



### **Board of Administration Agenda**

REGULAR MEETING

TUESDAY, SEPTEMBER 11, 2018

TIME: 10:00 A.M.

**MEETING LOCATION:** 

LACERS Ken Spiker Boardroom 202 West First Street, Suite 500 Los Angeles, California 90012-4401

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at (213) 473-7169.

President: Cynthia M. Ruiz

Vice President: Elizabeth L. Greenwood

Commissioners: Elizabeth Lee

Sandra Lee

Nilza R. Serrano Sung Won Sohn Michael R. Wilkinson

Manager-Secretary: Neil M. Guglielmo

Executive Assistant: Ani Ghoukassian

Legal Counsel: City Attorney's Office

Retirement Benefits Division

- I. PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION
- II. <u>APPROVAL OF MINUTES FOR BOARD MEETING OF AUGUST 28, 2018 AND POSSIBLE BOARD ACTION</u>
- III. BOARD PRESIDENT VERBAL REPORT
- IV. GENERAL MANAGER VERBAL REPORT
  - A. REPORT ON DEPARTMENT OPERATIONS
  - B. UPCOMING AGENDA ITEMS
- V. CONSENT AGENDA
  - A. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER
  - B. MARKETING CESSATION NOTIFICATION

- C. <u>RECEIVE AND FILE EDUCATION AND TRAVEL EXPENDITURE REPORT FOR</u> FISCAL YEAR 2017-18
- D. <u>TRAVEL AUTHORITY COMMISSIONER ELIZABETH LEE; FIDUCIARY INVESTORS SYMPOSIUM, STANFORD, CALIFORNIA; SEPTEMBER 30 OCTOBER 2, 2018 AND POSSIBLE BOARD ACTION</u>
- E. TRAVEL AUTHORITY COMMISSIONER ELIZABETH L. GREENWOOD; 2018

  PUBLIC PENSION TRUSTEES FIDUCIARY CONFERENCE, NEW YORK, NEW
  YORK; OCTOBER 2-3, 2018 AND POSSIBLE BOARD ACTION

#### VI. BOARD/DEPARTMENT ADMINISTRATION

- A. TRIENNIAL BOARD POLICY REVIEW: THE BOARD PROCEDURES, GUIDANCE FOR BOARD MEMBERS, CONTRACT ADMINISTRATION AND POSSIBLE BOARD ACTION
- B. <u>LARGER ANNUITY PROGRAM REVIEW AND POSSIBLE BOARD ACTION</u>
- VII. COMMITTEE REPORT(S)
  - A. BENEFITS ADMINISTRATION COMMITTEE VERBAL REPORT ON THE MEETING OF SEPTEMBER 11, 2018

#### VIII. INVESTMENTS

- A. CHIEF INVESTMENT OFFICER VERBAL REPORT
- B. PRESENTATION BY NEPC, LLC OF THE PORTFOLIO PERFORMANCE REVIEW REPORT FOR THE QUARTER ENDING JUNE 30, 2018
- IX. DISABILITY RETIREMENT APPLICATION(S)
  - A. ADOPTION OF FINDINGS OF FACT FOR MICHAEL KARATSONYI AND POSSIBLE BOARD ACTION
  - B. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION OF MARCELO VALERIO AND POSSIBLE BOARD ACTION
- X. LEGAL/LITIGATION
  - A. CONSIDERATION OF OUTSIDE TAX COUNSEL FOR THREE YEAR CONTRACT(S) EFFECTIVE SEPTEMBER 21. 2018 AND POSSIBLE BOARD ACTION
- XI. OTHER BUSINESS
- XII. NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, September 25, 2018 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

### XIII. ADJOURNMENT

# MINUTES OF THE REGULAR MEETING BOARD OF ADMINISTRATION LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

LACERS Ken Spiker Boardroom 202 West First Street, Fifth Floor Los Angeles, California

August 28, 2018

Agenda of: Sept. 11, 2018

Item No:

10:01 a.m.

PRESENT: President: Cynthia M. Ruiz

Commissioners: Elizabeth Lee

Sandra Lee Nilza R. Serrano Sung Won Sohn Michael R. Wilkinson

Manager-Secretary: Neil M. Guglielmo

Executive Assistant: Ani Ghoukassian

Legal Counsel: Anya Freedman

James Napier

ABSENT: Vice President: Elizabeth L. Greenwood

The Items in the Minutes are numbered to correspond with the Agenda.

I

PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION – President Ruiz asked if there were any persons who wished to speak on matters within the Board's jurisdiction, to which there was no response and no public comment cards were received.

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APPROVAL OF MINUTES FOR BOARD MEETING OF AUGUST 14, 2018 AND POSSIBLE BOARD ACTION – A motion to approve the minutes of August 14, 2018 was moved by Commissioner Serrano, seconded by Commissioner Sandra Lee, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -6; Nays, None.

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BOARD PRESIDENT VERBAL REPORT - President Ruiz had no verbal comments.

IV

#### GENERAL MANAGER VERBAL REPORT

- A. REPORT ON DEPARTMENT OPERATIONS Neil Guglielmo, General Manager, discussed the following items:
  - The 1-month premium defrayel for Anthem/LACERS members will in be in this months payroll.
  - Silver Sneakers and Silver & Fit Open Houses continuing for eligible members in August through November.
  - Briefing on the Retirement Eligibility Reports.
  - Possible dates for the Board Annual Off-site meeting have been sent to the Commissioners for consideration. The meeting will be held in October at the Los Angeles Zoo.
- B. UPCOMING AGENDA ITEMS Neil Guglielmo, General Manager, stated there will be a presentation to the Board on September 11, 2018, by NEPC on the Portfolio Performance Review Report for Quarter ending June 30, 2018. The items that will be presented to the Investment Committee at the September 11, 2018 meeting are Investment Manager Contract with AJO, L.P., presentations by Barrow, Hanley, Mewhinney & Strauss, LLC, Lazard Asset Management, LLC, and MFS Institutional Advisors.

President Ruiz adjourned the Regular Meeting at 10:08 a.m. to convene in Closed Session.

V

#### DISABILITY RETIREMENT APPLICATION(S)

- A. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION FOR DARREL CAREY AND POSSIBLE BOARD ACTION
- B. CLOSED SESSON PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION FOR APRIL DAVENPORT PIGGOTT AND POSSIBLE BOARD ACTION

President Ruiz reconvened the Regular Meeting at 10:12 a.m. and announced that during Closed Session the Board unanimously approved the Disability Retirement Applications of Darrel Carey and April Davenport Piggott.

VΙ

### COMMITTEE REPORT(S)

- A. INVESTMENT COMMITTEE VERBAL REPORT ON THE MEETING OF AUGUST 14, 2018 Commissioner Sohn stated the Investment Committee considered a four year contract extension for the LM Capital Group.
- B. GOVERNANCE COMMITTEE VERBAL REPORT ON THE MEETING OF AUGUST 28, 2018 Coimmissioner Serrano stated the Governance Committee considered minor revisions to the Board Governance policy.

#### **INVESTMENTS**

- A. CHIEF INVESTMENT OFFICER VERBAL REPORT Bryan Fujita, Chief Operating Officer, reported on the portfolio value, \$17.92 Billion as of August 29, 2018. Mr. Fujita discussed that the Pension Real Estate Association is reaching out to LACERS for endorsement of a program that provides educational and internship opportunities to college students from underrepresented backgrounds. Mr. Fujita stated that the LM Capital Group contract renewal will go before the Board today.
- B. INVESTMENT MANAGER CONTRACT WITH LM CAPITAL GROUP, LLC REGARDING THE MANAGEMENT OF AN ACTIVE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE BOARD ACTION Bryan Fujita, Chief Operating Officer, discussed this item with the Board. Commissioner Sohn moved approval of the following Resolution:

# CONTRACT RENEWAL LM CAPITAL GROUP, LLC ACTIVE DOMESTIC FIXED INCOME PORTFOLIO MANAGEMENT

Commissioner Sohn moved approval of the following Resolution:

### **RESOLUTION 180828-C**

WHEREAS, LACERS current four-year contract with LM Capital Group, LLC (LM Capital) for active management of an active domestic fixed income portfolio expires on February 28, 2019; and,

WHEREAS, LM Capital is in compliance with the LACERS Manager Monitoring Policy; and,

WHEREAS, a contract renewal with LM Capital will allow LACERS to maintain a diversified exposure to the domestic fixed income markets; and,

WHEREAS, on August 28, 2018, the Board approved the Investment Committee's recommendation for a four-year contract renewal with LM Capital; and,

NOW, THEREFORE, BE IT RESOLVED, that the General Manager is hereby authorized to approve and execute a contract subject to satisfactory business and legal terms and consistent with the following services and terms:

<u>Company Name</u>: LM Capital Group, LLC

Service Provided: Active Domestic Fixed Income Portfolio

Management

Effective Dates: March 1, 2019 through February 28, 2023

Duration: Four years

Benchmark: Bloomberg Barclays U.S. Aggregate Bond Index

Allocation as of

<u>June 30, 2018</u>: \$271.4 million

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -6; Nays, None.

VIII

### BENEFITS ADMINISTRATION

- A. 2019 HEALTH PLAN CONTRACT RENEWALS AND POSSIBLE BOARD ACTION Bruce Bernal, Senior Management Analyst and Borden Darm of Keenan & Associates presented this item to the Board. Commissioner Wilkinson moved approval, seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -6; Nays, None.
- B. 2019 MAXIMUM HEALTH SUBSIDY AND REIMBURSEMENT AMOUNTS AND POSSIBLE BOARD ACTION Bruce Bernal, Senior Management Analyst presented this item to the Board. Commissioner Wilkinson moved approval of the following Resolution:

### MAXIMUM HEALTH PLAN SUBSIDIES AND REIMBURSEMENT AMOUNTS FOR PLAN YEAR 2019

### RESOLUTION 180828-E

WHEREAS, the Los Angeles Administrative Code establishes that the Los Angeles City Employees' Retirement System (LACERS) provide health and welfare programs for retired employees and their eligible dependents;

WHEREAS, Section 4.1111(b) of the Los Angeles Administrative Code provides that by resolution, the Board of Administration may change the maximum monthly medical subsidy for eligible Tier 1 retirees who retired before July 1, 2011, so long as any increase does not exceed the dollar increase in the Kaiser two-party non-Medicare plan premium and the average percentage increase for the first year of the increase and the preceding two years does not exceed the average assumed actuarial medical trend rate for the same period;

WHEREAS, Section 4.1111(c) of the Los Angeles Administrative Code provides that by resolution, the Board of Administration shall, for Tier 1 retirees who at any time prior to retirement made additional contributions to LACERS as provided in Section 4.1003(c) of the Los Angeles Administrative Code, set the increase in the maximum medical plan premium subsidy at an amount not less than the dollar increase in the Kaiser two-party non-Medicare Part A and B premium;

WHEREAS, Sections 4.1112(b) and 4.1112(d) of the Los Angeles Administrative Code provide that by resolution, the Board of Administration may increase the monthly reimbursement maximum of eligible retirees participating in the Medical Premium Reimbursement Program;

WHEREAS, Section 4.1114(a) of the Los Angeles Administrative Code provides the Board of Administration may, in its discretion, decrease or increase the maximum retiree dental plan subsidy to reflect changes in the dental plan subsidy provided to active City of Los Angeles employees;

WHEREAS, on August 14, 2018, the Benefits Administration Committee approved forwarding staff's recommended maximum medical plan premium subsidy, Medical Premium Reimbursement Program reimbursement amounts, and dental subsidy;

WHEREAS, on August 28, 2018, the Board of Administration approved the Committee's recommendations;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Administration hereby adopts the following 2019 health benefit subsidies and reimbursements:

Benefit Type	Tier 1 Retired Before July 1, 2011 "Discretionary"	Tier 1 Retired After July 1, 2011 "Vested"	Tier 3
Retiree Medical Subsidy, <65/Medicare Part B	\$1,790.80	\$1,790.80	-
Retiree MPRP Reimbursement, <65/Medicare Part B	\$1,790.80	\$1,790.80	-
Retiree MPRP Reimbursement, Medicare Parts A and B	\$542.51	\$542.51	\$542.51
Retiree Dental Subsidy	\$44.60	\$44.60	\$44.60

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -6; Nays, None.

C. AMENDMENT TO THE BENEFITS ADMINISTRATION COMMITTEE CHARTER AND POSSIBLE BOARD ACTION – Bruce Bernal, Senior Management Analyst presented this item to the Board. Commissioner Wilkinson moved approval, seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -6; Nays, None.

IX

OTHER BUSINESS - There was no other business.

NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, September 11, 2018 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.
XI
ADJOURNMENT – There being no further discussion before the Board, President Ruiz adjourned the meeting at 11:30 a.m.
Cynthia M. Ruiz President

Neil M. Guglielmo Manager-Secretary

6

### BENEFIT PAYMENTS APPROVED BY GENERAL MANAGER: ITEM V-A

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

### SERVICE RETIREMENTS

Member Name	Service	<u>Department</u>	Classification
Adams, Terry Hugh	20	ITA	Commun Electrician
Aguado, Charles	36	City Attorney's Office	Deputy City Atty
Alaniz, Filiberto S	31	Dept. of Rec. & Parks	Gardener Caretaker
Alipio, Javier C	40	Dept. of Bldg. & Safety	Sr Build Mech Inspectr
Alvarado, Gregory R	16	PW - Sanitation	Plumber
Angeles, Marianne R	32	LA Housing Dept.	Management Analyst
Artian, Susan Renee	30	Dept. of Transportation	Traf Officer
Awagah, Michelle Diane	26	Personnel Dept.	Administrative Clerk
Ballard, Bruce R	30	PW - Contract Admin	Constr Inspector
Barbato, Domenico	33	Dept. of Bldg. & Safety	Bld Mech Engr
Beasley, David A	16	Dept. of Airports	Accounting Clerk
Boedeker, Michael L	30	PW - Sanitation	Ref Coll Truck Oper
Brown, Angelia Annette	36	PW - Engineering	Sr Admin Clerk
Brown, Brenda L	□ 11	Dept. of Airports	Custodian Airport
Brown, Dave Allen	22	ITA	Video Technician
Bruce, Sharon Renee	23	Personnel Dept.	Sr Administrative Clerk
Brunner, Roy	16	Dept. of Rec. & Parks	Gardener Caretaker
Cain, Debra D	4	Dept. of Rec. & Parks 2	Recreation Asst.
Carlson, Kent J	30	PW - Sanitation	Sanitation Wstwater Mgr
Carter, La Genia Gail	32	Police Dept Civilian	Police Service Rep
Cohen, Alan Robert	30	Dept. of Transportation	Traf Officer
Coleman, Otis Lavellos	14	PW - Sanitation	Admin Clerk
Craig, Cheryl Renee	29	Dept. of Transportation	Traf Officer
Daigeau, Malcolm Joseph	26	PW - St. Improv Div.	Sr Civil Engr Draft Tec
Diorio, Gene Thomas	13	Dept. of Bldg. & Safety	Sr Build Inspector
Dumo, Cynthia S	21	Dept. of Rec. & Parks	Sr Recr Dir
Esqueda, Rodolfo A	29	GSD - Bldg. Svcs.	Carpenter Supvr
Eubank, Ingrid Bauch	13	PW - Contract Admin	Constr Inspector
Faddis, Johnny R	- 28	PW - Solid Resource	Ref Coll Truck Oper
Ferguson, Ronald	36	PW - Engineering	Sr Systems Analyst
Fleming, Leslie G	32	PW - Engineering	Geo Info Systems Supvr
Garcia, Lydia Marie	26	LACERS	Exec Admin Assistant
Garcia, Rosaly Y	34	Police Dept Civilian	Sr Forensic Print Spec
Gibson, June Wong	47	Fire Dept Civilian	Fire Administrator
Gierman, Kenneth W	11	PW - Contract Admin	Constr Inspector
Godfrey, Marvin R	31	Dept. of Bldg. & Safety	Build Mech Inspector

Mombar Nama	Sorvice	Department	Classification
Member Name Gonzalez, Julio M	Service 32	Department Dept. of Airports	Classification Procurement Analyst
•	29		Gardener Caretaker
Gresham, Michael J	29 12	Dept. of Airports	
Grohs, Ralf Olaf		Police Dept Civilian	Security Officer
Gunsul, Geoffrey Blaine	10	Dept. of Bldg. & Safety	Sr Electrol Inspector
Hagner, Frederick Dennis	30	Harbor Dept.	Marine Envrnmtl Supvr
Hale, Debra Jean	11	GSD - Bldg. Fac Mgmt.	Custodian
Hamilton, William A	27	Dept. of Airports	Constr Inspector
Hara, Gayle Shigeno	33	City Attorney's Office	Deputy City Atty
Harris-Armstrong, Saletheil	37	PW - Accounting	Accounting Clerk
Henry, Marlene Elaine	14	Personnel Dept.	Correctional Nurse
Hernandez, Cecilia L	25	City Planning Dept.	Geo Info Systems Supvr
Hou, Mike S	30	PW - Engineering	Land Surveying Asst
Ilagan, Ching A	32	PW - Accounting	Dept Chief Acct
Imlay, Thezin	11	City Attorney's Office	Legal Assistant
lvcevic, Jurica	35	Harbor Dept.	Civil Eng Drft Tech
Iwanaga, Yoshitaka	21	Police Dept Civilian	Auto Body Bldr/Repairer
Jackson, Mildred	17	Police Dept Civilian	Administrative Clerk
Jackson, Robert E	31	Dept. of Transportation	Traf Paint Sign Post
Joel, Jeffrey Eric	30	PW - Contract Admin	Sr Constr Inspector
Jones, Ronald B	18	Police Dept Civilian	Security Officer
Kevorkian, Arthur	13	Dept. of Transportation	Traf Officer
Keys, Valorie L	16	Police Dept Civilian	Sr Admin Clerk
Kleszcz, Paul J	31	Dept. of Rec. & Parks	Plumber
Knouse, Gordon R	32	Dept. of Airports	Constr & Maint Supv
Lacuesta, Alfred L	34	PW - Engineering	Land Surveying Asst
Lambert, Mark A	31 -	City Attorney's Office Controller's Office	Deputy City Atty
Lansangan, Rosario C	18	PW - St. Improv Div.	Sr Accountant
Lee, Hugh S	38	•	Pr Civil Engineer
Lee, Joanne Carol	11	Police Dept Civilian	Crime & Intel Anlyst
Lemos, James Andrew	30	Police Dept Civilian	Pr Detention Ofcr
Leon, Daniel M	32	PW - St. Maint.	St Svcs Supt
Lievanos, Elvira	17	GSD - Printing Revolving	Dup Mach Operator
Lopez, Antonio	28	Dept. of Rec. & Parks	Sr Gardener
Lovell, Domingo	31	Dept. of Transportation	Traf Officer
Lukehart, Bill S	15	Dept. of Rec. & Parks	Supt Plan/Develop R&P
Luque, Gustavo	33	GSD - Fleet Services	Heavy Duty Equip Mech
Maganis, Felito Pinzon	15 27	PW - Engineering	Land Surveying Asst
Maldonado, Jose	37	Harbor Dept.	Traf Manager
Manosa, Mary Ann V	27 <sup>-</sup>	Office of Finance	Sr Tax Auditor
Manzanares, Thomas	45	Dept. of Transportation	Signal Sys Electrician
Masoud, Hassan M	30	PW - Engineering	Civil Eng Associate
Mcconnell, Jon S	7	Personnel Dept.	Background Investgr
Mendez, Teresa G	33	PW - St. Lighting	Exec Admin Asst
Mendoza, Rockie B	33	Office of the CAO	Fiscal Systems Spec

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Member Name	Service		<u>Classification</u>
Merkovsky, Joseph M	30	Dept. of Airports	Risk Manager
Merkovsky, Kathryn A	30	Harbor Dept.	Risk Manager
Miller, David John	17	Dept. of Airports	Airports Mtce Supvr
Miller, Sandra J	39	Dept. of Airports	Commission Exec Asst
Miller, Sonja	27	Dept. of Transportation	Traf Officer
Miller, Treva W	28	Dept. of Airports	Pub Relations Spec
Miura, Paula	26	Dept. of Airports	Management Analyst
Moore, Timothy A	18	Dept. of Bldg. & Safety	Sr Electrol Inspector
Morman, Mark Matthew	21	GSD - Fleet Services	Mech Repairer
Nelson, John	33	PW - St. Maint.	St Svcs Supvr
Newell, Michael Patrick	14	Harbor Dept.	Port Electrical Mechanic
Nguyen, Van H	31	Library Dept.	Library Asst
Nunez, Maria	7	Dept. of Rec. & Parks 2	Special Prog Asst
Oh, Sojung Chong	27	Police Dept Civilian	Sr Administrative Clerk
Ortiz, Armando J	24	PW - Solid Resource	Vocational Worker
Painter, Elaine E	<b>32</b>	Police Dept Civilian	Management Analyst
Palacios, Rosaelia S	12	Police Dept Civilian	Secretary
Pastorcich, Ann M	20	City Attorney's Office	Legal Secretary
Perlstein, Daren C	30	Fire & Police Pensions	Investment Officer
Phu, Jennyhong Tieu	23	Office of Finance	Accounting Clerk
Polikolsky, John George	10	LA Housing Dept.	Housing Inspector
Potik, Steven J	30	LA Convention	Conv Ctr Bldg Supt
Quan, Irene S	16	City Attorney's Office	City Atty Acctg Clerk
Ray, Douglas	15	Police Dept Civilian	Equip Mechanic
Reyes, Jimmy	32	Dept. of Transportation	Sr Transp Investigator
Reynozo, Jose S	34	Dept. of Rec. & Parks	Irrigation Specialist
Rhea, David B	27	Dept. of Rec. & Parks	Sheet Metal Worker
Ritchie, Richard D	21	GSD - Fleet Services	Equip Mechanic
Rodriguez, Pablo	4	Dept. of Rec. & Parks 2	Special Prog Asst
Rostamian, Herair A	24	Dept. of Airports	Real Estate Officer
Rotunno, Lawrence	22	Library Dept.	Librarian
Roy, Verna D	20	Fire Dept Civilian	Sr Administrative Clerk
Saldana Ainsworth, Catherine	41	Dept. of Bidg. & Safety	Exec Admin Asst
Schwartz, Michael D	.25	City Attorney's Office	Deputy City Atty
Segarra, Frank A	33	Dept. of Airports	Equip Operator
See, David R	32	PW - St. Maint.	Motor Sweeper Operator
Sena, Francine	30	Police Dept Civilian	Sr Property Officer
Session, Tyrone	34	Dept. of Airports	Custodian Supervisor
Shoop, Gregory	33	City Planning Dept.	City Planner
Shutan, Peter H	31	City Attorney's Office	Deputy City Atty
Smith, Christine Senora	40	Office of Finance	Tax Compline Ofcr
Soto, Ramon A	27	Office of the CAO	Sr Admin Analyst
Stofila, George J	26	PW - Contract Admin	Pr Constr Inspector
Stone, Barbara Lee	16	Police Dept Civilian	Management Aide
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Member Name	<u>Service</u>	<u>Department</u>	<u>Classification</u>
Strickland, Cheryl L	5	Dept. of Rec. & Parks 2	Recreation Asst
Symons, Deirdre	17	Dept. of Rec. & Parks 2	Sr Administrative Clerk
Torres, Clifford A	30	Police Dept Civilian	Detention Officer
Torres, Gregory	30	GSD - Public Bldgs.	Build Con & Mt Supt
Torrez, Epifanio	32	GSD - Materials Mgmt.	Warehouse Wkr
Tran, Sylvia Huong	30	PW - Sanitation	Sr Administrative Clerk
Tsukamoto, Fae Tomiko	- 37	City Planning Dept.	Geo Info Systems Supvr
Tucker, Thomasina	13	GSD - Bldg. Fac Mgmt.	Custodian
Van Buren, Herman D	30	City Planning Dept.	City Planner
Verdun, Simone Angele	21	Personnel Dept.	Workers Comp Analyst
Villasenor, Beverly	5	Dept. of Rec. & Parks 2	Administrative Clerk
Wai, Wingpark G	10	Dept. of Airports	Programmer/Analyst
Way, Eric B	16	GSD - As Needed	Carpenter Supvr
Whisnant, Mary Susan	22	City Planning Dept.	City Planner
White, Cynthia Lenette	32	Fire Dept Civilian	Sr Personnel Analyst
Williams, Darrell H	30	GSD - Prima Project	Systems Analyst
Williamson, Jeanette M	7	Dept. of Rec. & Parks	Recreations Asst.
Wilson, Robin Jeanette	36	Police Dept Civilian	Personnel Analyst
Wright, Lynne D	23	Dept. of Airports	Pr Commun Operator
Zaldivar, Benjamin	28	PW - Sanitation	Env Compliance Insp

### BENEFIT PAYMENTS APPROVED BY GENERAL MANAGER: ITEM V-A

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

### Approved Death Benefit Payments

<u>Deceased</u>

Beneficiary/Payee

TIER 1

Aoki, Lillian Gail Takeuchi for the payment of the

Accrued But Unpaid Continuance Allowance

Steven K Aoki for the payment of the

Accrued But Unpaid Continuance Allowance

Astorga, Peter H Maria Elena Lilia Delgado for the payment of the

Accrued But Unpaid Vested Retirement Allowance

**Burial Allowance** 

Barnier, Olena B

Olena Beth Nelson Hill Barnier Trust for the payment of the

Accrued But Unpaid Continuance Allowance

Bentley, Larry S

Marcia Van Maele for the payment of the

(Deceased Active)

**Accumulated Contributions** 

Limited Pension

Byas, Ida Mae Ida Byas for the payment of the

Accrued But Unpaid Continuance Allowance

Caldwell, Andrew L Malcom L Caldwell for the payment of the

Accrued But Unpaid Service Retirement Allowance

Chimil, Franca G Loredana C Gibson for the payment of the

Accrued But Unpaid Continuance Allowance

Cisneros Alvarez, Amalia Christina Alvarez for the payment of the

Accrued But Unpaid Vested Retirement Allowance

**Unused Contributions** 

Nancy Alvarez for the payment of the

Accrued But Unpaid Vested Retirement Allowance

Burial Allowance

**Unused Contributions** 

Code, Ronald J Stephanie Decker Code for the payment of the

**Burial Allowance** 

Cummings, Clarence C Regina Cummings for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Cunningham, Regina Lynn Howard Cunningham for the payment of the (Deceased Active) **Accumulated Contributions** Rahmad Cunningham for the payment of the **Accumulated Contributions** Rashad Cunningham for the payment of the **Accumulated Contributions** Dionisio, Danilo T. Rosita A. Dionisio for the payment of the (Deceased Active) Survivorship (Disability) Allowance Dunn, Jimmy L Andrea Carolyn Mcadams for the payment of the Accrued But Unpaid Service Retirement Allowance Jimmy Lee Dunn for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Erdos, Lawrence I Estate Of Lawrence I Erdo for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Evans, Shirley G John L. Evans for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Forbes, Johnnie F Shanna Ruiz for the payment of the Accrued But Unpaid Service Retirement Allowance Sherri Litten for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Stacey J Fernandez for the payment of the Accrued But Unpaid Service Retirement Allowance Geyen, Kevin R. Angela Clayton for the payment of the (Deceased Active) Survivorship (Disability) Allowance Andrew S Brown for the payment of the Gibson Brown, Donna Accrued But Unpaid Vested Retirement Allowance Earlene **Burial Allowance** Givens, Edward C Bernadine Kaiser for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Griffin, Josiah Lucrine B Lawson for the payment of the **Burial Allowance** 

Dorothy Beasley for the payment of the Hallbauer, Elizabeth A Accrued But Unpaid Service Retirement Allowance Burial Allowance Connie M Howell for the payment of the Hargaden, Thomas J Accrued But Unpaid Continuance Allowance Linda F Long for the payment of the Accrued But Unpaid Continuance Allowance Accrued But Unpaid Service Retirement Allowance Tammy Harrell for the payment of the Harrell, Milton Tyrone Accumulated Contributions (Deceased Active) Hegwood, Patricia Hubert Bailey for the payment of the **Burial Allowance** Angela Hennon for the payment of the Hennon, Betty J. Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Jason Hennon for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Regina Hennon for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Kimberly J Simonet for the payment of the Hogan, Mary F Accrued But Unpaid Service Retirement Allowance Accrued But Unpaid Survivorship (Retirement) Allowance Burial Allowance Rodney P Williams for the payment of the Accrued But Unpaid Service Retirement Allowance Accrued But Unpaid Survivorship (Retirement) Allowance Burial Allowance Erma Howell for the payment of the Howell, Guardian, L C Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Huebner, Randall L Ellen L Huebner for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Celeste Copeland for the payment of the Hunter, Gene R Accrued But Unpaid Service Retirement Allowance

Burial Allowance

Accumulated Contributions

Imthurn, Diane Lynn

(Deceased Active)

Mary Ann Imthurn for the payment of the

Jones, Alcue Sheryl P Gailliard for the payment of the Accrued But Unpaid Continuance Allowance Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Kenney, Denise A Diana Kenney for the payment of the Accrued But Unpaid Continuance Allowance King, Hillard Mae E King for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Lakes, Brenda Joyce Malcolm Lakes for the payment of the Accrued But Unpaid Service Retirement Allowance **Burial Allowance Unused Contributions** Leung, Jiunn Lie Hsiao W Woo for the payment of the (Deceased Active) **Accumulated Contributions** Loya, Helen R Richard R Loya for the payment of the Accrued But Unpaid Continuance Allowance Luna, Gilbert J Deborah A Luna for the payment of the Accrued But Unpaid Service Retirement Allowance Malm, Shirley M. Kathleen Malm for the payment of the Accrued But Unpaid Continuance Allowance Nancy Vanaman for the payment of the Accrued But Unpaid Continuance Allowance Mann, Edward R Jonathan D Mann for the payment of the **Burial Allowance** Zona Mann for the payment of the Accrued But Unpaid Service Retirement Allowance Mc Clung, Franceen Michael E Mc Clung for the payment of the Accrued But Unpaid Larger Annuity Allowance Accrued But Unpaid Service Retirement Allowance **Burial Allowance** Mcleod, Caryn L Taylor D Mcleod for the payment of the (Deceased Active) Accumulated Contributions Monroe, Betty J Kenneth B Monroe for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance **Unused Contributions** Motts, George W Candace R Ford for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Munoz, Jess T Betty P Munoz for the payment of the

**Burial Allowance** 

Accrued But Unpaid Service Retirement Allowance

Munsch, Harold M Missouri Wade for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Mussard, Katherine Jane Estate Of Katherine J Mussard for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Naye, Charles F Estate Of Charles F. Naye for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Peck, Harlow E Peck Living Trust for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Peters, Richard A Janet V Peters for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Quintrell, Harry R Jalaine Q Madrid for the payment of the

**Burial Allowance** 

Marta F Quintrell for the payment of the

Accrued But Unpaid Service Retirement Allowance

Rostant, Leonard C Kathryn Rostant for the payment of the

Accrued But Unpaid Service Retirement Allowance

Burial Allowance

Salazar, Victor S Victor Salazar for the payment of the

**Burial Allowance** 

Sansberry, Johnnie Lejuene Quirol for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Sayah, Samuel J I Magdalena P Sayah for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Sedgwick, Charles Jerome Michael T Sedgwick for the payment of the

Accrued But Unpaid Vested Retirement Allowance

Burial Allowance

Shaphran, Ilene D Wayne A Shaphran for the payment of the

Accrued But Unpaid Continuance Allowance

Smuland, Kenneth L Gail M Murphy for the payment of the

Accrued But Unpaid Service Retirement Allowance

Burial Allowance

Spiker, Kenneth G Beverly Spiker Exemption Trust for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Stromme, Gordon O Barbara Jean Stromme for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Tarquinio, John P Loretta Tarquinio for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Taylor, Claude Dean C Taylor for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Vilmur, Barbara Jean Thomas James Vilmur for the payment of the

**DRO Lump Sum** 

Vose, Margaret E Steven Vose for the payment of the

Accrued But Unpaid Continuance Allowance

Weber, Barbara Y Jill D Weber for the payment of the

Accrued But Unpaid Survivorship (Retirement) Allowance

Karen E Weber for the payment of the

Accrued But Unpaid Survivorship (Retirement) Allowance

Welters, Carol S Deborah A. Welters for the payment of the

Accrued But Unpaid Service Retirement Allowance

Accrued But Unpaid Survivorship (Retirement) Allowance

**Burial Allowance** 

Widener, Martha E. Bonnie Jean Walsh for the payment of the

Accrued But Unpaid Continuance Allowance

Gary Lee Widener for the payment of the Accrued But Unpaid Continuance Allowance

Wikstrom, Edwin A Bradley T Wikstrom for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Wilson, Naomia L Donna L Reaster for the payment of the

Accrued But Unpaid Continuance Allowance

Wiltsee, Gloria R Kenneth Scott Wiltsee for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Young, Barbara A Lorida A Ashcraft-Riggs for the payment of the

Accrued But Unpaid Service Retirement Allowance

**Burial Allowance** 

Zlatich, Sally A Courtney Ann Bailey for the payment of the

Accrued But Unpaid Continuance Allowance

TIER 3

None



Agenda of: <u>SEPTEMBER 11, 2018</u>

Item No: V-B

## MARKETING CESSATION REPORT NOTIFICATION TO THE BOARD

The Board's Marketing Cessation Policy was adopted in order to prevent and avoid the appearance of undue influence on the Board or any of its Members in the award of investment related and other service contracts. Pursuant to this Policy, this notification procedure has been developed to ensure that Board Members and staff are regularly apprised of firms for which there shall be no direct marketing discussions about the contract or the process to award it; or for contracts in consideration of renewal, no discussions regarding the renewal of the existing contract.

Firms listed in Attachments 1 and 2 are subject to the Policy and will appear and remain on the list, along with the status, from the first publicized intention to contract for services through the award of the contract.

Attachments 3 through 5 detail all other departmental contracts, and are provided for informational purposes only.

Attachments: 1) Contracts Under Consideration for Renewal

- 2) Active RFPs and RFQs
- 3) List of All Current Contracts
- 4) Outside Counsel Contracts
- 5) Contracts Less Than One Year and \$20,000

### CONTRACTS UNDER CONSIDERATION FOR RENEWAL (MARKETING CESSATION NOTIFICATION)

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION EXPIRATI		MARKETING CESSATION		D PERIOD*	
NO.	VENDOR / CONSULTANT	DESCRIPTION	DATE	DATE	STATUS	START	END	
	INVESTMENTS							
1	EAM Investors, LLC	Active U.S. Small Cap Growth Equities	10/1/2015	9/30/2018	Board approved renewal on 8/14/2018; Contract under review for execution	4/1/2018	3/30/2019	
2	AJO, LP	Active Large Cap Value Equities	11/1/2010	10/31/2018	Contract expires on 10/31/2018	7/1/2018	4/30/2019	
3	LM Capital Group, LLC	Active Domestic Fixed Income	3/1/2011	2/28/2019	Board approved renewal on 8/28/2018; Contract under review for execution.	8/28/2018	6/1/2019	
	HEALTH BENEFITS							
4	Anthem 2018	Medical HMO & PPO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018	
5	Kaiser 2018	Medical HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018	
6	SCAN 2018	Medical HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018	
7	UnitedHealthcare 2018	Medical HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018	
8	Delta Dental 2018	Dental PPO and HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018	
9	Anthem Blue View Vision 2018	Vision Services Contract	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018	

	COMMUNICATIONS						
10	10 Imagine That Design Studio Graphic Design Services New Board Approved on 5/22/2018; Contract under review for 3/1/2018 9/30/2018 execution.						
	ADMINISTRATIVE SERVICES						
11	Travers Cresa	Real Estate Services	1/1/2018	12/31/2020	Board Approved on 11/28/2017; Contract under review for execution.	10/1/2017	3/31/2021

### \*RESTRICTED PERIOD

**Start Date** - The estimated start date of the restricted period is <u>three (3) months</u> prior to the expiration date of the current contract. No entertainment or gifts of any kind should be accepted from the restricted source as of this date. Firms intending to participate in the Request for Proposal process are also subject to restricted marketing and communications.

**End Date** - The estimated end date of the restricted period is <u>three (3) months</u> following the expiration date of the current contract. For investment-related contracts, the estimated end date is normally <u>six (6) months</u> following the expiration of the current contract. For health carrier contracts, the estimated end date is normally one (1) year following the expiration of the current contract. Estimated dates are based on contract negotiation periods from prior years.

### **ACTIVE RFPs AND RFQs\* (MARKETING CESSATION NOTIFICATION)**

NO.	DESCRIPTION MARKETING CESSATION STATUS AND VENDOR RESPONSES	
		INVESTMENTS
		RFP Release Date: December 12, 2016
		Submission Deadline: February 13, 2017
1	Investment Transition Management Services	Status: Board awarded contracts to Abel Noser, LLC (contract executed); BlackRock Institutional Trust Company, N.A.(contract under negotiation); Citigroup Global Markets Inc.(contract under negotiation); Loop Capital Markets LLC (contract executed); Macquarie Capital (USA) Inc.(contract executed); and Penserra Transition Management LLC (contract executed).  List of Respondents: Abel Noser, LLC; BlackRock Institutional Trust Company, N.A.; Citigroup Global Markets Inc.; Loop Capital Markets LLC; Macquarie Capital (USA) Inc.; Northern Trust Investments Inc.; Pavilion Global Markets Ltd.; Penserra Transition Management LLC; Russell Investments Implementation Services, LLC; State Street Bank and Trust Company
		RFP Release Date: April 4, 2018
2	Investigative Services	Submission Deadline: April 26, 2018  Status: Board awarded contracts to TruView BSI, LLC and Frasco.  List of Respondents: Digistream Investigations, Frasco, G4S Compliance & Investigations, TruView BSI, LLC
		RFP Release Date: June 27, 2018
3	Outside Tax Counsel	Submission Deadline: July 20, 2018
	Caloide Tax Couriser	Status: Evaluating proposals
		List of Respondents: Best Best & Krieger, Attorneys At Law, Ice Miller, LLP, Kutak Rock, and Reed Smith, LLP

<sup>\*</sup> RESTRICTED PERIOD FOR REQUEST FOR PROPOSAL OR REQUEST FOR QUALIFICATIONS:

Start Date - The restricted period commences on the day the Request for Proposal is released.

**End Date** - The restricted period ends on the day the contract is executed.

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
		INVESTMENTS		
1	EAM Investors, LLC	Active U.S. Small Cap Growth Equities	10/1/2015	9/30/2018
2	AJO, LP	Active Large Cap Value Equities	11/1/2010	10/31/2018
3	LM Capital Group, LLC	Active Domestic Fixed Income	3/1/2011	2/28/2019
4	Robert W. Baird & Co., Inc.	Active Domestic Fixed Income	3/1/2011	2/28/2019
5	AEGON USA Investment Management, LLC	Active U.S. High Yield Fixed Income	4/1/2016	3/31/2019
6	Loomis, Sayles & Company, L.P.	Active Core Domestic Fixed Income	8/1/2011	7/31/2019
7	Barrow, Hanley, Mewhinney & Strauss, LLC	Active Non-U.S. Equities Developed Markets Value	10/1/2013	9/30/2019
8	Lazard Asset Management, LLC	Active Non-U.S. Equities Developed Markets Core	10/1/2013	9/30/2019
9	MFS Institutional Advisors, Inc.	Active Non-U.S. Equities Developed Markets Growth	10/2/2013	9/30/2019
10	Axiom International Investors, LLC	Active Growth Non-U.S. Emerging Markets Equities	1/1/2014	12/31/2019
11	Quantitative Management Associates, LLC	Active Core Non-U.S. Emerging Markets Equities	1/1/2014	12/31/2019
12	Oberweis Asset Management, Inc.	Active Non-U.S. Small Cap Equities	1/1/2014	12/31/2019
13	AQR Capital Management, LLC	Active Non-U.S. Small Cap Equities	2/1/2014	1/31/2020
14	Panagora Asset Management, Inc.	Active Domestic Small Cap Value Equity	2/1/2012	1/31/2020
15	Prudential Investment Management, Inc.	Active Emerging Market Debt	3/1/2014	2/28/2020
16	BlackRock Institutional Trust, N.A.	Multi Passive Index	6/1/2013	5/31/2020
17	Principal Global Investors, LLC	Active U.S. Mid Cap Core Equities	7/1/2014	6/30/2020
18	Dimensional Fund Advisors, LP	Active Non-U.S. Equities Emerging Markets Value	7/1/2014	6/30/2020

	LIST OF ALL CONTENT CONTRACTS							
NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE				
19	Dimensional Fund Advisors, LP	Active U.S. Treasury Inflation Protected Securities ("TIPS")	7/1/2014	6/30/2020				
20	Neuberger Berman Fixed Income LLC	Active Core Fixed Income	7/1/2013	6/30/2020				
21	Rhumbline Advisors	U.S. Equity Index Funds	4/1/2016	3/31/2021				
22	CenterSquare Investment Management, Inc.	Active U.S. REITs	4/1/2018	3/31/2021				
23	State Street Bank and Trust Company	Multi Passive Index	6/1/2013	5/31/2021				
24	CoreCommodity Management, LLC	Active Long-Only Commodities	6/1/2015	5/31/2021				
25	Bain Capital Senior Loan Fund, L.P.	Active U.S. Bank Loans	7/1/2018	6/30/2021				
26	The Northern Trust Company	Master Custody Services	8/1/2018	7/31/2021				
27	The Northern Trust Company	Compliance Analyst Service and/or Event Analyst Services	8/1/2018	7/31/2021				
28	The Northern Trust Company	Risk Services	8/1/2018	7/31/2021				
29	The Northern Trust Company	Integrated Disbursement Service	8/1/2018	7/31/2021				
30	The Northern Trust Company	Private Monitor Analytical Services (Core Services)	8/1/2018	7/31/2021				
31	The Northern Trust Company	Securities Lending Services	8/1/2018	7/31/2021				
32	Townsend Holdings LLC	Real Estate Consulting Services	4/1/2014	3/31/2022				
33	State Street Global Advisors	MSCI World Ex-U.S. IMI Index	7/1/2014	6/30/2022				
34	NEPC, LLC	General Pension Fund Consulting Services	7/1/2017	6/30/2022				
35	Macquarie Capital (USA) Inc.	Investment Transition Management Services	1/5/2018	1/4/2023				
36	Abel Noser, L.L.C.	Investment Transition Management Services	1/24/2018	1/23/2023				
37	Penserra Transition Management LLC	Investment Transition Management Services	2/8/2018	2/7/2023				
38	Loop Capital Markets LLC	Investment Transition Management Services	2/13/2018	2/12/2023				

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
39	Institutional Shareholder Services Inc.	Proxy Voting Analysis Services	3/1/2018	2/28/2023
40	TorreyCove Capital Partners LLC	Private Equity Consulting Services	7/25/2018	7/24/2023
		HEALTH BENEFITS		
41	Anthem 2017	Medical HMO & PPO	1/1/2017	12/31/2017
42	Kaiser 2017	Medical HMO	1/1/2017	12/31/2017
43	SCAN 2017	Medical HMO	1/1/2017	12/31/2017
44	UnitedHealthcare 2017	Medical HMO	1/1/2017	12/31/2017
45	Anthem Blue View Vision 2017	Vision Services Contract	1/1/2017	12/31/2017
46	Delta Dental 2017	Dental PPO and HMO	1/1/2016	12/31/2019
47	Keenan & Associates	Health and Welfare Consultant	3/1/2018	2/28/2021
		COMMUNICATIONS		
48	California Marketing	Printing, Mailing and Fulfillment	7/1/2018	6/30/2021
49	KES Mail, Inc.	Printing, Mailing and Fulfillment	7/1/2018	6/302021
50	Jellyvision Lab, Inc.	Software Licensing and Hosting	8/15/2018	8/15/2019

		ALL COMMENT CONTIN								
NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE						
		RETIREMENT SERVICES								
51	CoventBridge	Investigative Services	9/1/2014	8/31/2018						
52	Frasco Investigative Services	Investigative Services	9/1/2014	8/31/2018						
53	Medical Support Los Angeles	Disability Services	1/1/2015	12/31/2020						
54	QTC Medical Group	Disability Services	1/1/2015	12/31/2020						
SYSTEMS										
55	Levi, Ray & Shoup, Inc.	PensionGold Secure Business Continuance Planning Services	1/8/2018	1/7/2019						
56	Levi, Ray & Shoup, Inc.	PensionGold Version 3 - Professional Services Agreement	3/1/2013	2/28/2019						
57	Linea Solutions	Pension Admnistration System Consultant	6/1/2012	3/31/2019						
58	Levi, Ray & Shoup, Inc.	PensionGold Version 3 - Maintenance and Support Agreement	5/24/2017	5/23/2022						
59	Levi, Ray & Shoup, Inc.	PensionGold Version 3 - License Agreement	3/1/2013	Perpetuity						
	A	DMINISTRATIVE SERVICES								
60	The Segal Company	Actuarial Consulting Services	8/1/2012	7/31/2019						
61	Cortex Applied Research Inc.	Board Governance Consulting Services	6/13/2017	6/12/2020						
62	Mosaic Governance Advisors, LLC	Board Governance Consulting Services	6/13/2017	6/12/2020						
63	Onni Times Square, L.P.	Office Lease	8/1/2012	3/31/2023						

## OUTSIDE COUNSEL CONTRACTS (NON-MARKETING CESSATION NOTIFICATION)

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE	DEPARTMENT MANAGING CONTRACT
1	Morgan Lewis & Bockius LLP	Legal Services - Litigation	10/4/2012	Termination of Litigation	Office of the City Attorney
2	Reed Smith	Legal Services - Tax Law	4/16/2016	3/14/2019	Office of the City Attorney
3	Nossaman, LLP	Legal Services - Real Estate and Alternative Investments	6/16/2016	6/15/2019	Office of the City Attorney
4	Berstein Litowitz Berger & Grossman LLP	Securities Monitoring	3/1/2018	2/28/2021	Office of the City Attorney
5	Bleichmar Fonti & Auld LLP	Securities Monitoring	3/1/2018	2/28/2021	Office of the City Attorney
6	Labaton Sucharow LLP	Securities Monitoring	3/1/2018	2/28/2021	Office of the City Attorney
7	Nossaman LLP	Legal Services - Fiduciary Law	3/19/2018	3/18/2021	Office of the City Attorney

## CONTRACTS LESS THAN ONE YEAR AND \$20,000 (NON-MARKETING CESSATION NOTIFICATION)

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE						
		RETIREMENT SERVICES								
1	Life Status 360	Death Auditing	9/17/2009	month-to-month						
		COMMUNICATIONS								
2	Higher Ground	Service Center Call Recording Services	9/23/2014	year-to-year						
	ADMINISTRATIVE SERVICES									
3	Linea Solutions	Consulting and Technical Services	6/1/2018	12/31/2018						
4	Time Warner	Internet Service Provider	8/30/2012	month-to-month						
5	MIR3/OnSolve	Automated Call Out System	1/17/2014	year-to-year						
6	Iron Mountain	Onsite Confidential Document Shredding	7/1/2014	month-to-month						
7	Agility Recovery	Business Continuity Services	10/1/2015	year-to-year						





### Report to Board of Administration

Agenda of: SEPTEMBER 11, 2018

From: Neil M. Guglielmo, General Manager

ITEM:

V-C

SUBJECT: EDUCATION AND TRAVEL EXPENDITURE REPORT FOR FISCAL YEAR 2017-18

### Recommendation

That the Board receive and file this report.

