Market Returns memo**
From: Pension Consulting Alliance
-
- Recommendation:** **ACCEPT** an informational report from PCA regarding its 2018 Capital Market Returns memo.
- D11. Subject: PFRS Calendar Year 2018 Strategic Investment Plan**
From: Pension Consulting Alliance
-
- Recommendation:** **APPROVE** the PFRS 2018 Strategic Investment Plan.
- E. Subject: Member Resolution(s) No. 7005-7006**
From: Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Member Resolution(s) No. 7005-7006
- E1. Resolution No. 7005** | Resolution Approving Death Benefit Payments and Directing Warrants Thereunder in the Total Sum of \$1,000.00 Payable to the Beneficiaries of Deceased Members as Follows: Tamara J. Meyer And Jeffrey J. Meyer.
-
- E2. Resolution No. 7006** | Resolution Fixing the Monthly Allowance Kathleen Tryhorn, Spouse of Donald L. Herschal; of Linda D. Hendler, Spouse of Howard A. Hendler; and of Sylvia M. Horne, Spouse of James M. Horne, Retired Members of the Police and Fire Retirement System.
- F. NEW BUSINESS – No Report.**
- G. OPEN FORUM**
- H. FUTURE SCHEDULING**

A BOARD MEETING of the Oakland Police and Fire Retirement System (“PFRS”) was held on November 29, 2017 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California

Board Members Present:

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

Board Members Absent:

- Walter L. Johnson, President

Additional Attendees:

- Katano Kasaine, Plan Administrator
- Pelayo Llamas, Jr., PFRS Legal Counsel
- David Low & Teir Jenkins, Staff Member
- David Sancewich & Sean Copus, Pension Consulting Alliance (PCA)

The meeting was called to order at 11:54 am. Vice President Godfrey served as presiding officer pursuant to section 7.3 of the PFRS Rules and Regulations due to President Johnson’s absence from today’s meeting.

A. Approval of PFRS Board Meeting Minutes – Member Daniel made a motion to approve the October 25, 2017 PFRS Board meeting minutes, second by Member Speakman. Motion passed.

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

Item B was moved to end of meeting for discussion by the presiding officer, Jaime Godfrey.

C. PFRS AUDIT COMMITTEE MEETING – NOVEMBER 29, 2017

C1. Report of the Audit of the Financial Statements of the Oakland PFRS for the year ended June 30, 2017 – Member Speakman reported the presentation by auditing firm Macias, Gini and O’Connell, LLP of the PFRS financial statement for the year ended June 30, 2017 to the Audit Committee. Member Daniel reported committee discussion and committee’s recommendation to accept the financial statement subject to an instruction that on page 26, the last sentence of section 9(a) “Contingencies” about Master Police Officer premium pay was incorrect; i.e. the sentence reading “In addition, the ongoing monthly payout to those police retirees would be increased” be deleted, if necessary, from the financial statement for the year ending June 30, 2018. Member Daniel made a motion to approve the financial statements of the Oakland PFRS for the year ended June 30, 2017 with said condition.. Second by member Muszar. Motion passed.

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

- C2. **Report of Accounting and Financial Disclosure information under the Government Accounting Standards Board Statements No. 67 and 68 for PFRS as of June 30, 2017** – Member Speakman reported that staff and the Audit Committee discussed the Report of Accounting and Financial Disclosure information under the Government Accounting Standards Board Statements No. 67 and 68 for PFRS as of June 30, 2017 at the Audit Committee meeting. Member Speakman made a motion to approve the Report of Accounting and Financial Disclosure information under the Government Accounting Standards Board Statements No. 67 and 68 for PFRS as of June 30, 2017 with the correction that makes a reference to a loss instead of a gain on page 10 of the report, second by member Daniel. Motion passed.

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

- C3. **PFRS Monthly Administrative Expenses Report** – Investment Officer Teir Jenkins presented the details of the PFRS administrative expenses report from July 1, 2017 through September 30, 2017. Member Muszar made a motion to accept the Administrative Expenses Report from July 1, 2017 through September 30, 2017, second by member Daniel. Motion passed.

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

- C4. **Review of Staff Update of the PFRS Travel Policy** – Member Speakman reported that the Audit Committee and staff discussed the recent updates to the Travel Policy (including a recommendation to change the title to ‘Education and Travel Policy’). Member Speakman reported continued discussion on this matter was tabled to the next scheduled Audit Committee meeting. Plan Administrator Katano Kasaine reported that staff would deliver the Draft Education and Travel Policy to each board member and receive their comments in time for approval at the January 2018 meeting.