### Discussion

A report of Board and staff travel expenditures is provided to the Board on a quarterly basis pursuant to the Board Education and Travel Policy. The total travel expenditure for the quarter ending June 30, 2018 was \$51,846.45 or 32.1% of the \$161,530.00 total budget for FY 2017-18 while the annual total was \$97,323.17 or 60.3% of the \$161,530.00 total budget for FY 2017-18.

	FY 2017-18	Quarter End	ing 06/30/18	FY 2017-18 Total			
	Budget	Amount	Budget %	Amount	Budget %		
Board	\$ 40,000.00	\$ 28,021.94	70.1%	\$ 34,936.05	87.3%		
Staff	\$ 45,080.00	\$ 10,679.97	23.7%	\$ 32,096.14	71.2%		
<b>Investment Administration</b>	\$ 76,450.00	\$ 13,144.54	17.2%	\$ 30,290.98	39.6%		
Total	\$161,530.00	\$ 51,846.45	32.1%	\$ 97,323.17	60.3%		

The attached report details the travel expenses for educational conferences attended by Board Members; investment due diligence visits conducted by Investment Division staff; and educational conferences and training courses attended by Los Angeles City Employees' Retirement System (LACERS) staff during FY 2017-18. The reported costs include registration and airfare expenditures paid directly by LACERS, as well as the amount reimbursed to Board Members and staff.

This report was prepared by Mikyong Jang, Departmental Chief Accountant IV.

NG:DWN:MJ:LB

Attachment: LACERS Board and Staff Education, Training, Investment Administration Related

Travel Quarterly Expenditure Report

# LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM BOARD MEMBERS' EDUCATION AND RELATED TRAVEL REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

		TRAVEL EXP	ENI	DITURES			BAI	ANCE TO
BOARD MEMBER	Q	E 06/30/18	YTD AS OF 06/30/18		ANNUAL MAX. AMT./TRUSTEE*		ANNUAL MAX LIMIT	
CYNTHIA RUIZ ELIZABETH GREENWOOD  JAIME LEE MICHAEL WILKINSON NILZA SERRANO ANNIE CHAO SUNG WON SOHN	\$	1,222.55 - 7,500.00 - 6,690.59 6,077.24 6,531.56	\$	1,222.55 1,891.44 7,500.00 2,007.88 6,690.59 9,092.03 6,531.56	\$	10,000.00 10,000.00 10,000.00 10,000.00 10,000.00 10,000.00	\$	8,777.45 8,108.56 2,500.00 7,992.12 3,309.41 907.97 3,468.44
TOTAL BOARD MEMBERS' TRAVEL EXP. & ANNUAL LIMIT	\$	28,021.94	\$	34,936.05	\$	70,000.00		N/A
TOTAL BOARD MEMBERS' TRAVEL EXPENSE BUDGET (%)**		70.1%		87.3%				<u></u>

<sup>\*</sup> Annual maximum travel expenditures limit per trustee is set at \$10,000.

<sup>\*\*</sup> The total annual travel budget for the Board Members was increased from \$35,000 to \$40,000 during this fiscal year by transferring \$5,000 from the Investment Administration's travel budget.

#### LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE	
ANNIE CHAO	PENSION REAL ESTATE ASSOCIATION (PREA)	27TH ANNUAL INSTITUTIONAL INVESTOR CONFERENCE	CHICAGO, IL	10/15/17	10/18/17	\$ 110.00	\$ 381.96	\$ 746.67	\$ 292.75	\$ 1,531.38	
ELIZABETH GREENWOOD	ROBERT F. KENNEDY HUMAN RIGHTS	RFKENNEDY 2017 COMPASS CONFERENCE	NEW YORK, NY	11/13/17	11/15/17	-	738.40	922.70	230.34	1,891.44	
MICHAEL WILKINSON	STATE ASSOCIATION OF COUNTY RETIREMENT SYSTEMS (SACRS)	SACRS FALL 2017 CONFERENCE	SAN FRANCISCO, CA	11/14/17	11/17/17	120.00	193.67	739.59	222.00	1,275.26	
ANNIE CHAO	STATE ASSOCIATION OF COUNTY RETIREMENT SYSTEMS (SACRS)	SACRS FALL 2017 CONFERENCE	SAN FRANCISCO, CA	11/14/17	11/17/17	120.00	298.97	739.59	324.85	1,483.41	
MICHAEL WILKINSON	CALAPRS	CALAPRS GENERAL ASSEMBLY 2018	INDIAN WELLS, CA	03/04/18	03/06/18	-	-	515.92	216.70	732.62	
CYNTHIA RUIZ	THE PENSION BRIDGE	THE PENSION BRIDGE ANNUAL 2018	SAN FRANCISCO, CA	04/09/18	04/11/18	-	208.56	721.96	292.03	1,222.55	
NILZA R. SERRANO	IFEBP	EVIDENCE, INSIGHT AND STRATEGY FOR OPTIMIZING HEALTH BENEFITS	BOSTON, MA	05/07/18	05/11/18	4,995.00	278.61	1,048.36	368.62	6,690.59	
SUNG WON SOHN	110, 210	2018 ANNUAL CONFERENCE & EXHIBITION (ACE) AND TRUSTEE EDUCATIONAL SEMINAR (TEDS)	NEW YORK, NY	05/12/18	05/16/18	1,250.00	377.60	1,707.72	390.36	3,725.68	
JAIME L. LEE*	MIT	MIT PROFESSIONAL CERTIFICATE PROGRAM IN REAL ESTATE FINANCE & DEVELOPMENT	CAMBRIDGE, MA	06/10/18	06/15/18	7,500.00	-	-	-	7,500.00	
SUNG WON SOHN	MIT	MIT PROFESSIONAL CERTIFICATE PROGRAM IN REAL ESTATE FINANCE & DEVELOPMENT	CAMBRIDGE, MA	06/10/18	06/ <b>16/</b> 18	-	346.40	1,870.10	589.38	2,805.88	
ANNIE CHAO	MIT	MIT PROFESSIONAL CERTIFICATE PROGRAM IN REAL ESTATE FINANCE & DEVELOPMENT	CAMBRIDGE, MA	06/12/18		4,500.00	5.60	1,222.32	349.32	6,077.24	
BOARD M	EMBERS' EDUCATION AND REL	ATED TRAVEL EXPENDITURES	FOR THE 1ST QUARTER	RENDING	09/30/17:	\$ -	\$ -	\$	\$ -	\$ .	
	EMBERS' EDUCATION AND RELA					\$ 350.00	\$ 1,613.00	\$ 3,148.55	\$ 1,069.94	\$ 6,181.49	
BOARD ME	BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURES FOR THE 3RD QUARTER ENDING 03/31/18:  BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURES FOR THE 4TH QUARTER ENDING 06/30/18:						\$ -	\$ 515.92	\$ 216.70	\$ 732.62	
BOARD MEMBERS' ANNUAL	BUDGET FOR FOUNDAMEL	ATED TRAVEL EXPENDITURES	FOR THE 4TH QUARTER	RENDING	06/30/18:	\$ 18,245.00	\$ 1,216.77	\$ 6,570.46	\$ 1,989.71	\$ 28,021.94	
ANNIAI DEPARTMENTAL B	BUDGET FOR EDUCATION AND	IRAVEL EXPENDITURES / YTE	TRAVEL EXPENDITUR	ES (AMOU	NT & %):	\$40,000	0.00	\$34,93	\$34,936.05		
WHOME DEFAITINENTAL B	UDGET FOR TRAVEL EXPENDIT	URES / BOARD MEMBERS' YTC	TRAVEL EXPENDITUR	ES (AMOU	NT & %):	\$161,530.00 \$34,936.05			6.05	21.6%	

<sup>\*</sup>Cancelled - Commissioner Lee was termed before the travel starts, and the \$7,500 of Registration fee paid for Commissioner Lee was applied to Commissioner Sohn's Registration fee.

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
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#### LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM STAFF EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
TANZI COLE*	CALAPRS	CALAPRS ADMINISTRATIVE ROUNDTABLE	SAN JOSE, CA	09/14/17	09/15/17	\$ -	\$ 139.40	\$ -	\$ -	\$ 139.40
LIN LIN	IPMA-HR	2017 IPMA-HR INTERNATIONAL TRAINING CONFERENCE AND EXPO	SAN ANTONIO, TX	09/17/17	09/20/17	499.00	370.40	700.50	249.50	1,819.40
CHARLENA FREEMAN	IPMA-HR	2017 IPMA-HR INTERNATIONAL TRAINING CONFERENCE AND EXPO	SAN ANTONIO, TX	09/17/17	09/20/17	499.00	370.40	-	219.70	1,089.10
DANIEL GOTO	DISASTER RECOVERY JOURNAL (DRJ)	DRJ FALL WORLD 2017	PHOENIX, AZ	09/17/17	09/20/17	1,075.50	234.06	398.49	276.36	1,984.41
JOHN KOONTZ	DISASTER RECOVERY JOURNAL (DRJ)	DRJ FALL WORLD 2017	PHOENIX, AZ	09/17/17	09/20/17	1,075.50	217.57	398.49	210.00	1,901.56
TANEDA LARIOS	LRS RETIREMENT SOLUTIONS	PENSIONGOLD TEAMING 2017	SPRINGFIELD, IL	09/18/17	09/21/17	-	381.96	362.73	258.64	1,003.33
LOUCIN ARTINIAN	LRS RETIREMENT SOLUTIONS	PENSIONGOLD TEAMING 2017	SPRINGFIELD, IL	09/18/17	09/21/17	-	381.96	362.73	109.00	853.69
BRIAN CHA	LRS RETIREMENT SOLUTIONS	PENSIONGOLD TEAMING 2017	SPRINGFIELD, IL	09/18/17	09/21/17	-	381.96	362.73	129.44	874.13
CARMELITA PAYNE	CALAPRS	INTERMEDIATE COURSE IN RETIREMENT PLAN ADMINISTRATION	SAN JOSE, CA	10/04/17	10/05/17	-	117.46	228.66	94.00	440.12
BRUCE BERNAL	IFEBP	63RD ANNUAL EMPLOYEE BENEFITS CONFERENCE	LAS VEGAS, NV	10/22/17	10/25/17	1,525.00	209.96	799.32	268.00	2,802.28
RAHOOF OYEWOLE	IFEBP	63RD ANNUAL EMPLOYEE BENEFITS CONFERENCE	LAS VEGAS, NV	10/22/17	10/25/17	1,550.00	231.65	829.95	285.06	2,896.66
JAMES NAPIER	CALAPRS	CALAPRS ATTORNEYS' ROUNDTABLE	SAN JOSE, CA	10/26/17	10/27/17	-	350.96	239.01	98.00	687.97
HEATHER RAMIREZ	LACERS	HEALTH OPEN ENROLLMENT MEETING 2018	LAS VEGAS, NV	11/08/17	11/09/17	-	164.96	71.18	143.00	379.14
BRUCE BERNAL	LACERS	HEALTH OPEN ENROLLMENT MEETING 2018	LAS VEGAS, NV	11/08/17	11/09/17	-	186.00	71.18	112.50	369.68
KRISTAL BALDWIN	LACERS	HEALTH OPEN ENROLLMENT MEETING 2018	LAS VEGAS, NV	11/08/17	11/09/17	-	164.96	71.18	143.00	379.14

#### LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM STAFF EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
ADRIENNE HOBBS	LACERS	HEALTH OPEN ENROLLMENT MEETING 2018	LAS VEGAS, NV	11/08/17	11/09/17	-	166.96	71.18	120.00	358.14
SANDRA FORD-JAMES	LACERS	HEALTH OPEN ENROLLMENT MEETING 2018	LAS VEGAS, NV	11/08/17	11/09/17	-	149.96	80.22	161.19	391.37
GABRIEL PEREZ	LACERS	HEALTH OPEN ENROLLMENT MEETING 2018	LAS VEGAS, NV	11/08/17	11/09/17	-	101.41	71.18	142.40	314.99
CARMELITA PAYNE	NOSSAMAN, LLP	NOSSAMAN'S PUBLIC PENSIONS AND INVESTMENTS FIDUCIARIES' FORUM	SAN FRANCISCO, CA	11/30/17	12/01/17	375.00	169.40	348.31	221.46	1,114.17
JAMES NAPIER	NAPPA	2018 WINTER SEMINAR	TEMPE, AZ	02/20/18	02/23/18	485.00	222.40	739.17	170.90	1,617.47
LIN LIN	IPMA-HR	WESTERN REGION IPMA-HR ANNUAL TRAINING CONFERENCE 2018	SACRAMENTO, CA	04/24/18	04/28/18	394.00	177.72	497.64	167.00	1,236.36
ELIZABETH TORRES	IPMA-HR	WESTERN REGION IPMA-HR ANNUAL TRAINING CONFERENCE 2018	SACRAMENTO, CA	04/24/18	04/28/18	394.00	177.72	-	212.49	784.21
CEZAR BALLARDO	CALAPRS	RETIREMENT PLAN ADMINISTRATION	OAKLAND, CA	05/03/18	05/04/18	-	315.44	206.26	126.00	647.70
MARIA REJUSO	APPFA	APPFA PROFESSIONAL DEVELOPMENT CONFERENCE 2018	AUSTIN, TX	05/06/18	05/09/18	400.00	245.40	503.70	254.50	1,403.60
TANEDA LARIOS	CALAPRS	CALAPRS COMMUNICATIONS' ROUNDTABLE	OAKLAND, CA	06/06/18	06/07/18	-	200.40	217.70	131.11	549.21
NEIL MICHAEL GUGLIELMO	CALAPRS	CALAPRS ADMINISTRATORS ROUNDTABLE	OAKLAND, CA	06/21/18	06/22/18	-	185.48	206.26	92.00	483.74
MIGUEL BAHAMON	NAPPA	LEGAL EDUCATION CONFERENCE 2018	SAVANNAH, GA	06/25/18	06/29/18	895.00	689.60	946.08	328.00	2,858.68
JOSHUA GELLER	NAPPA	LEGAL EDUCATION CONFERENCE 2018	SAVANNAH, GA	06/26/18	06/29/18	895.00	779.60	709.56	332.31	2,716.47
	STAFF'S TOTA	L TRAVEL EXPENDITURES FOR	THE 1ST QUARTE	ER ENDING	09/30/17:	\$ 3,149.00	\$ 2,477.71	\$ 2,585.67	\$1,452.64	\$ 9,665.02
	STAFF'S TOTAL	TRAVEL EXPENDITURES FOR	THE 2ND QUARTE	R ENDING	12/31/17:	\$ 3,450.00	\$ 2,013.68	\$ 2,881.37	\$1,788.61	\$10,133.66
	STAFF'S TOTAL	TRAVEL EXPENDITURES FOR	THE 3RD QUARTE	ER ENDING	03/31/18:	\$ 485.00	\$ 222.40	\$ 739.17	\$ 170.90	\$ 1,617.47
	STAFF'S TOTAL	L TRAVEL EXPENDITURES FOR	THE 4TH QUARTE	R ENDING	06/30/18:	\$ 2,978.00	\$ 2,771.36	\$ 3,287.20	\$1,643.41	\$10,679.97

# LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM STAFF EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
	STAFF'S ANNUAL BUDGET FOR TRAVEL EXPENDITURES / YTD TRAVEL EXPENDITURES (AMOUNT & %):						0.00	\$32,096.12		71.2%
ANNUAL DEPARTMENTAL BUDGET FOR TRAVEL EXPENDITURES / STAFF YTD TRAVEL EXPENDITURES (AMOUNT & %):						\$161,530.00		\$32,096.12		19.9%

<sup>\*</sup> Cancelled trip: Employee was leaving LACERS. Airfare was non-refundable.

# LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM INVESTMENT ADMINISTRATION AND RELATED TRAVEL EXPENDITURE REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
JIMMY WANG	ILPA	ILPA INSTITUTE LEVEL 11 MODULE 1, 4, & 5	CHICAGO, IL	07/09/17	07/14/17	\$ 3,897.00	\$ 486.40	\$1,080.10	\$ 408.29	\$ 5,871.79
RODNEY JUNE	AAAIM	2017 NATIONAL CONFERENCE	NEW YORK, NY	09/06/17	09/07/17	-	566.40	329.45	151.99	1,047,84
RODNEY JUNE	NATIONAL ASSOCIATION OF INVESTMENT COMPANIES (NAIC)	NAIC ANNUAL PRIVATE EQUITY & HEDGE FUND CONFERENCE	WASHINGTON, DC	10/11/17	10/12/17	-	468.60	313.08	181.90	963.58
WILKIN LY	GROSVENOR (GCM)	2017 SEM CONFERENCE	CHICAGO, IL	11/06/17	11/08/17	-	200.40	702.06	209.57	1,112.03
RODNEY JUNE	KPS	2017 KPS ANNUAL INVESTOR MEETING	KEY BISCAYNE, FL	11/06/17	11/08/17	-	350.60	_	234.65	585.25
JIMMY WANG	ILPA	13TH ANNUAL ILPA SUMMIT 2017	NEW YORK, NY	11/06/17	11/09/17		431.40	897.03	312.30	1,640.73
BARBARA SANDOVAL KISSEE	NOSSAMAN, LLP	NOSSAMAN'S PUBLIC PENSIONS AND INVESTMENTS FIDUCIARIES' FORUM	SAN FRANCISCO, CA	11/30/17	12/01/17	375.00	201.36	355.06	126.40	1,057.82
RODNEY JUNE	NEPC, LLC	2018 PUBLIC FUNDS WORKSHOP	TEMPE, AZ	01/21/18	01/23/18	-	116.60	494.96	125.42	736.98
BRYAN FUJITA	TRST AND ERST	2018 TEXAS EMERGING MANAGER CONFERENCE	AUSTIN, TX	02/01/18	02/02/18	-	289.60	180.53	187.88	658.01
RODNEY JUNE	SEO	2018 SEO ALTERNATIVE INVESTMENTS CONFERENCE (AICON)	NEW YORK, NY	02/08/18	02/09/18	-	377.60	210.51	189.00	777.11
BRYAN FUJITA	TORREYCOVE CAPITAL PARTNERS	DUE DILIGENCE	SAN DIEGO, CA	03/02/18	03/02/18				127.98	127.98
RODNEY JUNE	TORREYCOVE CAPITAL PARTNERS	DUE DILIGENCE	SAN DIEGO, CA	03/02/18	03/02/18	_		_	124.68	124.68
BARBARA SANDOVAL KISSEE	CALAPRS	CALAPRS GENERAL ASSEMBLY 2018	INDIAN WELLS, CA	03/04/18	03/06/18	_		498.12	75.00	573.12
WILKIN LY	CAMBRIDGE ASSOCIATES	DUE DILIGENCE	BOSTON, MA	03/15/18	03/16/18		570.61	287.39	203.18	1,061.18
RODNEY JUNE	CAMBRIDGE ASSOCIATES	DUE DILIGENCE	BOSTON, MA	03/15/18	03/16/18		366.60	263.24	178.50	808.34
RODNEY JUNE	THE PENSION BRIDGE	THE PENSION BRIDGE ANNUAL 2018	SAN FRANCISCO, CA	04/11/18	04/12/18		107.60	200.24	62.52	
WILKIN LY	DEFY PARTNERS	DUE DILIGENCE	WOODSIDE, CA	04/24/18	04/25/18		129.40	225.94	232.00	170.12
BRYAN FUJITA	SUNSTONE PARTNERS	DUE DILIGENCE	REDWOOD CITY, CA	05/09/18			251.40	- 225.94		587.34
RODNEY JUNE	NEPC, LLC	23RD ANNUAL NEPC INVESTMENT CONFERENCE	BOSTON, MA		05/15/18	-	276.40	342.20	129.64 181.96	381.04 800.56

# LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM INVESTMENT ADMINISTRATION AND RELATED TRAVEL EXPENDITURE REPORT FOR THE PERIOD JULY 1, 2017 TO JUNE 30, 2018

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
BRYAN FUJITA	NEPC, LLC	23RD ANNUAL NEPC INVESTMENT CONFERENCE	BOSTON, MA	05/13/18	05/15/18	-	418.40	684.40	252.60	1,355.40
WILKIN LY	NEA	NEA 2018 MEETING & LIMITED PARTNER DINNER	SAN FRANCISCO, CA	05/23/18	05/24/18	-	167.40	303.66	122.23	593.29
RODNEY JUNE	WYNNCHURCH CAPITAL	WYNNCHURCH CAPITAL PARTNERS ANNUAL INVESTOR MEETING	CHICAGO, IL	05/30/18	05/30/18	<u>-</u>	281.40	-	64.00	345.40
BRYAN FUJITA	PENSIONS WEST	PENSIONS WEST MEETING	SAN FRANCISCO, CA	06/01/18	06/01/18	-	204.39	-	95.30	299.69
BARBARA SANDOVAL KISSEE	NASP	29TH ANNUAL PENSION & FINANCIAL SERVICES CONFERENCE	HOUSTON, TX	06/03/18	06/06/18	125.00	431.62	803.79	303.04	1,663.45
RODNEY JUNE	ILPA	2ND ANNUAL CIO SYMPOSIUM 2018	CHICAGO, IL	06/04/18	06/05/18	-	384.40	252.42	133.00	769.82
EDUARDO PARK	NORTHERN TRUST; ILPA	NORTHERN TRUST PASSPORT TRAINING; AND ILPA MEMBERS' CONFERENCE CHICAGO	CHICAGO, ÍL	06/04/18	06/07/18	499.00	396.40	800.05	267.74	1,963.19
RONALD AUBERT II	GCM GROSVENOR	CONSORTIUM 2018	NEW YORK, NY	06/13/18	06/14/18	-	530.40	369.55	205.44	1,105.39
RODNEY JUNE	NCPERS	CIO SUMMIT 2018	CHICAGO, IL	06/13/18	06/15/18	400.00	410.40	446.88	127.70	1,384.98
RODNEY JUNE	GIRLS WHO INVEST; NORTHERN TRUST	GWI SUMMER INTENSIVE PROGRAM; AND NORTHERN TRUST MEETING	SOUTH BEND, IN/CHICAGO, IL	06/17/18	06/19/18	-	451.50	248.89	199.58	899.97
RODNEY JUNE	NAPPA	LEGAL EDUCATION CONFERENCE 2018	SAVANNAH, GA	06/25/18	06/27/18	-	409.60	236.52	178.78	824.90
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 1ST QUARTER ENDING 09/30/17:					\$ 3,897.00	\$ 1,052.80	\$1,409.55	\$ 560.28	\$ 6,919.63	
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 2ND QUARTER ENDING 12/31/17:					\$ 375.00	\$ 1,652.36	\$ 2,267.23	\$1,064.82	\$ 5,359.41	
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 3RD QUARTER ENDING 03/31/18:						\$ 1,721.01	\$1,934.75	\$1,211.64	\$ 4,867.40	
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 4TH QUARTER ENDING 06/30/18:						\$ 4,850.71	\$4,714.30		\$13,144.54	
INVESTMENT ADMINISTRATION ANNUAL BUDGET FOR TRAVEL EXPENDITURES / YTD TRAVEL EXPENDITURES (AMOUNT & %):					\$76,450.00		\$30,290.98		39.6%	
ANNUAL DEPARTMENTAL BUDGET FOR TRAVEL EXPENDITURES / INVESTMENT ADMIN. YTD TRAVEL EXPENDITURES (AMOUNT & %):				\$161,53	30.00	\$30,2	290.98	18.8%		

Event/Organization					
AAAIM	ASSOCIATION OF ASIAN AMERICAN INVESTMENT MANAGERS				
APPFA	ASSOCIATION OF PUBLIC PENSION FUND AUDITORS				
CALAPRS	CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS				
DRJ	DISASTER RECOVERY JOURNAL				
ERST	EMPLOYEES RETIREMENT SYSTEM OF TEXAS				
GCM	GROSVENOR CAPITAL MANAGEMENT				
HEALTH OPEN ENROLLMENT	LACERS ANNUAL HEALTH PLAN OPEN ENROLLMENT				
IFEBP	INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFIT PLANS				
ILPA	INSTITUTIONAL LIMITED PARTNERS ASSOCIATION				
IPMA-HR	INTERNATIONAL PUBLIC MANAGEMENT ASSOCIATION FOR HUMAN RESOURCE				
KPS	KPS ANNUAL INVESTOR MEETING				
LRS RETIREMENT SOLUTIONS	LEVI, RAY & SHOUP RETIREMENT SOLUTIONS				
MIT	MASSACHUSETTS INSTITUTE OF TECHNOLOGY				
NAIC	NATIONAL ASSOCIATION OF INVESTMENT COMPANIES				
NAPPA	NATIONAL ASSOCIATION OF PUBLIC PENSION ATTORNEYS				
NASP	NATIONAL ASSOCIATION OF SECURITIES PROFESSIONALS				
NCPERS	NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS				
NEA	NEW ENTERPRISE ASSOCIATES				
NEPC	NEPC, LLC				
PREA	PENSION REAL ESTATE ASSOCIATION				
SACRS	STATE ASSOCIATION OF COUNTY RETIREMENT SYSTEMS				
SEO	SPONSORS FOR EDUCATIONAL OPPORTUNITY ALTERNATIVE INVESTMENTS				
TRST	TEACHER RETIREMENT SYSTEM OF TEXAS				





#### Report to Board of Administration

Age

Agenda of: **SEPT. 11, 2018** 

From:

Neil M. Guglielmo, General Manager

ITEM:

V-D

SUBJECT:

TRAVEL AUTHORITY - COMMISSIONER ELIZABETH LEE; FIDUCIARY

INVESTORS SYMPOSIUM; SEPTEMBER 30 - OCTOBER 2, 2018 AND

POSSIBLE BOARD ACTION

#### Recommendation:

That the Board authorize Commissioner Elizabeth Lee to attend the Fiduciary Investors Symposium on September 30 - October 2, 2018 (travel dates September 29 - October 2, 2018) in Stanford, California; and authorize the reimbursement of up to \$2,038 for Commissioner Elizabeth Lee for reasonable expenses in connection with participation.

#### **Discussion**:

Commissioner Elizabeth Lee has expressed interest in attending the above-mentioned educational conference, and this Board report is prepared on their behalf. Commissioner Elizabeth Lee has also been provided a copy of LACERS Board Education and Travel Policy.

Pursuant to the Board Education and Travel Policy (Policy), Board approval is necessary for this travel request because this conference was not pre-approved with the adoption of the Approved List of Educational Seminars for Fiscal Year 2018-19.

#### Strategic Plan Impact Statement:

As stipulated in the Policy, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties.

For Fiscal Year 2018-19, Commissioner Elizabeth Lee has an education travel balance of \$10,000.00.

This report was prepared by Ani Ghoukassian, Commission Executive Assistant.

Attachments: 1) Estimate of Reimbursable Expenses

- 2) Tentative Schedule/Agenda
- 3) Proposed Resolution

## CITY OF LOS ANGELES Intra-Departmental Correspondence

DATE:

September 4, 2018

TO:

**Accounting Section** 

City Employees' Retirement System

FROM:

Ani Ghoukassian, Commission Executive Assistant I

**Board of Administration** 

SUBJECT: ESTIMATE OF REIMBURSABLE EXPENSES

	TOTAL ESTIMATE:	\$2,038.00			
	Miscellaneous: (\$30 per day) x 4 days				
	Airport Parking	\$80.00			
	Taxi: Airport to Hotel (roundtrip) & Hotel to Conference (roundtrip)	\$230.00			
	Meal/Incidental Allowances: \$48 per day x 3 days \$64 per day x 1 day	\$208.00			
	Commercial Airline: Roundtrip LAX to SFO	\$200.00			
	Hotel: \$400.00 per night (3 nights) excluding tax	\$1,200.00			
ESTIMATED EXPENSES:	Registration:	\$0.00			
Location of Event	Stanford, CA				
Date(s) of Event	Sept. 30 - Oct. 2, 2018 (Travel dates Sept. 29 - Oct. 2, 2018)				
Organization	Fiduciary Investors				
Event	Fiduciary Investors Symposium				
Name of Attendee Title	ELIZABETH LEE, COMMISSIONER LACERS Board of Administration				

# TRAVEL AUTHORITY FIDUCIARY INVESTORS SYMPOSIUM SEPTEMBER 30 - OCTOBER 2, 2018 STANFORD, CALIFORNIA

#### PROPOSED RESOLUTION

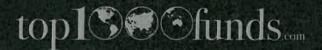
WHEREAS, Board approval is required for all international travel requests and travel not included in the Approved List of Educational Seminars;

WHEREAS, the Fiduciary Investors Symposium in Stanford, California is not included in the Approved List of Educational Seminars authorized by the Board Education and Travel Policy for Fiscal Year 2018-19, and therefore requires individual approval;

WHEREAS, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties;

THEREFORE, BE IT RESOLVED, that Commissioner Elizabeth Lee is hereby authorized to attend the Fiduciary Investors Symposium on September 30 - October 2, 2018, in Stanford, California;

BE IT FURTHER RESOLVED, that the reimbursement of up to \$2,038 for Commissioner Elizabeth Lee is hereby authorized for reasonable expenses in connection with participation.



## FIDUCIARY INVESTORS SYMPOSIUM

THE CATALYST FOR REFORMED FIDUCIARY THINKING

Challenging long-term institutional investors to think differently necessitates the engagement of cutting-edge academic theory and real-world implementation.

The Fiduciary Investors Symposium has become recognised as an event that challenges the influence and responsibility of fiduciary capital and explores the evolution of fiduciary investment management.

The 2018 conference, to be held on campus at Stanford University, will promote excellence in investment management and bring the latest thinking to institutional investors.

Sep 30-Oct 2, 2018 Stanford University, US

fiduciaryinvestors.com

#### STANFORD UNIVERSITY, SEPT 30 - OCT 2, 2018

The Fiduciary Investors Symposium brings global investors together to examine best-practice strategy and implementation, including the latest thinking related to asset allocation, risk management, beta management and alpha generation.

Held over three days, the event enables institutional investors to engage with industry thought leaders in academia and practice, in a collegiate environment that promotes shared discussion. The on-campus venues facilitate a unique space for innovative thought and conversation, and the event includes tours of various university faculties.

Managing assets as a fiduciary comes with a complex range of responsibilities and commitments. This conference examines the holistic approach to fiduciary investing and how investing has and should evolve. This includes the wider responsibilities of long-term investors in stabilising financial markets, and the impact of investments on social welfare and environmental management.

The programs for all of the Fiduciary Investors Symposiums include numerous investor case studies and academic presentations.

#### EVENT THEME

The Fiduciary Investors Symposium at Stanford University celebrates the fast-moving change taking place in economies and communities and will examine the impact of innovation on our lives and workplaces.

Drawing on the esteemed Stanford faculty, and taking advantage of the Silicon Valley location, it will look at the impact of robotics and automation, the information technology performance necessary to keep pace with the data explosion, urban evolution and the impact on infrastructure, climate change and affordable alternative energy, and network security.

How are these innovations shaping the future, and what does that future look like for investors in global markets?

#### Confirmed Stanford academics

- Ken Caldeira, climate scientist, Carnegie Institution for Science, Department of Global Ecology, Stanford University; climate adviser to Bill Gates
- Darrell Duffie, The Dean Witter Distinguished Professor of Finance, Stanford Graduate School of Business
- Stephen Kotkin, John P Birkelund '52 Professor in History and International Affairs, Princeton University; Senior fellow, Hoover Institution, Stanford University
- Arun Majumdar, The Jay Precourt Professor at Stanford University; co-director of the Precourt Institute for Energy
- Ashby Monk, executive and research director, Stanford Global Projects Centre
- Myron Scholes, The Frank E. Buck Professor of Finance, Emeritus, Stanford Graduate School of Business
- Kenneth Singleton, The Adams Distinguished Professor of Management; Professor of Economics, School of Humanities and Sciences, Stanford Graduate School of Business
- George Shultz, The Jack Steele Parker Professor of International Economics, Emeritus, Stanford Graduate School of Business

#### DELEGATE PROFILE

The Fiduciary Investors Symposium is a semi-annual event for the senior investment professionals at large institutional investors around the globe. The audience comprises professionals from pension funds and sovereign wealth funds, along with investment consultants and academics.

#### MEDIA PARTNER

www.top1000funds.com is the news and analysis site for the world's largest institutional investors. Focusing on strategy and implementation, it is populated with original news stories, case studies and research that relate directly to the work of investment professionals at pension funds, endowments and sovereign wealth funds. One of its defining characteristics is truly global content that focuses on the strategies, portfolio construction and implementation techniques of institutional investors.

#### KEY CONTACTS

AMANDA WHITE Director of institutional content amanda.white@conexusf.com +61 2 9227 5710

+61 417 462 837

**COLIN TATE** Chief executive colin.tate@conexust.com +61 2 9227 5702 +61 412 641 099

**BREE NAPIER** Client relationship manager bree.napier@conexusf.com +61 2 9227 5705 +61 451 946 311

#### VENUE

Sunday, September 30 to Tuesday October 2, 2018 | Conference proceedings

Hoover Institution, David and Joan Traitel Building **Stanford University** 434 Galvez Mall Stanford, California

#### **PROGRAM**

#### SUNDAY SEPTEMBER 30, 2018

- 11.30 1.30 TOUR OF STANFORD UNIVERSITY
- 1.30 2.00 LIGHT LUNCH AND REGISTRATION
- 2.00 2.10 WELCOME
  - Colin Tate, chief executive, Conexus Financial (Australia)

TENTETARY TRYESTERS EVAROSTUM

### 2.10 - 2.50 ENERGY EFFICIENCY ISSUES - EXISTING TECHNOLOGIES, OIL AS A STRANDED ASSET

Almost everything we thought we knew about energy is ripe for transformation – and rich in both risk and opportunity. Oil suppliers have more unsellable than unburnable oil; they are more at risk from market competition than from climate regulation. Electricity suppliers also face a swarm of disruptors that will transform their businesses beyond recognition as the electricity and auto industries merge to eat the oil industry, as insurgents challenge incumbents in all three of these immense sectors, and as integrative design yields expanding returns to investments in radical energy efficiency.

- Amory Lovins, co-founder, chief scientist, Rocky Mountain Institute (United States)
- Chair: Colin Tate, chief executive, Conexus Financial (Australia)

#### 2.50 - 3.30 THE FUTURE OF ENERGY - POLICY IMPLICATIONS AND FUTURE TECHNOLOGIES

After more than 100 years of historic success, the fundamentals of the energy industry are rapidly changing, driven by three 'D's: decarbonisation, diversification and digitisation. The paramount question is what pathways or approaches should a business, industry, nation or region adopt to address the future challenges while navigating, leveraging and shaping the three-'D' landscape? This talk will provide a snapshot of various and offer some thoughts on addressing this paramount challenge. It will also highlight the need to innovate – to experiment with new ideas, knowing some of them will fail, but hopefully fail quickly and, more importantly, teach a lot in the process.

- Professor Arun Majumdar, Jay Precourt Professor at Stanford University, formerly in the Obama administration, and former vice-president for energy at Google (United States)
- Chair: Colin Tate, chief executive, Conexus Financial (Australia)

#### 3.30 - 4.00 AFTERNOON TEA

#### 4.00 - 4.45 CLIMATE PANEL - INVESTORS AND COMMUNITIES

How is the climate affecting the developing and developed world and how is this affecting markets? What are the tools to measure these impacts and what should investors be measuring and monitoring?

- Ken Caldeira, atmospheric scientist, department of global ecology, Carnegie Institution for Science, and adviser to Bill Gates (United Staes)
- Jaap van Dam, head of strategy, PGGM (Netherlands)
- Chair: Himanshu Gupta, Co-founder and CEO, ClimateAI, Forbes 30 under 30 (United States)

#### 4.45 - 5.30 TECHNOLOGY DISRUPTION AND HUMAN RIGHTS

Technological advancements can have a profound impact on our work and our lives. But the story is not all good news. Technology disruption has the potential to have a huge social impact by disrupting jobs, and could potentially lead to social unrest. This session looks at the social impacts of technological disruption and why this is an important consideration for investors.

- Deborah Ng, director, strategy and risk; head of responsible investing, Ontario Teachers Pension Plan (Canada)
- Andrew Parry, head of sustainability, Hermes Investment Management (United Kingdom)

#### 6.00 - 8.00 WELCOME COCKTAILS AND LIGHT DINNER

#### MONDAY OCTOBER 1, 2018

#### 8.30 - 8.45 WELCOME

• Amanda White, director, institutional content, Conexus Financiai (Australia)

#### 8.45 - 9.45 BREAKING THE MOULD ON ASSET ALLOCATION: STRATEGIC VERSUS DYNAMIC

The current static models of asset allocation are built on the wrong premise, and the notion of a policy portfolio, benchmarks and smart beta has nothing to do with asset allocation. If investors focus on compound returns, not average returns, they will have a different approach to asset allocation.

- Myron Scholes, The Frank E. Buck Professor of Finance, Emeritus, Stanford Graduate School of Business; Nobel Prize winner (Unoted States)
- Chair: Amanda White, director, institutional content, Conexus Financial (Australia)

#### 9.45 = 10.30 POST-CRISIS BANK REGULATIONS AND FINANCIAL LIQUIDITY

The increased reluctance of big banks to use their balance sheets for intermediation of safer assets is caused by newer risk-insensitive forms of capital requirements, such as the leverage-ratio rule, and by increased funding costs that have nothing to do with regulatory capital requirements. Now that the creditors of big banks are less likely to be bailed out with government capital, they are requiring much higher credit spreads. Using models and evidence, this session will show that bank credit spreads set a lower bound on the extra return (above and beyond the fair market return) that banks must earn on their trading activities to compensate their shareholders for use of balance sheet space.

- Darrell Duffie, The Dean Witter Distinguished Professor of Finance, Stanford Graduate School of Business, (United States)
- Chair: Amanda White, director, institutional content, Conexus Financial (Australia)

#### 10.30 = 11.00 MORNING TEA

#### 11.00 - 12.00 THE FUTURE OF HUMAN POTENTIAL

Technology is only a tool. It is an amazing tool, and one that has had, on balance, a profoundly positive impact on the world. But it is still only a tool. It can only ever reflect our values back at us. In this talk, Dr Vivienne Ming will discuss how she and others' work developing Al for good – treating diabetes, predicting bipolar disorder, precision farming, and much more – always comes with frightening and complex ethical questions. She'il review how seemingly innocent technologies can have surprisingly negative effects, such as inequality, capture effects, and instability in social networks, along with the emergence of profound disruptions such as social break downs, de-professionalisation, and the Lark's Vomit Theory of Entrepreneurship. Finally, Ming will share advances in neuroprosthetics and how they might lead to a fundamental change in what it means to be human. In the end, technology should never simply make us feel good or ease us through our day; it must always challenge us. When we turn technology off, we should be better people than when we turned it on.

- Vivienne Ming, theoretical neuroscientist, technologist and entrepreneur; faculty, Singularity University; faculty University of California, Berkeley; founder, Socos Labs (United States)
- Chair: Colin Tate, chief executive, Conexus Financial (Australia)

#### 12.00 - 1.00 LUNCH

#### 1.00 -1.40 PORTFOLIO CONSTRUCTION IN AN AGE OF BIG DATA

Harry Markowitz's optimal portfolio theory is a cornerstone of modern finance; however, its practical use relies on knowledge of the correlation matrix of the different assets in the investment universe, which nowadays number in the thousands. Estimating such large correlation matrices when the length of the available time series is relatively short (several

years) is problematic, even more so when the time series are non-stationary and unknown unknowns may be lurking. This talk will review several empirical facts and theoretical ideas and methods that can be used to circumvent these problems, including random matrix theory and agnostic risk parity.

- Jean-Philippe Bouchaud, professor of physics, École Polytechnique; founder, chair, Capital Funds Management (France)
- Chair: Colin Tate, chief executive, Conexus Financial (Australia)

#### ALAND INVESTMENT: EVOLUTION OR REVOLUTION? 1.40 - 2.40

An explosion of data is combining with advances in computational approaches to profoundly change many facets of business and society. Whereas true artificial intelligence is still a distant prospect at best, machine learning techniques already make it possible to process vast amounts of data and extract useful analytics and predictions for decisionmaking in a wide range of fields; automated medical diagnoses, self-driving cars and mobile personal assistant, are just a few of the applications that are changing our lives. How will machine learning change investing? Skeptics see it as an over-hyped use of wellknown statistical approaches and point to the many challenges in predicting future asset returns from noisy data. Enthusiasts see a future in which machines take over from portfolio managers as automated decision-makers. The panel will discuss implications for investment management in the near future and in the long run.

- Jagdeep Bachher, chief investment officer, University of California Regents (United
- Kay Giesecke, professor of management science and engineering, Stanford University (United States)
- Arne Staal, head of multi-asset quantitative strategies, Aberdeen Standard Investments (United Kingdom)
- Chair: Ashby Monk, executive director, Stanford Global Projects Centre (United States)

#### 2.40 - 3.25INNOVATION IN FEES

Investors are increasingly pushing back on their service providers to drive alignment in fees. Many want to pay only for alpha, and others want to work with providers to develop innovative fee choices. So what works and does it have any impact on returns, costs or transparency?

- John Claisse, chief executive, Albourne Partners (United States)
- Mario Therrien, senior vice-president, strategic relationships and external portfolio management, public markets, Caisse de dépôt et placement du Québec (Canada)
- Scott Radke, principal, New Holland Capital (United States)
- Chair: Amanda White, director, institutional content, Conexus Financial (Australia)

#### 3.25 - 3.45AFTERNOON TEA

#### HOW TECHNOLOGY WILL CHANGE FINANCE AND ALTERNATIVE DATA SETS -3.45 - 4.45INNOVATION IN PENSION FUND PORTFOLIOS

This session will examine how alternative data sets are benefiting investors and how innovation can be applied to asset owners. In the case of OPTrust, innovation is multidimensional. It looks for innovation in its portfolio companies and how it can apply that to other investments and its own organisational systems. This requires a willingness to be courageous and invest in opportunities, but also a holistic view of applications.

- Hugh O'Reilly, chief executive, OPTrust (Canada)
- Chair: Ashby Monk, executive and research director, Stanford Global Projects Centre (United States)

#### 4.45 - 5.30KEYNOTE ON CLIMATE

A successful plan for addressing climate change issues should include a gradually rising revenue-neutral carbon tax that will strengthen the economy and support a global approach to climate problems. Under a carbon-tax plan, carbon dividend payments would be made to all citizens, regulations would be rolled back, and steps would be taken to ensure a level playing field.

- George Shultz, The Jack Steele Parker Professor of International Economics, Emeritus, Stanford Graduate School of Business (United States)
- Chair: Stephen Kotkin, John P Birkelund '52 Professor in History and International Affairs, Princeton University; senior fellow, Hoover Institution, Stanford University (United States)

#### 6.30 - 9.30 CONFERENCE DINNER

#### TUESDAY OCTOBER 2, 2018

#### 7.30 = 8.30 INVESTOR-ONLY BREAKFAST

#### 8.45 - 9.45 SILICON VALLEY AND BEYOND

We are in a golden age of innovation led by transformational technology advances that will affect every industry. Venture capital is the window to this innovation economy. In this session, delegates will hear from a well-known venture firm, a serial entrepreneur turned venture capitalist, and a blockchain entrepreneur. The conversation will traverse venture capital in the Bay Area and other hot spots, such as Europe.

- Alliott Cole, chief executive, Octopus Ventures (United Kingdom)
- Chester Ng, general partner, Atomic (United States)
- Mark Smith, chief executive and co-founder, Symbiont.io (United States)
- Chair Todd Ruppert, chair, INSEAD Endowment; venture partner, Greenspring Associates (United States)

#### 9.45 - 10.15 INSTITUTIONAL INVESTOR CASE STUDY ON PRIVATE EQUITY

This case study will look at how one of the world's largest investors approaches private equity investments and what the lessons are for other investors. CalPERS has a new private equity direct corporation. How will this work and why is the fund doing it?

- Priya Mathur, president, California Public Employees' Retirement System (United States)
- Chair: Amanda White, director, institutional content, Conexus Financial (Australia)

#### 10.15 - 10.45 MORNING TEA

#### 10.45 - 11.30 MEGATRENDS: HOW TO INVEST FOR THE - REALLY - LONG TERM

Investing for the long term requires investors to disregard the benchmark and start with identifying themes, or megatrends, that will have an impact on the future. How can investors identify those megatrends and have confidence in their predictions? Can these themes and trends be made investable?

- Gertjan van der Geer, fund manager, Pictet (United Kingdom)
- Claus Kjeldsen, chief executive and futurist, The Copenhagen Institute for Future Studies (Denmark)
- Chair: Amanda White, director, institutional content, Conexus Financial (Australia)

#### 11.30 - 12.30 GLOBAL OPPORTUNITIES IN FINTECH

By providing global consumers with a handheld internet connection, smartphones have enabled the creation of new consumer platforms, which have created sustainable competitive advantages for the companies that have championed their use. In one example, growing mobile penetration combined with vastly underbanked populations has led to the emergence of fintech companies that are capturing young and growing populations' unmet demand for financial services. But digital payments and payment processing are only the beginning. This session will discuss the global opportunities across these new networks and consumer platforms and how institutional investors should consider approaching these opportunities, including a geographically agnostic approach.

- Peter Clark, managing director, Jennison Associates (United States)
- Kenneth Singleton, The Adams Distinguished Professor of Management, Stanford Graduate School of Business (United States)
- Charles Van Vleet, chief investment officer, Textron (United States)
- Chair: Ashby Monk, executive director, Stanford Global Projects Centre (United States)

#### ACTIVE V PASSIVE MANAGEMENT 12.30 - 1.15

How can investors build the ultimate portfolio of active and passive components? What are they looking for in active bets and what should they expect from active managers? Similarly, when is low-cost efficiency more important than active management?

- Farouki Majeed, chief investment officer, Ohio School Employees Retirement System (United States)
- Gene Podkaminer, head of multi-asset research strategies, Franklin Templeton Investments (United States)
- Alison Romano, senior investment officer, global equity, State Board of Administration of Florida (United States)
- Chair: Gavin Ralston, head of official institutions and head of thought leadership, Schroders Investment Management (United Kingdom)

#### LUNCH 1.15 = 2.00

#### SYSTEMIC GEOPOLITICAL RISKS 2.00 - 2.45

Geopolitical risk is hard to price, and even harder to predict, but it has the potential to affect portfolios in a profound way. This session examines the crisis points, which include Taiwan and its potential to undermine the entire China/US relationship.

- Stephen Kotkin, John P Birkelund '52 Professor in History and International Affairs, Princeton University; senior fellow, Hoover Institution, Stanford University (United States)
- Chair: Colin Tate, chief executive, Conexus Financial (Australia)

#### 2.45 - 3.30CHINA A. TECHNOLOGY AND AI

China is commonly characterised as a smokestack economy, reliant on heavy industry, cheap manual labour, low-value exports, and polluting industries. However, China today is one of the most innovative and technologically advanced countries in the world. With government's support and large investments, China is charging ahead in key areas such as automation, artificial intelligence, fintech, and electric vehicles. This ongoing innovation boom is quickly transitioning 'made in China' to 'invented in China' and the change is happening at a faster pace than most have envisioned.

- **Vivian Lin Thurston**, partner, China generalist, William Blair; founder and chair of the Chinese Finance Association of America (United States)
- Winston Ma, president and chief investment officer, China Silkroad Investment Capital (China)
- Jeff Shen, co-chief investment officer of active equity and co-head of systematic active equity, Blackrock (United States)
- Chair: Stephen Kotkin, John P Birkelund '52 Professor in History and International Affairs, Princeton University; Senior fellow, Hoover Institution, Stanford University (United States)

#### BEYOND CO-INVESTMENT: COLLECTIVISM AS THE FUTURE OF INVESTING 3.30 - 4.15

Many investors appreciate that collective capitalism is a powerful tool, with the potential to provide investors better access to opportunities, better fees and more transparency. So what are the obstacles to a collective approach to institutional investing and how can asset owners work together to access better opportunities and reduce fees as they allocate capital?

- Chris Ailman, chief investment officer, California State Teachers' Retirement System (United States)
- Garry Weaven, chair, IFM Investors (Australia)
- Chair: Brian Clarke, executive, director, IFM Investors (United States)

#### CLOSING KEYNOTE - WHERE TO FOR ASSET OWNERS? 4.15 - 4.45

How can investors embrace the ideas presented at this conference? From embracing disruption in energy markets, and fintech, to innovation around fees, and the better use of Al. The chief investment officer of the world's largest institutional investor, the \$1.5 trillion Government Pension Investment Fund of Japan, will discuss how large asset owners should embrace the future to create a better world.

- Hiro Mizuno, chief investment officer, Government Pension Investment Fund (Japan)
- Chair: Amanda White, director, institutional content, Conexus Financial (Australia)

4.45 Conference close





#### Report to Board of Administration

Agenda of: SEPT. 11, 2018

From: Neil M. Guglielmo, General Manager ITEM: V-E

SUBJECT: TRAVEL AUTHORITY - COMMISSIONER ELIZABETH L. GREENWOOD;

2018 PUBLIC PENSION TRUSTEES FIDUCIARY CONFERENCE; OCTOBER

2 - 3, 2018, AND POSSIBLE BOARD ACTION

#### Recommendation:

That the Board authorize Commissioner Greenwood to attend the 2018 Public Pension Trustees Fiduciary Conference on October 2 - 3, 2018 (travel dates October 1 - 4, 2018) in New York, New York; and authorize the reimbursement of up to \$1,925.50 for Commissioner Greenwood for reasonable expenses in connection with participation.

#### Discussion:

Commissioner Greenwood has expressed interest in attending the above-mentioned educational conference, and this Board report is prepared on their behalf. Commissioner Greenwood has also been provided a copy of LACERS Board Education and Travel Policy.

Pursuant to the Board Education and Travel Policy (Policy), Board approval is necessary for this travel request because this conference was not pre-approved with the adoption of the Approved List of Educational Seminars for Fiscal Year 2018-19.

#### Strategic Plan Impact Statement:

As stipulated in the Policy, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties.

For Fiscal Year 2018-19, Commissioner Elizabeth Greenwood has an education travel balance of \$8,489.58.

This report was prepared by Ani Ghoukassian, Commission Executive Assistant.

Attachments: 1) Estimate of Reimbursable Expenses

- 2) Tentative Schedule/Agenda
- 3) Proposed Resolution

#### **CITY OF LOS ANGELES Intra-Departmental Correspondence**

DATE:

September 4, 2018

TO:

**Accounting Section** 

City Employees' Retirement System

FROM:

Ani Ghoukassian, Commission Executive Assistant I

**Board of Administration** 

SUBJECT: ESTIMATE OF REIMBURSABLE EXPENSES

Name of Attendee Title	ELIZABETH L. GREENWOOD, COMMISSIONER LACERS Board of Administration				
Event	2018 Public Pension Trustees Fiduciary Conference				
Organization	Public Pension Trustees				
Date(s) of Event	October 2 - 3, 2018 (Travel dates October 1 – 4, 2018)				
Location of Event	New York, NY				
ESTIMATED EXPENSES:	Registration:	\$0.00			
	Hotel: \$350.00 per night (3 nights) excluding tax	\$1,050.00			
	Commercial Airline: Roundtrip LAX to NYC	\$345.00			
	Meal/Incidental Allowances: \$55.50 per day x 3 days \$39.00 per day x 1 day	\$205.50			
	Taxi: Airport to Hotel (roundtrip) & Hotel to Conference (roundtrip)	\$205.00			
	Miscellaneous: (\$30 per day) x 4 days	\$120.00			
	TOTAL ESTIMATE:	\$1,925.50			

# TRAVEL AUTHORITY 2018 PUBLIC PENSION TRUSTEES FIDUCIARY CONFERENCE OCTOBER 2 - 3, 2018 NEW YORK, NEW YORK

#### PROPOSED RESOLUTION

WHEREAS, Board approval is required for all international travel requests and travel not included in the Approved List of Educational Seminars;

WHEREAS, the 2018 Public Pension Trustees Fiduciary Conference in New York, New York is not included in the Approved List of Educational Seminars authorized by the Board Education and Travel Policy for Fiscal Year 2018-19, and therefore requires individual approval;

WHEREAS, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties;

THEREFORE, BE IT RESOLVED, that Commissioner Elizabeth L. Greenwood is hereby authorized to attend the 2018 Public Pension Trustees Fiduciary Conference on October 2 - 3, 2018, in New York, New York;

BE IT FURTHER RESOLVED, that the reimbursement of up to \$1,925.50 for Commissioner Greenwood is hereby authorized for reasonable expenses in connection with participation.

SAVE THE DATE · OCTOBER 2-3, 2018 · IN NYC

# PUBLIC PENSION TRUSTEES FIDUCIARY CONFERENCE

**\*** CAINING THE TOOLS FOR INNOVATION \*



NEW YORK LAW SCHOOL



#### **CONFERENCE AGENDA**

Tuesday, October 2

9:00am-10:00am Registration and Breakfast

10:00am-10:15am: Opening Remarks

10:15am-11:00am: The Purpose of Asset Management

A fireside chat with **Jon Lukomnik**, co-author of the book "What They Do With Your Money," focusing on his new white paper "The Purpose of Asset Management," and how he believes institutional investors must change their investment practices for better and more sustainable economic growth.

#### 11:00am-12:30pm: We Did The Investment Beliefs- Now What?!?!

In this panel discussion, trustees and investment staff will highlight ways in which they integrated their investment beliefs statement into their actual investment process. What were the challenges? How did other stakeholders react? How far have you gotten? What lessons should boards draw from your experience as they go through their investment beliefs process?

- Vonda Brunsting (moderator), Initiative for Responsible Investment, Harvard Kennedy School
- Wayne Moore, Trustee, Los Angeles County Employees Retirement Association
- Anna Pot, Manager Responsible Investments, APG Asset Management

12:30pm-1:30pm: Lunch

1:30pm-2:00pm: "The Price Is Wrong"

After-lunch activity where we examine the true costs for asset management services

2:00pm-3:00pm: The Future of Finance Session with CFA Society New York

Robert Discolo, Board of Directors, CFA Society New York

3:00pm-3:15pm: Coffee Break

#### 3:15pm-4:45pm: "Murder and Revival on the Orient Express,"

Based on the paper by Charlie Ellis that describes how each of the four major sets of decision-makers in institutional asset management, managers, consultants, staff, and boards all are responsible for underperformance. Instead of underperformance however, this session will focus on how each of these groups is responsible for the inability of institutional investors to "invest for the long-term." More importantly, we will discuss how each of these groups can play a positive role in reforming institutional asset management.

- Robert Discolo, Board of Directors, CFA Society New York
- Antonio Rodriguez, Board of Education Retirement System

4:45pm-5:00pm: Report Outs and Wrap-Up

5:00-6:00pm: Reception: Mingle and debrief with your fellow trustees

Wednesday, October 3

9:00am-9:15am: Recap of Day 1

9:15am-10:00am: Innovation and Technology-What Trustees Should Know
In this session, Ken Akoundi, Founder of Risk Metrics and publisher of InvestorDNA will discuss the latest developments in the "FinTech" world and how they will affect institutional asset owners.

10:00am-10:15am- Coffee Break

10:15am-11:15am: The Changing of the Guard: From Alpha to Governance

11:15am-11:30am: Coffee Break

11:30am-1:00pm: Closing Plenary: Putting It All Together

David Wood, Initiative for Responsible Investment, Harvard Kennedy School

1:00pm: Closing





#### Report to Board of Administration

From: Governance Committee

Nilza R. Serrano, Chairperson

Elizabeth L. Greenwood

Cvnthia M. Ruiz

Agenda of: SEPTEMBER 11, 2018

ITEM:

VI-A

SUBJECT: TRIENNIAL BOARD POLICY REVIEW: THE BOARD PROCEDURES, GUIDANCE

FOR BOARD MEMBERS, CONTRACT ADMINISTRATION AND POSSIBLE BOARD

**ACTION** 

#### Recommendation

That the Board approve the following:

- 1) Proposed revisions to the LACERS Board Governance Statement, Section 4.0: Board Procedures
- 2) Affirmation of the LACERS Board Administrative Policies, Section 1.0: Guidance for Board Members Conflict Governance Policy
- 3) Proposed revision to the LACERS Board Administrative Policies, Section 2.0: Contract Administration Marketing Cessation Policy

#### Discussion

On August 28, 2018, the Governance Committee considered proposed revisions to the *Board Governance Statement* and the *Board Administrative Policies* as part of the triennial Board Policy Review. The Committee concurred with the staff report and recommends Board approval of the minor revisions proposed therein.

The proposed affirmation of the Board Communications Policy was withdrawn by staff as it was determined that a section of the policy requires further revision. This policy will be brought back to the Committee once the update is made.

#### Strategic Plan Impact Statement

The review of the Board Governance Statement and Board Administrative Policies of the LACERS Board Manual conforms to the Strategic Plan Board Governance Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

This report was prepared by Edeliza Fang, Senior Management Analyst, Administrative Services Division.

NMG:TB:DWN:EF

Attachment: Governance Committee Recommendation Report dated August 28, 2018





#### Report to Governance Committee

Agenda of: AUGUST 28, 2018

From:

Neil M. Guglielmo, General Manager

ITEM:

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SUBJECT: TRIENNIAL BOARD POLICY REVIEW: THE BOARD PROCEDURES, GUIDANCE FOR BOARD MEMBERS, CONTRACT ADMINISTRATION AND POSSIBLE

COMMITTEE ACTION

#### Recommendation

That the Committee consider the following:

- 1) Proposed revisions to the LACERS Board Governance Statement, Section 4.0: Board Procedures
- 2) Affirmation of the LACERS Board Administrative Policies, Section 1.0: Guidance for Board Members - Conflict Governance Policy and Board Communications Policy
- Proposed revision to the LACERS Board Administrative Policies, Section 2.0; Contract 3) Administration – Marketing Cessation Policy

#### Discussion

Every three years, LACERS performs a comprehensive review of its Board Governance Policies as a best practice. In March 2018, the Board adopted the Governance Committee's recommended schedule of review for the Board Governance and Administrative Policies of the LACERS Board Manual. In keeping with the timeline, staff has been conducting reviews of sections of the Board Manual. Proposed updates or revisions based on changes in applicable laws or standards of practice are presented to their respective committees and subsequently to the Board for adoption.

Staff completed their review of Section 4.0: Board Procedures of the Board Manual and several minor changes are proposed to add clarifying language to Subsection 4.1 - General and 4.2 -Agendas.

Additionally, staff reviewed Subsections 1.1 - Conflict Governance Policy and 1.3 - Board Communications Policy of the Guidance for Board Members section of the Board Manual. Only minor revisions were made to the documents since there were no significant issues that arose since their last update. The proposed changes include the addition of the affirmation of these Board policies.

Subsection 2.1 – Marketing Cessation Policy of the Contract Administration section was also reviewed by staff. The proposed revision involves the addition of language pertaining to LACERS monthly reporting requirement, the Marketing Cessation Report, to the Board.

There are two attachments to this report: (A) a redline version of the policies showing only the proposed changes, and (B) a clean version of the proposed policies accepting the changes to the redline version.

Staff is currently working with the Office of the City Attorney to establish language governing public comment procedures to be included in Section 4.0: Board Procedures and will report back as soon as recommended language has been finalized.

Upon the Committee's finalization of the proposed revised Governing Statutes section of the Board Governance Statement, it will be presented to the Board for further consideration and approval.

Strategic Plan Impact Statement

The review of the Board Governance Statement of the LACERS Board Manual conforms with the LACERS Strategic Plan Board Governance Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

This report was prepared by Edeliza Fang, Senior Management Analyst, Administrative Services Division.

NMG:TB:DWN:EF

- ATTACHMENTS: A) Board Policies Redline Version
  - B) Board Policies Clean Version

Section Affirmed: October 22, 2013; Revised: May 14, 2013, February 25, 2014, June 14, 2016, August 28, 2018

#### 4.1 GENERAL

#### A. Procedural Standard

The Board and its Committees shall operate under Robert's Rules of Order unless statutes or Board action provide otherwise.

#### B. **Board Actions**

Actions of the Board require four votes. The Los Angeles City Charter §503(c) requires that "Each board shall exercise the powers conferred upon it by the Charter by order or resolution adopted by a majority of its members. Action of the board shall be attested by the signatures of the President or Vice President, or two members of the board, and by the signature of the secretary of the board."

#### C. Board Meeting Presiding Officer

Board meetings shall be convened and presided over by the President of the Board. In the absence of the President, the Vice President shall assume all responsibilities and authority of the President. In the absence of both the President and Vice President, the General Manager/Manager-Secretary will open the meeting and call for nominations of a President Pro Tempore from the members present to serve the duration of the meeting.

#### D. Committee Assignments

Committee assignments are to be determined by the President or Acting President, who shall also name the Committee Chair. An alternate will be appointed for each Committee to serve in the absence of Committee Members. Additional alternates may be appointed on an as-needed basis by the Board President.

#### E. Committee Meeting Schedule and Attendance

All Committee meetings of the Board shall be open to all Board members, but only Committee Members may vote. Committee meetings shall be scheduled to occur on the same day as the first regular Board meetings of the month whenever possible.

#### F. Closed Sessions

Closed sessions of the Board and its Committees shall be limited to Board Members and only those other persons who are required by the Board.

#### G. Closed Session Discussions and Decisions

Pursuant to Section 54957.2, Chapter 9 of the California Government Code (The Ralph M. Brown Act), the legislative body of a local agency may, by ordinance or resolution, designate a clerk or other officer or employee of the local agency who shall then attend each closed session of the legislative body and keep and enter in a minute book a record of topics discussed and decisions made at the meeting. The Executive Assistant to the Board of Administration shall be designated to serve in this capacity; and the General Manager/Manager-Secretary is designated as the alternate.

#### H. Board Member Compensation

Members of the Board shall be compensated for attendance at all Regular and Special meetings of the Board at a rate of \$50 per meeting with a maximum of \$250 per month, except when such Special meeting is concurrently scheduled as a meeting of a Committee of the Board.

#### I. Board Meeting Schedule and Location

The Board hereby approves the official meeting time for Regular Meetings of the LACERS Board of Administration as 10 a.m. on the second and fourth Tuesdays of each month, in

the LACERS Boardroom at 202 West First Street, Suite 500, as the official place for Regular Meetings. All Board and Committee meetings are open to the public, with the exception of "closed session" meeting items.

#### 4.2 AGENDAS

- A. The Commission Executive Assistant shall prepare an Agenda for each Board meeting which incorporates a consent agenda, new business, items previously requested by Board Member(s) for inclusion, as well as those items deferred from previous meeting(s) categorized in the order to be determined in concurrence with the General Manager and Board President.
- B. The consent agenda shall consist of approval of the minutes of the past meeting(s) and routine "receive and file" items which are presumed to be non-controversial, and which do not involve the investment of assets. The Board President and General Manager may concur on additional items to be routinely placed on the consent agenda. A Board Member may at any Board meeting, remove an item from the consent agenda for further discussion.
- C. Items presented in the **Board President's Report**, General Manager's Report, Chief Investment Officer Report, or other requested Manager's Report, may be provided verbally without a written report.
- D. Informational items (i.e. "Receive and file" items):
  - 1. At Committee meetings Shall be supported by a written report and presented by Staff or consultants, unless otherwise instructed by the Committee.
  - 2. At Board meetings Shall be supported by a written report and presented by Staff or consultants upon request of any Board Member. The Staff or consultant should sit at the table and make a presentation only when cued or requested by the Board President.
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- G. Materials supplied to Board Members shall be numbered to facilitate locating items under discussion.

#### 4.3 MINUTES

A. Minutes of the meetings of the Board shall conform in general to the format outlines in the "Trustees' Handbook" published by the International Foundation of Employee Benefit Plans.

- B. At each Board meeting, Board Members shall have the opportunity to review and approve the minutes of the previous meeting(s) before the President affixes his signature upon approval by the Board.
- C. The Minutes shall be prepared with letter-size paper for review before approval, and that the historical record of approved and signed minutes shall be maintained electronically with all appropriate considerations for security and accessibility as required by law.

#### 4.4 ELECTION

The Election of Board Officers for the then current fiscal year is generally held on the second meeting of July each year, or when a Board Officer seat becomes vacant. The Board shall elect one of its members to the office of President, and one to the office of Vice President. The Board Officers shall hold office for one year and until replaced by the election of a successor or reelected at the next Election, unless their membership on the Board sooner.

At the appointed time, the General Manager/Manager-Secretary shall call for nominations for the office of President. After nominations have concluded, the General Manager/Manager-Secretary shall call for the Ayes and Nays from among the Members of the Board for each candidate nominated. Upon one candidate securing a majority vote, the General Manager/Manager-Secretary shall announce that the office of President is filled until the newly elected Member is replaced or re-elected at the next election.

The General Manager/Manager-Secretary shall then call for nominations for the office of Vice President and repeat the election procedure described above until one candidate secures a majority vote, at which time the office of Vice President may be deemed filled.

#### 1.1 CONFLICT GOVERNANCE POLICY

Adopted: December 10, 2004; Revised: February 25, 2014; Affirmed: August 28, 2018

In the interest of maintaining the integrity of the LACERS and affirmatively embracing best practices that would be perceived as representing the highest fiduciary standards of conduct and thus enhance public trust of the Board's decision-making process, the Board, in addition to its established Ethics Policy, adopts this Conflict Governance Policy to promote confidence in their governance and oversight of the management of the System.

Mindful of their fiduciary obligation to discharge their duties solely in the interest of the participants of the System and for the exclusive purpose of providing benefits to the participants of LACERS, the Board is committed to pursuing a course of conduct that insures full compliance with all applicable laws, transparency in the actions taken, and recognition that even appearances of bias may reflect negatively upon the System.

#### I. Required Disclosure

The Board is cognizant of the complex nature of the statutory laws regarding financial conflicts of interest.

- Government Code Section 1090, a broadly drafted conflict of interest statute, prohibits public officers and employees from being financially interested in any City contract that the officer or employee is involved in making. Section 1090 is concerned with financial interests that could prevent officers or employees from exercising absolute loyalty and undivided allegiance in furthering the best interests of LACERS. Any participation in the process by which the contract is developed, negotiated or approved, including making a recommendation on the contract, is a violation of Government Code Section 1090 if the officer or employee has a financial interest in the decision. Also, if a commissioner has a financial interest in a contract, the commission of which he or she is a member may not act on the matter. However, there are some interests defined by the Government Code as "remote interests" which would disqualify the commissioner but not the entire commission.
- Government Code Section 87100 et. seq., the Political Reform Act, prohibits a City officer or employee from making, participating in making or attempting to use his or her official position to influence any governmental decision in which he or she has a "disqualifying economic interest" within the meaning of the Act. The Act defines a "disqualifying economic interest" by first determining whether there exists an economic interest, as defined in the Act, whether it is reasonably foreseeable that the decision will have a material financial effect on the economic interest, and whether the decision will affect that economic interest in a way that is distinguishable from its effect on the public generally or a significant segment of the public. The Act defines an economic interest broadly to include the officer's or employee's finances, those of members of his or her immediate family, investments in a business, interests in real property, sources of income or gifts, and management positions in businesses.
- In addition to State conflicts of interest laws, the City Charter contains its own conflict of
  interest provision. The standard for disqualification under the Charter is whether it is "not
  in the public interest" for the officer or employee to act in a particular matter, contract, sale,
  or transaction. (City Charter Section 222). It is "not in the public interest" for an officer or

employee to act on a matter if that person believes that he or she cannot act impartially or if the public might reasonably reach that conclusion. To be disqualified under this standard, you do not need to have a conflict of interest within the meaning of State law; simply having any relation to the matter, even if financial interests are not involved, can be cause for recusal.

Recognizing the complexity of the provisions of State law governing conflicts of interest (Government Code Sections 1090 and 87100, *et seq.*) and City Charter Section 222, the Board desires to act with the highest levels of integrity and transparency, always keeping the duty of loyalty to the System's members and beneficiaries in the forefront of their actions. The Board embraces the obligation of each trustee to fully disclose at the earliest opportunity all potential conflicts for a determination by the City Attorney as to the course of action required under the law.

The Board recognizes that there may be instances where a relationship between a trustee and potential responder to a Request for Proposal (RFP) or Request for Qualifications (RFQ) is such that he or she could not act objectively or where the facts are such that there may be a perception that the trustee could not act objectively. Additionally, the Board recognizes that there may be instances wherein a trustee has a personal or special relationship with a person or entity appearing before the Board that may give the appearance of possible bias.

At a minimum, any matter that reasonably could be expected to interfere or be perceived to be interfering with a trustee's obligation to discharge their duties with respect to the System in the interest of, and for the exclusive purpose of, providing benefits to participants and their beneficiaries, requires disclosure. Members of the Board are expected to act prudently and reasonably in providing the necessary information to the Office of the City Attorney for a determination of the course of action required under both State law and the City Charter.

#### **II. Policy Requirements**

- A. To prevent even the appearance of bias, all Requests for Proposals (RFPs) or Requests for Qualifications (RFQs) issued by the Board, or recommendations from consultants, shall contain the requirement that all respondents affirmatively provide information regarding any personal or business relationship with any Member of the Board or administrative staff of LACERS. All RFPs or RFQs, and due diligence reviews, will also require the disclosure by the respondents of any payments for placement services to any person, firm, or entity with respect to that contracting opportunity.
- B. The Department's Marketing Cessation Policy prohibits discussion of upcoming contracts or the contract process by any individual, firm, or entity that is identified as a potential respondent to a contracting opportunity with any Member of the Board or with Department staff or consultants, except communications allowed through the RFP process. The Marketing Cessation Policy requires proposer disclosure of any communications with Members of the Board, staff, or consultants; as well as any gifts given to these parties.

C. In the event that the City Attorney opines that any commissioner is disqualified from acting on a matter under the provisions of State law or the Charter, the Commissioner who is recused shall publicly state the reason for their recusal and shall not participate in, or seek to influence in any manner, the matter before the Board. In addition, the Board may disqualify from consideration the proposer or responding entity with whom the financial or other relationship exists, but only to the extent that is consistent with the Board's fiduciary duty to LACERS, and to the participants and beneficiaries of the System.

#### 1.2 BOARD COMMUNICATIONS POLICY

Adopted: June 14, 2011; Revised: March 24, 2015; Affirmed: August 28, 2018

**Introduction:** In the process of managing and administering the Los Angeles City Employees' Retirement System, the LACERS Board of Administration may encounter various legal, ethical, and logistical issues involving communication with its stakeholders and with outside parties. To provide a framework for addressing these issues, the intent of this policy governing Board communications is to ensure that such communications are well-coordinated, effectively managed, responsive, and timely.

**LACERS' Official Spokesperson(s) for Administrative Matters:** The General Manager and/or his/her designee shall be the official representative for LACERS for any communication or presentation of LACERS administration of programs, services, or investments provided to its stakeholders, including but not limited to the following:

- LACERS Members and their Beneficiaries
- Retiree associations
- Labor unions
- · City officials, including elected officials
- Other outside parties
- General public
- Media

Note: "Media," for purposes of this policy, is defined as radio, television, newspapers, newsletters, magazines, websites, blogs, social media, and other related outlets and modes of public communication transmitted verbally and/or in writing.

The General Manager may provide factual information verifying that committee or Board actions have taken place, but shall not provide information regarding why he/she believes the committee or Board voted a certain way. If such questions arise, the General Manager may refer the inquiry to the Board President and/or refer the inquiring party to the committee/Board report and/or meeting minutes.

**LACERS Official Spokesperson regarding Board Decisions:** The Board President shall serve as the spokesperson for the Board on all issues pertaining to decisions and direction given by the Board other than factual, publicly available information related to decisions made by the Board, which may be answered by Board Members and the General Manager. The Board President also shall serve as the spokesperson for the Board regarding pending or potential Board decisions. The Board President may delegate the general duty of spokesperson to another Board Member or to the General Manager as he/she sees fit.

Board Members shall refrain from publishing any written material and/or making any statements to the media or outside parties which purports to represent LACERS policies or initiatives on any matter or subject before the Board has formally adopted a policy or position on the matter or subject. However, this policy shall not be interpreted to preclude Board Members, as private citizens, from expressing their personal views.

Board Members who publish articles and/or to participate in speaking engagements while identifying themselves as trustees of LACERS may provide factual, publicly available information

without any disclaimer. If the Board Member wants to express views other than adopted Board positions, he/she shall state that the views they are expressing are their personal views and are not LACERS' official position, and/or that they are not acting in an official capacity for LACERS.

Board Members should avoid expressing personal opinions and/or speculation as to the motivations of any Board Member's actions on LACERS' behalf.

**Timely Responses to Media Inquiries:** Board Members may receive inquiries directly from the media regarding pending or potential Board decisions or LACERS actions. To ensure a timely response in such instances, the Board Members immediately shall refer or transmit such inquiries to the Board President or General Manager pursuant to the policy above for appropriate action.

**Press Releases:** The Board President and the Board Vice President shall review and approve press releases developed by LACERS staff prior to any dissemination to any media contact or outlet.

#### Section 2.0 CONTRACT ADMINISTRATION

#### 2.1 MARKETING CESSATION POLICY

Adopted: April 24, 2007; Revised June 10, 2014, August 28, 2018

#### **Purpose**

The purpose of this policy is to ensure a transparent and fair contracting process which provides equal information and opportunity to all parties interested in contracting with LACERS. The policy helps prevent, and avoid the appearance of, undue influence on the Board or any of its Members in the award of investment related and other service contracts by placing restrictions on communications between parties seeking contracts and those involved in contract award and the contract process.

#### **Parties Affected**

Any firm or representative seeking a contract or contract extension/renewal with LACERS is a "Restricted Source" as defined by the City's Governmental Ethics Ordinance, and is subject to this policy.

Any Board Member, Staff member, City Attorney, LACERS consultant, or anyone working on LACERS' behalf which has any privileged information about the potential contract is subject to this policy.

#### **Notification**

All firms responding to a Request for Proposal are notified of the Department's Marketing Cessation Policy through the Request for Proposal solicitation. All firms whose contracts are approaching expiration are additionally notified of the Marketing Cessation Policy through their contract provisions.

#### **Restricted Period**

Restrictions apply from the time the Request for Proposal is released until a contract is executed.

#### Marketing Cessation Report - Notification to the Board

On a monthly basis, LACERS provides a report to the Board apprising Board Members and staff of firms for which there shall be no direct marketing discussions about contracts the firms are seeking or the contract award process; or for contracts in consideration of renewal, there shall be no discussions regarding the renewal of the existing contract.

The Marketing Cessation Report lists only active items that are subject to the Marketing Cessation Policy (e.g., contracts under consideration for renewal, active RFPs and RFQs). A separate list reflecting all current LACERS contracts is available in the Board Office upon request.

#### **Restrictions:**

#### **Communication Restrictions**

All firms that are potential candidates for the award of a contract, or extension of an existing contract, are prohibited from engaging in any direct or indirect marketing of their services except through the process set forth in the Request for Proposal. This includes a prohibition on conversations about the contract or the process to award it, but does not exclude conversations with restricted sources about generic topics at group social events, educational seminars, conferences, or charitable events.

#### Section 2.0 CONTRACT ADMINISTRATION

Communications with firms who currently have contracts with LACERS are acceptable when they are related to the performance of the existing contract.

#### **Gift Restrictions**

In addition to all other applicable gift restrictions, Board Members and Staff will accept no entertainment or gifts of any kind from any Restricted Source, or intermediary, during the restricted period. An incumbent firm is also restricted from providing any type of gift or entertainment to Board Members or Staff during the three months prior to renewal of the existing contract or during the restricted period, whichever is longer.

#### **Proposer Disclosure**

All Proposers shall provide the following disclosures with their RFP response. All recommendations to the Board to award a contract shall include a copy of such disclosures:

- 1. All respondents are required to submit a statement listing all contacts with Board Members, Staff, and Consultants during the restricted period.
- 2. All respondents shall provide information regarding any personal or business relationship between their personnel and any Member of the Board, Staff of LACERS, or Consultants who are designated as Form 700 filers in the Department's Conflict of Interest Code.
- 3. All respondents shall disclose any payments for marketing or placement services to any person, firm, or entity to assist in seeking the LACERS contracting opportunity.

#### **Penalties**

Any failures to disclose, or false disclosures, are a violation of this policy shall result in automatic disqualification of the firm involved.

This policy shall be reviewed by the Board every three years or earlier if necessitated by a change in local, State, or Federal statutes.

Section Affirmed: October 22, 2013; Revised: May 14, 2013, February 25, 2014, June 14, 2016, August 28, 2018

#### 4.1 GENERAL

#### A. Procedural Standard

The Board and its Committees shall operate under Robert's Rules of Order unless statutes or Board action provide otherwise.

#### B. **Board Actions**

Actions of the Board require four votes. The Los Angeles City Charter §503(c) requires that "Each board shall exercise the powers conferred upon it by the Charter by order or resolution adopted by a majority of its members. Action of the board shall be attested by the signatures of the President or Vice President, or two members of the board, and by the signature of the secretary of the board."

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Board meetings shall be convened and presided over by the President of the Board. In the absence of the President, the Vice President shall assume all responsibilities and authority of the President. In the absence of both the President and Vice President, the General Manager/Manager-Secretary will open the meeting and call for nominations of a President Pro Tempore from the members present to serve the duration of the meeting.

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Committee assignments are to be determined by the President or Acting President, who shall also name the Committee Chair. An alternate will be appointed for each Committee to serve in the absence of Committee Members. Additional alternates may be appointed on an as-needed basis by the Board President.

#### E. Committee Meeting Schedule and Attendance

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### Section 4.0 BOARD PROCEDURES

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#### 4.2 AGENDAS

- A. The Commission Executive Assistant shall prepare an Agenda for each Board meeting which incorporates a consent agenda, new business, items previously requested by Board Member(s) for inclusion, as well as those items deferred from previous meeting(s) categorized in the order to be determined in concurrence with the General Manager and Board President.
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Board Members shall refrain from publishing any written material and/or making any statements to the media or outside parties which purports to represent LACERS policies or initiatives on any matter or subject before the Board has formally adopted a policy or position on the matter or subject. However, this policy shall not be interpreted to preclude Board Members, as private citizens, from expressing their personal views.

Board Members who publish articles and/or participate in speaking engagements while identifying themselves as trustees of LACERS may provide factual, publicly available information without any

disclaimer. If the Board Member wants to express views other than adopted Board positions, he/she shall state that the views they are expressing are their personal views and are not LACERS' official position, and/or that they are not acting in an official capacity for LACERS.

Board Members should avoid expressing personal opinions and/or speculation as to the motivations of any Board Member's actions on LACERS' behalf.

**Timely Responses to Media Inquiries:** Board Members may receive inquiries directly from the media regarding pending or potential Board decisions or LACERS actions. To ensure a timely response in such instances, the Board Members immediately shall refer or transmit such inquiries to the Board President or General Manager pursuant to the policy above for appropriate action.

**Press Releases:** The Board President and the Board Vice President shall review and approve press releases developed by LACERS staff prior to any dissemination to any media contact or outlet.

## Section 2.0 CONTRACT ADMINISTRATION

#### 2.1 MARKETING CESSATION POLICY

Adopted: April 24, 2007; Revised June 10, 2014, August 28, 2018

### **Purpose**

The purpose of this policy is to ensure a transparent and fair contracting process which provides equal information and opportunity to all parties interested in contracting with LACERS. The policy helps prevent, and avoid the appearance of, undue influence on the Board or any of its Members in the award of investment related and other service contracts by placing restrictions on communications between parties seeking contracts and those involved in contract award and the contract process.

#### **Parties Affected**

Any firm or representative seeking a contract or contract extension/renewal with LACERS is a "Restricted Source" as defined by the City's Governmental Ethics Ordinance, and is subject to this policy.

Any Board Member, Staff member, City Attorney, LACERS consultant, or anyone working on LACERS' behalf which has any privileged information about the potential contract is subject to this policy.

#### **Notification**

All firms responding to a Request for Proposal are notified of the Department's Marketing Cessation Policy through the Request for Proposal solicitation. All firms whose contracts are approaching expiration are additionally notified of the Marketing Cessation Policy through their contract provisions.

#### **Restricted Period**

Restrictions apply from the time the Request for Proposal is released until a contract is executed.

#### Marketing Cessation Report - Notification to the Board

On a monthly basis, LACERS provides a report to the Board apprising Board Members and staff of firms for which there shall be no direct marketing discussions about contracts the firms are seeking or the contract award process; or for contracts in consideration of renewal, there shall be no discussions regarding the renewal of the existing contract.

The Marketing Cessation Report lists only active items that are subject to the Marketing Cessation Policy (e.g., contracts under consideration for renewal, active RFPs and RFQs). A separate list reflecting all current LACERS contracts is available in the Board Office upon request.

#### **Restrictions:**

#### **Communication Restrictions**

All firms that are potential candidates for the award of a contract, or extension of an existing contract, are prohibited from engaging in any direct or indirect marketing of their services except through the process set forth in the Request for Proposal. This includes a prohibition on conversations about the contract or the process to award it, but does not exclude conversations with restricted sources about generic topics at group social events, educational seminars, conferences, or charitable events.

### Section 2.0 CONTRACT ADMINISTRATION

Communications with firms who currently have contracts with LACERS are acceptable when they are related to the performance of the existing contract.