- C5. **Review of PFRS Rules and Regulations** – Member Speakman reported that discussion of the PFRS Rules and Regulations was tabled to the next scheduled Audit Committee meeting.

D. PFRS INVESTMENT COMMITTEE MEETING – NOVEMBER 29, 2017

- D1. **Investment Manager Performance Review – Rice Hall James and Associates, LLC** – David Sancewich from Pension Consulting Alliance reported that representatives from Rice Hall James and Associates, LLC made a presentation of their management and performance to the Investment Committee. Member Melia made a motion to accept the informational report, second by member Muszar. Motion passed.

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

- D2. Review of Investment Manager by Pension Consulting Alliance (PCA) –** David Sancewich summarized the PCA review of the investment manager, Rice Hall James, presented to the Investment Committee. Member Speakman made a motion accept the Informational Report from PCA, second by Member Daniel. Motion passed.

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

- D3. Investment Market Overview –** David Sancewich reported the investment market risk metrics report from PCA to the PFRS Board. Following Board discussion, Member Melia made a motion accept the Informational Report from PCA, second by Member Speakman. Motion passed.

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

- D4. Investment Fund Performance Report for the Quarter Ending September 30, 2017 –** David Sancewich reported a summary of the investment fund performance report for the quarter ending September 30, 2017 presented to the Investment Committee. Following Board discussion, member Speakman made a motion to accept the informational report regarding the investment fund performance report for the quarter ending September 30, 2017, second by member Melia. Motion passed.

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

- D5. Resolution No. 6989 - Rebalancing of PFRS Investment Funds Asset Classes –** David Sancewich reported current action to continue to rebalance of the PFRS Investment Funds asset allocation and reported the next step outlined with resolution no. 6989. Member Melia made a motion to approve resolution no. 6989 with an amendment as follows: *“RESOLVED: That the PFRS Board hereby directs staff to reallocate investment funds of the Oakland Police and Fire Retirement System (PFRS) from Domestic Equity to Fixed Income through reduction of PFRS funds invested in the Domestic Equity Large Cap Value, from Domestic Equity Large Cap Growth, and from Covered Calls investment asset classes into Fixed Income investment Asset Class managed by Ramirez Asset Management.”*, second by member Wilkinson. Motion passed.

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

- D6. Resolution No. 6990 - Placement of Investment Manager to watch status –** Member Wilkinson made a motion to approve Resolution no. 6990 approving placement of Hansberger Growth Investors onto watch status, second by member Melia. Motion passed.

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

- D7. PCA Client Alert Memorandum –** David Sancewich reported the delivery of a memorandum to all PCA clients regarding PCA actions addressing the recently

introduced plan by the United States Congress to pass a tax bill. Member Wilkinson made a motion to accept the informational report from PCA, second by member Melia. Motion passed.

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

E. Member Muszar made a motion to approve Resolutions No. 6991 and 6992, second by member Speakman. Motion passed.

E1. **Resolution No. 6991** – Approve a resolution approving death benefit payments and directing warrants thereunder in the total sum of \$1,000.00 payable to the beneficiaries of deceased members as follows: to Patrick R. Leahy, Nephew of C. Lawson Morton; to Mark Lollar, son of James M. Lollar; to Renee D. Damiano, daughter of Richard V. Daskam; and to the Hughes Family Living Trust Dated August 15, 1990 of Robert S. Hughes.

E2. **Resolution No. 6981** – Approve a resolution fixing the monthly allowance of Carol Strawn, surviving spouse of Joseph E. Strawn; of Agnes Morrison, surviving spouse of George W. Morrison; and Of Jo Ann Calegari, surviving spouse of Richard Calegari, retired members of the Police and Fire Retirement System.

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

Item B was moved to end of meeting for discussion by the presiding officer, Jaime Godfrey.

B. **Comment from Retired Oakland Police Officers' Association (ROPOA) and other public comment to PFRS Staff's October 25, 2017 Report about Police Retiree Holiday Pay** – Member Muszar made a motion to table any discussion or action on the matter regarding ROPOA and other public comments to the PFRS Staff's October 25, 2017 Report about Police Retiree Holiday Pay until the next meeting. Member Muszar said he believed this matter should be postponed until the full Board was present for discussion. Member Muszar's motion was not seconded.

Plan Administrator Katano Kasaine reported staff receipt of a memorandum from Robert Muszar, PFRS Board member, and a letter from Sarah Grossman-Swenson, legal counsel for the Retired Oakland Police Officers Association (ROPOA) regarding PFRS Staff's October 25, 2017 Agenda Report about Police Retiree Holiday Pay. These documents were published in the agenda packet and for the Board to review.

Sarah Grossman-Swenson summarized certain points in the ROPOAs arguments regarding Police Retiree Holiday Pay and its comments on the PFRS staff's October 25, 2017 report about police retiree holiday pay. The points included: whether police retirees were entitled to be paid holiday benefits as if they worked them, the number of hours to be credited for each holiday, whether active officers assigned to 12-hour shifts affect staff's calculation, and whether to calculate holidays for retirees classified to the ranks captain and above differently from lower ranks. She said the ROPOA is

open to any discussion that works to resolve the current outstanding issues in a fair and reasonable way.

Member Muszar cautioned the Board that staff's calculations, when applied to a fluctuating retirement system, may lead to a system that is impossible to manage. Member Muszar also stated that if the PFRS Board linked Deputy Chiefs and Captains to the OPMA MOU, then they should consider additional pay elements in the OPMA MOU that he believes is also attached to the rank. He asserted that the August 2015 agenda report on police holidays had a more suitable approach, but that some of its calculations needed to be redone.

Motion: Member Muszar moved that staff be directed to redo its calculations from August 2015 to correct errors, and report the results back to the Board. Second by Member Speakman. Member Muszar provided details addressing his motion. Following discussion between staff and the PFRS Board, a vote on the motion was taken. Motion failed.

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

Member Daniel made a motion to accept into the record the memoranda from Member Muszar and the letter from ROPOA legal counsel, second by member Speakman. Motion passed.

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

F. **NEW BUSINESS** – No Report.

G. **OPEN FORUM** – No Report.

H. **FUTURE SCHEDULING** – The PFRS Board agreed the Regular December 2017 Committee and Board meetings would be canceled. Staff reported the next scheduled Regular Committee and Board meetings are scheduled for January 31, 2018.

Member Muszar directed staff to address the travel-related insurance issues for travel as it pertains to Board members and schedule discussion at the next Audit Committee meeting.

The meeting adjourned at 12:40 pm.

KATANO KASAINÉ, BOARD SECRETARY

DATE

A BOARD MEETING of the Oakland Police and Fire Retirement System (“PFRS”) was held on January 31, 2018 in Hearing Room 3, One Frank Ogawa Plaza, Oakland, California

- Board Members Present:
- Walter L. Johnson, President
 - Jaime T. Godfrey, Vice President
 - John C. Speakman, Member
 - Steven Wilkinson, Member
 - Robert J. Muszar, Member
 - Christine Daniel, Member
 - Martin J. Melia, Member

- Additional Attendees:
- Katano Kasaine, Plan Administrator
 - Pelayo Llamas, Jr., PFRS Legal Counsel
 - David Low & Teir Jenkins, Staff Member
 - David Sancewich & Sean Copus, Pension Consulting Alliance (PCA)

The meeting was called to order at 11:39 am.

A. Approval of PFRS Board Meeting Minutes – Member Speakman made a motion to approve the November 29, 2017 PFRS Board meeting minutes, second by Member Godfrey. Member Muszar made several comments. He requested the inclusion of his stated reason for making the motion to table Agenda Item B. Also on the same item, he asked that the reported statement where he asserts that “Captains and Deputy Chiefs were obsolete ranks” should be clarified to the PFRS Captains and Deputy Chiefs are obsolete ranks in the similar manner that Chief of Fire and Chief of Police are obsolete ranks. Finally, he said August 2015 report mention in the Board motion was a department-wide report and did not focus on patrol division. Given the number of issues for review, President Johnson directed staff to review the recording and report back to the PFRS Board at the next meeting. The matter was tabled until the next Board meeting.