#### **Gift Restrictions**

In addition to all other applicable gift restrictions, Board Members and Staff will accept no entertainment or gifts of any kind from any Restricted Source, or intermediary, during the restricted period. An incumbent firm is also restricted from providing any type of gift or entertainment to Board Members or Staff during the three months prior to renewal of the existing contract or during the restricted period, whichever is longer.

#### **Proposer Disclosure**

All Proposers shall provide the following disclosures with their RFP response. All recommendations to the Board to award a contract shall include a copy of such disclosures:

- 1. All respondents are required to submit a statement listing all contacts with Board Members, Staff, and Consultants during the restricted period.
- 2. All respondents shall provide information regarding any personal or business relationship between their personnel and any Member of the Board, Staff of LACERS, or Consultants who are designated as Form 700 filers in the Department's Conflict of Interest Code.
- 3. All respondents shall disclose any payments for marketing or placement services to any person, firm, or entity to assist in seeking the LACERS contracting opportunity.

#### **Penalties**

Any failures to disclose, or false disclosures, are a violation of this policy shall result in automatic disqualification of the firm involved.

This policy shall be reviewed by the Board every three years or earlier if necessitated by a change in local, State, or Federal statutes.





## Report to Board of Administration

Agenda of: SEPTEMBER 11, 2018

From: Neil M. Gudlielmo, General Manager

ITEM:

VI-B

SUBJECT: LARGER ANNUITY PROGRAM REVIEW

## Recommendation

That the Board direct staff, with the assistance of the City Attorney, to review the Larger Annuity Program (Program) and report back to the Benefits Administration Committee with an evaluation of the Program including elements such as cost neutrality, operational efficiency, legal considerations, risk, and strategic alignment.

### Discussion

The Larger Annuity Program is a voluntary program available to all active LACERS Members for investing their money toward their individual retirement. The Program has two components: (i) an investment component and (ii) an annuity component. Participants may invest by contributing to an individual account through (i) after-tax payroll deductions, (ii) after-tax lump-sum payments, or (iii) direct pre-tax transfers or rollovers from other qualified plans (frequently from the City's Deferred Compensation Plan). Accounts earn interest based on the average five-year Treasury Note, or returns based on LACERS' realized rate of return (gains and losses) for the publicly-traded portion of the LACERS' investment portfolio, depending on the option selected by the Member. LACERS administers the annuity funds in a separate trust fund; maintains accounting of individual accounts; credits interest and earnings; and provides the lifetime annuity payments.

At the time of retirement, participants can elect to use all or part of their account balance to purchase a lifetime annuity to supplement their LACERS' defined benefit pension (a single annuity with or without cash refund or joint and survivor annuity with or without a cash refund). Participants also have the option to instead elect to (i) receive a lump-sum refund of some or all of their account balance or (ii) rollover some of their account balance to another retirement plan.

As of August 2018, there are 517 retired LACERS Members and 20 joint survivors who are receiving monthly larger annuity payments. In addition, there are 145 active LACERS Members who have deposits on account with LACERS, 87 of which are in publicly traded investments and 58 in five-year Treasury notes.

As part of LACERS' Strategic Plan on ensuring accurate and timely delivery of Member benefits, programs are regularly reviewed to determine whether updates are necessary. Although the Larger Annuity Program Board Rules have been reviewed and updated as part of various compliance efforts over time (most recently in 2016), staff has preliminarily identified some areas requiring further analysis; therefore, staff is recommending that the Board direct staff to review the program in totality and report back with findings and recommendations.

Strategic Plan Impact Statement:

The approval of this recommendation is to ensure the accurate and timely delivery of retirement benefits for Members in accordance with Strategic Plan Goal II – Benefit Delivery.

This report was prepared by Todd Bouey, Assistant General Manager.

NMG:TAB:DWN

# PORTFOLIO PERFORMANCE REVIEW

# LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Quarter Ending June 30, 2018

**September 11, 2018** 





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## **MARKET OUTLOOK**

NEPC, LLC —

## PERFORMANCE OVERVIEW

## **Q2 Market Summary**

Macro		Equity				Credit		Real Assets			
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
5.0%	-3.9	12 bps	3.4%	-1.2%	-8.0%	-0.2%	1.0%	-3.5%	14.2%	-5.4%	8.3%

- US stocks increased on the quarter, supported by strong earnings growth
- Emerging market equities and currencies weakened this quarter as trade concerns and Federal Reserve interest rate increases weighed on markets
  - The US dollar reversed its first quarter decline and increased relative to a basket of major developed market currencies
- The US yield curve continued to flatten as the second Fed rate hike of 2018 pushed short-term interest rates higher

Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), S&P 500 (US Equity), MSCI EAFE Index (International Developed Equity), MSCI Emerging Markets (Emerging Markets Equity), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM Emerging Market Bond Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITs (NAREIT Composite Index).



## MACRO PERFORMANCE OVERVIEW

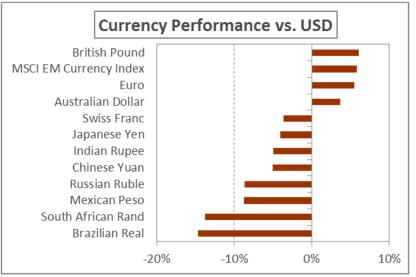
## **Q2 Macro Market Summary**

- The global growth outlook remains strong, particularly in the US
- Global equity market volatility fell, despite escalating tensions related to the US-China trade dispute
- The US Treasury curve continued to flatten raising concerns of an inverted curve should the Fed hike rates beyond market expectations

Central Banks	Current Rate	CPI YOY	Notes from the Quarter
Federal Reserve	1.75% - 2.00%	2.9%	The Fed increased its benchmark interest rate to 1.75% - 2.00% in June and is expected to hike rates two more times in 2018
European Central Bank	0.0%	1.7%	The ECB maintained its current benchmark interest rate, while indicating rates would remain steady at least through mid-2019.
Bank of Japan	-0.1%	1.3%	The BoJ will continue its ultra-easy  QE program with inflation remaining well below target.

	Yield 03/31/18	Yield 06/30/18	Δ
US 10-Yr	2.74%	2.86%	0.12%
US 30-Yr	2.97%	2.99%	0.02%
US Real 10-Yr	0.68%	0.74%	0.05%
German 10-Yr	0.50%	0.30%	-0.20%
Japan 10-Yr	0.05%	0.04%	-0.01%
China 10-Yr	3.75%	3.48%	-0.27%
EM Local Debt	6.00%	6.59%	0.59%

Source: Bloomberg







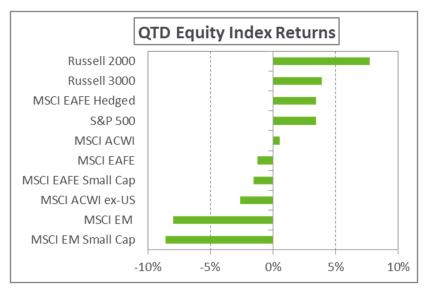
## **EQUITY PERFORMANCE OVERVIEW**

## **Q2 Equity Market Summary**

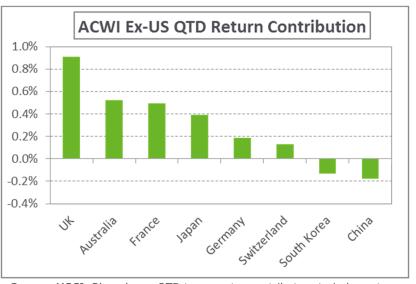
- US small cap outperformed large cap as tax reform benefits helped boost earnings
- Trade concerns and yuan weakness weighed on Chinese returns as equity markets neared bear market territory

Russell 3000 QTD Sector Ret	urn Contribution
Information Technology	1.5%
Consumer Discretionary	0.0%
Financials	0.1%
Industrials	0.4%
Consumer Staples	0.9%
Energy	0.4%
Materials	0.1%
Health Care	0.2%
Real Estate	0.0%
Telecommunication	-0.0%
Utilities	-0.1%





Source: MSCI, Russell, S&P, Bloomberg



Source: MSCI, Bloomberg. QTD top country contributors to index return

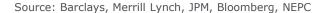


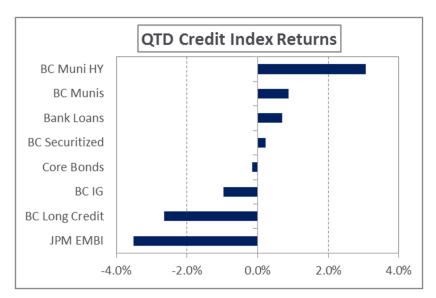
## **CREDIT PERFORMANCE OVERVIEW**

## **Q2** Credit Market Summary

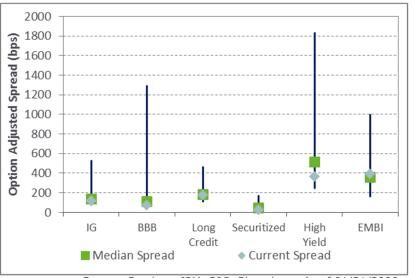
- Credit spreads increased slightly, but remain below medians in most areas of the credit market
- Dollar-denominated EMD spreads increased 62 bps during the quarter, resulting in a decline of 3.5%
- Local currency EMD declined 10.4% as currency weakness weighed on returns

Credit Spread (Basis Points)	03/31/18	06/30/18	Δ
BC IG Credit	103	116	13
BC Long Credit	148	174	26
BC Securitized	29	28	-1
BC High Yield	354	363	9
Muni HY	253	198	-55
JPM EMBI	326	388	62
Bank Loans - Libor	257	303	46





Source: Barclays, JPM, S&P, Bloomberg



Source: Barclays, JPM, S&P, Bloomberg. As of 01/31/2000

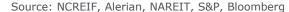


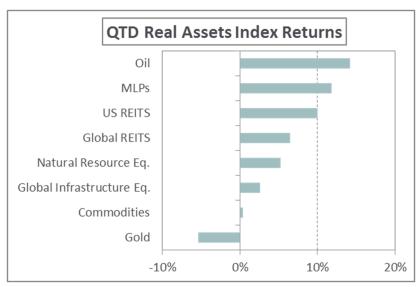
## REAL ASSETS PERFORMANCE OVERVIEW

## **Q2 Real Assets Market Summary**

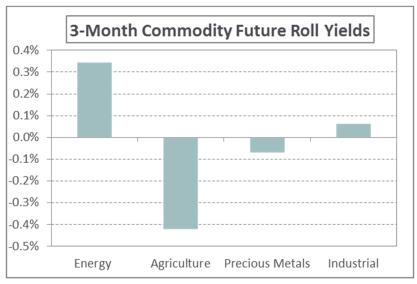
- Crude oil increased 14.2% during the quarter as a result of tighter global supply and US-imposed sanctions on Iran
- Agricultural commodities broadly declined, as Chinese tariffs specifically targeted soybeans
- MLPs reversed steep losses from earlier in the year as industry consolidation and simplification continues

Real Asset Yields	03/31/18	06/30/18
MLPs	8.9%	8.1%
Core Real Estate	4.5%	4.2%
US REITs	4.6%	4.4%
Global REITs	4.0%	3.7%
Global Infrastructure Equities	3.9%	4.4%
Natural Resource Equities	3.6%	3.5%
US 10-Yr Breakeven Inflation	2.1%	2.1%
Commodity Index Roll Yield	-1.6%	0.1%





Source: S&P, NAREIT, Alerian, Bloomberg



Source: Bloomberg, NEPC Calculated as of 07/11/2018



## **KEY MARKET THEMES**

## **Extended US Economic Cycle**

## Economic cycles do not die of old age

The US economy is in an extended expansionary cycle despite being nine years removed from the last recession

Fiscal stimulus, health of US consumers, and ongoing recovery of the housing market continue to drive economic growth

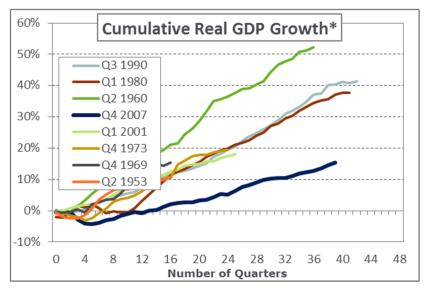
A prolonged US economic expansion can support a continued rally for US equities despite elevated valuation levels

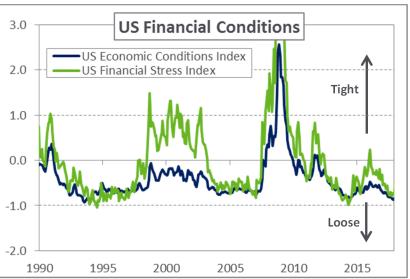
# US financial conditions remain loose and support steady economic gains

An acceleration in inflation leading to Fed tightening has historically been a catalyst to end economic expansions

US recession concerns are muted as strong global economic conditions and growth rates reinforce an expansion of the US economy

Reversal in these easy conditions may be fueled from a misstep by the Fed, strong dollar, and/or increased volatility in the Chinese yuan





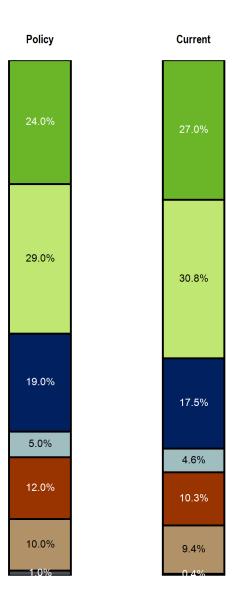
Source: (Top) Bloomberg,\*Cumulative GDP growth from prior cycle peak Source: (Bottom) Federal Reserve Bank of Chicago and Kansas City



# ASSET CLASS POLICY OVERVIEW

NEPC, LLC -

## TOTAL FUND ASSET ALLOCATION VS. POLICY



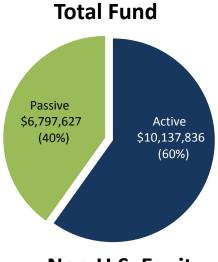
	Asset Allocation vs. Target											
	Current	Policy	Current D	ifference*	Policy Range	Within Range						
U.S. Equity	\$4,577,034,410	24.00%	27.03%	3.03%	19.00% - 29.00%	Yes						
Non-US Equity	\$5,211,134,297	29.00%	30.77%	1.77%	24.00% - 34.00%	Yes						
Core Fixed Income	\$2,968,739,173	19.00%	17.53%	-1.47%	15.00% - 22.00%	Yes						
Credit Opportunities	\$779,843,835	5.00%	4.60%	-0.40%	0.00% - 10.00%	Yes						
Private Equity	\$1,740,939,981	12.00%	10.28%	-1.72%		Yes						
Real Assets	\$1,591,862,100	10.00%	9.40%	-0.60%	7.00% - 13.00%	Yes						
Cash	\$65,904,301	1.00%	0.39%	-0.61%	0.00% - 2.00%	Yes						
Total	\$16,935,458,097	100.00%	100.00%									

<sup>\*</sup>Difference between Policy and Current Allocation



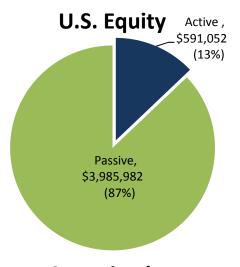
## **ACTIVE VS. PASSIVE MANAGER BREAKDOWN**

Note: Market values shown in millions \$(000).

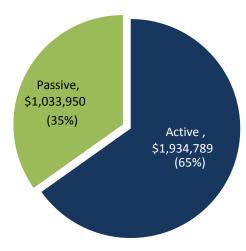


Non-U.S. Equity





**Core Fixed Income** 



- Of the Total Fund, LACERS allocated 60% to active managers and 40% to passive managers.
- Credit Opportunities, Private Equity, and Real Assets programs are active and therefore are not shown.

# PERFORMANCE OVERVIEW

NEPC, LLC —

## **TOTAL FUND PERFORMANCE SUMMARY (GROSS OF FEES)**

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	15 Yrs	Rank	Inception	Inception Date
LACERS Master Trust	\$16,935,458,097	0.76%	75	0.99%	54	9.23%	29	7.55%	24	8.65%	33	6.91%	48	8.12%	19	8.31%	Oct-94
Policy Index		0.89%	70	0.37%	79	8.59%	63	7.41%	38	8.38%	42	6.82%	51	7.80%	43	8.22%	Oct-94
InvestorForce Public DB \$5- 50B Gross Median		1.11%		1.20%		8.84%		7.30%		8.31%		6.83%		7.72%		8.09%	Oct-94

Over the past five years, the Fund returned 8.65% per annum, outperforming the policy index by 0.27% and ranked in the  $33^{\rm rd}$  percentile of the InvestorForce Public Funds \$5 Billion-\$50 Billion universe. The Fund's volatility was 6.11% and ranks in the  $51^{\rm st}$  percentile of its peers over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio, ranks in the  $21^{\rm st}$  percentile of its peers.

Over the past three years, the Fund returned 7.55% per annum, outperforming the policy index by 0.14% and ranked in the  $24^{th}$  percentile in its peer group. The Fund's volatility ranks in the  $44^{th}$  percentile resulting in a three-year Sharpe Ratio of 1.1, ranking in the  $38^{th}$  percentile.

For the one year ended June 30, 2018, the Fund experienced a net investment gain of \$1.48 billion, which includes a net investment gain of \$129.9 million during the second calendar quarter. Assets increased from \$15.7 billion twelve months ago to \$16.9 billion on June 30, 2018. The Fund returned 9.23%, outperforming the policy index by 0.64% and ranked in the 29<sup>th</sup> percentile of its peers.

All asset classes were within policy range as of June 30, 2018.

The InvestorForce Public Funds \$5 Billion- \$50 Billion Universe contains 21 observations for the period ending June 30, 2018.



		5 Yea	rs Ending Ju	ne 30, 20	18			
	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	8.65%	33	6.11%	51	1.34	21	2.46	15
Policy Index	8.38%	42	6.80%	84	1.17	81	1.96	53
InvestorForce Public DB \$5-50B Gross Median	8.31%		6.11%		1.29	-	1.98	

3 Years Ending June 30, 2018											
	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank			
LACERS Master Trust	7.55%	24	6.21%	44	1.10	38	1.66	15			
Policy Index	7.41%	38	7.10%	96	0.94	71	1.31	55			
InvestorForce Public DB \$5-50B Gross Median	7.30%		6.29%		1.05		1.39	-			



## **TOTAL FUND PERFORMANCE DETAIL (GROSS)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	16,935,458,097	100.00	0.76	0.99	9.23	7.55	8.65	6.91	8.31	Oct-94
Policy Index			<u>0.89</u>	<u>0.37</u>	<u>8.59</u>	<u>7.41</u>	<u>8.38</u>	<u>6.82</u>	8.22	Oct-94
Over/Under			-0.13	0.62	0.64	0.14	0.27	0.09	0.09	
U.S. Equity	4,577,034,410	27.03	4.32	3.72	15.33	11.66	13.38	10.36	10.58	Oct-94
U.S. Equity Blend			<u>3.89</u>	3.22	<u>14.78</u>	<u>11.58</u>	<u>13.29</u>	<u>10.23</u>	9.44	Oct-94
Over/Under			0.43	0.50	0.55	0.08	0.09	0.13	1.14	
Non-U.S. Equity	5,211,134,297	30.77	-2.35	-2.41	9.85	6.94	7.67	4.15	7.26	Aug-01
MSCI ACWI ex USA			<u>-2.61</u>	<u>-3.77</u>	<u>7.28</u>	<u>5.07</u>	<u>5.99</u>	<u>2.54</u>	<u>6.32</u>	Aug-01
Over/Under			0.26	1.36	2.57	1.87	1.68	1.61	0.94	
Core Fixed Income	2,968,739,173	17.53	-0.34	-1.63	-0.28	2.07	2.78		2.62	Jul-12
Core Fixed Income Blend			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>	<u>2.27</u>		<u>1.93</u>	Jul-12
Over/Under			-0.18	-0.01	0.12	0.35	0.51		0.69	
Credit Opportunities	779,843,835	4.60	-0.85	-1.62	1.82	4.83	5.19		5.19	Jun-13
Credit Opportunities Blend			<u>-0.59</u>	<u>-1.75</u>	<u>1.14</u>	<u>5.25</u>	<u>5.41</u>		<u>5.41</u>	Jun-13
Over/Under			-0.26	0.13	0.68	-0.42	-0.22		-0.22	
Real Assets	1,591,862,100	9.40	1.93	2.40	5.87	6.16	7.72	0.03	6.35	Nov-94
CPI + 5% (Unadjusted)			<u>2.21</u>	<u>4.73</u>	<u>8.00</u>	<u>6.91</u>	<u>6.61</u>	<u>6.49</u>	<u>7.34</u>	Nov-94
Over/Under			-0.28	-2.33	-2.13	-0.75	1.11	-6.46	-0.99	
Public Real Assets	782,897,059	4.62	1.49	0.09	3.81	2.47			1.11	Jun-14
Public Real Assets Blend			<u>2.57</u>	<u>0.22</u>	<u>2.95</u>	<u>0.80</u>			<u>-1.36</u>	Jun-14
Over/Under			-1.08	-0.13	0.86	1.67			2.47	
Private Real Estate	788,365,484	4.66	2.39	4.70	8.04	9.54	10.49	1.31	6.92	Oct-94
Real Estate Blend			<u>2.25</u>	<u>4.71</u>	<u>9.31</u>	<u>10.23</u>	<u>11.64</u>	<u>7.21</u>	<u>9.98</u>	Oct-94
Over/Under			0.14	-0.01	-1.27	-0.69	-1.15	-5.90	-3.06	
Private Equity	1,740,939,981	10.28	2.89	8.23	13.93	10.54	11.85	9.36	10.41	Nov-95
Private Equity Blend			<u>4.65</u>	<u>4.75</u>	<u>18.18</u>	<u>14.90</u>	<u>16.66</u>	<u>13.95</u>	<u>13.06</u>	Nov-95
Over/Under			-1.76	3.48	-4.25	-4.36	-4.81	-4.59	-2.65	
Cash	65,904,301	0.39								



## **TOTAL FUND PERFORMANCE DETAIL (NET)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	16,935,458,097	100.00	0.71	0.89	9.04	7.36	8.46	6.71	(73)	Oct-94
Policy Index			0.89	<u>0.37</u>	<u>8.59</u>	7.41	<u>8.38</u>	<u>6.82</u>		Oct-94
Over/Under			-0.18	0.52	0.45	-0.05	0.08	-0.11		
U.S. Equity	4,577,034,410	27.03	4.30	3.69	15.26	11.58	13.25	10.19		Oct-94
U.S. Equity Blend			<u>3.89</u>	<u>3.22</u>	<u>14.78</u>	<u>11.58</u>	<u>13.29</u>	<u>10.23</u>		Oct-94
Over/Under			0.41	0.47	0.48	0.00	-0.04	-0.04		
Non-U.S. Equity	5,211,134,297	30.77	-2.45	-2.60	9.45	6.56	7.32	3.80	6.89	Aug-01
MSCI ACWI ex USA			<u>-2.61</u>	<u>-3.77</u>	<u>7.28</u>	<u>5.07</u>	<u>5.99</u>	<u>2.54</u>	<u>6.32</u>	Aug-01
Over/Under			0.16	1.17	2.17	1.49	1.33	1.26	0.57	
Core Fixed Income	2,968,739,173	17.53	-0.37	-1.68	-0.38	1.97	2.66		2.50	Jul-12
Core Fixed Income Blend			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>	<u>2.27</u>		<u>1.93</u>	Jul-12
Over/Under			-0.21	-0.06	0.02	0.25	0.39		0.57	
Credit Opportunities	779,843,835	4.60	-0.94	-1.79	1.47	4.46	4.84		4.84	Jun-13
Credit Opportunities Blend			<u>-0.59</u>	<u>-1.75</u>	<u>1.14</u>	<u>5.25</u>	<u>5.41</u>		<u>5.41</u>	Jun-13
Over/Under			-0.35	-0.04	0.33	-0.79	-0.57		-0.57	
Real Assets	1,591,862,100	9.40	1.89	2.33	5.70	5.99	7.57	-0.11		Nov-94
CPI + 5% (Unadjusted)			<u>2.21</u>	<u>4.73</u>	<u>8.00</u>	<u>6.91</u>	<u>6.61</u>	<u>6.49</u>		Nov-94
Over/Under			-0.32	-2.40	-2.30	-0.92	0.96	-6.60		
Public Real Assets	782,897,059	4.62	1.40	-0.05	3.53	2.22			0.91	Jun-14
Public Real Assets Blend			<u>2.57</u>	<u>0.22</u>	<u>2.95</u>	<u>0.80</u>			<u>-1.36</u>	Jun-14
Over/Under			-1.17	-0.27	0.58	1.42			2.27	
Private Real Estate	788,365,484	4.66	2.39	4.68	7.97	9.45	10.38	1.19		Oct-94
Real Estate Blend			<u>2.25</u>	<u>4.71</u>	<u>9.31</u>	<u>10.23</u>	<u>11.64</u>	<u>7.21</u>		Oct-94
Over/Under			0.14	-0.03	-1.34	-0.78	-1.26	-6.02		
Private Equity	1,740,939,981	10.28	2.89	8.23	13.93	10.56	11.86	9.37		Nov-95
Private Equity Blend			<u>4.65</u>	<u>4.75</u>	<u>18.18</u>	<u>14.90</u>	<u>16.66</u>	<u>13.95</u>		Nov-95
Over/Under			-1.76	3.48	-4.25	-4.34	-4.80	-4.58		
Cash	65,904,301	0.39								



## **TOTAL FUND RISK STATISTICS (NET)**

				3	Years Er	ding June 30,	2018						
	% of Total MV (%)	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Annualized Alpha Jensen (%)	Rank	Information Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
LACERS Master Trust	100.00%	7.36%	42	6.22%	44	0.81%	26	-0.05		1.54	24	1.10%	59
U.S. Equity	27.03%	11.58%	25	10.38%	42	-0.06%	27	-0.01		1.45	38	0.67%	7
Non-U.S. Equity	30.77%	6.56%	33	11.89%	78	1.61%	35	1.35	1	0.85	29	1.11%	7
Developed ex-U.S.	23.89%	6.41%		11.45%		1.76%		1.03		0.79		1.47%	
Emerging Markets	6.88%	5.57%	16	16.48%	97	-0.15%	24	-0.02		0.55	27	0.99%	1
Core Fixed Income	17.53%	1.97%	84	2.55%	47	0.31%	73	0.47	53	0.64	75	0.53%	20
Credit Opportunities	4.60%	4.46%		4.93%		-0.64%		-0.80		1.29		0.99%	
Real Assets	9.40%	5.99%		2.18%		0.04%		-0.45		12.88	-	2.06%	
Public Real Assets	4.62%	2.22%		4.09%		1.45%		0.60		0.81		2.34%	
Private Real Estate	4.66%	9.45%	12	1.93%	29	11.19%	1	-0.15		29.58	55	5.21%	96
Private Equity	10.28%	10.56%	62	3.71%	14	10.79%	18	-0.38		11.06	60	11.57%	78

				5	Years E	nding June 30,	2018						
	% of Total MV (%)	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Annualized Alpha Jensen (%)	Rank	Information Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
LACERS Master Trust	100.00%	8.46%	40	6.12%	51	0.92%	29	0.07	60	2.31	17	1.02%	55
U.S. Equity	27.03%	13.25%	26	10.07%	41	-0.17%	30	-0.07		2.09	38	0.65%	9
Non-U.S. Equity	30.77%	7.32%	45	11.40%	76	1.48%	36	1.05	1	1.09	29	1.27%	15
Developed ex-U.S.	23.89%	7.53%		11.12%		1.39%		0.79		1.13		1.38%	
Emerging Markets	6.88%	4.64%	21	15.32%	96	-0.48%	29	-0.21		0.48	47	1.80%	6
Core Fixed Income	17.53%	2.66%	63	2.63%	44	0.48%	66	0.69	35	1.33	61	0.56%	18
Real Assets	9.40%	7.57%		2.20%		5.57%		0.42		18.52		2.31%	
Private Real Estate	4.66%	10.38%	46	1.91%	19	12.40%	1	-0.22		33.67	41	5.66%	91
Private Equity	10.28%	11.86%	74	4.03%	13	11.60%	45	-0.44		12.36	54	10.84%	64

Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



# PRIVATE MARKETS PERFORMANCE AS OF MARCH 31, 2018

Private Equity*	10 Year IRR *	Since Inception IRR*	Since Inception Multiple*
Aggregate Portfolio	8.82%	11.15%	1.53x
Core Portfolio	9.41%	11.73%	1.56x
Specialized Portfolio	1.89%	1.64%	1.10x
Russell 3000 + 300 bps	11.71%	10.80%	N/A

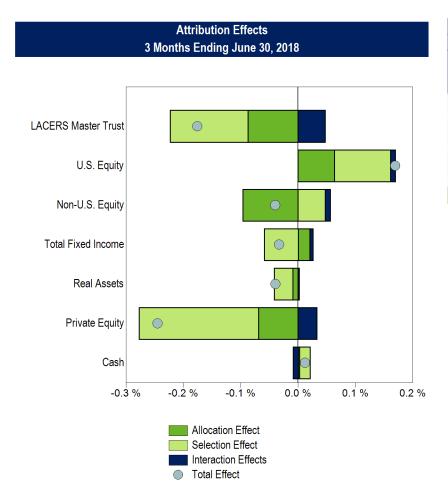
Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) <sup>1</sup>	0.79%	5.98%
NFI-ODCE + 80 basis points (TWR)	4.96%	7.14%

Note: The Total Value to Paid-In Ratio (TVPI) is a multiple that relates the current value of the private equity portfolio plus all distributions received to date with the total amount of capital contributed.

- 1 IRR is not available for the Real Estate portfolio and therefore only time weighted returns (TWR) are reported.
- \* Performance results as at December 31, 2017 due to data availability from asset class consultant.



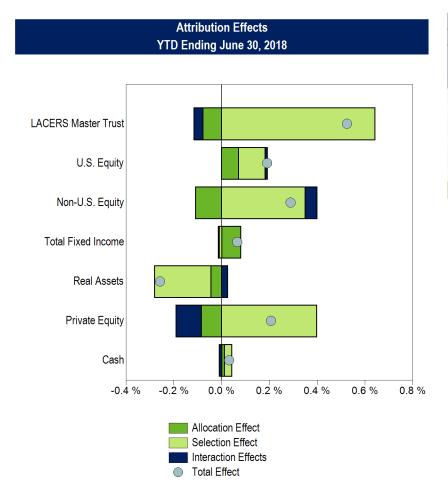
# **TOTAL FUND ATTRIBUTION ANALYSIS (NET)**



Attribution Summary 3 Months Ending June 30, 2018													
	Policy Wtd. Wtd. Excess Selection Allocation Interaction Weight Return Return Effect Effects Return Return												
U.S. Equity	24.00%	4.30%	3.89%	0.41%	0.10%	0.06%	0.01%	0.17%					
Non-U.S. Equity	29.00%	-2.45%	-2.61%	0.17%	0.05%	-0.10%	0.01%	-0.04%					
Total Fixed Income	24.00%	-0.49%	-0.25%	-0.24%	-0.06%	0.02%	0.00%	-0.03%					
Real Assets	10.00%	1.89%	2.21%	-0.32%	-0.03%	-0.01%	0.00%	-0.04%					
Private Equity	12.00%	2.89%	4.65%	-1.76%	-0.21%	-0.07%	0.03%	-0.25%					
Cash	1.00%	2.24%	0.46%	1.79%	0.02%	0.00%	-0.01%	0.01%					
Total	100.00%	0.72%	0.89%	-0.18%	-0.14%	-0.09%	0.05%	-0.18%					



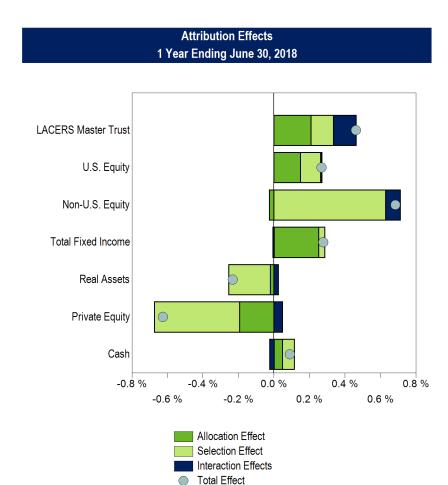
# **TOTAL FUND ATTRIBUTION ANALYSIS (NET)**



Attribution Summary YTD Ending June 30, 2018													
	Policy Weight	γ Δετίμαι Ιραθά											
U.S. Equity	24.00%	3.69%	3.22%	0.47%	0.11%	0.07%	0.01%	0.19%					
Non-U.S. Equity	29.00%	-2.60%	-3.77%	1.17%	0.35%	-0.11%	0.05%	0.29%					
Total Fixed Income	24.00%	-1.68%	-1.64%	-0.04%	-0.01%	0.08%	0.00%	0.07%					
Real Assets	10.00%	2.33%	4.73%	-2.41%	-0.23%	-0.05%	0.02%	-0.26%					
Private Equity	12.00%	8.23%	4.75%	3.48%	0.40%	-0.09%	-0.10%	0.21%					
Cash	1 7												
Total	100.00%	0.90%	0.37%	0.52%	0.64%	-0.08%	-0.04%	0.52%					



# **TOTAL FUND ATTRIBUTION ANALYSIS (NET)**

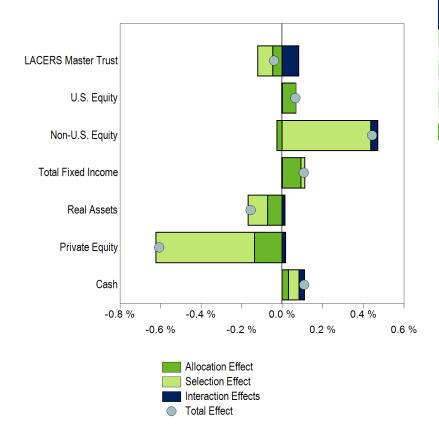


	Attribution Summary 1 Year Ending June 30, 2018													
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation I Effect	nteraction Effects	Total Effects						
U.S. Equity	24.00%	15.26%	14.78%	0.48%	0.11%	0.15%	0.01%	0.27%						
Non-U.S. Equity	29.00%	9.45%	7.28%	2.17%	0.63%	-0.03%	0.08%	0.68%						
Total Fixed Income	24.00%	0.05%	-0.07%	0.13%	0.03%	0.25%	-0.01%	0.28%						
Real Assets	10.00%	5.70%	8.00%	-2.30%	-0.23%	-0.02%	0.02%	-0.23%						
Private Equity	12.00%	13.93%	18.18%	-4.25%	-0.48%	-0.19%	0.05%	-0.63%						
Cash	1.00%	7.59%	1.40%	6.19%	0.06%	0.05%	-0.02%	0.09%						
Total	100.00%	9.05%	8.59%	0.46%	0.13%	0.21%	0.13%	0.46%						



## **TOTAL FUND ATTRIBUTION ANALYSIS (NET)**

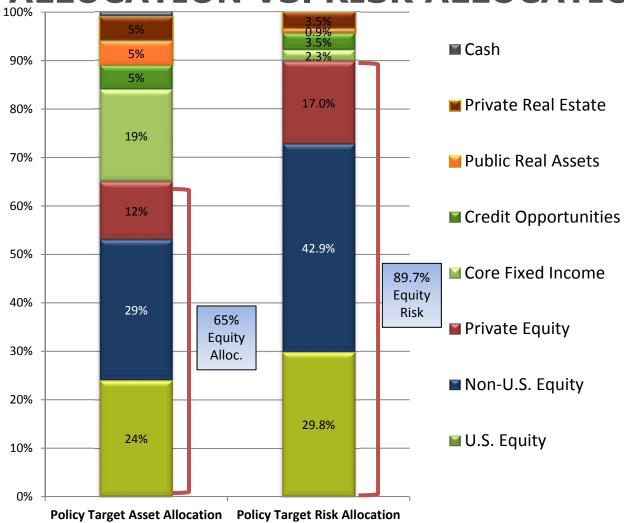
# Attribution Effects 3 Years Ending June 30, 2018



Attribution Summary 3 Years Ending June 30, 2018												
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return		Allocation I Effect	nteraction Effects	Total Effects				
U.S. Equity	24.00%	11.58%	11.58%	-0.01%	0.00%	0.07%	0.00%	0.06%				
Non-U.S. Equity	29.00%	6.56%	5.07%	1.49%	0.44%	-0.03%	0.03%	0.44%				
Total Fixed Income	24.00%	2.54%	2.46%	0.07%	0.02%	0.09%	0.00%	0.11%				
Real Assets	10.00%	5.99%	6.91%	-0.92%	-0.09%	-0.07%	0.01%	-0.16%				
Private Equity	12.00%	10.56%	14.90%	-4.34%	-0.48%	-0.14%	0.02%	-0.61%				
Cash	1.00%	5.80%	0.70%	5.10%	0.05%	0.03%	0.02%	0.11%				
Total	100.00%	7.38%	7.42%	-0.04%	-0.07%	-0.05%	0.08%	-0.04%				



# TOTAL FUND RISK ALLOCATION - ASSET ALLOCATION VS. RISK ALLOCATION



- Public and Private Equity policy target asset allocation is 65%; accounts for 89.7% of the policy target portfolio risk.
- Core Fixed Income and Credit Opportunities policy allocation is 24%, accounting for 5.8% of the policy target portfolio risk.
- Real Assets (Private Real Estate and Pubic Real Assets) policy allocation is 10%, accounting for 4.4% of policy target portfolio risk.



# PUBLIC MARKETS RISK BUDGET COMPARISON AS OF JUNE 30, 2018

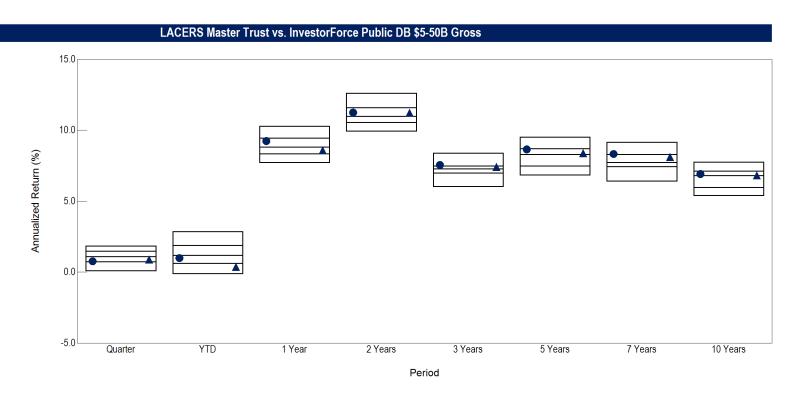
Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	0.50%	0.67%
Non-U.S. Equity	1.20%	1.11%
Core Fixed Income	1.00%	0.53%
Credit Opportunities	1.50%	0.99%
Public Real Assets*	3.00%	2.34%

- Current LACERS public market asset class composite tracking errors are compared to asset class target risk budgets to ensure active risks are within expectations.
- Risk budgets are to be evaluated over three-year periods, at minimum, to reflect a full market cycle.
- All equity public markets asset classes are within an appropriately narrow range of their respective risk budgets.
- Both Core Fixed Income and Credit Opportunities have exhibited lower than expected active risk.
- The LACERS Public Real Assets composite is not at its target strategy allocation.

<sup>\*</sup> The benchmark for the Public Real Assets composite is a custom policy benchmark that is comprised of the target weights of the public real asset components. The public real asset benchmark weights are 60% TIPS, 20% Commodities, 10% REITs, and 10% MLPs.