B. PFRS AUDIT COMMITTEE MEETING – JANUARY 31, 2018

- B1. Assumptions for Actuary Valuation of the PFRS Fund through July 1, 2017** – Graham Schmidt and Tim Doyle from Cheiron, Inc. (PFRS Actuary) presented the preliminary valuation results of the PFRS Plan through July 1, 2017. Their presentation addressed the impact to the PFRS plan with the current actuarial assumptions through July 1, 2017, and illustrated how a lower assumed rate of return might affect projected contributions from the City. Mr. Schmidt concluded by suggesting that Cheiron could work with PCA and return to the Board with an analysis showing how a change in the return and the mortality rates affect the actuarial report. He added that discussion about the funding policy as the year 2026 approaches should begin. Following additional discussion, Member Speakman made a motion to accept the informational report from Cheiron, Inc., Second by member Daniel. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- B2. **Amended 2017-2018 PFRS Administrative Budget** – Investment Officer Teir Jenkins presented the details and changes to the amended 2017-2018 PFRS Administrative Budget. Member Speakman made a motion to approve the amended 2017-2018 PFRS Administrative Budget as amended, second by member Daniel. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- B3. **Administrative Expenses Report** – Investment Officer Teir Jenkins presented the administrative expenses report from July 1, 2017 through November 30, 2017. Member Speakman made a motion to accept the administrative expenses report from July 1, 2017 through November 30, 2017, second by member Muszar. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- B4. **Annual Report for Fiscal Year ending June 30, 2017** – Mr. Jenkins reported the completion of the PFRS Annual report for the fiscal year ending June 30, 2017. Member Speakman made a motion to approve the printing and publication of the Annual Report of the Police and Fire Retirement System for the Fiscal Year ending June 30, 2017, second by member Daniel. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- B5. **Resolution No. 6995 - Travel Authorization for PFRS Investment Committee Chairperson Jaime Godfrey** – Member Muszar made a motion to approve Resolution No. 6995 – travel authorization for PFRS Investment Committee Chairperson Jaime Godfrey to Travel for the Due Diligence Visit with Hansberger Growth Investors (Hansberger), an International Equities Asset Class Investment Manager for the Oakland Police and Fire Retirement System (PFRS) from February 4, 2018 through February 5, 2018 in Toronto, Ontario (Canada) With an Estimated Budget of One Thousand Two Hundred Fifty-Three Dollars (\$1,253.00), second by member Daniel. Motion passed.

[DANIEL – Y / GODFREY – ABSTAIN / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 1)

- B6. **Resolution No. 6996 - Travel Authorization for PFRS Board Member R. Steven Wilkinson** – Member Speakman made a motion to approve Resolution No. 6996 – Travel Authorization for PFRS Board Member R. Steven Wilkinson to Travel and Attend the 2018 EnTrustPermal Investment Summit Conference (“2018 EnTrustPermal Conference”) from February 27, 2018 through February 28, 2018 in New York, NY With an Estimated Budget of Nine Hundred Eighty-Two Dollars (\$982.00), second by Member Daniel. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – ABSTAIN]
(AYES: 6 / NOES: 0 / ABSTAIN: 1)

- B7. **Resolution No. 6997 - Travel Authorization for PFRS Board Member Martin Melia** – Member Muszar made a motion to approve Resolution No. 6997 – Travel Authorization for PFRS Board Member Martin Melia to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00), second by Member Speakman. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – ABSTAIN / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 6 / NOES: 0 / ABSTAIN: 1)

- B8. **Resolution No. 6998 - Travel Authorization for PFRS Investment Officer Teir Jenkins** – Member Speakman made a motion to approve Resolution No. 6998 – Travel Authorization for PFRS Investment Officer Teir Jenkins to Travel and Attend the 2018 The Pension Bridge Conference (“Pension Bridge Conference”) from April 10, 2018 to April 11, 2018 in San Francisco, CA with an Estimated Budget of Two Hundred Thirty-Nine Dollars (\$239.00), second by Member Daniel. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- B9. **Resolution No. 7000 - Travel Authorization for PFRS Legal Counsel Pelayo Llamas** – Member Speakman made a motion to approve Resolution No. 7000 – Travel Authorization for PFRS Legal Counsel Pelayo Llamas to Travel and Attend the 2018 CALAPRS Attorneys Roundtable (“CALAPRS Roundtable”) on February 2, 2018 in Glendale, CA With an Estimated Budget of Six Hundred Forty-Eight Dollars (\$648.00), second by Member Muszar. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- B10. **Resolution No. 7001 - Resolution to (1) Rescind Resolution No. 6964 and (2) Accommodate the Funding of Supplemental Legal Assistance for Probate- and Estate-Related Legal Needs in the Amount of \$10,000** – Member Speakman made a motion to adopt Resolution No. 7001 as amended by the Audit Committee earlier in the day, second by member Muszar. PFRS Staff reported modifications to Resolution No. 7001 were made by the Audit Committee. These modifications included the following: (1) The sixth whereas was amended to “**WHEREAS**, upon further assessment of the System’s legal needs at this time, staff is no longer seeking to retain outside counsel to represent the System in estate and probate matters, but instead simply seeks authority and budget approval of up to \$10,000 to retain consultants to assist the City Attorney’s office in probate and estate law in approximately 30 states where PFRS retirees reside as needed; and...”; (2) the further resolved statement was amended to” **FURTHER RESOLVED**: that funding for the probate- and estate-related legal needs stated hereto of \$10,000 shall be allocated from the Legal Contingency Budget Line Item for Fiscal Years 2017-2018 and 2018-2019.” Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

B11. **Revision of the PFRS Education & Travel Policy** – Member Speakman reported that discussion of the PFRS Education & Travel Policy was postponed until the next Audit Committee meeting.

B12. **Review of PFRS Rules and Regulations** – Member Speakman reported that discussion of the PFRS Rules and Regulations was postponed until to the next Audit Committee meeting.

C. PFRS INVESTMENT COMMITTEE MEETING – JANUARY 31, 2018

C1. **Investment Manager Performance Review – NWQ** – Member Godfrey reported that NWQ appeared at the Investment Committee meeting and presented its company performance and management review. This included discussion of the change in ownership of NWQ to Nuveen Investments. Member Godfrey made a motion to accept the information report from NWQ, second by member Muszar. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C2. **Investment Manager Overview, Board action to place Investment Manager NWQ on “watch” status** – Pension Consulting Alliance “PCA” presented its review of the ownership and other changes recently occurring in investment manager NWQ. Mr. Copus said the information reported by Mr. Maramarco warrants the Board placing NWQ onto “watch” status. Following some discussion, Member Wilkinson made a motion to approve the placement of NWQ onto “watch” status, second by member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C3. **\$14.1 million 1st Quarter 2018 Member Benefits Drawdown** – Member Godfrey reported PCA’s recommendation to make a \$14.1 million drawdown for 1st Quarter member benefits payments. Member Melia made a motion to approve the recommendation of a \$14.1 million drawdown for 1st Quarter member benefits payments, second by Member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C4. **Investment Market Overview** – Sean Copus reported on the global economic factors affecting the PFRS Fund. Member Godfrey made a motion accept the Informational Report from PCA, second by Member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

C5. **Preliminary Investment Fund Performance Report for the Quarter Ending December 31, 2017** – Mr. Copus presented details of the Investment Fund Performance Report for the Quarter Ending December 31, 2017. Member Godfrey made a motion to approve the Investment Fund Performance Report for the Quarter Ending December 31, 2017, second by member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- C6. **Resolution No. 6993 - Renewal of Service Contract – EARNEST Partners, LLC** – Member Godfrey made a motion to approve Resolution No. 6993, second by Member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- C7. **Resolution No. 6994 - Renewal of Service Contract – Fisher Investments** – Member Godfrey made a motion to approve Resolution No. 6994, second by Member Melia. Motion passed.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- D. Member Speakman made a motion to approve Resolutions No. 6999, second by member Muszar. Motion passed.

- D1. **Resolution No. 6999** – Approve a resolution approving death benefit payments and directing warrants thereunder in the total sum of \$1,000.00 payable to the beneficiaries of deceased members as follows: to Patrick Forte, son of Roland K. Forte; to Ellen Regalmuto, Bonnie Carr & Patrick Neil, children of Patrick Neil; to Dean and Rene Smith, daughter and daughter-in-law of Burl E. Smith; and to Patricia Kerr, sister of Thomas W. Byron.

[DANIEL – Y / GODFREY – Y / JOHNSON – Y / MELIA – Y / MUSZAR – Y / SPEAKMAN – Y / WILKINSON – Y]
(AYES: 7 / NOES: 0 / ABSTAIN: 0)

- E. **NEW BUSINESS** – No Report.

- F. **OPEN FORUM** – PFRS Member Raymond Miller spoke to the Board about the unanswered services he had requested from staff, violated his right to due process and have displayed a lack of transparency.

Plan Administrator Katano Kasaine let the Board know she and staff are working hard to complete the work required for each Board meeting and that there are ongoing requests and demands continually adding to this workload which challenges staff's ability to complete its work. She reported that staff will be creating a 'pending list' for the Board that will address the upcoming agenda items.