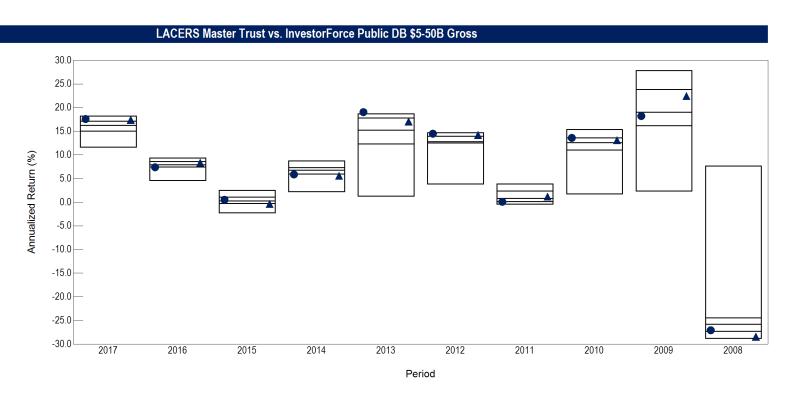
## TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE



		Return (Rank)	)														
5th	Percentile	1.83		2.85		10.27		12.60		8.38		9.50		9.14		7.75	
25th	Percentile	1.49		1.89		9.47		11.61		7.50		8.72		8.30		7.15	
Med	lian	1.11		1.20		8.84		11.01		7.30		8.31		7.74		6.83	
75th	Percentile	0.75		0.64		8.35		10.57		7.00		7.50		7.46		5.99	
95th	Percentile	0.11		-0.10		7.74		9.95		6.04		6.87		6.45		5.43	
# of	Portfolios	21		21		21		21		21		20		20		18	
• L/	ACERS Master Trust	0.76	(75)	0.99	(54)	9.23	(29)	11.24	(37)	7.55	(24)	8.65	(33)	8.32	(21)	6.91	(48)
▲ P	olicy Index	0.89	(70)	0.37	(79)	8.59	(63)	11.23	(37)	7.41	(38)	8.38	(42)	8.11	(34)	6.82	(51)



## TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

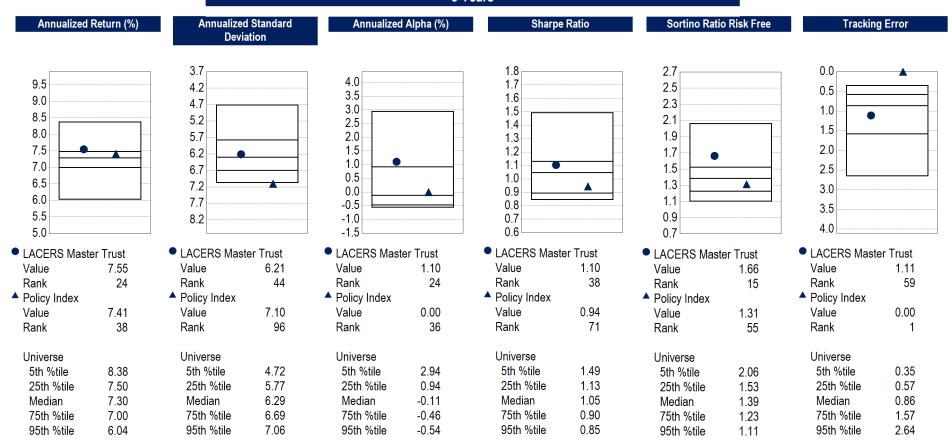


		Return (R	ank)																	
5	h Percentile	18.21	9	.30	2.50		8.72		18.69		14.65		3.83		15.32		27.83		7.63	
2	5th Percentile	17.15	8	.68	1.12		7.38		17.86		14.01		2.41		13.67		23.91		-24.40	
Λ	edian	16.29	7	.99	0.35		6.79		15.31		12.83		0.86		12.66		19.07		-25.72	
7	5th Percentile	15.05	7	.51	-0.24		6.04		12.36		12.58		0.21		11.06		16.24		-27.23	
9	5th Percentile	11.68	4	.65	-2.20		2.25		1.36		3.92		-0.37		1.83		2.42		-28.75	
#	of Portfolios	46		30	24		24		23		16		16		15		15		15	
•	LACERS Master Trust	17.57	(12) 7	.38	(78) 0.49	(41)	5.85	(81)	19.03	(4)	14.47	(7)	0.08	(89)	13.58	(29)	18.21	(67)	-27.07	(68)
•	Policy Index	17.41	(14) 8	.35	(41) -0.39	(77)	5.58	(87)	17.06	(31)	14.23	(21)	1.17	(44)	13.11	(34)	22.44	(38)	-28.43	(94)



#### TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

LACERS Master Trust vs. InvestorForce Public DB \$5-50B Gross 3 Years

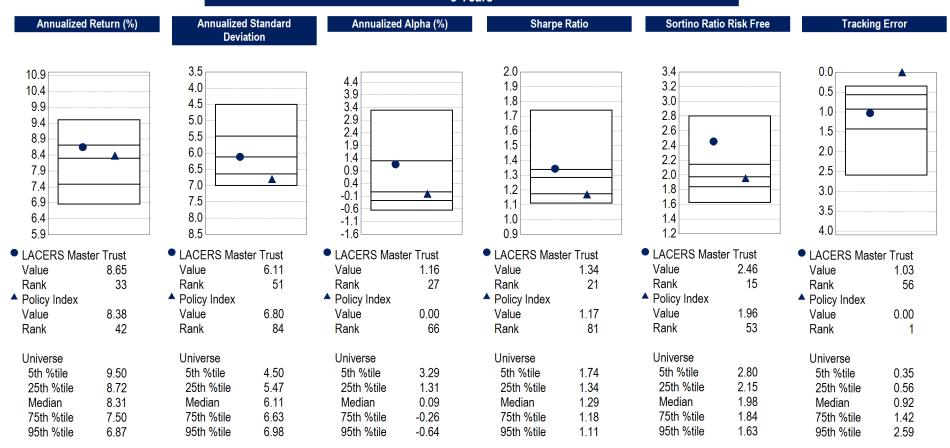


Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



#### TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

LACERS Master Trust vs. InvestorForce Public DB \$5-50B Gross 5 Years

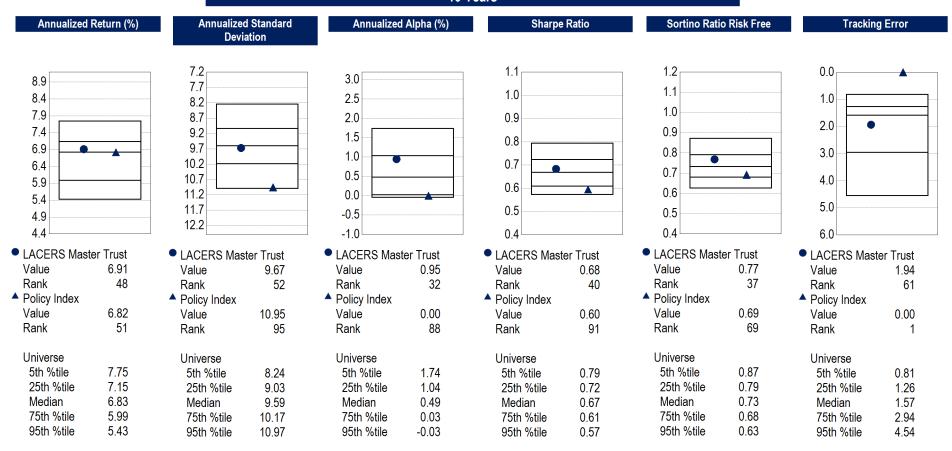


Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



#### TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

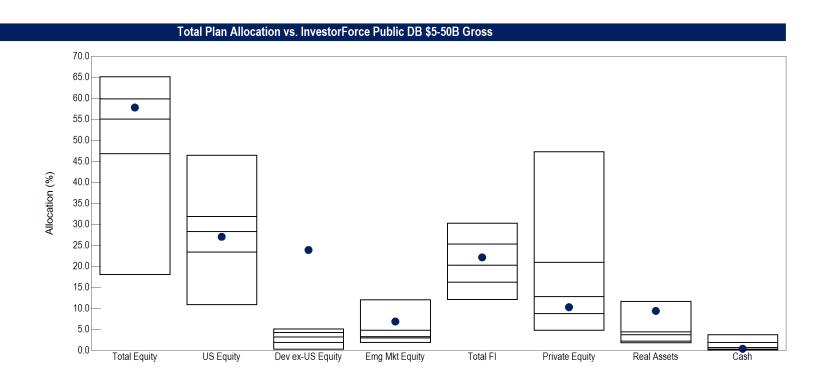
LACERS Master Trust vs. InvestorForce Public DB \$5-50B Gross 10 Years



Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



## TOTAL FUND ALLOCATION VS. PEER UNIVERSE



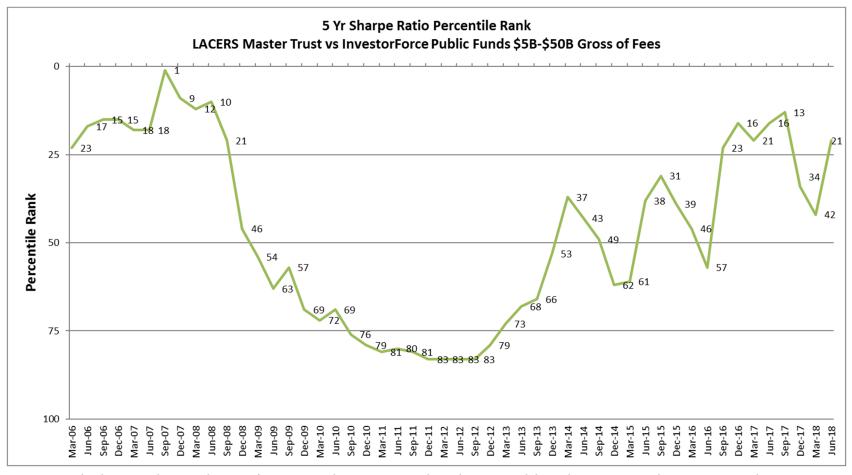
5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
# of Portfolios

LACERS Master Trust

Allocation (R	ank)														
65.11	•	46.44		5.14		12.07		30.24		47.28		11.63		3.73	-
59.92		31.91		4.32		4.89		25.40		21.05		4.49		1.98	
55.12		28.37		3.28		3.33		20.32		12.86		3.81		0.73	
46.90		23.49		1.94		3.02		16.29		8.83		2.28		0.39	
18.11		11.01		0.40		1.97		12.22		4.87		1.89		0.18	
16		16		4		9		17		11		7		16	
57.80	(47)	27.03	(56)	23.89	(1)	6.88	(21)	22.13	(35)	10.28	(67)	9.40	(9)	0.39	(75)



# HISTORICAL RISK ADJUSTED RETURN UNIVERSE COMPARISON



- Total Plan ranks in the 21<sup>st</sup> percentile versus other large public plans on a Sharpe Ratio basis.
  - Overweight to non-U.S. equities with favorable Sharpe Ratio rank.
  - Use of passive investment strategies within U.S. Equity has contributed to the overall Sharpe Ratio rank.



# U.S. EQUITY

NEPC, LLC —

## **U.S. EQUITY (GROSS)**

	Market Value	3 Mo	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs	10 Yrs	Inception	Inception Date
U.O. Erreite	(\$)	(%) 4.32	` ' '	` ′.	``	(%) 13.38	(%)	(%)	
U.S. Equity	4,577,034,410	3.89	3.72 3.22	15.33 <u>14.78</u>	11.66 11.58	13.38 13.29	10.36 10.23	10.58	Oct-94 Oct-94
U.S. Equity Blend Over/Under		<u>3.69</u> 0.43	<u>3.22</u> 0.50	<u>14.76</u> 0.55	0.08	0.09	0.13	<u>9.44</u> 1.14	OCI-94
Aronson, Johnson & Ortiz	183,806,194	1.62	-0.82	11.34	7.36	10.59	9.12	8.77	Oct-01
Russell 1000 Value	103,000,194	1.02	-0.62 -1.69	6.77	8.26	10.39 10.34	8.49	7.87	Oct-01
Over/Under		0.44	0.87	<u>0.77</u> 4.57	-0.90	0.25	0.63	0.90	Oct-01
Rhumbline Advisors Russell 2000	276,924,856	7.73	7.67	17.56	10.92	0.23	0.03	11.03	Mar-15
Russell 2000	210,324,000	7.75	7.66	17.57	10.32			10.52	Mar-15
Over/Under		-0.02	0.01	-0.01	-0.04			0.51	Mai-10
Rhumbline Advisors Russell 2000 Growth <sup>1</sup>	142,322,363	7.21	9.68	21.81	10.55			11.55	Jan-15
Russell 2000 Growth	112,022,000	<u>7.23</u>	9.70	21.86	10.60			11.66	Jan-15
Over/Under		-0.02	-0.02	-0.05	-0.05			-0.11	oun 10
Rhumbline Advisors Russell 2000 Value <sup>1</sup>	112.521.251	8.28	5.44	13.07	0.00			22.06	Mar-16
Russell 2000 Value	, 0 , _ 0 .	<u>8.30</u>	5.44	13.10				<u>22.15</u>	Mar-16
Over/Under		-0.02	0.00	-0.03				-0.09	
EAM Investors	126,850,099	13.75	16.07	34.19				16.97	Sep-15
Russell 2000 Growth	, ,	<u>7.23</u>	9.70	21.86				<u>17.45</u>	Sep-15
Over/Under		6.52	6.37	12.33				-0.48	•
PanAgora	127,746,455	7.49	6.06	11.70	10.10	12.73	12.34	7.83	Feb-06
Russell 2000 Value		<u>8.30</u>	<u>5.44</u>	<u>13.10</u>	<u>11.22</u>	<u>11.18</u>	<u>9.88</u>	<u>7.28</u>	Feb-06
Over/Under		-0.81	0.62	-1.40	-1.12	1.55	2.46	0.55	
Principal Global Investors <sup>1</sup>	152,649,713	3.76	3.77	16.26	12.45			13.24	Aug-14
Russell MidCap		<u>2.82</u>	<u>2.35</u>	<u>12.33</u>	<u>9.58</u>			<u>9.87</u>	Aug-14
Over/Under		0.94	1.42	3.93	2.87			3.37	
Rhumbline Advisors S&P 500	3,257,364,154	3.43	2.69	14.38	11.86	13.38	10.25	9.75	Feb-93
S&P 500		<u>3.43</u>	<u>2.65</u>	<u>14.37</u>	<u>11.93</u>	<u>13.42</u>	<u>10.17</u>	<u>9.58</u>	Feb-93
Over/Under		0.00	0.04	0.01	-0.07	-0.04	0.08	0.17	
Rhumbline Advisors Russell 1000 Growth <sup>1</sup>	196,849,326	5.75	7.24	22.48	14.89	16.30		16.30	Jun-13
Russell 1000 Growth		<u>5.76</u>	<u>7.25</u>	<u>22.51</u>	<u>14.98</u>	<u>16.36</u>		<u>16.36</u>	Jun-13
Over/Under		-0.01	-0.01	-0.03	-0.09	-0.06		-0.06	

<sup>1-</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

<sup>-</sup> U.S. Equity Blend = Russell 3000 from 1/1/2000 to present; 33.75% S&P 500/ 35% Russell 1000 Value/ 12.50% Russell 1000 Growth/ 12.50% Russell 2000 Value/ 6.25% Russell 2000 Growth prior to





## **U.S. EQUITY (NET)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
U.S. Equity	4,577,034,410	100.00	4.30	26	3.69	36	15.26	37	11.58	25	13.25	26	10.19	28		Oct-94
U.S. Equity Blend			<u>3.89</u>	58	<u>3.22</u>	68	<u>14.78</u>	47	<u>11.58</u>	25	<u>13.29</u>	24	<u>10.23</u>	26		Oct-94
Over/Under			0.41		0.47		0.48		0.00		-0.04		-0.04			
InvestorForce Public DB > \$1 Billion US Equity Net Median			3.99		3.47		14.74		11.05		12.82		9.87		9.51	Oct-94
Aronson, Johnson & Ortiz	183,806,194	4.02	1.55	52	-0.97	50	11.03	34	7.05	81	10.26	61	8.81	47	8.48	Oct-01
Russell 1000 Value			<u>1.18</u>	61	<u>-1.69</u>	65	<u>6.77</u>	81	<u>8.26</u>	58	<u>10.34</u>	59	<u>8.49</u>	55	<u>7.87</u>	Oct-01
Over/Under			0.37		0.72		4.26		-1.21		-0.08		0.32		0.61	
eV US Large Cap Value Equity Net Median			1.59		-0.99		9.62		8.62		10.74		8.74		8.42	Oct-01
Rhumbline Advisors Russell 2000 <sup>1</sup>	276,924,856	6.05	7.73	38	7.67	40	17.55	43	10.92	46					11.02	Mar-15
Russell 2000			<u>7.75</u>	38	<u>7.66</u>	40	<u>17.57</u>	43	<u>10.96</u>	45					<u>10.52</u>	Mar-15
Over/Under			-0.02		0.01		-0.02		-0.04						0.50	
eV US Small Cap Equity Net Median			6.71		6.05		15.96		10.62						10.35	Mar-15
Rhumbline Advisors Russell 2000 Growth <sup>1</sup>	142,322,363	3.11	7.21	74	9.68	70	21.81	65	10.54	65					11.54	Jan-15
Russell 2000 Growth			<u>7.23</u>	73	<u>9.70</u>	70	<u>21.86</u>	65	<u>10.60</u>	64					<u>11.66</u>	Jan-15
Over/Under			-0.02		-0.02		-0.05		-0.06						-0.12	
eV US Small Cap Growth Equity Net Median			8.71		12.37		24.01		11.86						12.89	Jan-15
Rhumbline Advisors Russell 2000 Value <sup>1</sup>	112,521,251	2.46	8.28	18	5.44	24	13.06	39							22.05	Mar-16
Russell 2000 Value			<u>8.30</u>	18	<u>5.44</u>	24	<u>13.10</u>	38							<u>22.15</u>	Mar-16
Over/Under			-0.02		0.00		-0.04								-0.10	
eV US Small Cap Value Equity Net Median			5.35		3.17		11.60								19.66	Mar-16

<sup>-</sup> U.S. Equity Blend = Russell 3000 from 1/1/2000 to present; 33.75% S&P 500/ 35% Russell 1000 Value/ 12.50% Russell 1000 Growth/ 12.50% Russell 2000 Value/ 6.25% Russell 2000 Growth prior to





<sup>1-</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

## U.S. EQUITY (NET)

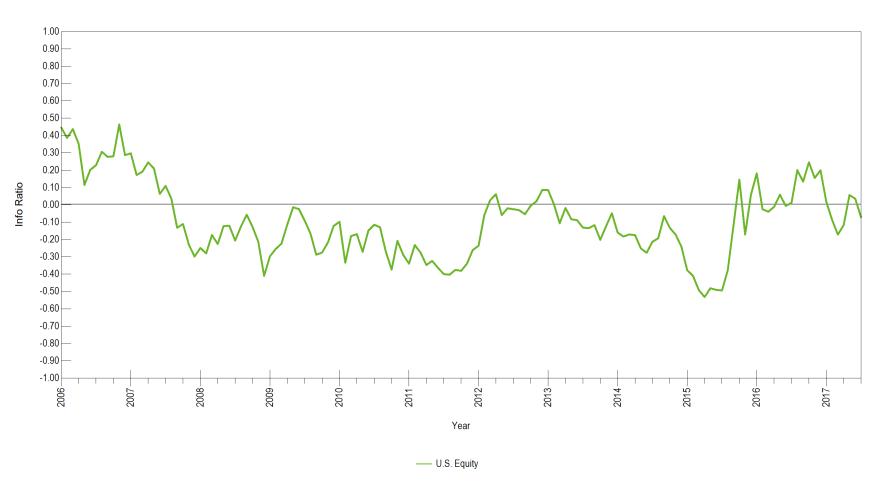
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
EAM Investors	126,850,099	2.77	13.56	6	15.68	10	33.28	7							16.15	Sep-15
Russell 2000 Growth Over/Under			<u>7.23</u> 6.33	44	<u>9.70</u> 5.98	29	<u>21.86</u> 11.42	26							<u>17.45</u> -1.30	Sep-15
eV US Small Cap Equity Net Median			6.71		6.05		15.96								16.24	Sep-15
PanAgora	127,746,455	2.79	7.32	22	5.72	21	10.96	57	9.38	54	11.96	29	11.57	23	7.10	Feb-06
Russell 2000 Value Over/Under			<u>8.30</u> -0.98	18	<u>5.44</u> 0.28	24	<u>13.10</u> -2.14	38	<u>11.22</u> -1.84	29	<u>11.18</u> 0.78	48	<u>9.88</u> 1.69	60	<u>7.28</u> -0.18	Feb-06
eV US Small Cap Value Equity Net Median			5.35		3.17		11.60		9.63		11.10		10.32		8.22	Feb-06
Principal Global Investors <sup>1</sup>	152,649,713	3.34	3.66	30	3.57	38	15.83	31	12.00	13					12.83	Aug-14
Russell MidCap Over/Under			<u>2.82</u> 0.84	42	<u>2.35</u> 1.22	47	<u>12.33</u> 3.50	54	9.58 2.42	44					<u>9.87</u> 2.96	Aug-14
eV US Mid Cap Equity Net Median			2.46		1.96		12.72		9.14						9.54	Aug-14
Rhumbline Advisors S&P 500	3,257,364,154	71.17	3.43	35	2.68	38	14.37	40	11.86	26	13.37	33	10.24	36		Feb-93
S&P 500 Over/Under			<u>3.43</u> 0.00	35	<u>2.65</u> 0.03	38	<u>14.37</u> 0.00	40	<u>11.93</u> -0.07	25	<u>13.42</u> -0.05	32	<u>10.17</u> 0.07	37	<u>9.58</u>	Feb-93
eV US Large Cap Equity Net Median			2.57		1.39		12.63		9.94		12.12		9.63		9.92	Feb-93
Rhumbline Advisors Russell 1000 Growth <sup>1</sup>	196,849,326	4.30	5.75	42	7.24	54	22.48	42	14.88	21	16.29	36			16.29	Jun-13
Russell 1000 Growth Over/Under			<u>5.76</u> -0.01	42	<u>7.25</u> -0.01	54	<u>22.51</u> -0.03	42	<u>14.98</u> -0.10	20	<u>16.36</u> -0.07	35			<u>16.36</u> -0.07	Jun-13
eV US Large Cap Growth Equity Net Median			5.39		7.73		21.58		12.76		15.33				15.33	Jun-13



<sup>1-</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. eA = eVestment Alliance

## **U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO**





\*Returns are net of fees.

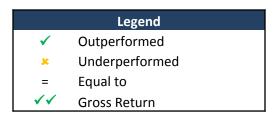


### MANAGER REPORT CARD

U.S. Equity Managers	Inception Date			nt Quarter Net)		e Year Net)		e Years let)		Years Net)	Since Inception (Net)	Annual Mgt Fee Paid \$	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe	Index	(000)	
AJO	Oct-01	Large Cap Value	✓	×	✓	✓	*	×	<b>.</b>	×	✓	449.7	On Watch since July 2016 due to performance.
Principal Global Investors	Jul-14	Mid Cap	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	563.0	Performance compliant with LACERS' Manager Monitoring Policy
EAM Investors	Sep-15	Small Cap Growth	✓	✓	✓	✓	N/A	N/A	N/A	N/A	×	501.2	LACERS' Manager Monitoring Policy requires at least 3 years of track record to evaluate performance
PanAgora	Feb-06	Small Cap Value	×	✓	×	×	×	×	1	✓	×	647.8	Performance compliant with LACERS' Manager Monitoring Policy
Rhumbline (Passive)	Feb-93	S&P 500	=	✓	=	✓	×	✓	×	✓	<b>√</b> √	100.9	Performance compliant with LACERS' Manager Monitoring Policy
Rhumbline (Passive)	Jun-13	R1000 Growth	æ	✓	æ	✓	k	✓	×	✓	×	8.8	Performance compliant with LACERS' Manager Monitoring Policy
Rhumbline (Passive)	Jun-15	R2000	æ	✓	æ	✓	×	✓	N/A	N/A	✓	11.9	Performance compliant with LACERS' Manager Monitoring Policy
Rhumbline (Passive)	Jun-15	R2000 Growth	×	×	×	×	×	×	N/A	N/A	×	5.9	Performance compliant with LACERS' Manager Monitoring Policy
Rhumbline (Passive)	Feb-16	R2000 Value	×	✓	×	✓	N/A	N/A	N/A	N/A	×	2.2	LACERS' Manager Monitoring Policy requires at least 3 years of track record to evaluate performance

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2017.
- \* Where net of fees performance is not available gross of fee returns are evaluated.





# NON-U.S. EQUITY

NEPC, LLC —

## **NON-U.S. EQUITY (GROSS)**

	Market Value	% of	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception
	(\$)	Portfolio	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
Non-U.S. Equity	5,211,134,297	100.00	-2.35	-2.41	9.85	6.94	7.67	4.15	7.26	Aug-01
MSCI ACWI ex USA			<u>-2.61</u>	<u>-3.77</u>	<u>7.28</u>	<u>5.07</u>	<u>5.99</u>	<u>2.54</u>	<u>6.32</u>	Aug-01
Over/Under			0.26	1.36	2.57	1.87	1.68	1.61	0.94	
Developed ex-U.S.	4,046,328,416	77.65	-0.56	-1.26	10.18	6.74	7.83		9.72	Jun-12
MSCI EAFE			<u>-1.24</u>	<u>-2.75</u>	<u>6.84</u>	<u>4.90</u>	<u>6.44</u>		<u>8.38</u>	Jun-12
Over/Under			0.68	1.49	3.34	1.84	1.39		1.34	
AQR Capital <sup>1</sup>	379,361,390	7.28	-2.46	-2.37	12.20	10.22			7.63	Feb-14
MSCI EAFE Small Cap			<u>-1.57</u>	<u>-1.33</u>	<u>12.45</u>	<u>10.09</u>			<u>7.07</u>	Feb-14
Over/Under			-0.89	-1.04	-0.25	0.13			0.56	
Barrow Hanley <sup>1</sup>	545,766,497	10.47	-1.40	-2.20	6.54	4.64			3.80	Nov-13
MSCI EAFE Value			<u>-2.64</u>	<u>-4.61</u>	<u>4.25</u>	<u>3.30</u>			<u>2.11</u>	Nov-13
Over/Under			1.24	2.41	2.29	1.34			1.69	
Lazard Asset Management <sup>1</sup>	593,005,019	11.38	-1.65	0.52	13.82	5.06			5.44	Nov-13
MSCI EAFE			<u>-1.24</u>	<u>-2.75</u>	<u>6.84</u>	<u>4.90</u>			<u>3.60</u>	Nov-13
Over/Under			-0.41	3.27	6.98	0.16			1.84	
MFS Institutional Advisors	584,775,944	11.22	2.81	1.00	12.56	9.71			7.07	Oct-13
MSCI World ex USA Growth NR USD			<u>0.52</u>	<u>-1.05</u>	<u>9.26</u>	<u>5.95</u>			<u>4.86</u>	Oct-13
Over/Under			2.29	2.05	3.30	3.76			2.21	
Oberweis Asset Mgmt <sup>1</sup>	165,757,873	3.18	-1.26	1.18	19.63	12.72			11.06	Jan-14
MSCI EAFE Small Cap			<u>-1.57</u>	<u>-1.33</u>	<u>12.45</u>	<u>10.09</u>			<u>8.24</u>	Jan-14
Over/Under			0.31	2.51	7.18	2.63			2.82	
SSgA World ex US IMI	1,777,661,693	34.11	-0.53	-2.19	8.28	5.92	7.19	3.57	5.92	Aug-93
MSCI World ex USA IMI NR USD <sup>2</sup>			<u>-0.77</u>	<u>-2.57</u>	<u>7.74</u>	<u>5.49</u>	<u>6.77</u>	<u>3.06</u>	<u>5.65</u>	Aug-93
Over/Under			0.24	0.38	0.54	0.43	0.42	0.51	0.27	

eA = eVestment



<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

<sup>2</sup> Since inception index return sourced from SSgA.

## **NON-U.S. EQUITY (GROSS)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Markets	1,164,805,882	22.35	-8.15	-6.34	8.43	6.16	5.27		4.66	Jun-12
MSCI Emerging Markets			<u>-7.96</u>	<u>-6.66</u>	<u>8.20</u>	<u>5.60</u>	<u>5.01</u>		<u>4.65</u>	Jun-12
Over/Under			-0.19	0.32	0.23	0.56	0.26		0.01	
Axiom Emerging Markets	370,483,919	7.11	-8.33	-6.36	10.12	7.10			5.46	Mar-14
MSCI Emerging Markets Growth NR USD			<u>-7.01</u>	<u>-5.88</u>	<u>11.92</u>	<u>8.34</u>			<u>6.64</u>	Mar-14
Over/Under			-1.32	-0.48	-1.80	-1.24			-1.18	
DFA Emerging Markets <sup>1</sup>	368,537,186	7.07	-8.74	-7.20	5.90	5.95			0.94	Jul-14
MSCI Emerging Markets Value NR USD			<u>-8.94</u>	<u>-7.47</u>	<u>4.28</u>	<u>2.76</u>			<u>-0.65</u>	Jul-14
Over/Under			0.20	0.27	1.62	3.19			1.59	
QMA Emerging Markets <sup>1</sup>	425,784,777	8.17	-7.49	-5.57	9.20	5.59			5.13	Apr-14
MSCI Emerging Markets			<u>-7.96</u>	<u>-6.66</u>	<u>8.20</u>	<u>5.60</u>			<u>4.20</u>	Apr-14
Over/Under			0.47	1.09	1.00	-0.01			0.93	

<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. eA = eVestment



## **NON-U.S. EQUITY (NET)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Non-U.S. Equity	5,211,134,297	100.00	-2.45	49	-2.60	32	9.45	13	6.56	33	7.32	45	3.80	31	6.89	Aug-01
MSCI ACWI ex USA			-2.61	52	<u>-3.77</u>	73	<u>7.28</u>	64	<u>5.07</u>	90	<u>5.99</u>	90	<u>2.54</u>	84	<u>6.32</u>	Aug-01
Over/Under			0.16		1.17		2.17		1.49		1.33		1.26		0.57	
Developed ex-U.S.	4,046,328,416	77.65	-0.65		-1.42		9.83		6.41		7.53				9.44	Jun-12
MSCI EAFE			<u>-1.24</u>		<u>-2.75</u>		<u>6.84</u>		<u>4.90</u>		<u>6.44</u>				<u>8.38</u>	Jun-12
Over/Under			0.59		1.33		2.99		1.51		1.09				1.06	
InvestorForce Public DB > \$1 Billion Dev Mkt ex-US Eq Net Median																Jun-12
AQR Capital <sup>1</sup>	379,361,390	7.28	-2.65	56	-2.75	51	11.35	61	9.38	57					6.92	Feb-14
MSCI EAFE Small Cap			<u>-1.57</u>	39	<u>-1.33</u>	37	<u>12.45</u>	51	<u>10.09</u>	41					<u>7.07</u>	Feb-14
Over/Under			-1.08		-1.42		-1.10		-0.71						-0.15	
eV EAFE Small Cap Equity Net Median			-2.10		-2.72		12.65		9.75						7.37	Feb-14
Barrow Hanley <sup>1</sup>	545,766,497	10.47	-1.52	31	-2.44	25	6.02	33	4.11	72					3.30	Nov-13
MSCI EAFE Value			<u>-2.64</u>	65	<u>-4.61</u>	66	<u>4.25</u>	64	<u>3.30</u>	85					<u>2.11</u>	Nov-13
Over/Under			1.12		2.17		1.77		0.81						1.19	
eV EAFE Value Equity Net Median			-2.17		-3.96		5.04		4.66						3.58	Nov-13
Lazard Asset Management <sup>1</sup>	593,005,019	11.38	-1.78	58	0.26	16	13.26	17	4.50	73					4.89	Nov-13
MSCI EAFE			<u>-1.24</u>	44	<u>-2.75</u>	54	<u>6.84</u>	59	<u>4.90</u>	64					<u>3.60</u>	Nov-13
Over/Under			-0.54		3.01		6.42		-0.40						1.29	
eV All EAFE Equity Net Median			-1.51		-2.59		7.86		5.85						4.60	Nov-13
MFS Institutional Advisors	584,775,944	11.22	2.69	1	0.75	50	12.03	57	9.15	24					6.56	Oct-13
MSCI World ex USA Growth NR USD			<u>0.52</u>	67	<u>-1.05</u>	87	<u>9.26</u>	73	<u>5.95</u>	70					<u>4.86</u>	Oct-13
Over/Under			2.17		1.80		2.77		3.20						1.70	
eV EAFE All Cap Growth Net Median			0.72		0.72		12.64		7.41						5.88	Oct-13



<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. eA = eVestment

## **NON-U.S. EQUITY (NET)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Oberweis Asset Mgmt <sup>1</sup>	165,757,873	3.18	-1.49	37	0.71	18	18.59	6	11.78	24					10.13	Jan-14
MSCI EAFE Small Cap Over/Under			<u>-1.57</u> 0.08	39	<u>-1.33</u> 2.04	37	<u>12.45</u> 6.14	51	<u>10.09</u> 1.69	41					<u>8.24</u> 1.89	Jan-14
eV EAFE Small Cap Equity Net Median			-2.10		-2.72		12.65		9.75						8.39	Jan-14
SSgA World ex US IMI	1,777,661,693	34.11	-0.54	27	-2.20	47	8.25	48	5.90	52	7.17	58	3.55	58		Aug-93
MSCI World ex USA IMI NR USD <sup>2</sup> Over/Under			<u>-0.77</u> 0.23	31	<u>-2.57</u> 0.37	50	<u>7.74</u> 0.51	55	<u>5.49</u> 0.41	59	<u>6.77</u> 0.40	69	3.06 0.49	79		Aug-93
eV EAFE Core Equity Net Median			-1.53		-2.59		8.08		6.06		7.40		3.83		7.54	Aug-93
Emerging Markets	1,164,805,882	22.35	-8.29	21	-6.61	14	7.85	15	5.57	16	4.64	21			4.00	Jun-12
MSCI Emerging Markets Over/Under			<u>-7.96</u> -0.33	15	<u>-6.66</u> 0.05	14	8.20 -0.35	11	<u>5.60</u> -0.03	15	<u>5.01</u> -0.37	7			<u>4.65</u> -0.65	Jun-12
InvestorForce Public DB > \$1 Billion Emg Mkt Eq Net Median			-8.92		-7.74		4.31		4.10		3.74				3.66	Jun-12
Axiom Emerging Markets	370,483,919	7.11	-8.50	50	-6.71	45	9.35	30	6.32	41					4.78	Mar-14
MSCI Emerging Markets Growth NR USD			<u>-7.01</u>	27	<u>-5.88</u>	32	<u>11.92</u>	15	<u>8.34</u>	16					<u>6.64</u>	Mar-14
Over/Under			-1.49		-0.83		-2.57		-2.02						-1.86	
eV Emg Mkts Equity Net Median			-8.53		-6.98		7.25		5.56						4.51	Mar-14
DFA Emerging Markets <sup>1</sup>	368,537,186	7.07	-8.86	60	-7.45	59	5.37	66	5.41	53					0.45	Jul-14
MSCI Emerging Markets Value NR USD			<u>-8.94</u>	62	<u>-7.47</u>	59	<u>4.28</u>	72	<u>2.76</u>	87					<u>-0.65</u>	Jul-14
Over/Under			0.08		0.02		1.09		2.65						1.10	
eV Emg Mkts Equity Net Median			-8.53		-6.98		7.25		5.56						2.81	Jul-14
QMA Emerging Markets <sup>1</sup>	425,784,777	8.17	-7.61	36	-5.79	31	8.75	34	5.13	61					4.67	Apr-14
MSCI Emerging Markets			<u>-7.96</u>	42	<u>-6.66</u>	44	<u>8.20</u>	38	<u>5.60</u>	50					<u>4.20</u>	Apr-14
Over/Under			0.35		0.87		0.55		-0.47						0.47	
eV Emg Mkts Equity Net Median			-8.53		-6.98		7.25		5.56						4.46	Apr-14

eA = eVestment



<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

<sup>2</sup> Since inception index return sourced from SSgA.

## NON-U.S. EQUITY COUNTRY ALLOCATION

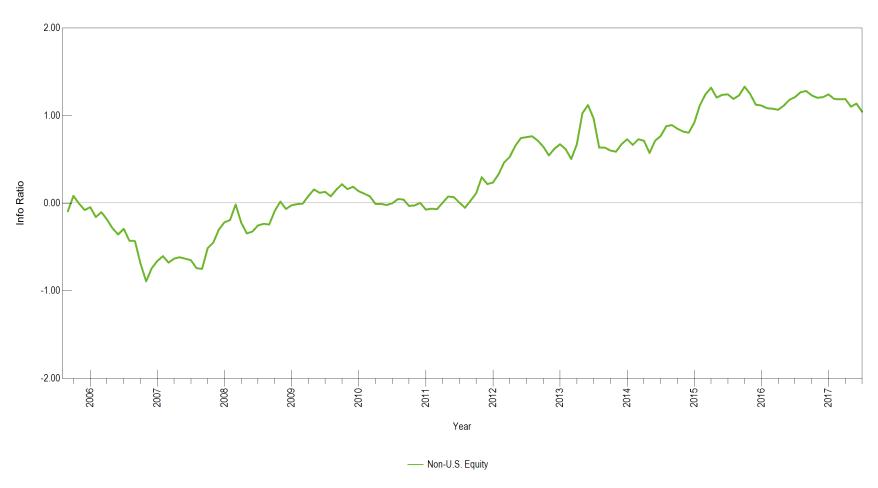
Versus MSCI ACWI ex USA - G		18
	Manager	Index
	Ending Allocation (USD)	Ending Allocation (USD)
Europe		
Austria	0.3%	0.2%
Belgium	0.4%	0.7%
Bulgaria**	0.0%	0.0%
Croatia**	0.0%	0.0%
Czech Republic*	0.1%	0.0%
Denmark	1.1%	1.1%
Estonia**	0.0%	0.0%
Finland	1.0%	0.7%
France	8.0%	7.5%
Germany	6.5%	6.5%
Greece*	0.1%	0.1%
Hungary*	0.0%	0.1%
Ireland	0.8%	0.4%
Italy	1.8%	1.6%
Lithuania**	0.0%	0.0%
Luxembourg	0.1%	0.0%
Netherlands	2.9%	2.4%
Norway	0.7%	0.5%
Poland*	0.2%	0.3%
Portugal	0.1%	0.1%
Romania**	0.0%	0.0%
Russia*	0.8%	0.9%
Serbia**	0.0%	0.0%
Slovenia**	0.0%	0.0%
Spain	1.6%	2.1%
Sweden	1.5%	1.7%
Switzerland	5.1%	5.3%
United Kingdom	11.2%	12.3%
Total-Europe	44.0%	44.5%

Versus MSCI ACWI ex USA - Quarter Ending June 30, 2018  Manager Inde Ending Allocation (USD) Ending Allocation (USD)
Ending Allocation (USD) Ending Allocation (USD)
Americas
Brazil* 1.5% 1.5%
Canada 4.9% 6.6%
Chile* 0.2% 0.3%
Colombia* 0.4% 0.19
Mexico* 0.7% 0.7%
Peru* 0.1% 0.1%
United States 2.6% 0.0%
Total-Americas 10.6% 9.3%
AsiaPacific
Australia 3.0% 4.8%
China* 5.4% 8.19
Hong Kong 5.6% 2.5%
India* 2.6% 2.19
Indonesia* 0.4% 0.5%
Japan 14.7% 16.79
Korea* 3.6% 3.6%
Malaysia* 0.6% 0.6%
New Zealand 0.2% 0.19
Philippines* 0.3% 0.2%
Singapore 1.2% 0.9%
Taiwan* 3.5% 2.9%
Thailand* 0.6% 0.6%
Total-AsiaPacific 41.7% 43.6%
Other
Egypt* 0.1% 0.0%
Israel 0.4% 0.4%
Other Countries 0.2% 0.0%
Qatar* 0.0% 0.29
South Africa* 1.4% 1.6%
Turkey* 0.3% 0.29
United Arab Emirates* 0.0% 0.29
Total-Other 2.4% 2.5%
Totals
Developed 75.6% 75.2%
Emerging* 22.8% 24.8%
Other 0.2%
Cash 1.3%



## NON-U.S. EQUITY ROLLING 5 YEAR INFORMATION





\*Returns are net of fees

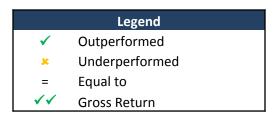


#### MANAGER REPORT CARD

Non-U.S. Equity Managers	Inception Date	Mandate	Currer Quarter (			e Year Net)	Three (No			Years let)	Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index Uni	iverse	Index	Universe	Index U	Iniverse	Index	Universe	Index	, ,	
Axiom International	Mar-14	Emerging Markets	æ	=	JC .	✓	×	✓	N/A	N/A	*	1,866.9	Performance compliant with LACERS' Manager Monitoring Policy
Q.M.A.	Apr-14	Emerging Markets	✓	✓	✓	✓	×	×	N/A	N/A	✓	1,219.4	Performance compliant with LACERS' Manager Monitoring Policy
DFA Emerging Markets	Jul-14	Emerging Markets	✓	æ	✓	30	✓	×	N/A	N/A	✓	1,188.2	Performance compliant with LACERS' Manager Monitoring Policy
AQR	Feb-14	Non-U.S. Developed	×	æ	æ	×	×	×	N/A	N/A	*	2,314.2	Performance compliant with LACERS' Manager Monitoring Policy
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✓	<b>~</b>	✓	✓	✓	✓	N/A	N/A	✓	568.5	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	2,097.9	Performance compliant with LACERS' Manager Monitoring Policy
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	×	x	✓	✓	æ	×	N/A	N/A	✓	2,467.4	Performance compliant with LACERS' Manager Monitoring Policy
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	✓	✓	✓	×	✓	✓	N/A	N/A	✓	2,313.6	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Aug-93	Non-U.S. Developed	✓	✓	✓	✓	✓	×	✓	æ	<b>4</b>	368.9	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2017.
- \* Where net of fees performance is not available gross of fee returns are evaluated.





# CORE FIXED INCOME

NEPC, LLC —

## **CORE FIXED INCOME (GROSS)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	2,968,739,173	100.00	-0.34	-1.63	-0.28	2.07	2.78		2.62	Jul-12
Core Fixed Income Blend			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>	<u>2.27</u>		<u>1.93</u>	Jul-12
Over/Under			-0.18	-0.01	0.12	0.35	0.51		0.69	
Baird Advisors	209,474,661	7.06	0.01	-0.86	-0.19	1.78	2.25	4.03	4.16	Mar-05
BBgBarc US Govt/Credit Int TR			<u>0.01</u>	<u>-0.97</u>	<u>-0.58</u>	<u>1.16</u>	<u>1.60</u>	<u>3.08</u>	<u>3.48</u>	Mar-05
Over/Under			0.00	0.11	0.39	0.62	0.65	0.95	0.68	
LM Capital	271,386,198	9.14	-0.40	-1.95	-0.36	2.07	2.81	4.24	4.42	Mar-05
Core Fixed Income Blend			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>	<u>2.27</u>	<u>3.89</u>	<u>4.11</u>	Mar-05
Over/Under			-0.24	-0.33	0.04	0.35	0.54	0.35	0.31	
Loomis Sayles	730,250,275	24.60	-0.20	-1.41	0.18	2.77	3.43	5.24	9.10	Jul-80
Core Fixed Income Custom Blend			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>	<u>2.27</u>	<u>3.72</u>	<u>7.58</u>	Jul-80
Over/Under			-0.04	0.21	0.58	1.05	1.16	1.52	1.52	
Neuberger Berman	723,678,131	24.38	-0.83	-2.02	-0.63	1.85	2.53	5.41	5.59	Sep-01
Core Fixed Income Blend			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>	<u>2.27</u>	<u>3.89</u>	<u>4.45</u>	Sep-01
Over/Under			-0.67	-0.40	-0.23	0.13	0.26	1.52	1.14	
SSgA U.S. Aggregate Bond <sup>1</sup>	1,033,949,908	34.83	-0.16	-1.61	-0.40	1.73			1.88	Jul-14
BBgBarc US Aggregate TR			<u>-0.16</u>	<u>-1.62</u>	<u>-0.40</u>	<u>1.72</u>			<u>1.86</u>	Jul-14
Over/Under			0.00	0.01	0.00	0.01			0.02	

<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. BBgBarc = Bloomberg Barclays



## **CORE FIXED INCOME (NET)**

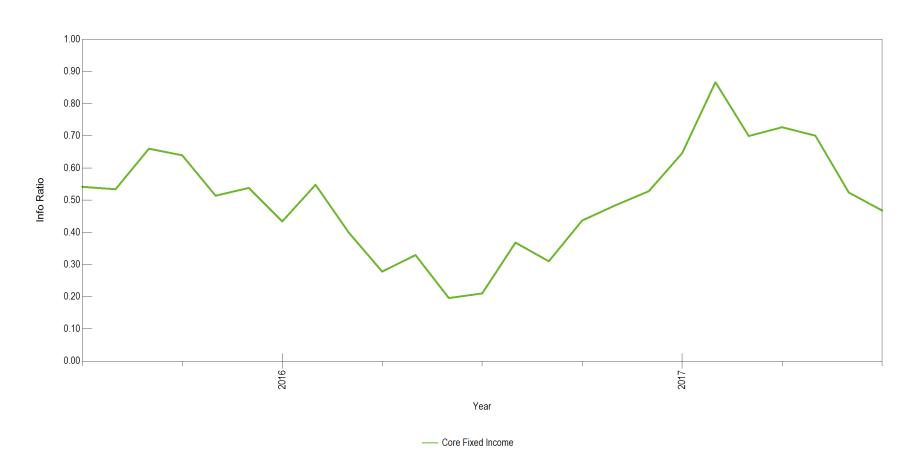
Core Fixed Income   2,968,739,173   100.00   -0.37   67   -1.68   89   -0.38   91   1.97   87   2.66   65     2.50   Jul-12   Core Fixed Income Blend   -0.21   -0.06   50   -1.62   87   -0.40   92   1.72   95   2.27   88   1.93   Jul-12   Jul-1		Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Over/Under InvestorForce Public DB > \$1 Billion US Fixed Income Net Median         -0.21         -0.06         -0.29         2.57         2.89         -0.57         2.47         Jul-12           Baird Advisors         209,474,661         7.06         -0.02         71         -0.93         39         -0.32         46         1.65         17         2.13         18         3.90         19         4.02         Mar-05           BBgBarc US Govt/Credit Int TR         0.01         62         -0.97         48         -0.58         71         1.16         61         1.60         63         3.08         74         3.48         Mar-05           Over/Under         -0.03         0.04         0.26         0.49         0.53         0.82         0.54           eV US Interm Duration Fixed Inc         0.03         -0.98         -0.35         1.24         1.66         3.30         3.57         Mar-05           LM Capital         271,386,198         9.14         -0.43         90         -2.01         85         -0.47         61         1.97         43         2.69         29         4.10         51         4.28         Mar-05           Core Fixed Income Blend         -0.16         42         -1.62         51 <td>Core Fixed Income</td> <td>2,968,739,173</td> <td>100.00</td> <td>-0.37</td> <td>67</td> <td>-1.68</td> <td>89</td> <td>-0.38</td> <td>91</td> <td>1.97</td> <td>87</td> <td>2.66</td> <td>65</td> <td></td> <td></td> <td>2.50</td> <td>Jul-12</td>	Core Fixed Income	2,968,739,173	100.00	-0.37	67	-1.68	89	-0.38	91	1.97	87	2.66	65			2.50	Jul-12
InvestorForce Public DB > \$1 Billion US Fixed Income Net Median   -0.16	Core Fixed Income Blend			<u>-0.16</u>	50	<u>-1.62</u>	87	<u>-0.40</u>	92	<u>1.72</u>	95	<u>2.27</u>	88			<u>1.93</u>	Jul-12
Discrimed Income Net Median   Country   Coun				-0.21		-0.06		0.02		0.25		0.39				0.57	
BBgBarc US Govt/Credit Int TR				-0.16		-1.29		0.29		2.57		2.89				2.47	Jul-12
Over/Under eV US Interm Duration Fixed Inc Net Median         -0.03         0.04         0.26         0.49         0.53         0.82         0.54           eV US Interm Duration Fixed Inc Net Median         0.03         -0.98         -0.35         1.24         1.66         3.30         3.57         Mar-05           LM Capital         271,386,198         9.14         -0.43         90         -2.01         85         -0.47         61         1.97         43         2.69         29         4.10         51         4.28         Mar-05           Core Fixed Income Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.11         Mar-05           Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.20         Mar-05           Loomis Sayles         730,250,275         24.60         -0.23         63         -1.47         35         0.05         23         2.64         11         3.30         9         5.11         9         Jul-80           Core Fixed Income Custom Blend         -0.16         42         -1.62         51         -0.4	Baird Advisors	209,474,661	7.06	-0.02	71	-0.93	39	-0.32	46	1.65	17	2.13	18	3.90	19	4.02	Mar-05
eV US Interm Duration Fixed Inc Net Median         0.03         -0.98         -0.35         1.24         1.66         3.30         3.57         Mar-05           LM Capital         271,386,198         9.14         -0.43         90         -2.01         85         -0.47         61         1.97         43         2.69         29         4.10         51         4.28         Mar-05           Core Fixed Income Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.11         Mar-05           Over/Under         -0.27         -0.39         -0.07         0.25         0.42         0.21         0.17           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.20         Mar-05           Lomis Sayles         730,250,275         24.60         -0.23         63         -1.47         35         0.05         23         2.64         11         3.30         9         5.11         9         Jul-80           Core Fixed Income Custom Blend         -0.16         42         -1.62         51         -0.40         57         <	=				62		48		71		61		63		74		Mar-05
Net Median         0.03         -0.98         -0.35         1.24         1.66         3.30         3.57         Mar-05           LM Capital         271,386,198         9.14         -0.43         90         -2.01         85         -0.47         61         1.97         43         2.69         29         4.10         51         4.28         Mar-05           Core Fixed Income Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.11         Mar-05           Over/Under         -0.27         -0.39         -0.07         0.25         0.42         0.21         0.17           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.20         Mar-05           Loomis Sayles         730,250,275         24.60         -0.23         63         -1.47         35         0.05         23         2.64         11         3.30         9         5.11         9         Jul-80           Core Fixed Income Custom Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63 <td></td> <td></td> <td></td> <td>-0.03</td> <td></td> <td>0.04</td> <td></td> <td>0.26</td> <td></td> <td>0.49</td> <td></td> <td>0.53</td> <td></td> <td>0.82</td> <td></td> <td>0.54</td> <td></td>				-0.03		0.04		0.26		0.49		0.53		0.82		0.54	
Core Fixed Income Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.11         Mar-05           Over/Under         -0.27         -0.39         -0.07         0.25         0.42         0.21         0.21         0.17           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.20         Mar-05           Loomis Sayles         730,250,275         24.60         -0.23         63         -1.47         35         0.05         23         2.64         11         3.30         9         5.11         9         Jul-80           Core Fixed Income Custom Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.72         79         Jul-80           Over/Under         -0.07         0.15         0.45         0.92         1.03         1.39         1.39         1.48         1.49         1.41         80         1.49         1.41         1.40         1.41         1.40         1.41         1.40         1.41         1.41				0.03		-0.98		-0.35		1.24		1.66		3.30		3.57	Mar-05
Over/Under         -0.27         -0.39         -0.07         0.25         0.42         0.21         0.17           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.20         Mar-05           Loomis Sayles         730,250,275         24.60         -0.23         63         -1.47         35         0.05         23         2.64         11         3.30         9         5.11         9         Jul-80           Core Fixed Income Custom Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.72         79         Jul-80           Over/Under         -0.07         0.15         0.45         0.92         1.03         1.39         1.39           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         Jul-80           Neuberger Berman         723,678,131         24.38         -0.86         97         -2.09         88         -0.78         84         1.70         65         2.38         52         5.23         8         5.44         Sep-01           Core Fixed I	LM Capital	271,386,198	9.14	-0.43	90	-2.01	85	-0.47	61	1.97	43	2.69	29	4.10	51	4.28	Mar-05
eV US Core Fixed Inc Net Median       -0.18       -1.59       -0.35       1.86       2.40       4.10       4.20       Mar-05         Loomis Sayles       730,250,275       24.60       -0.23       63       -1.47       35       0.05       23       2.64       11       3.30       9       5.11       9       Jul-80         Core Fixed Income Custom Blend       -0.16       42       -1.62       51       -0.40       57       1.72       63       2.27       63       3.72       79       Jul-80         Over/Under       -0.07       0.15       0.45       0.92       1.03       1.39       Jul-80         Neuberger Berman       723,678,131       24.38       -0.86       97       -2.09       88       -0.78       84       1.70       65       2.38       52       5.23       8       5.44       Sep-01         Core Fixed Income Blend       -0.16       42       -1.62       51       -0.40       57       1.72       63       2.27       63       3.89       66       4.45       Sep-01         Over/Under       -0.70       -0.47       -0.38       -0.02       0.11       1.34       0.99         eV US Core Fixed Inc Net Median					42		51		57		63		63		66		Mar-05
Loomis Sayles       730,250,275       24.60       -0.23       63       -1.47       35       0.05       23       2.64       11       3.30       9       5.11       9       Jul-80         Core Fixed Income Custom Blend       -0.16       42       -1.62       51       -0.40       57       1.72       63       2.27       63       3.72       79       Jul-80         Over/Under       -0.07       0.15       0.45       0.92       1.03       1.39       1.39         eV US Core Fixed Inc Net Median       -0.18       -1.59       -0.35       1.86       2.40       4.10       Jul-80         Neuberger Berman       723,678,131       24.38       -0.86       97       -2.09       88       -0.78       84       1.70       65       2.38       52       5.23       8       5.44       Sep-01         Core Fixed Income Blend       -0.16       42       -1.62       51       -0.40       57       1.72       63       2.27       63       3.89       66       4.45       Sep-01         Over/Under       -0.70       -0.47       -0.38       -0.02       0.11       1.34       0.99         eV US Core Fixed Inc Net Median       -0.18																****	
Core Fixed Income Custom Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.72         79         Jul-80           Over/Under         -0.07         0.15         0.45         0.92         1.03         1.39           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         Jul-80           Neuberger Berman         723,678,131         24.38         -0.86         97         -2.09         88         -0.78         84         1.70         65         2.38         52         5.23         8         5.44         Sep-01           Core Fixed Income Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.45         Sep-01           Over/Under         -0.70         -0.47         -0.38         -0.02         0.11         1.34         0.99           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.43         Sep-01																4.20	
Over/Under         -0.07         0.15         0.45         0.92         1.03         1.39           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         Jul-80           Neuberger Berman         723,678,131         24.38         -0.86         97         -2.09         88         -0.78         84         1.70         65         2.38         52         5.23         8         5.44         Sep-01           Core Fixed Income Blend Over/Under         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.45         Sep-01           Over/Under eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.43         Sep-01		730,250,275	24.60														
eV US Core Fixed Inc Net Median       -0.18       -1.59       -0.35       1.86       2.40       4.10       Jul-80         Neuberger Berman       723,678,131       24.38       -0.86       97       -2.09       88       -0.78       84       1.70       65       2.38       52       5.23       8       5.44       Sep-01         Core Fixed Income Blend Over/Under eV US Core Fixed Inc Net Median       -0.16       42       -1.62       51       -0.40       57       1.72       63       2.27       63       3.89       66       4.45       Sep-01         -0.70       -0.70       -0.47       -0.38       -0.02       0.11       1.34       0.99         eV US Core Fixed Inc Net Median       -0.18       -1.59       -0.35       1.86       2.40       4.10       4.43       Sep-01					42		51		57		63		63		79		Jul-80
Neuberger Berman       723,678,131       24.38       -0.86       97       -2.09       88       -0.78       84       1.70       65       2.38       52       5.23       8       5.44       Sep-01         Core Fixed Income Blend       -0.16       42       -1.62       51       -0.40       57       1.72       63       2.27       63       3.89       66       4.45       Sep-01         Over/Under       -0.70       -0.47       -0.38       -0.02       0.11       1.34       0.99         eV US Core Fixed Inc Net Median       -0.18       -1.59       -0.35       1.86       2.40       4.10       4.43       Sep-01																	
Core Fixed Income Blend         -0.16         42         -1.62         51         -0.40         57         1.72         63         2.27         63         3.89         66         4.45         Sep-01           Over/Under         -0.70         -0.47         -0.38         -0.02         0.11         1.34         0.99           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.43         Sep-01		702 070 424	04.00		07		00		0.4		٥٦				0	F 44	
Over/Under         -0.70         -0.47         -0.38         -0.02         0.11         1.34         0.99           eV US Core Fixed Inc Net Median         -0.18         -1.59         -0.35         1.86         2.40         4.10         4.43         Sep-01	*	723,678,131	24.38												-		-
eV US Core Fixed Inc Net Median -0.18 -1.59 -0.35 1.86 2.40 4.10 4.43 Sep-01					42		51		57		03		03		00		Sep-01
0.10 1.00 2.10 1.10 0.00 1																	Can 01
		1 033 040 008	3/1 83		46		52		60		66	2.40		4.10			
BBgBarc US Aggregate TR -0.16 42 -1.62 51 -0.40 57 1.72 63 1.86 Jul-14		1,000,040,000	J <del>4</del> .03														
Over/Under -0.01 -0.01 -0.03 -0.03 -0.02					74		01		O1		00						Jui-14
eV US Core Fixed Inc Net Median -0.18 -1.59 -0.35 1.86 1.94 Jul-14																	Jul-14

<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. BBgBarc = Bloomberg Barclays eV = eVestment



## **CORE FIXED INCOME 3 YEAR INFORMATION RATIO**

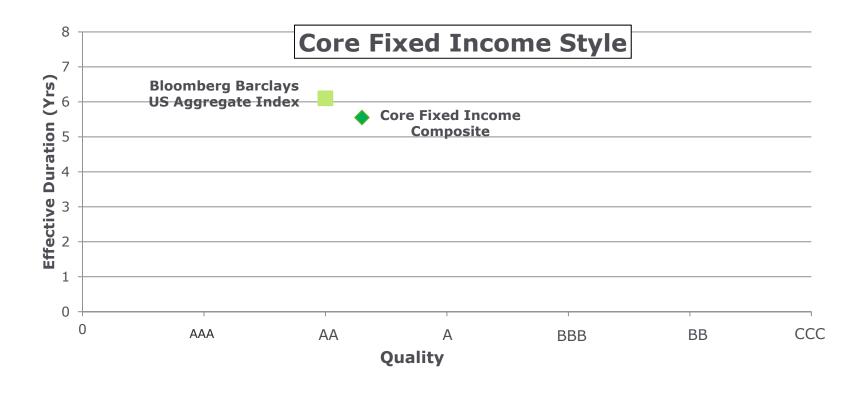




\*Returns are net of fees



#### **CORE FIXED INCOME STYLE ANALYSIS**



- LACERS has a slightly lower duration (interest rate risk) than its benchmark.
- The Core Fixed Income Composite has slightly lower average quality rating than its benchmark.



### MANAGER REPORT CARD

Core Fixed Income Managers	Inception Date	Mandate	Current (No Index	et)	(	e Year Net) Universe	1)	e Years Net) Universe	(1	: Years Net) Universe	Since Inception (Net) Index	Annual Mgt Fee Paid \$ (000)	Comments
Neuberger Berman	Sep-01	Core	×	×	×	×	×	×	✓	×	✓	1010.3	Performance compliant with LACERS' Manager Monitoring Policy
Loomis Sayles	Jul-80	Core	×	3c	✓	✓	✓	✓	✓	✓	11	863.0	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Mar-05	Intermediate	×	3c	✓	✓	✓	✓	✓	✓	✓	291.7	Performance compliant with LACERS' Manager Monitoring Policy
LM Capital Group	Mar-05	Core	x	×	36	×	✓	✓	✓	✓	11	240.1	Performance compliant with LACERS' Manager Monitoring Policy
SSgA (Passive)	Jul-14	Core	×	✓	se	×	×	×	N/A	N/A	×	369.3	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2017.
- \* Where net of fees performance is not available gross of fee returns are evaluated.

	Legend
✓	Outperformed
x	Underperformed
=	Equal to
11	Gross Return



# CREDIT OPPORTUNITIES

NEPC, LLC —

## **CREDIT OPPORTUNITIES (GROSS)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Credit Opportunities	779,843,835	100.00	-0.85	-1.62	1.82	4.83	5.19		5.19	Jun-13
Credit Opportunities Blend			<u>-0.59</u>	<u>-1.75</u>	<u>1.14</u>	<u>5.25</u>	<u>5.41</u>		<u>5.41</u>	Jun-13
Over/Under			-0.26	0.13	0.68	-0.42	-0.22		-0.22	
AEGON USA	388,163,384	49.77	0.94	0.43	2.92	5.74	5.95		5.95	Jun-13
BBgBarc US High Yield 2% Issuer Cap TR			<u>1.03</u>	<u>0.16</u>	<u>2.62</u>	<u>5.54</u>	<u>5.52</u>		<u>5.52</u>	Jun-13
Over/Under			-0.09	0.27	0.30	0.20	0.43		0.43	
Prudential Emerging Markets	295,993,288	37.96	-3.64	-5.27	-0.34	5.26			4.32	May-14
JP Morgan EMBI Global Diversified			<u>-3.54</u>	<u>-5.23</u>	<u>-1.60</u>	<u>4.63</u>			<u>3.60</u>	May-14
Over/Under			-0.10	-0.04	1.26	0.63			0.72	
Bain Capital Senior Loan Fund, LP*	95,658,514	12.27	0.90	2.06	4.34	4.02			4.02	Jun-15
Credit Suisse Leveraged Loans			<u>0.78</u>	<u>2.38</u>	<u>4.67</u>	<u>4.33</u>			<u>4.33</u>	Jun-15
Over/Under			0.12	-0.32	-0.33	-0.31			-0.31	

eA = eVestment Alliance

BBgBarc = Bloomberg Barclays



<sup>-</sup> Credit Opportunities Blend = 65% BBgBarc US High Yield 2% Issuer Cap TR / 35% JP Morgan EMBI Global Diversified 7/01/2014 to present; BBgBarc US High Yield 2% Issuer Cap TR prior to

<sup>\*</sup>Net of fee return since vehicle is commingled.

## **CREDIT OPPORTUNITIES (NET)**

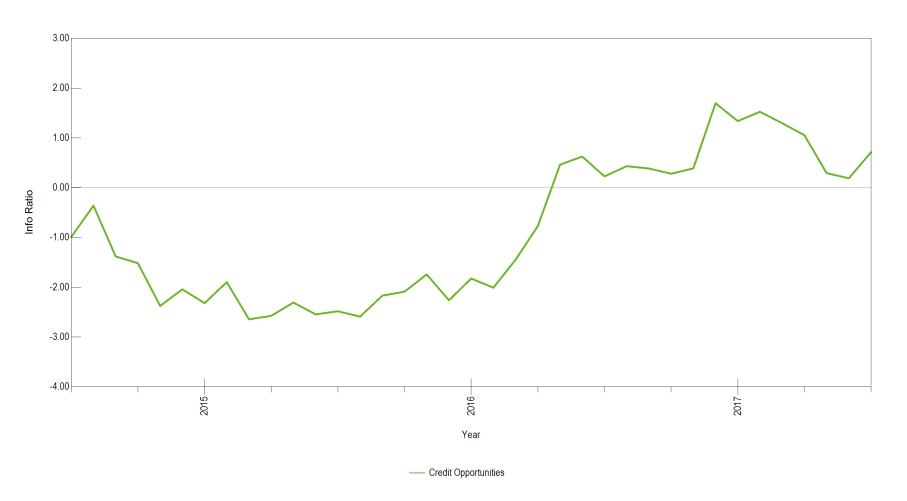
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%) Rank	Inception (%)	Inception Date
Credit Opportunities	779,843,835	100.00	-0.94		-1.79		1.47		4.46		4.84			4.84	Jun-13
Credit Opportunities Blend Over/Under			<u>-0.59</u> -0.35		<u>-1.75</u> -0.04		<u>1.14</u> 0.33		<u>5.25</u> -0.79		<u>5.41</u> -0.57			<u>5.41</u> -0.57	Jun-13
AEGON USA	388,163,384	49.77	0.84	33	0.25	34	2.54	38	5.35	25	5.58	20		5.58	Jun-13
BBgBarc US High Yield 2% Issuer Cap TR			<u>1.03</u>	22	<u>0.16</u>	37	<u>2.62</u>	35	<u>5.54</u>	22	<u>5.52</u>	22		<u>5.52</u>	Jun-13
Over/Under			-0.19		0.09		-0.08		-0.19		0.06			0.06	
eV US High Yield Fixed Inc Net Median			0.61		-0.11		2.24		4.61		4.83			4.83	Jun-13
Prudential Emerging Markets	295,993,288	37.96	-3.74	24	-5.47	35	-0.75	29	4.84	25				3.93	May-14
JP Morgan EMBI Global Diversified Over/Under			<u>-3.54</u> -0.20	23	<u>-5.23</u> -0.24	31	<u>-1.60</u> 0.85	45	<u>4.63</u> 0.21	28				<u>3.60</u> 0.33	May-14
eV Emg Mkt Fixed Inc Hedged Net Median			-6.24		-6.02		-1.87		4.01					1.73	May-14
Bain Capital Senior Loan Fund, LP	95,658,514	12.27	0.90	2	2.06	22	4.34	31	4.02	43				4.02	Jun-15
Credit Suisse Leveraged Loans Over/Under			<u>0.78</u> 0.12	7	<u>2.38</u> -0.32	9	<u>4.67</u> -0.33	17	<u>4.33</u> -0.31	35				<u>4.33</u> -0.31	Jun-15
eV US Float-Rate Bank Loan Fixed Inc Net Median			0.58		1.84		3.97		3.90					3.90	Jun-15



<sup>-</sup> Credit Opportunities Blend = 65% BBgBarc US High Yield 2% Issuer Cap TR / 35% JP Morgan EMBI Global Diversified 7/01/2014 to present; BBgBarc US High Yield 2% Issuer Cap TR prior to eA = eVestment Alliance
BBgBarc = Bloomberg Barclays

## **CREDIT OPPORTUNITIES ROLLING 1 YEAR**





\*Returns are net of fees



### MANAGER REPORT CARD

Credit Opportunities Managers	Inception Date	Mandate		nt Quarter (Net)		e Year Net)		ee Years Net)	Five Ye	ears (Net)	Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe	Index	(000)	
AEGON USA	Jun-13	High Yield Bonds	JK.	✓	JC .	✓	3c	✓	✓	✓	✓	781.6	Watch pursuant to LACERS' Manager Monitoring Policy for a period of one year ending October 5, 2018
Prudential	May-14	Emerging Market Debt	×	✓	✓	✓	✓	✓	N/A	N/A	✓	1230.2	Performance compliant with LACERS' Manager Monitoring Policy
Bain	Jun-15	Bank Loans	✓	✓	×	✓	×	✓	N/A	N/A	×	330.0	Performance compliant with LACERS' Manager Monitoring Policy

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2017.
- \* Where net of fees performance is not available gross of fee returns are evaluated.

	Legend
✓	Outperformed
×	Underperformed
=	Equal to
<b>√</b> √	Gross Return



## **REAL ASSETS**

NEPC, LLC —

## **REAL ASSETS (GROSS)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	1,591,862,100	100.00	1.93	2.40	5.87	6.16	7.72	0.03	6.35	Nov-94
CPI + 5% (Unadjusted)			<u>2.21</u>	<u>4.73</u>	<u>8.00</u>	<u>6.91</u>	<u>6.61</u>	<u>6.49</u>	<u>7.34</u>	Nov-94
Over/Under			-0.28	-2.33	-2.13	-0.75	1.11	-6.46	-0.99	
Public Real Assets	782,897,059	49.18	1.49	0.09	3.81	2.47			1.11	Jun-14
Public Real Assets Blend			<u>2.57</u>	<u>0.22</u>	<u>2.95</u>	<u>0.80</u>			<u>-1.36</u>	Jun-14
Over/Under			-1.08	-0.13	0.86	1.67			2.47	
TIPS	510,360,859	32.06	0.75	-0.17	1.86	1.90			0.90	Jul-14
BBgBarc US TIPS TR			<u>0.77</u>	<u>-0.02</u>	<u>2.11</u>	<u>1.93</u>			<u>1.01</u>	Jul-14
Over/Under_			-0.02	-0.15	-0.25	-0.03			-0.11	
DFA US TIPS <sup>1</sup>	510,360,859	32.06	0.75	-0.17	1.86	2.06			1.08	Jul-14
BBgBarc US TIPS TR			<u>0.77</u>	<u>-0.02</u>	<u>2.11</u>	<u>1.93</u>			<u>1.01</u>	Jul-14
Over/Under			-0.02	-0.15	-0.25	0.13			0.07	
REITS	97,434,271	6.12	8.12	1.26	6.68	10.20			6.98	Mar-15
FTSE NAREIT All Equity REIT			<u>8.50</u>	<u>1.27</u>	<u>4.93</u>	<u>9.14</u>			<u>5.29</u>	Mar-15
Over/Under			-0.38	-0.01	1.75	1.06			1.69	
CenterSquare US Real Estate <sup>1</sup>	97,434,271	6.12	8.12	1.26	6.68	10.20			8.21	Apr-15
FTSE NAREIT All Equity REIT			<u>8.50</u>	<u>1.27</u>	<u>4.93</u>	<u>9.14</u>			<u>7.13</u>	Apr-15
Over/Under			-0.38	-0.01	1.75	1.06			1.08	
Commodities	175,101,929	11.00	0.19	0.57	9.03	-3.86			-3.86	Jun-15
Bloomberg Commodity Index TR USD			<u>0.40</u>	<u>0.00</u>	<u>7.35</u>	<u>-4.54</u>			<u>-4.54</u>	Jun-15
Over/Under			-0.21	0.57	1.68	0.68			0.68	
CoreCommodity Mgmt <sup>1</sup>	175,101,929	11.00	0.19	0.57	9.03	-3.86			-3.86	Jun-15
Bloomberg Commodity Index TR USD			<u>0.40</u>	<u>0.00</u>	<u>7.35</u>	<u>-4.54</u>			<u>-4.54</u>	Jun-15
Over/Under			-0.21	0.57	1.68	0.68			0.68	
Private Real Estate	788,365,484	49.52	2.39	4.70	8.04	9.54	10.49	1.31	6.92	Oct-94
Real Estate Blend			<u>2.25</u>	<u>4.71</u>	<u>9.31</u>	<u>10.23</u>	<u>11.64</u>	<u>7.21</u>	<u>9.98</u>	Oct-94
Over/Under			0.14	-0.01	-1.27	-0.69	-1.15	-5.90	-3.06	
Timber	20,599,557	1.29	1.63	1.63	1.39	2.56	6.83	4.74	9.76	Sep-99

<sup>-</sup> Public Real Assets Custom Benchmark = 60% BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT - Real Estate Blend = NCREIF-ODCE + 80bps 7/1/2014 to present; NCREIF Property Index 1 Qtr Lag plus 100bps 7/1/2012 - 6/30/2014; NCREIF Property Index prior to eA = eVestment Alliance



<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

## **REAL ASSETS (NET)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%) Rank	10 Yrs (%) Rank	Inception (%)	Inception Date
Real Assets	1,591,862,100	100.00	1.89		2.33		5.70		5.99		7.57	-0.11		Nov-94
CPI + 5% (Unadjusted)			<u>2.21</u>		<u>4.73</u>		<u>8.00</u>		<u>6.91</u>		<u>6.61</u>	<u>6.49</u>		Nov-94
Over/Under			-0.32		-2.40		-2.30		-0.92		0.96	-6.60		
Public Real Assets	782,897,059	49.18	1.40		-0.05		3.53		2.22				0.91	Jun-14
Public Real Assets Blend			<u>2.57</u>		<u>0.22</u>		<u>2.95</u>		<u>0.80</u>				<u>-1.36</u>	Jun-14
Over/Under			-1.17		-0.27		0.58		1.42				2.27	
TIPS	510,360,859	32.06	0.74		-0.20		1.81		1.84				0.84	Jul-14
BBgBarc US TIPS TR			<u>0.77</u>		<u>-0.02</u>		<u>2.11</u>		<u>1.93</u>				<u>1.01</u>	Jul-14
Over/Under			-0.03		-0.18		-0.30		-0.09				-0.17	
DFA US TIPS <sup>1</sup>	510,360,859	32.06	0.74	32	-0.20	73	1.81	68	2.00	20			1.03	Jul-14
BBgBarc US TIPS TR			<u>0.77</u>	24	<u>-0.02</u>	42	<u>2.11</u>	41	<u>1.93</u>	32			<u>1.01</u>	Jul-14
Over/Under			-0.03		-0.18		-0.30		0.07				0.02	
eV US TIPS / Inflation Fixed Inc Net Median			0.68		-0.06		2.03		1.77				0.77	Jul-14
REITS	97,434,271	6.12	7.86		1.02		6.18		9.68				6.52	Mar-15
FTSE NAREIT All Equity REIT			<u>8.50</u>		<u>1.27</u>		<u>4.93</u>		<u>9.14</u>				<u>5.29</u>	Mar-15
Over/Under			-0.64		-0.25		1.25		0.54				1.23	
CenterSquare US Real Estate <sup>1</sup>	97,434,271	6.12	7.86	62	1.02	42	6.18	11	9.68	11			7.74	Apr-15
FTSE NAREIT All Equity REIT			<u>8.50</u>	52	<u>1.27</u>	30	<u>4.93</u>	27	<u>9.14</u>	20			<u>7.13</u>	Apr-15
Over/Under			-0.64		-0.25		1.25		0.54				0.61	
eV US REIT Net Median			8.57		0.75		3.64		7.60				5.78	Apr-15
Commodities	175,101,929	11.00	0.00		0.17		8.14		-4.57				-4.57	Jun-15
Bloomberg Commodity Index TR USD			<u>0.40</u>		<u>0.00</u>		<u>7.35</u>		<u>-4.54</u>				<u>-4.54</u>	Jun-15
Over/Under			-0.40		0.17		0.79		-0.03				-0.03	
CoreCommodity Mgmt <sup>1</sup>	175,101,929	11.00	0.00		0.17		8.14		-4.57				-4.57	Jun-15
Bloomberg Commodity Index TR USD			<u>0.40</u>		<u>0.00</u>		<u>7.35</u>		<u>-4.54</u>				<u>-4.54</u>	Jun-15
Over/Under			-0.40		0.17		0.79		-0.03				-0.03	

<sup>-</sup> Public Real Assets Custom Benchmark = 60% BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT eA = eVestment Alliance



<sup>1</sup> Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. No universe is available.

## **REAL ASSETS (NET)**

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Private Real Estate	788,365,484	49.52	2.39	12	4.68	11	7.97	47	9.45	12	10.38	46	1.19	99		Oct-94
Real Estate Blend			<u>2.25</u>	18	<u>4.71</u>	8	<u>9.31</u>	5	<u>10.23</u>	4	<u>11.64</u>	5	<u>7.21</u>	1		Oct-94
Over/Under			0.14		-0.03		-1.34		-0.78		-1.26		-6.02			
InvestorForce Public DB Real Estate Priv Net Median			1.95		3.77		7.56		8.88		10.18		4.11			Oct-94
Timber	20,599,557	1.29	1.63		1.63		1.39		2.56		6.90		4.74			Sep-99

<sup>-</sup> Real Estate Blend = NCREIF-ODCE + 80bps 7/1/2014 to present; NCREIF Property Index 1 Qtr Lag plus 100bps 7/1/2012 - 6/30/2014; NCREIF Property Index prior to eA = eVestment Alliance



### MANAGER REPORT CARD

Real Assets Managers	Inception Date	Mandate	Quart	rrent er (Net) Universe	(	e Year Net) Universe	(	ee Years Net) Universe	(	e Years Net) Universe	Since Inception (Net) Index  Annual Mg Fee Paid \$ (000)		Comments				
DFA	Jul-14	U.S. TIPS	x	✓	se	se	~	✓	N/A	N/A	✓	194.6	Performance compliant with LACERS' Manager Monitoring Policy				
CenterSquare	Apr-15	REITS	×	æ	✓	✓	✓	✓	N/A	N/A	✓	399.8	Performance compliant with LACERS' Manager Monitoring Policy				
CoreCommodity Mgt.	Jul-15	Commodities	×	N/A	✓	N/A	×	N/A	N/A	N/A	<u> </u>	860.4	Performance compliant with LACERS' Manager Monitoring Policy				

Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2017.
- \* Where net of fees performance is not available gross of fee returns are evaluated.

	Legend
✓	Outperformed
×	Underperformed
=	Equal to
11	Gross Return



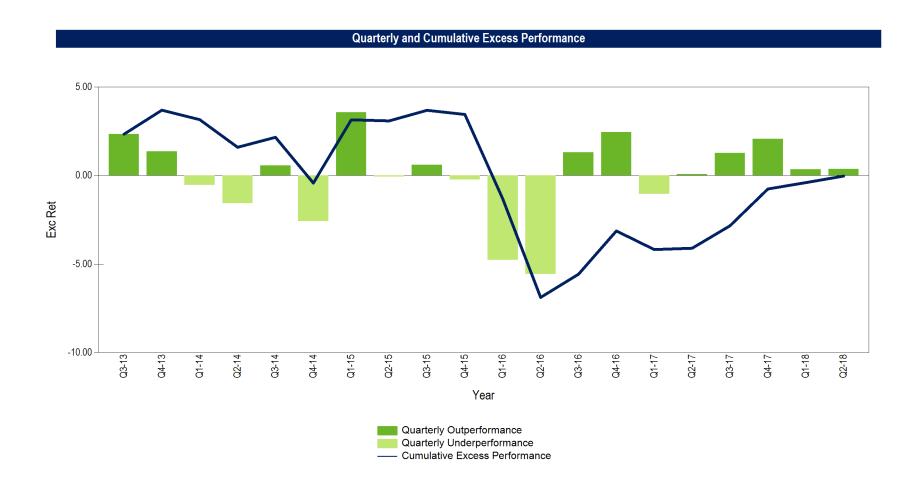
# **APPENDIX**

NEPC, LLC —

# U.S. EQUITY MANAGER PERFORMANCE

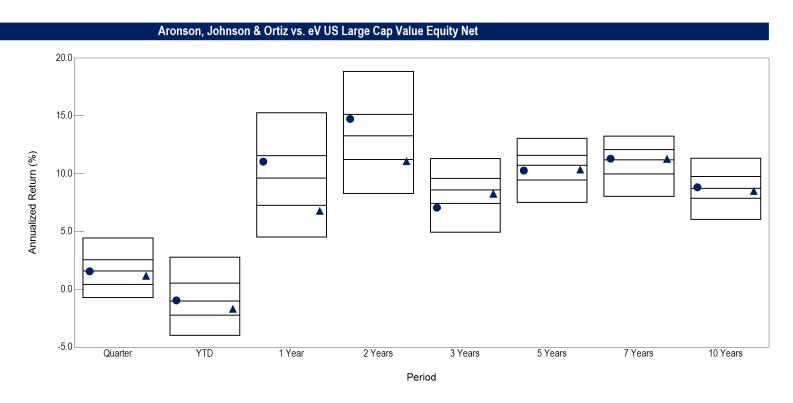
NEPC, LLC -

# **ARONSON, JOHNSON & ORTIZ**





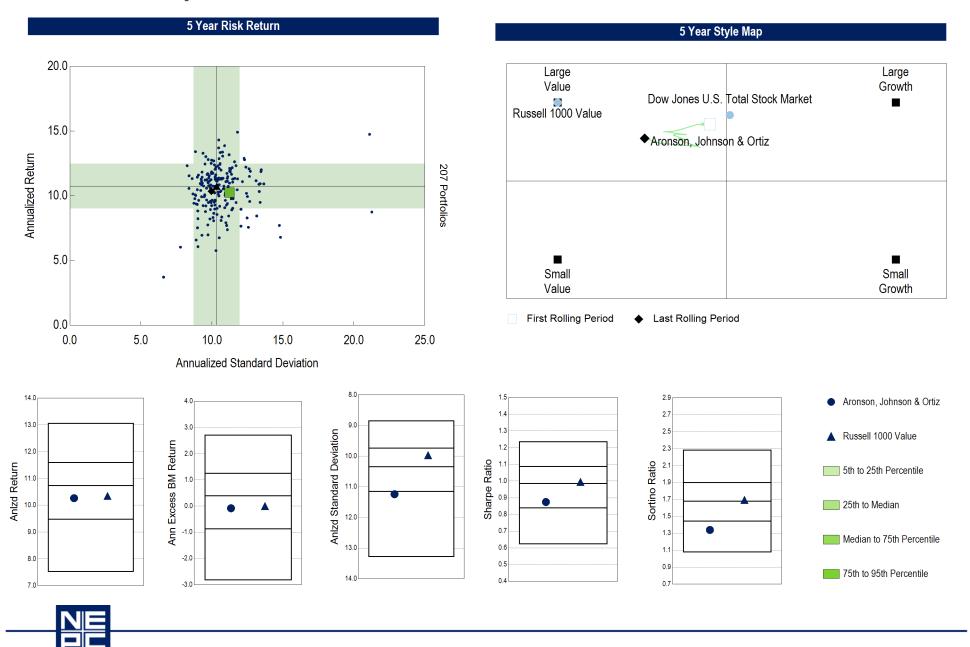
# **ARONSON, JOHNSON & ORTIZ**



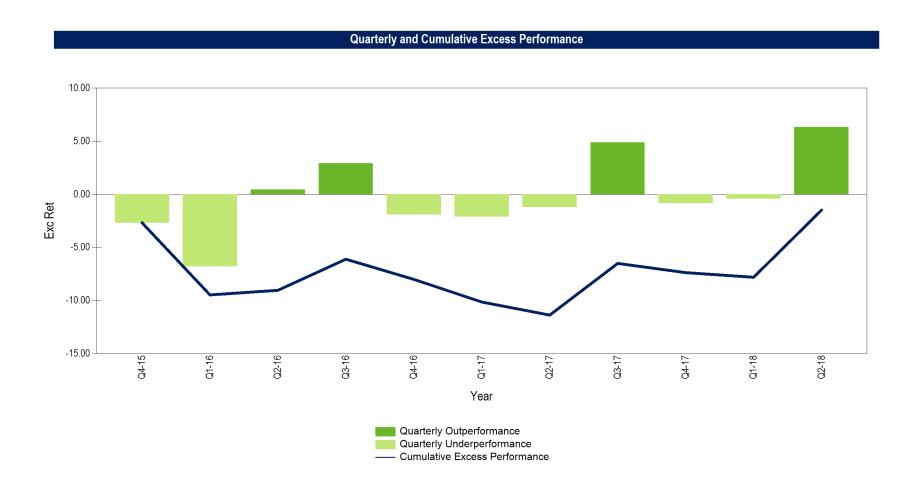
	Return (Rank)								
5th Percentile	4.44	2.77	15.26	18.82	11.30	13.05	13.23	11.32	
25th Percentile	2.57	0.54	11.58	15.14	9.60	11.61	12.10	9.77	
Median	1.59	-0.99	9.62	13.28	8.62	10.74	11.20	8.74	
75th Percentile	0.45	-2.20	7.28	11.25	7.45	9.48	9.99	7.90	
95th Percentile	-0.69	-3.96	4.55	8.31	4.94	7.53	8.06	6.07	
# of Portfolios	225	225	225	223	221	207	183	163	
<ul> <li>Aronson, Johnson &amp; Ortiz</li> </ul>	1.55	(52) -0.97	(50) 11.03	(34) 14.73	(31) 7.05	(81) 10.26	(61) 11.28	(47) 8.81	(47)
Russell 1000 Value	1.18	(61) -1.69	(65) 6.77	(81) 11.06	(78) 8.26	(58) 10.34	(59) 11.27	(47) 8.49	(55)



# **ARONSON, JOHNSON & ORTIZ**

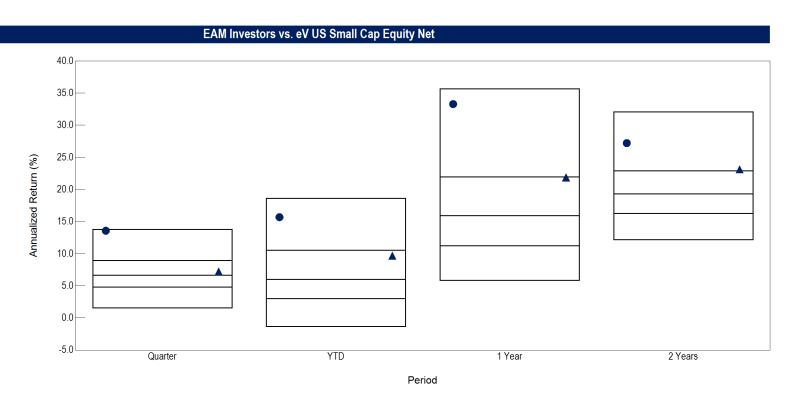


# **EAM INVESTORS**





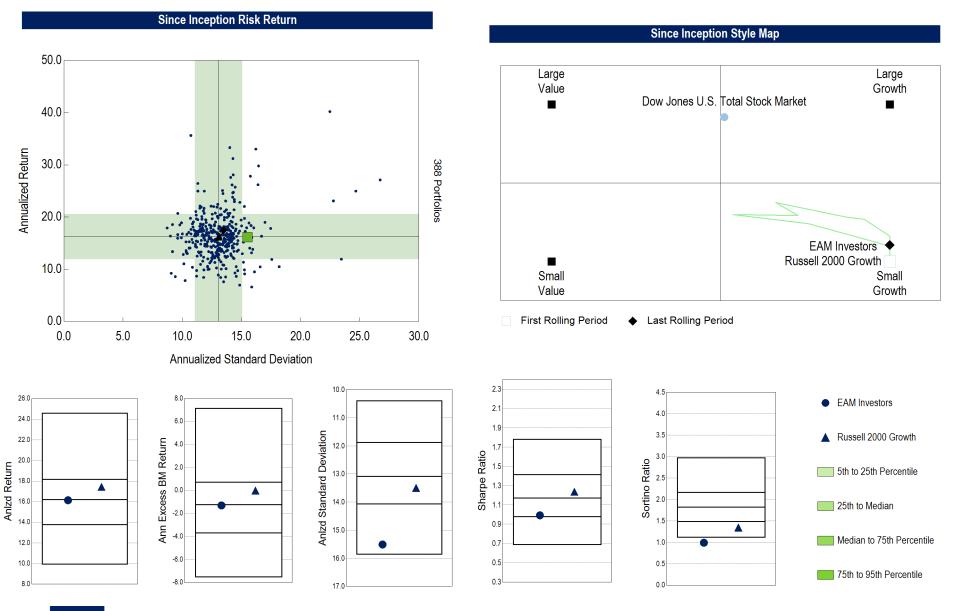
# **EAM INVESTORS**



		Return (Rank)							
5th	Percentile	13.78		18.62		35.63		32.05	
25t	h Percentile	8.96		10.60		21.98		22.93	
Med	dian	6.71		6.05		15.96		19.37	
75t	h Percentile	4.85		3.04		11.27		16.33	
95t	h Percentile	1.61		-1.28		5.91		12.22	
# of	f Portfolios	403		403		402		396	
E	AM Investors	13.56	(6)	15.68	(10)	33.28	(7)	27.20	(13)
R	ussell 2000 Growth	7.23	(44)	9.70	(29)	21.86	(26)	23.13	(25)

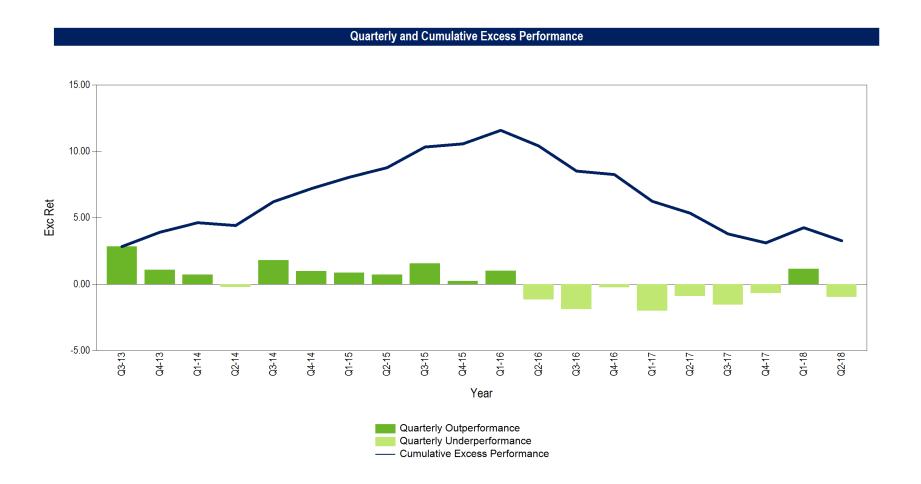


# **EAM INVESTORS**



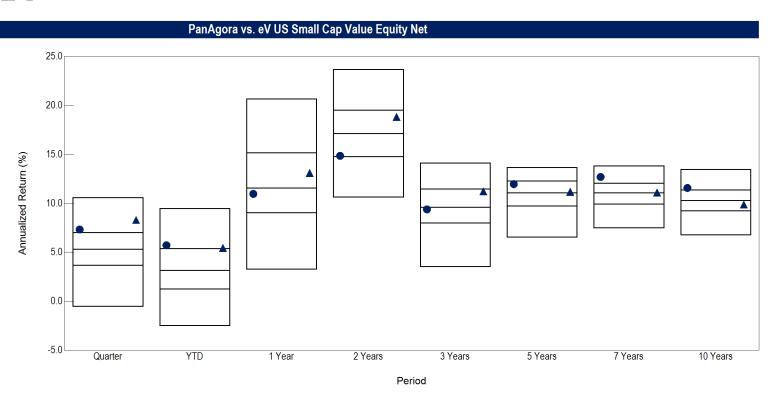


# **PANAGORA**





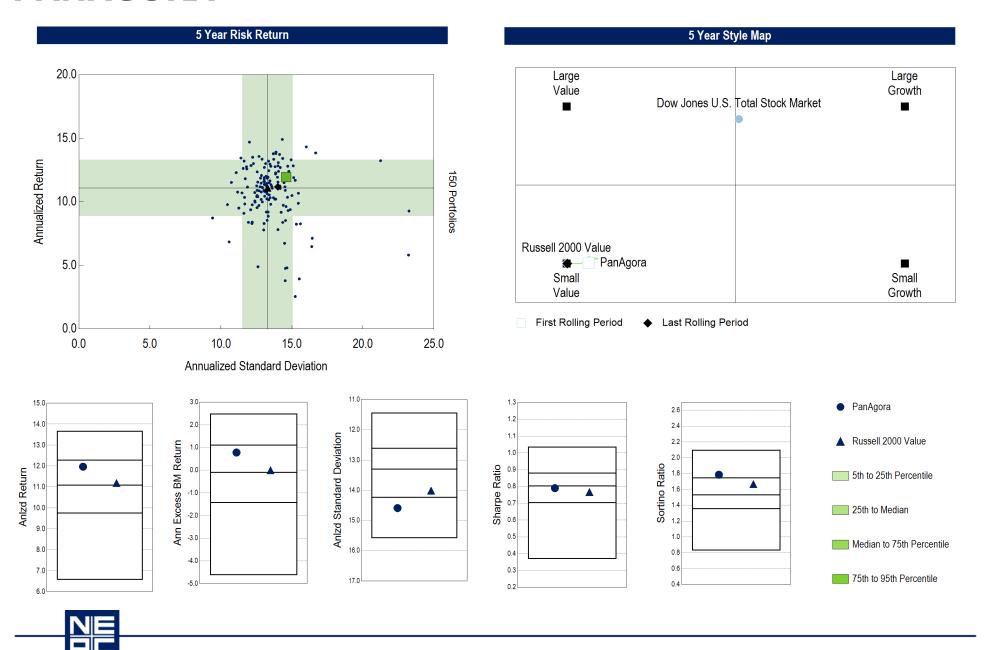
# **PANAGORA**



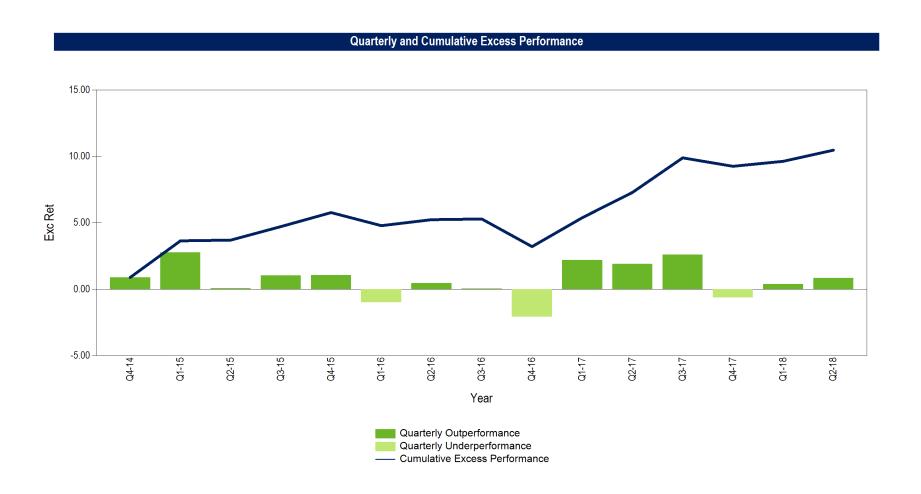
	Return (Rank)	)													
5th Percentile	10.59	9.47	2	20.64		23.68		14.12		13.66		13.81		13.45	
25th Percentile	7.04	5.42	•	15.19		19.53		11.49		12.30		12.08		11.39	
Median	5.35	3.17	•	11.60		17.14		9.63		11.10		11.11		10.32	
75th Percentile	3.69	1.29		9.07		14.80		8.01		9.77		9.94		9.27	
95th Percentile	-0.50	-2.45		3.30		10.68		3.59		6.60		7.53		6.81	
# of Portfolios	168	168		168		166		159		150		141		127	
<ul><li>PanAgora</li></ul>	7.32	(22) 5.72	(21)	10.96	(57)	14.85	(75)	9.38	(54)	11.96	(29)	12.69	(17)	11.57	(23)
Russell 2000 Value	8.30	(18) 5.44	(24)	13.10	(38)	18.83	(29)	11.22	(29)	11.18	(48)	11.10	(51)	9.88	(60)



# **PANAGORA**

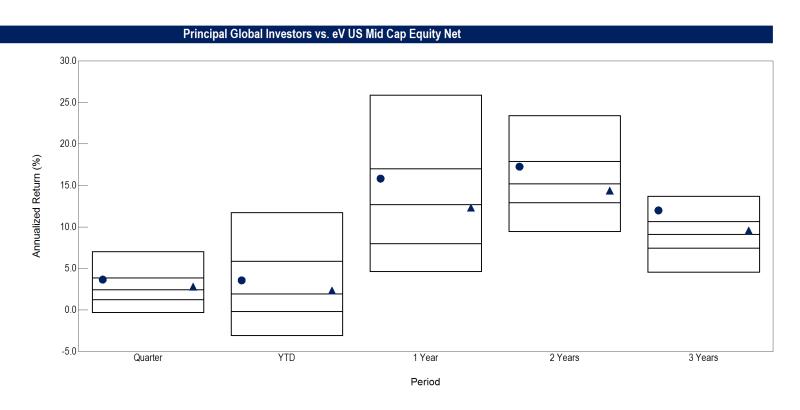


# PRINCIPAL GLOBAL INVESTORS





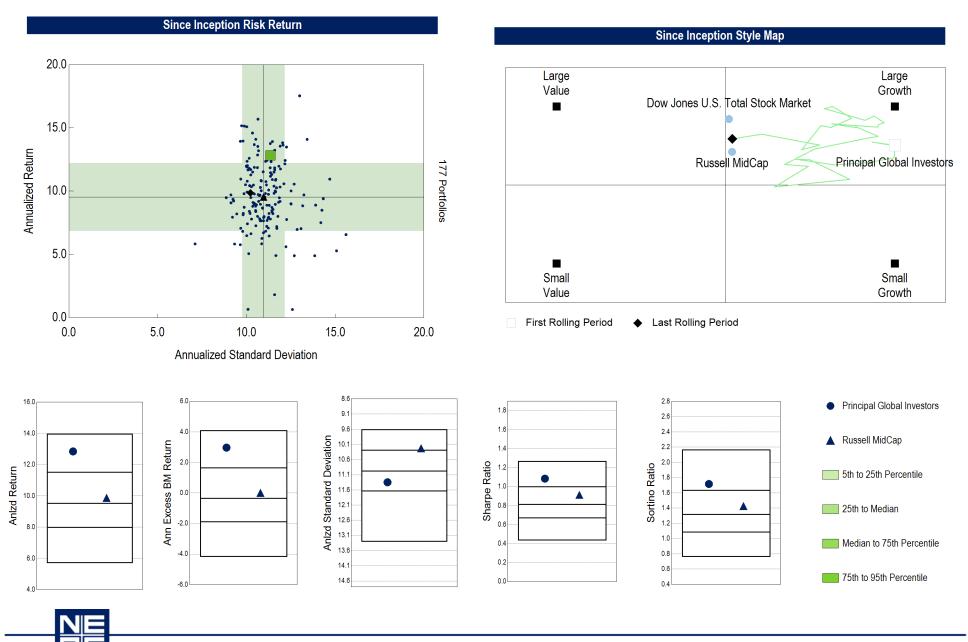
# PRINCIPAL GLOBAL INVESTORS



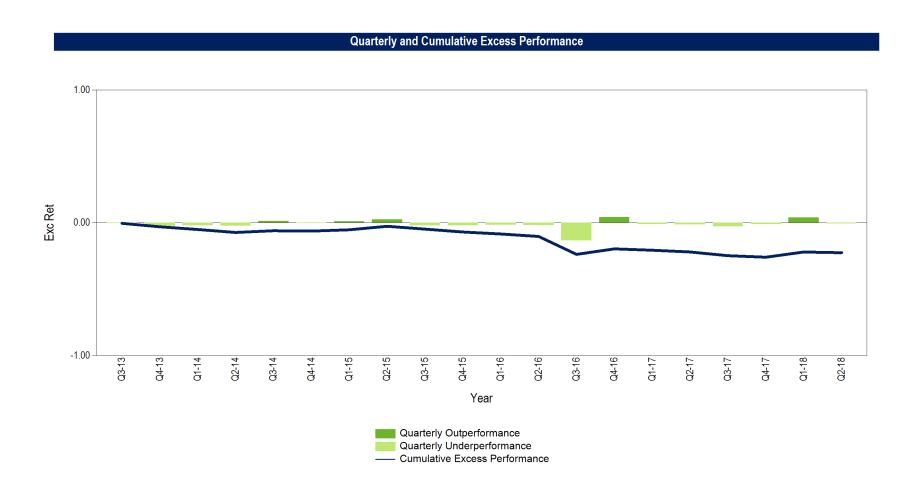
	Return (Rank)							
5th Percentile	7.02	11.71		25.89		23.40	13.70	
25th Percentile	3.89	5.90		17.04		17.93	10.70	
Median	2.46	1.96		12.72		15.22	9.14	
75th Percentile	1.26	-0.15		8.02		12.95	7.49	
95th Percentile	-0.27	-3.05		4.67		9.47	4.60	
# of Portfolios	183	183		183		181	181	
<ul> <li>Principal Global Investors</li> </ul>	3.66	(30) 3.57	(38)	15.83	(31)	17.27	(33) 12.00	(13)
▲ Russell MidCap	2.82	(42) 2.35	(47)	12.33	(54)	14.39	(57) 9.58	(44)



# PRINCIPAL GLOBAL INVESTORS

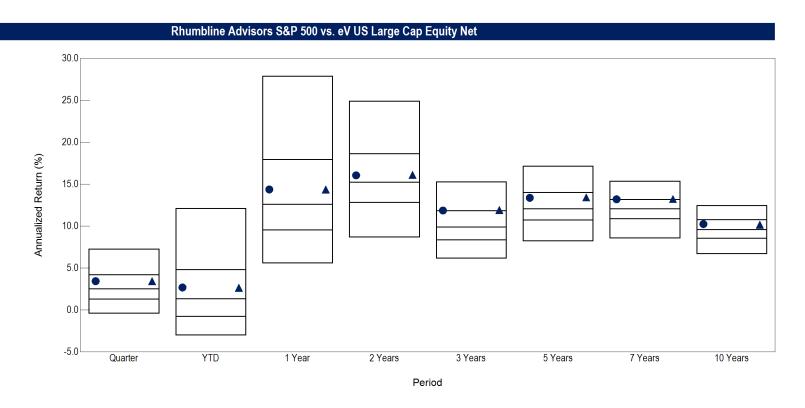


# **RHUMBLINE ADVISORS S&P 500**





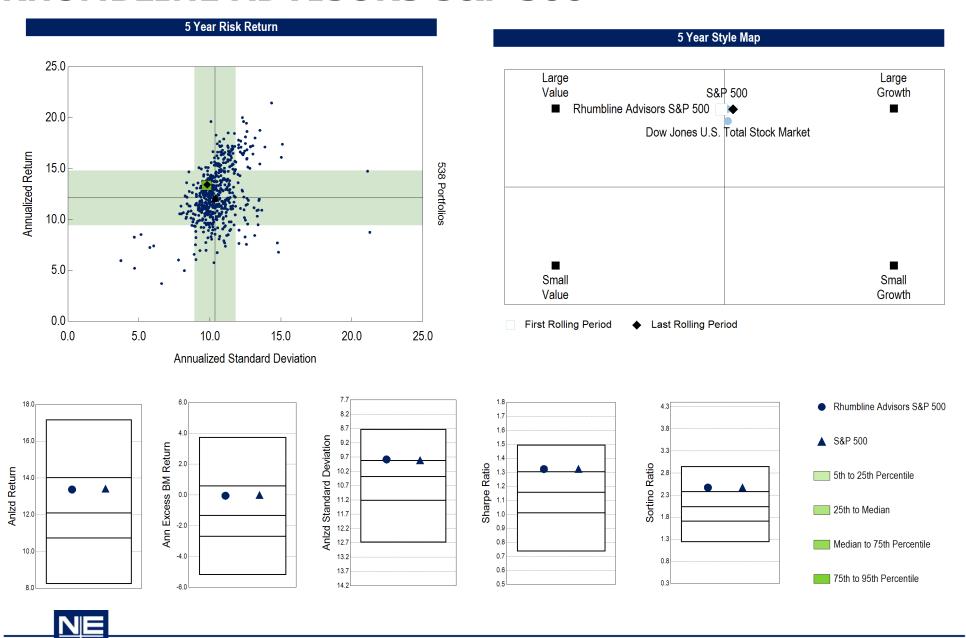
# **RHUMBLINE ADVISORS S&P 500**



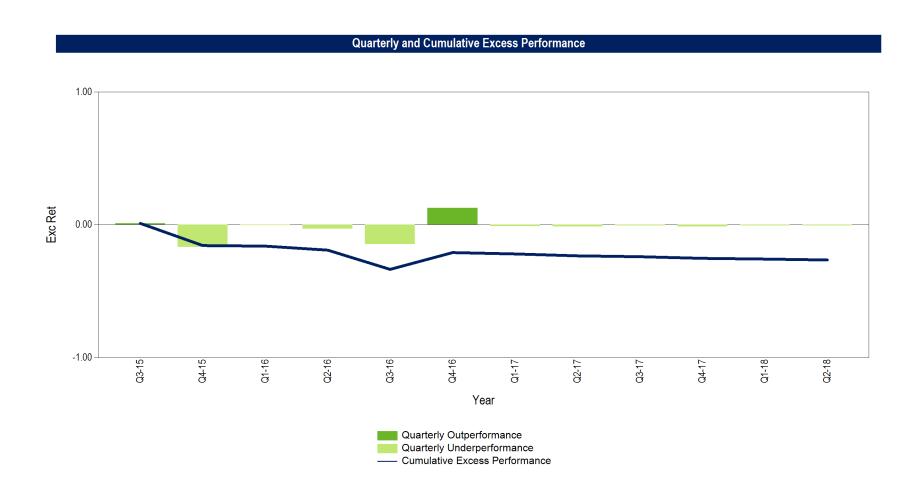
		Return (Rank)														
	5th Percentile	7.26	12.12		27.86		24.88		15.28		17.16		15.34		12.43	
	25th Percentile	4.24	4.85		17.96		18.65		11.86		14.04		13.19		10.79	
	Median	2.57	1.39		12.63		15.28		9.94		12.12		12.11		9.63	
	75th Percentile	1.33	-0.72		9.59		12.85		8.42		10.76		10.94		8.59	
	95th Percentile	-0.35	-2.95		5.64		8.75		6.21		8.28		8.61		6.76	
	# of Portfolios	585	585		585		580		567		538		481		430	
	Rhumbline Advisors S&P 500	3.43	(35) 2.68	(38)	14.37	(40)	16.05	(43)	11.86	(26)	13.37	(33)	13.20	(25)	10.24	(36)
•	S&P 500	3.43	(35) 2.65	(38)	14.37	(40)	16.12	(43)	11.93	(25)	13.42	(32)	13.23	(25)	10.17	(37)



# **RHUMBLINE ADVISORS S&P 500**

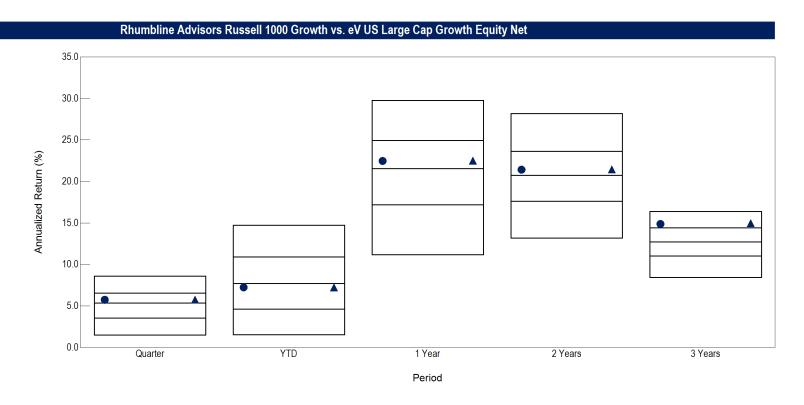


# RHUMBLINE ADVISORS RUSSELL 1000 GROWTH





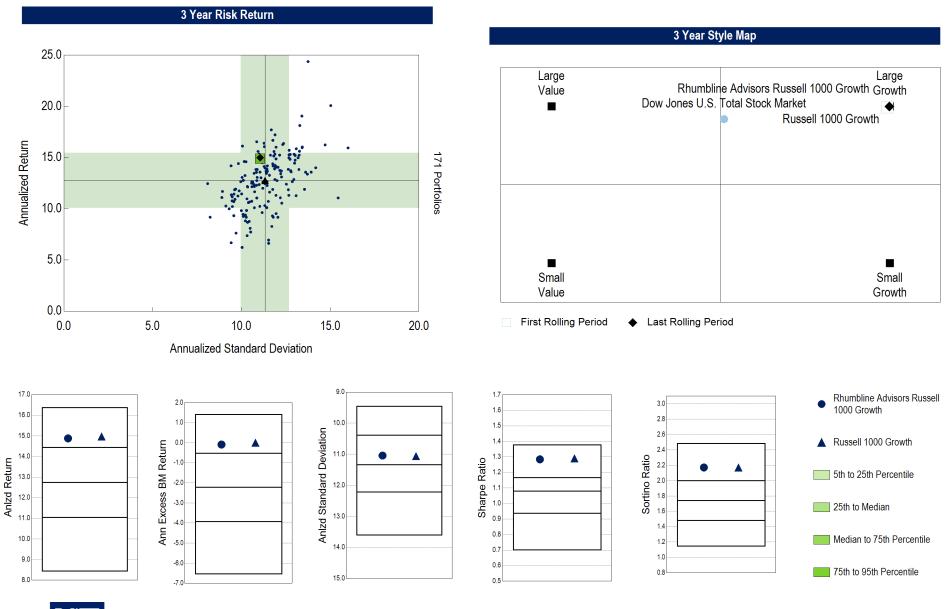
# **RHUMBLINE ADVISORS RUSSELL 1000 GROWTH**



		Return (Rank)								
,	5th Percentile	8.60		14.72		29.76	28.17		16.38	
2	25th Percentile	6.59		10.95		24.99	23.68		14.46	
- 1	Median	5.39		7.73		21.58	20.77		12.76	
7	75th Percentile	3.57		4.66		17.24	17.66		11.06	
9	95th Percentile	1.51		1.59		11.20	13.23		8.47	
#	of Portfolios	178		178		178	176		171	
•	Rhumbline Advisors Russell 1000 Growth	5.75	(42)	7.24	(54)	22.48 (42	2) 21.42	(47)	14.88	(21)
<b>A</b>	Russell 1000 Growth	5.76	(42)	7.25	(54)	22.51 (42	2) 21.46	(46)	14.98	(20)

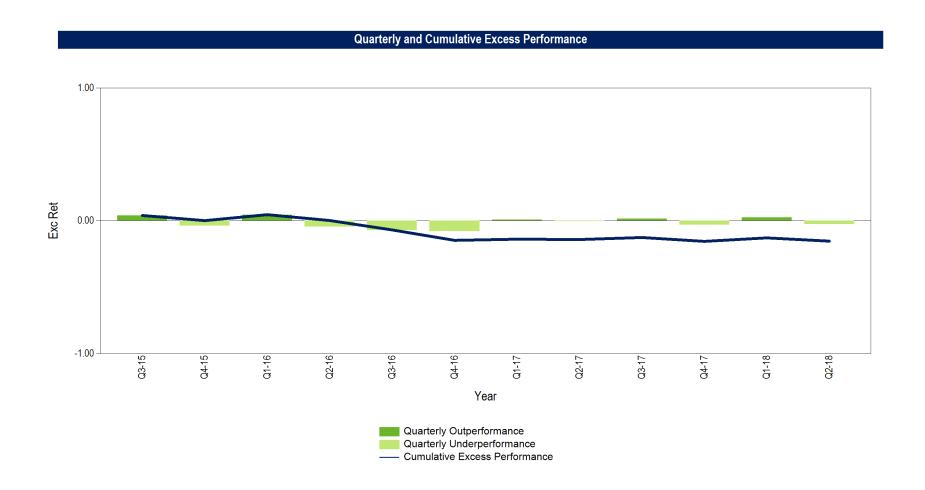


# **RHUMBLINE ADVISORS RUSSELL 1000 GROWTH**



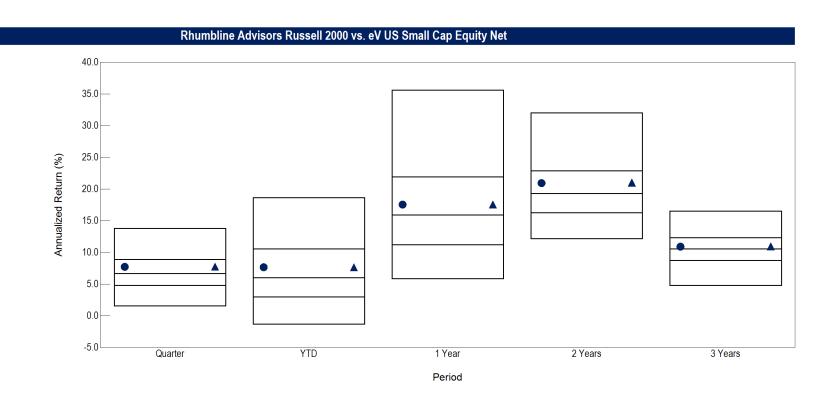


# **RHUMBLINE ADVISORS RUSSELL 2000**





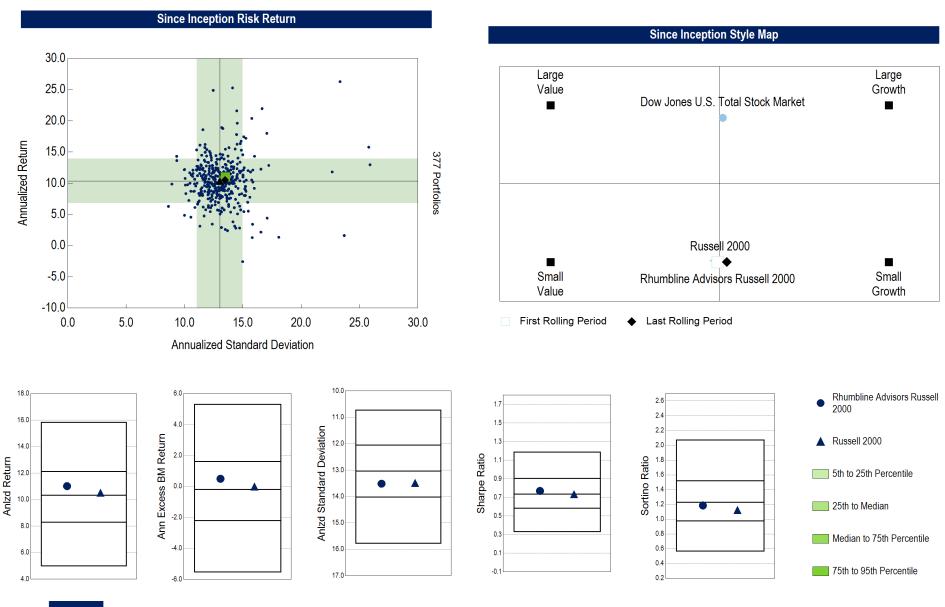
# **RHUMBLINE ADVISORS RUSSELL 2000**



		Return (Rank)									
5th Percentile		13.78		18.62		35.63		32.05		16.52	
25th Percentile		8.96		10.60		21.98		22.93		12.37	
Median		6.71		6.05		15.96		19.37		10.62	
75th Percentile		4.85		3.04		11.27		16.33		8.78	
95th Percentile		1.61		-1.28		5.91		12.22		4.86	
# of Portfolios		403		403		402		396		385	
<ul> <li>Rhumbline A</li> </ul>	dvisors Russell 2000	7.73	(38)	7.67	(40)	17.55	(43)	20.95	(37)	10.92	(46)
A Russell 2000		7.75	(38)	7.66	(40)	17.57	(43)	21.03	(37)	10.96	(45)

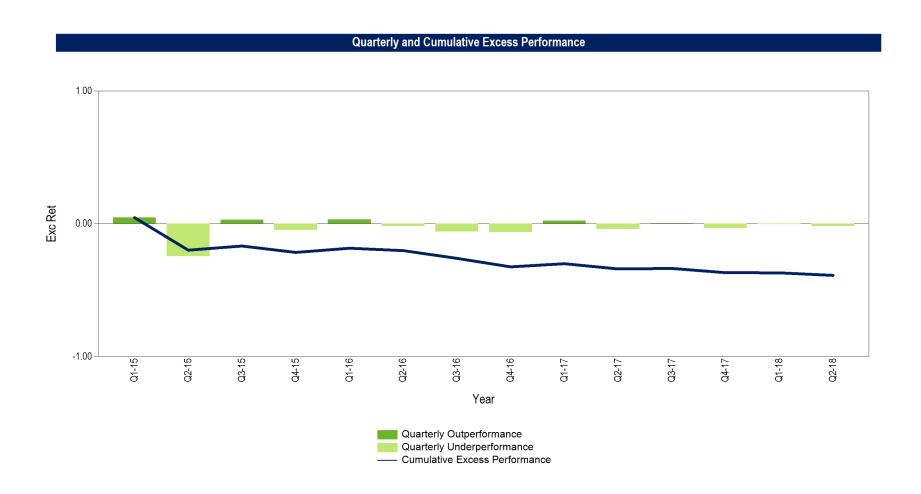


# **RHUMBLINE ADVISORS RUSSELL 2000**



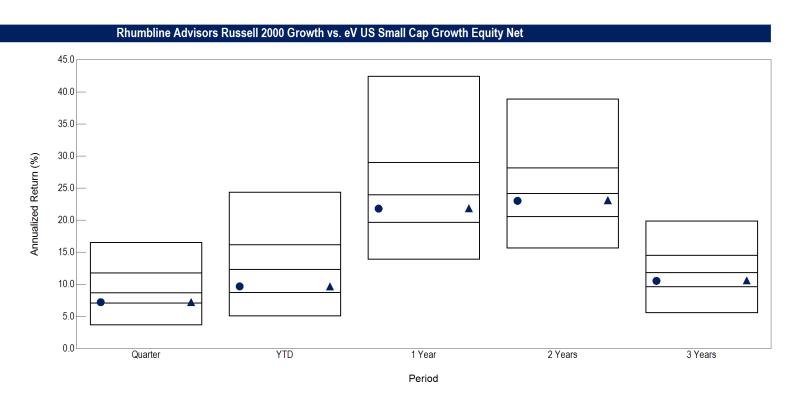


# RHUMBLINE ADVISORS RUSSELL 2000 GROWTH





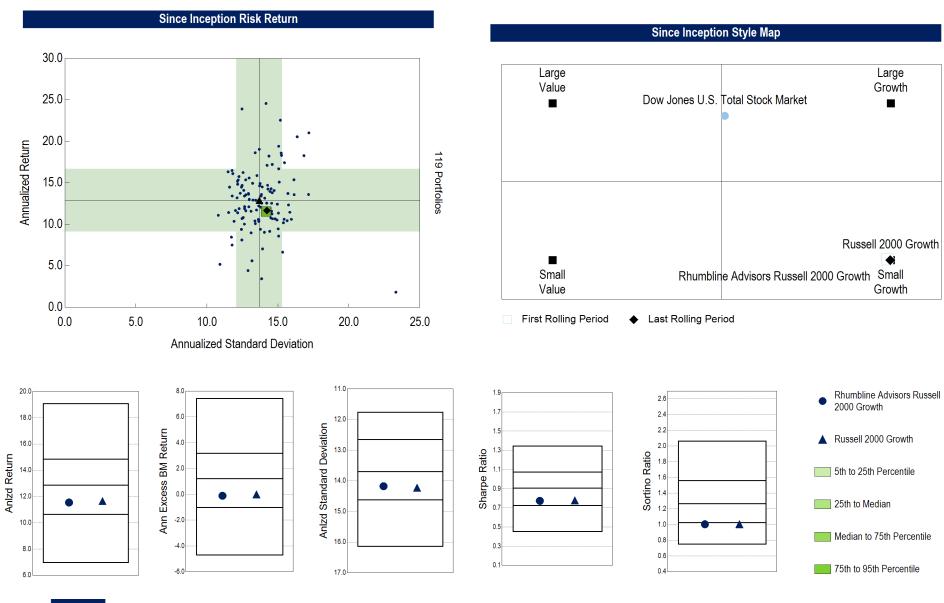
# **RHUMBLINE ADVISORS RUSSELL 2000 GROWTH**



		Return (Rank)							
	5th Percentile	16.53		24.36		42.44	38.89	19.84	
- 2	25th Percentile	11.81		16.22		29.05	28.17	14.58	
1	Median	8.71		12.37		24.01	24.18	11.86	
	75th Percentile	7.11		8.76		19.73	20.63	9.67	
9	95th Percentile	3.75		5.15		13.98	15.71	5.66	
1	# of Portfolios	130		130		130	128	124	
•	Rhumbline Advisors Russell 2000 Growth	7.21	(74)	9.68	(70)	21.81 (65)	23.02	(60) 10.54	(65)
<b>A</b>	Russell 2000 Growth	7.23	(73)	9.70	(70)	21.86 (65)	23.13	(59) 10.60	(64)

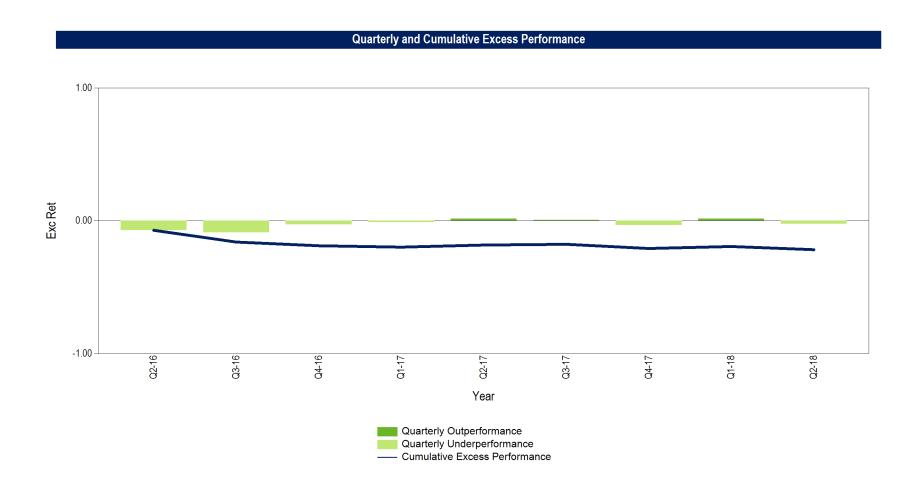


# **RHUMBLINE ADVISORS RUSSELL 2000 GROWTH**



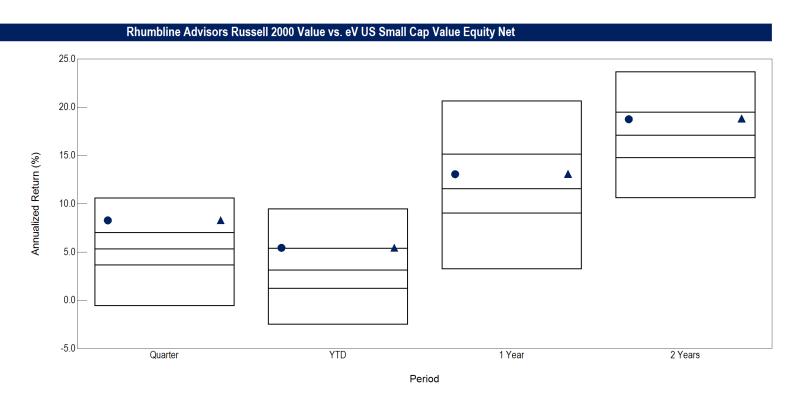


# **RHUMBLINE ADVISORS RUSSELL 2000 VALUE**





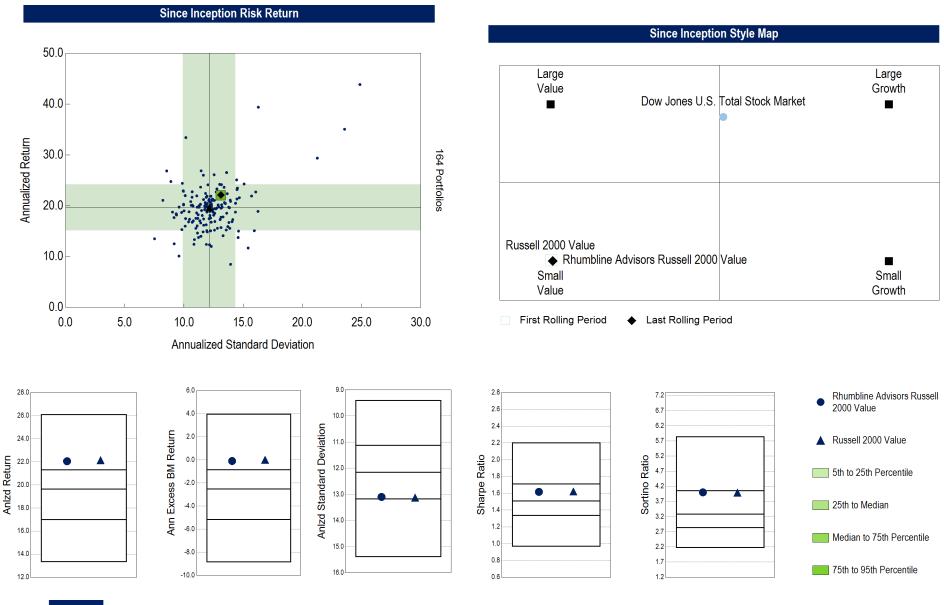
# **RHUMBLINE ADVISORS RUSSELL 2000 VALUE**



		Return (Rank)						
5t	h Percentile	10.59		9.47	20.64		23.68	
25	ith Percentile	7.04		5.42	15.19		19.53	
Me	edian	5.35		3.17	11.60		17.14	
75	ith Percentile	3.69		1.29	9.07		14.80	
95	ith Percentile	-0.50		-2.45	3.30		10.68	
# (	of Portfolios	168		168	168		166	
•	Rhumbline Advisors Russell 2000 Value	8.28	(18)	5.44 (24	13.06	(39)	18.75	(30)
<b>A</b>	Russell 2000 Value	8.30	(18)	5.44 (2-	13.10	(38)	18.83	(29)



# RHUMBLINE ADVISORS RUSSELL 2000 VALUE

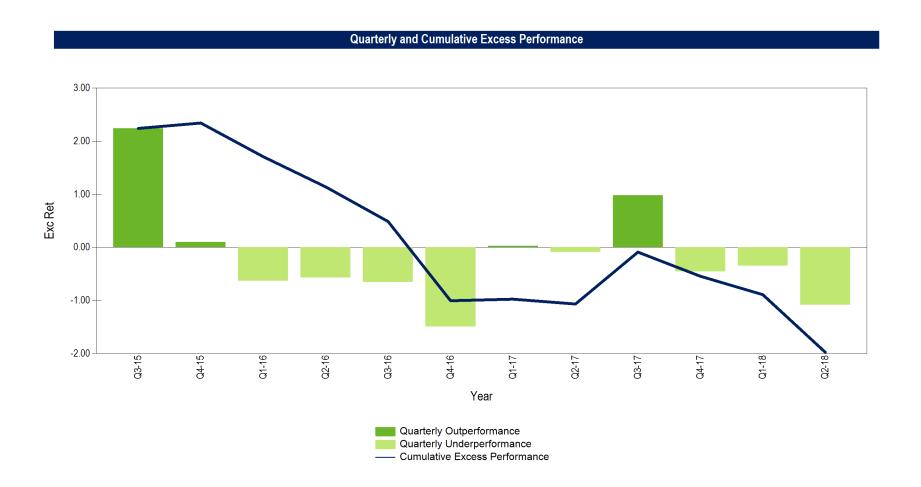




# NON-U.S. EQUITY MANAGER PERFORMANCE

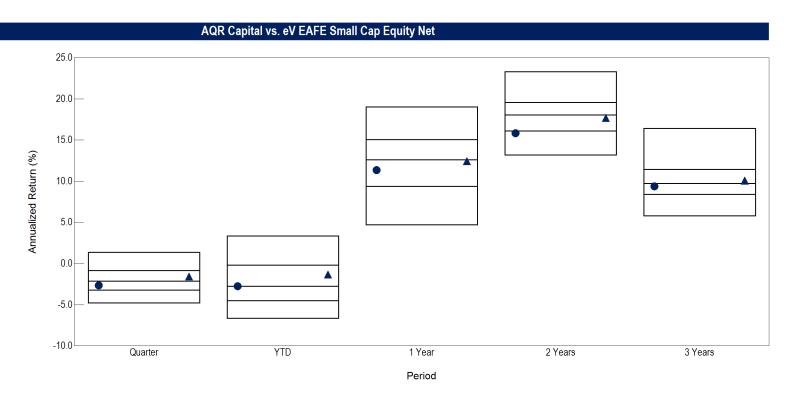
NEPC, LLC -

# **AQR CAPITAL**





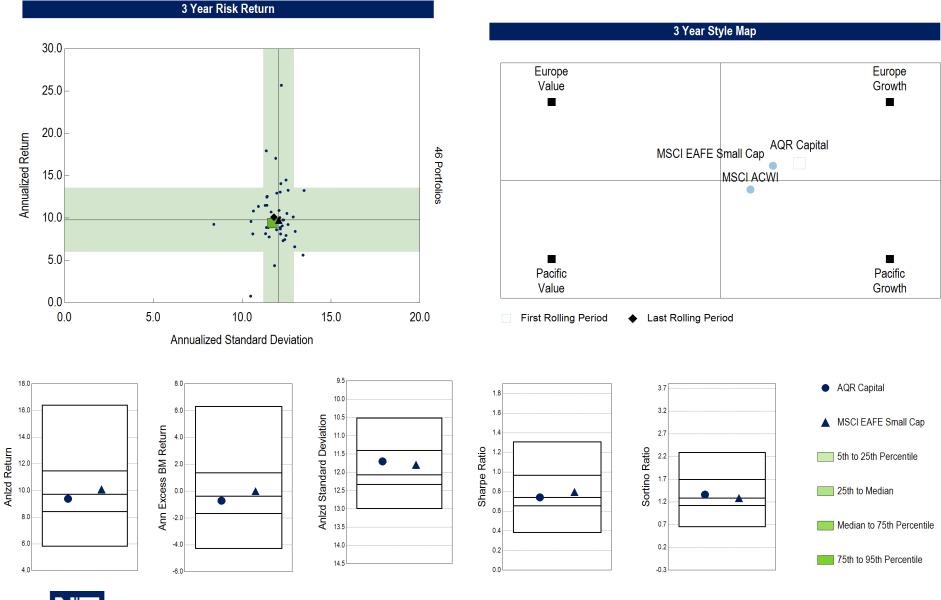
# **AQR CAPITAL**



	Return (Rank)									
5th Percentile	1.37		3.34		19.01		23.29		16.40	
25th Percentile	-0.83		-0.16		15.08		19.59		11.49	
Median	-2.10		-2.72		12.65		18.10		9.75	
75th Percentile	-3.17		-4.48		9.43		16.16		8.45	
95th Percentile	-4.73		-6.61		4.75		13.21		5.84	
# of Portfolios	50		50		50		50		46	
AQR Capital	-2.65	(56)	-2.75	(51)	11.35	(61)	15.83	(80)	9.38	(57)
▲ MSCI EAFE Small Cap	-1.57	(39)	-1.33	(37)	12.45	(51)	17.69	(54)	10.09	(41)

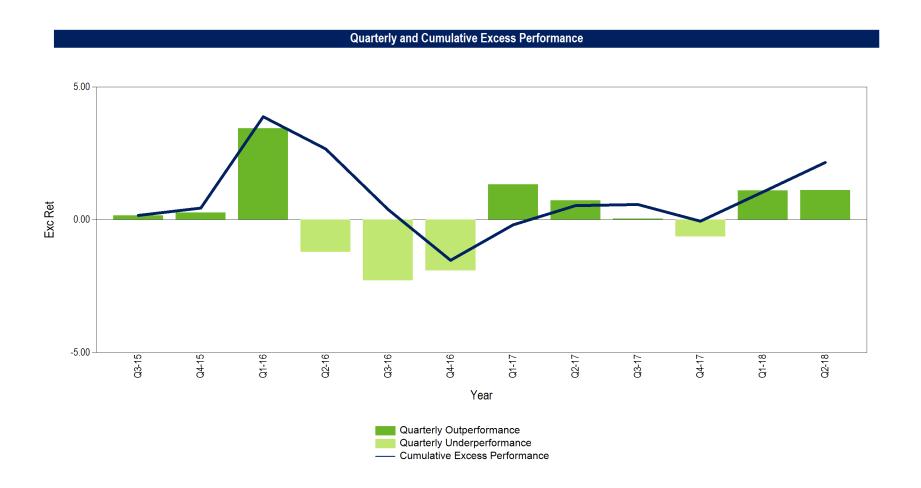


# **AQR CAPITAL**



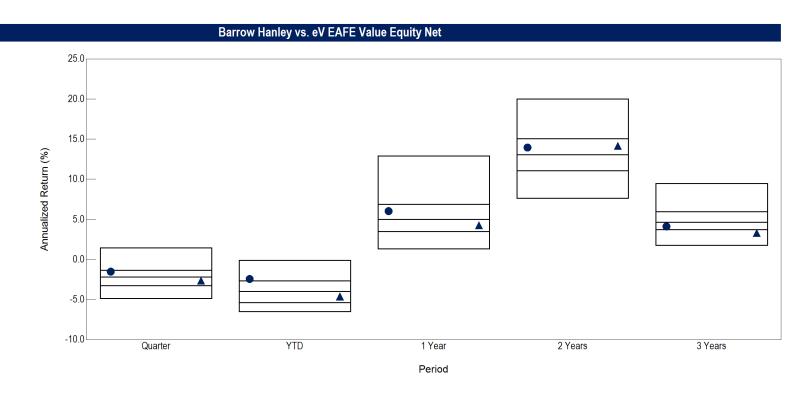


# **BARROW HANLEY**





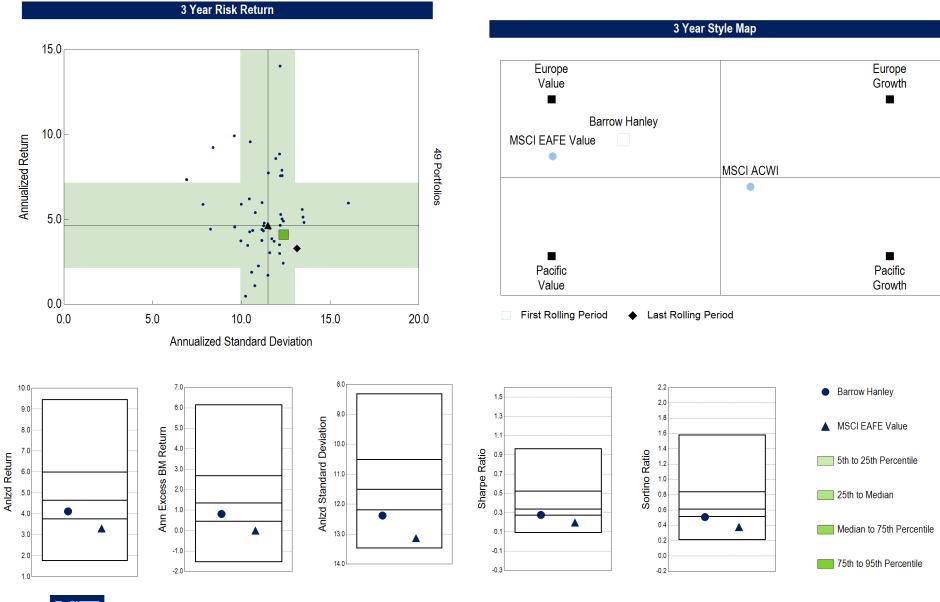
# **BARROW HANLEY**



	Return (Rank)						
5th Percentile	1.42	-0.13		12.89	20.00	9.4	4
25th Percentile	-1.31	-2.63		6.91	15.09	6.0	0
Median	-2.17	-3.96		5.04	13.10	4.6	6
75th Percentile	-3.23	-5.36		3.51	11.09	3.7	6
95th Percentile	-4.83	-6.45		1.34	7.65	1.7	8
# of Portfolios	52	52		52	52	4	9
<ul><li>Barrow Hanley</li></ul>	-1.52	(31) -2.44	(25)	6.02 (3	33) 13.95	(39) 4.1	1 (72)
▲ MSCI EAFE Value	-2.64	(65) -4.61	(66)	4.25 (6	64) 14.16	(37) 3.3	0 (85)

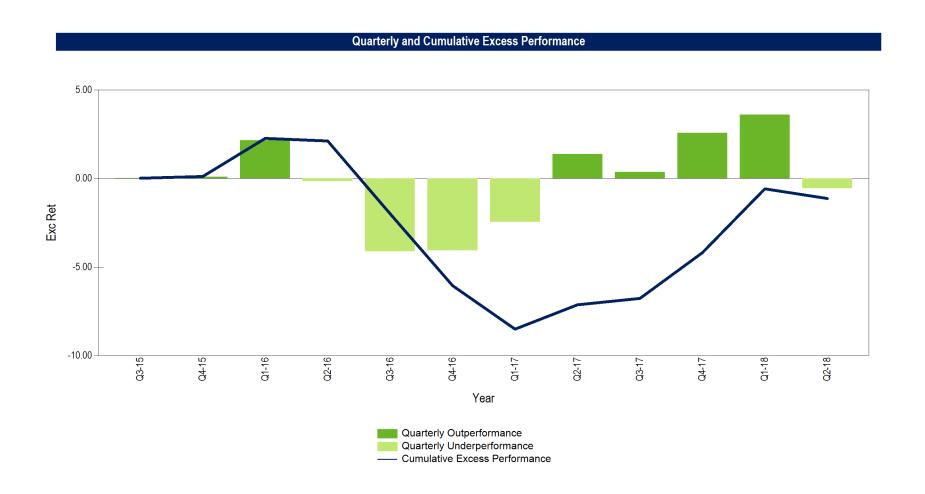


# **BARROW HANLEY**



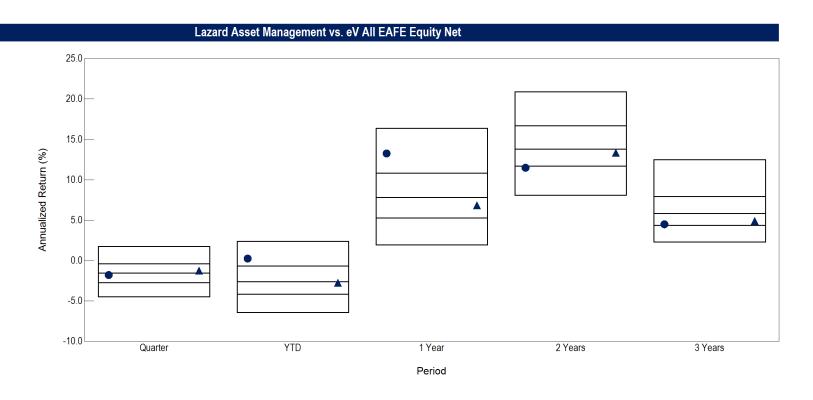


## LAZARD ASSET MANAGEMENT





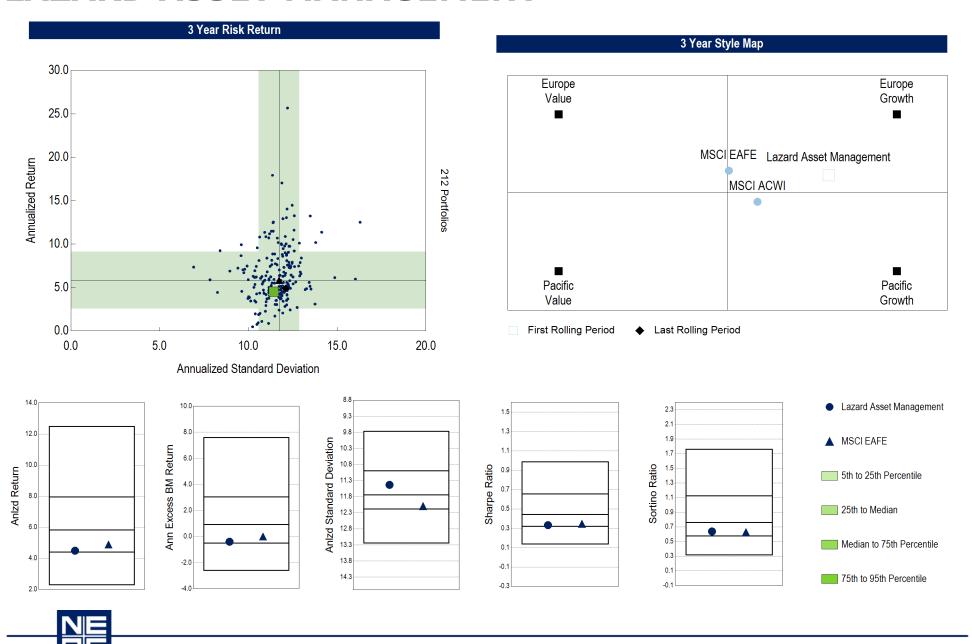
## LAZARD ASSET MANAGEMENT



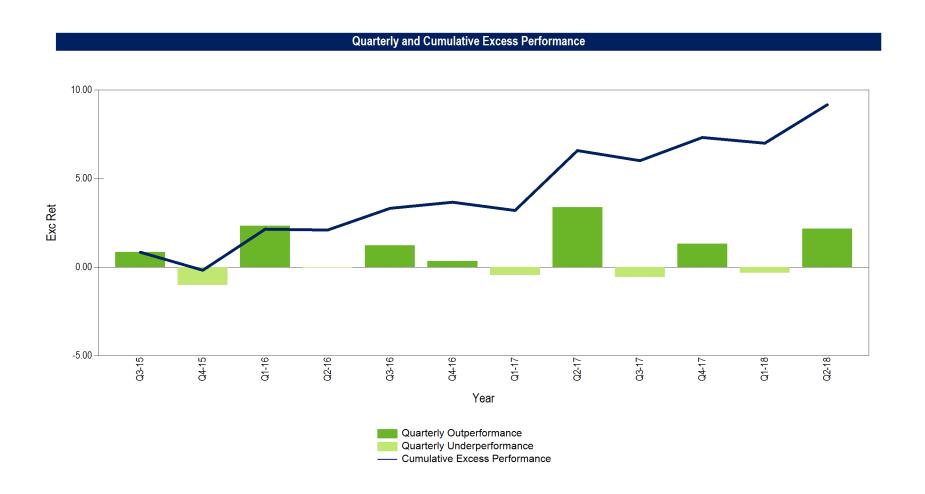
		Return (Rank)								
	5th Percentile	1.74		2.39		16.37		20.90	12.49	
2	25th Percentile	-0.36		-0.63		10.86		16.74	7.97	
- 1	Median	-1.51		-2.59		7.86		13.83	5.85	
7	75th Percentile	-2.70		-4.13		5.33		11.74	4.42	
9	95th Percentile	-4.44		-6.39		1.97		8.11	2.34	
#	of Portfolios	229		229		228		225	212	
•	Lazard Asset Management	-1.78	(58)	0.26	(16)	13.26	(17)	11.49	(78) 4.50	(73)
•	MSCIEAFE	-1.24	(44)	-2.75	(54)	6.84	(59)	13.36	(57) 4.90	(64)



## LAZARD ASSET MANAGEMENT

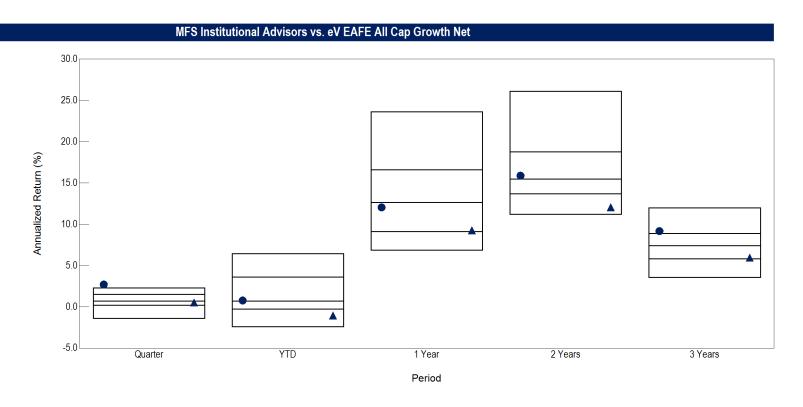


## MFS INSTITUTIONAL ADVISORS





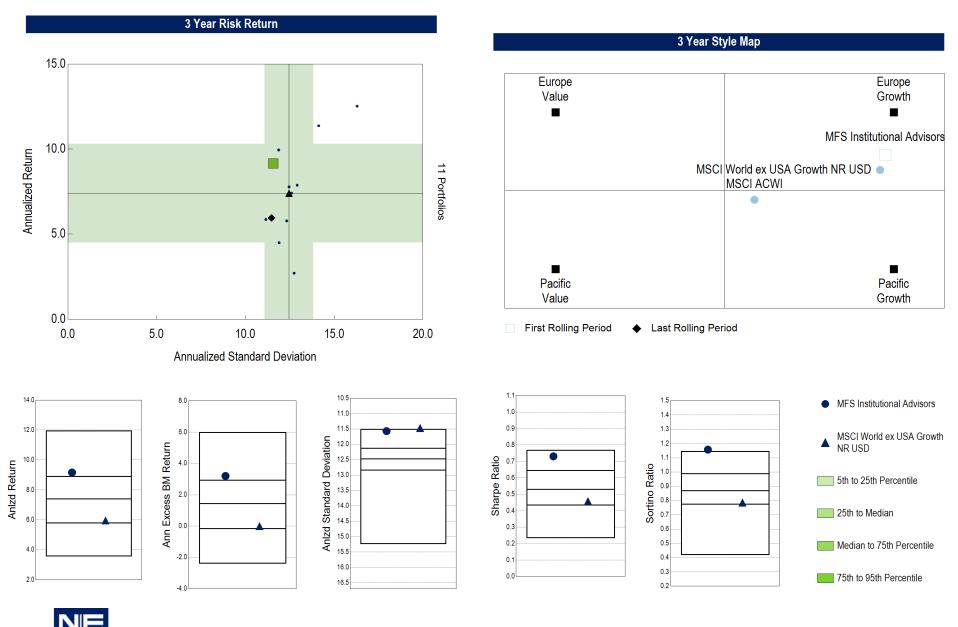
## **MFS INSTITUTIONAL ADVISORS**



		Return (Rank)								
	5th Percentile	2.28		6.41		23.59		26.07	11.94	
2	25th Percentile	1.53		3.64		16.62		18.77	8.91	
- 1	Median	0.72		0.72		12.64		15.50	7.41	
7	75th Percentile	0.20		-0.24		9.12		13.70	5.82	
9	95th Percentile	-1.39		-2.39		6.89		11.22	3.60	
#	# of Portfolios	12		12		12		12	11	
	MFS Institutional Advisors	2.69	(1)	0.75	(50)	12.03	(57)	15.86 (46)	9.15	(24)
<b>A</b>	MSCI World ex USA Growth NR USD	0.52	(67)	-1.05	(87)	9.26	(73)	12.04 (89)	5.95	(70)

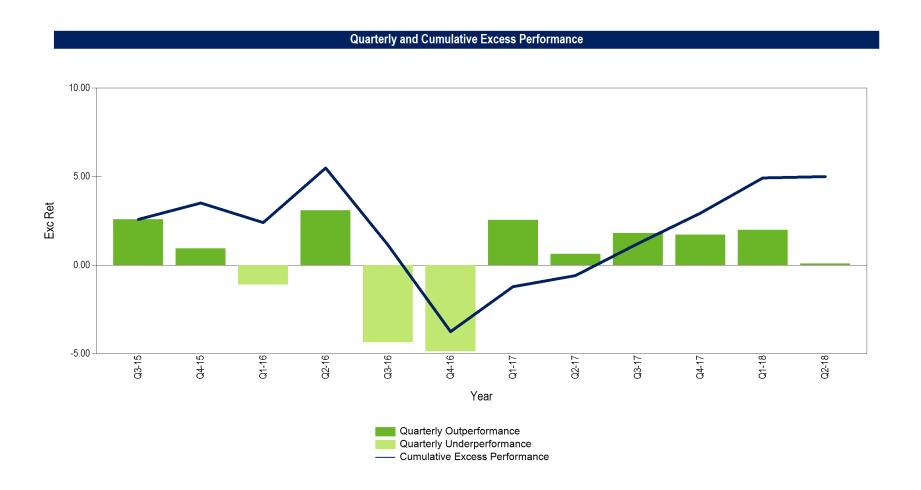


## MFS INSTITUTIONAL ADVISORS



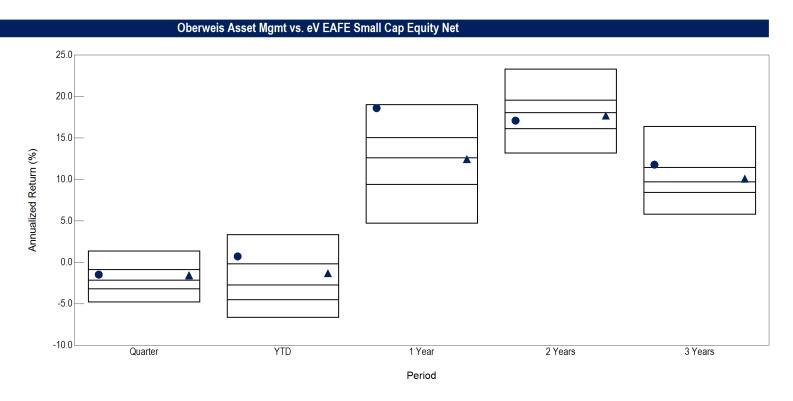


## **OBERWEIS ASSET MGMT**





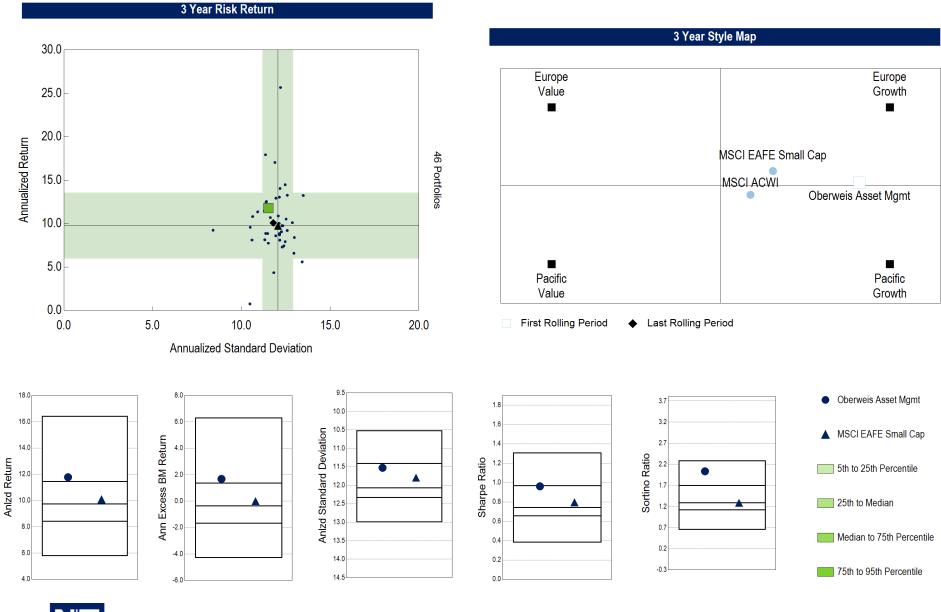
## **OBERWEIS ASSET MGMT**



		Return (Rank)									
	5th Percentile	1.37		3.34		19.01		23.29		16.40	
	25th Percentile	-0.83		-0.16		15.08		19.59		11.49	
	Median	-2.10		-2.72		12.65		18.10		9.75	
	75th Percentile	-3.17		-4.48		9.43		16.16		8.45	
	95th Percentile	-4.73		-6.61		4.75		13.21		5.84	
	# of Portfolios	50		50		50		50		46	
•	Oberweis Asset Mgmt	-1.49	(37)	0.71	(18)	18.59	(6)	17.09	(62)	11.78	(24)
•	MSCI EAFE Small Cap	-1.57	(39)	-1.33	(37)	12.45	(51)	17.69	(54)	10.09	(41)

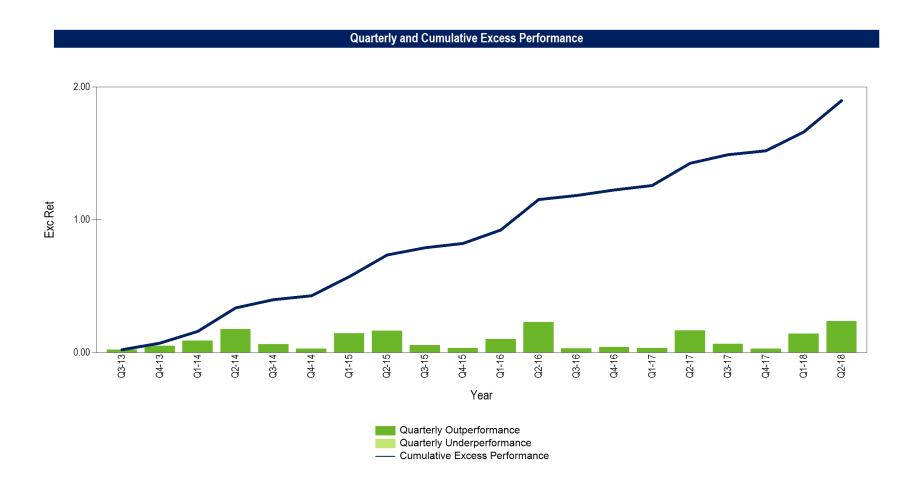


## **OBERWEIS ASSET MGMT**





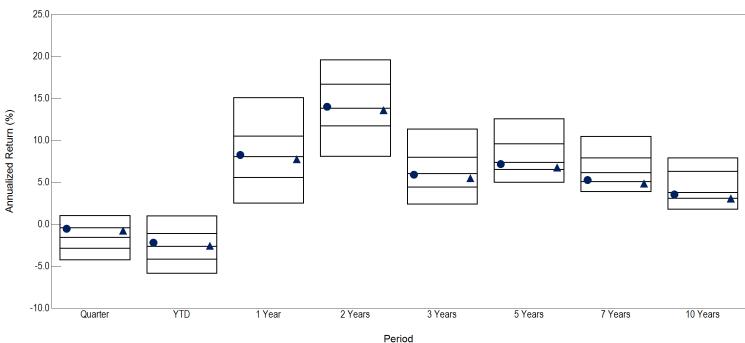
## SSGA WORLD EX US IMI





## SSGA WORLD EX US IMI

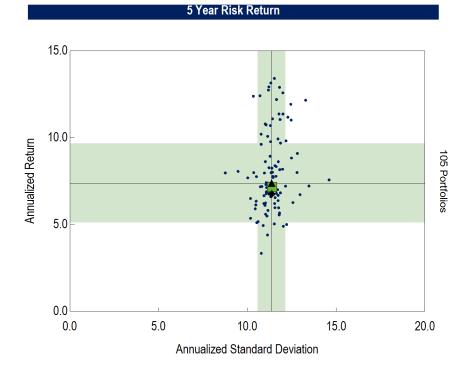
# SSgA World ex US IMI vs. eV EAFE Core Equity Net

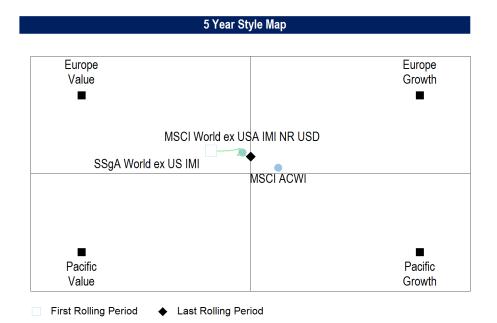


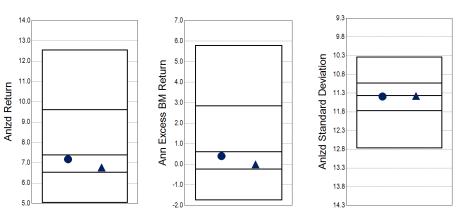
		Return (Rank	:)														
	5th Percentile	1.05		0.99		15.07		19.59		11.34		12.55		10.47		7.92	
	25th Percentile	-0.40		-1.05		10.53		16.72		8.01		9.62		7.94		6.32	
	Median	-1.53		-2.59		8.08		13.87		6.06		7.40		6.18		3.83	
	75th Percentile	-2.82		-4.13		5.63		11.76		4.46		6.55		5.11		3.13	
	95th Percentile	-4.20		-5.78		2.55		8.12		2.44		5.06		3.92		1.83	
,	# of Portfolios	133		133		132		130		123		105		90		78	
•	SSgA World ex US IMI	-0.54	(27)	-2.20	(47)	8.25	(48)	14.00	(49)	5.90	(52)	7.17	(58)	5.27	(73)	3.55	(58)
<b>A</b>	MSCI World ex USA IMI NR USD	-0.77	(31)	-2.57	(50)	7.74	(55)	13.58	(53)	5.49	(59)	6.77	(69)	4.84	(81)	3.06	(79)

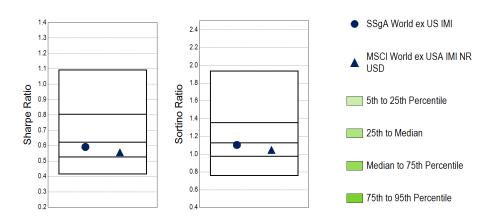


## SSGA WORLD EX US IMI



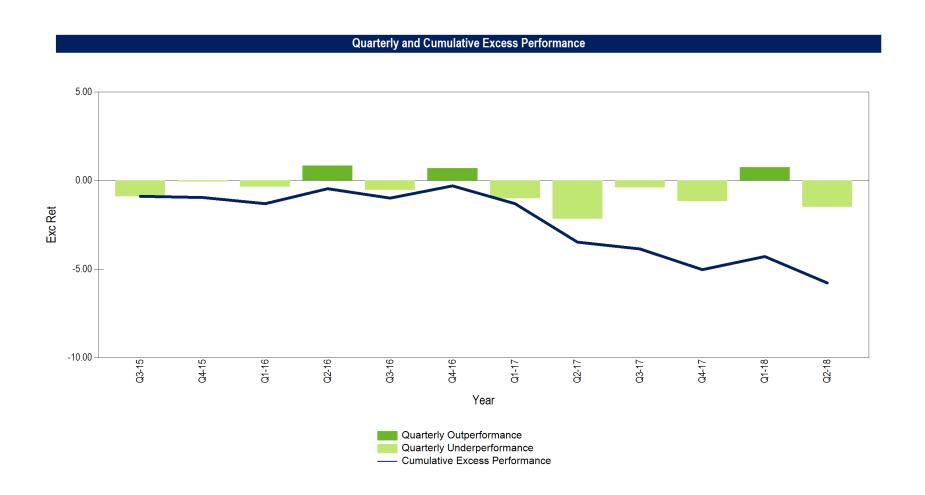






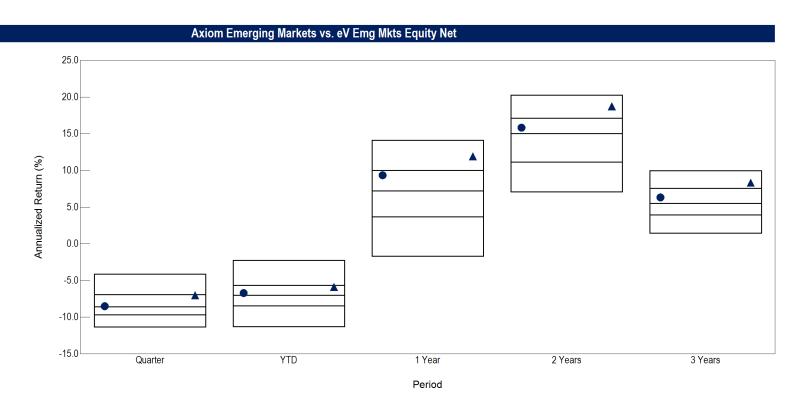


## **AXIOM EMERGING MARKETS**





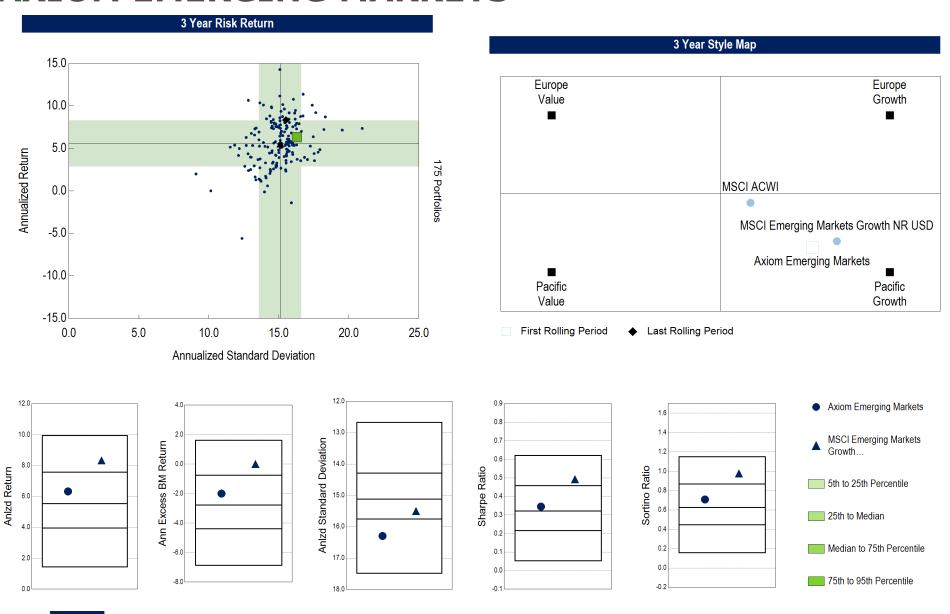
## **AXIOM EMERGING MARKETS**



	Return (Rank)									
5th Percentile	-4.14		-2.25		14.12		20.27		9.94	
25th Percentile	-6.90		-5.62		10.06		17.15		7.59	
Median	-8.53		-6.98		7.25		15.04		5.56	
75th Percentile	-9.63		-8.42		3.73		11.20		3.97	
95th Percentile	-11.31		-11.26		-1.67		7.12		1.47	
# of Portfolios	187		187		186		183		175	
Axiom Emerging Markets	-8.50	(50)	-6.71	(45)	9.35	(30)	15.83	(41)	6.32	(41)
▲ MSCI Emerging Markets Growth NR USD	-7.01	(27)	-5.88	(32)	11.92	(15)	18.75	(10)	8.34	(16)

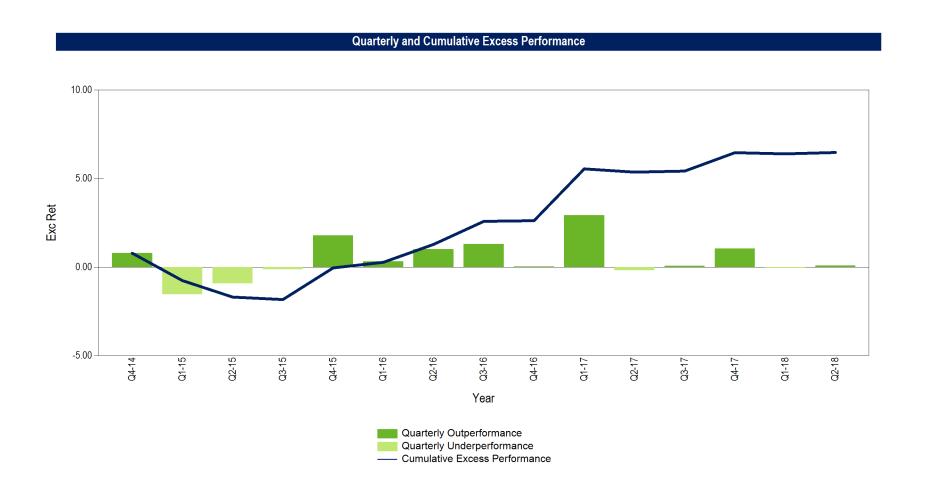


## **AXIOM EMERGING MARKETS**



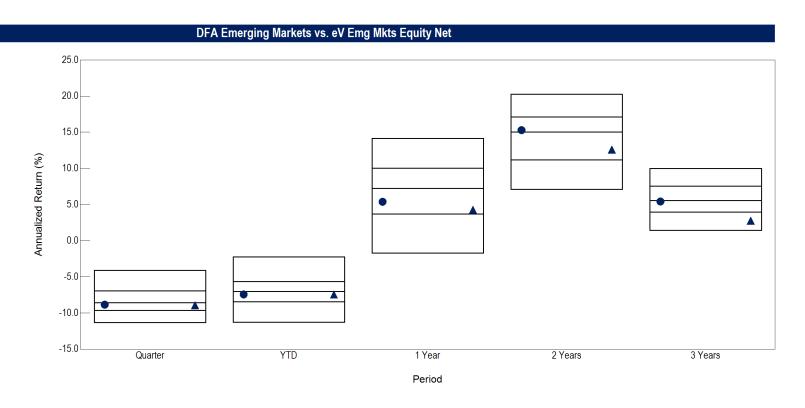


## **DFA EMERGING MARKETS**





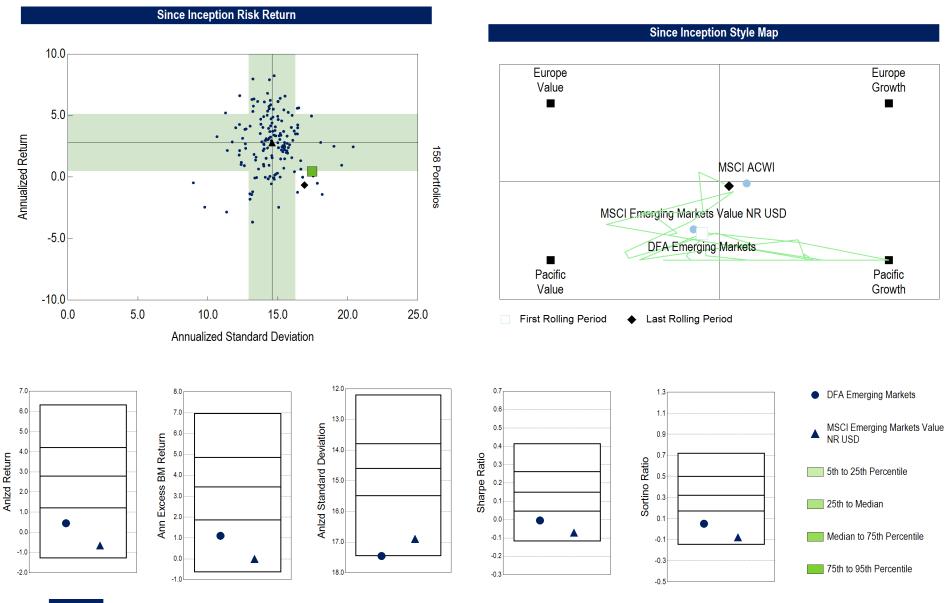
## **DFA EMERGING MARKETS**



	Return (Rank)									
5th Percentile	-4.14		-2.25		14.12		20.27		9.94	
25th Percentile	-6.90		-5.62		10.06		17.15		7.59	
Median	-8.53		-6.98		7.25		15.04		5.56	
75th Percentile	-9.63		-8.42		3.73		11.20		3.97	
95th Percentile	-11.31		-11.26		-1.67		7.12		1.47	
# of Portfolios	187		187		186		183		175	
<ul> <li>DFA Emerging Markets</li> </ul>	-8.86	(60)	-7.45	(59)	5.37	(66)	15.28	(48)	5.41	(53)
▲ MSCI Emerging Markets Value NR USD	-8.94		-7.47	(59)	4.28	(72)	12.59	(67)	2.76	(87)

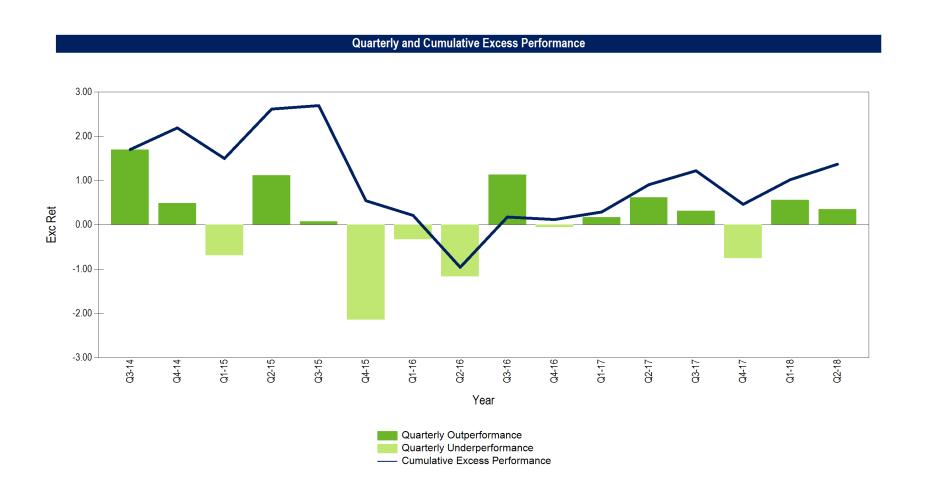


## **DFA EMERGING MARKETS**



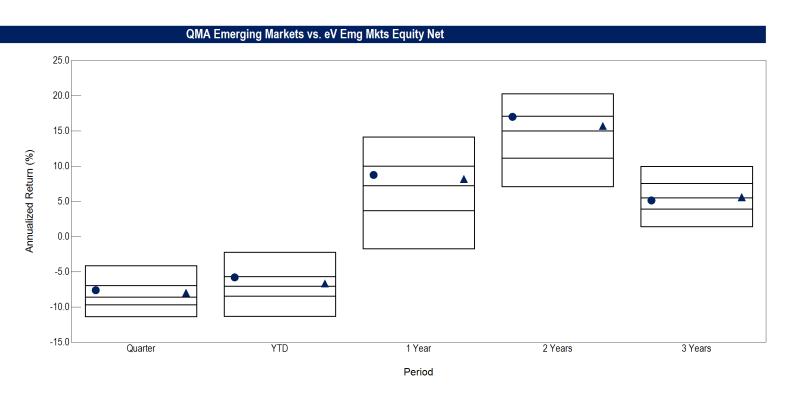


# **QMA EMERGING MARKETS**





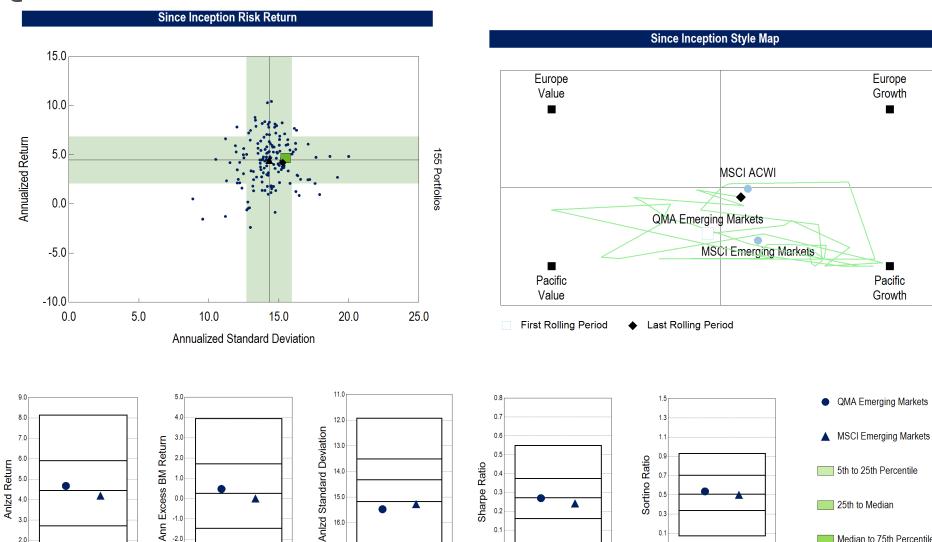
## **QMA EMERGING MARKETS**



	Return (Rank)									
5th Percentile	-4.14		-2.25		14.12		20.27		9.94	
25th Percentile	-6.90		-5.62		10.06		17.15		7.59	
Median	-8.53		-6.98		7.25		15.04		5.56	
75th Percentile	-9.63		-8.42		3.73		11.20		3.97	
95th Percentile	-11.31	-1	11.26		-1.67		7.12		1.47	
# of Portfolios	187		187		186		183		175	
QMA Emerging Markets	-7.61	(36)	-5.79	(31)	8.75	(34)	17.00	(28)	5.13	(61)
▲ MSCI Emerging Markets	-7.96	(42)	-6.66	(44)	8.20	(38)	15.71	(42)	5.60	(50)



# **QMA EMERGING MARKETS**





2.0

1.0

-2.0

-3.0

0.1

-0.1

0.1

-0.1

-0.3

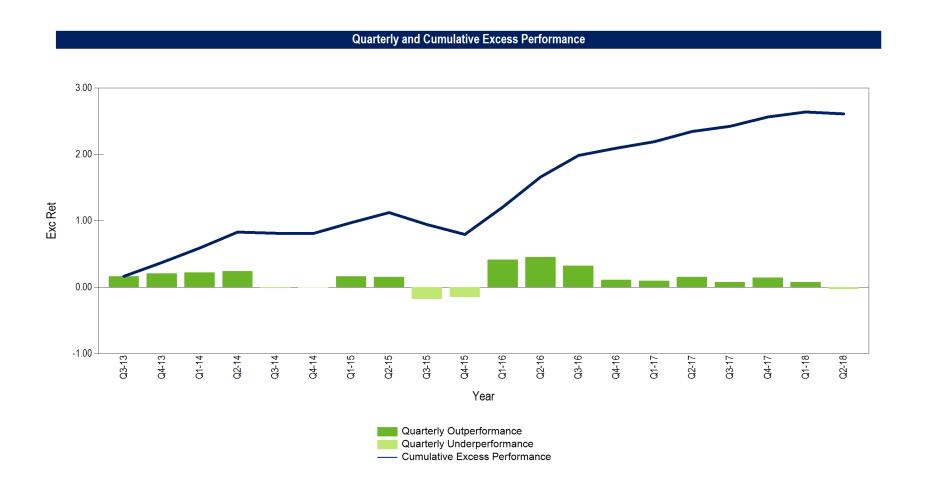
Median to 75th Percentile

75th to 95th Percentile

# CORE FIXED INCOME MANAGER PERFORMANCE

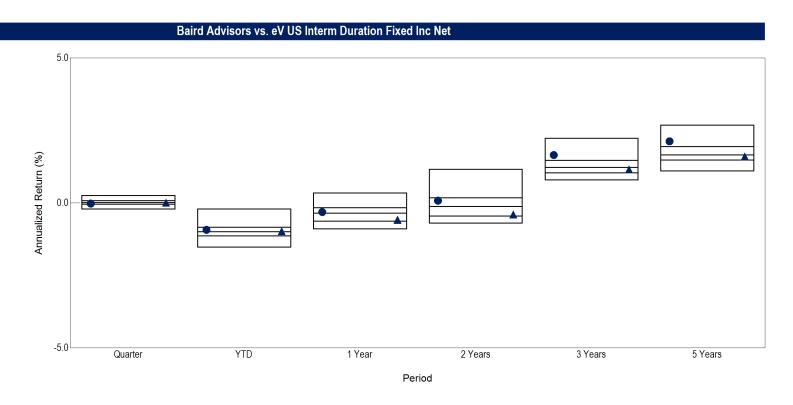
NEPC, LLC -

## **BAIRD ADVISORS**