G. **FUTURE SCHEDULING** – Staff reported the next scheduled Board meetings is scheduled for February 28, 2018.

Member Muszar asked that discussion related to the full funding date of 2026 discussion be added to a future agenda for discussion. President Johnson noted that his question related to a matter for Audit Committee for review.

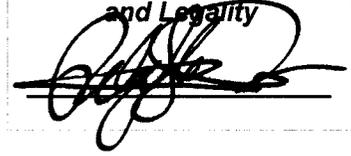
The meeting adjourned at 12:51 pm.

KATANO KASAINI, BOARD SECRETARY

DATE

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality



RESOLUTION No. 7005

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION APPROVING DEATH BENEFIT PAYMENTS AND DIRECTING WARRANTS THEREUNDER IN THE TOTAL SUM OF \$1,000.00 PAYABLE TO THE BENEFICIARIES OF DECEASED MEMBERS AS FOLLOWS: TAMARA J. MEYER AND JEFFREY J. MEYER

WHEREAS, due proof having been received of the death of the persons named in Column (1) below, retired members of the Oakland Police or Fire Department, under XXVI of the Charter of the City of Oakland; and

WHEREAS, the beneficiaries to whom the death benefit provided in Charter Section 2612 are payable, are the persons whose names are stated in Column (2) opposite the respective names of the deceased retired member; and

WHEREAS, the amount of said death benefit is stated in Column (4) opposite said respective names; now, therefore, be it

RESOLVED: That the Retirement Board does hereby approve the Death Benefit payment to the persons named in Column (5); and be it

FURTHER RESOLVED: That the Director of Finance, be and is hereby directed to draw and sign warrants for the amount in Column (4) payable to the respective persons whose name(s) appear(s) in Column (2):

(1) Name of Deceased Member	(2) Name of Beneficiary(ies)	(3) Relationship of Beneficiary(ies)	(4) Death Benefit Amount
Howard D. Meyer (F)	Tamara J. Meyer Jeffrey J. Meyer	Daughter Son	\$500.00 \$500.00

IN BOARD MEETING, CITY HALL, OAKLAND, CA FEBRUARY 28, 2018

PASSED BY THE FOLLOWING VOTE:

AYES: DANIEL, GODFREY, MELIA, MUSZAR, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON

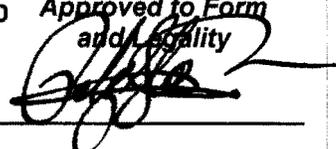
NOES:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality


RESOLUTION No. 7006

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION FIXING THE MONTHLY ALLOWANCE OF KATHLEEN TRYHORN, SPOUSE OF DONALD L. HERSCHAL; OF LINDA D. HENDLER, SPOUSE OF HOWARD A. HENDLER; AND OF SYLVIA M. HORNE, SPOUSE OF JAMES M. HORNE, RETIRED MEMBERS OF THE POLICE AND FIRE RETIREMENT SYSTEM

WHEREAS, the retired members of the Police and Fire Retirement System, whose names appears below (1), died on the dates shown below (2); and

WHEREAS, the surviving spouses, whose names appear below (3), do not claim such death was by reason of an injury received in, or illness caused by or arising out of the performance of duty; and

WHEREAS, there is now presented to this Board, the monthly allowance shown below (7) 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 (7), as the monthly allowance to which said surviving spouses are entitled, effective on the date shown in Column (4):

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Name of Deceased Member	Date of Death	Name of Surviving Spouse	Effective Date of Allowance	Form of Retirement	% of Compensation Attached to Avg. Rank Held	Monthly Allowance
Donald L. Herschel (F)	12/05/2017	Kathleen E. Tryhorn	12/06/2017	Service	30.04%	\$3,669.32
Howard A. Hendler (F)	12/10/2017	Linda D. Hendler	12/11/2017	Disability	44.073%	\$5,383.46
James M. Horne (P)	12/13/2017	Sylvia M. Horne	12/14/2017	Service	29.341%	\$3,289.50

IN BOARD MEETING, CITY HALL, OAKLAND, CA FEBRUARY 28, 2018

PASSED BY THE FOLLOWING VOTE:

AYES: DANIEL, GODFREY, MELIA, MUSZAR, SPEAKMAN, WILKINSON,
AND PRESIDENT JOHNSON

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY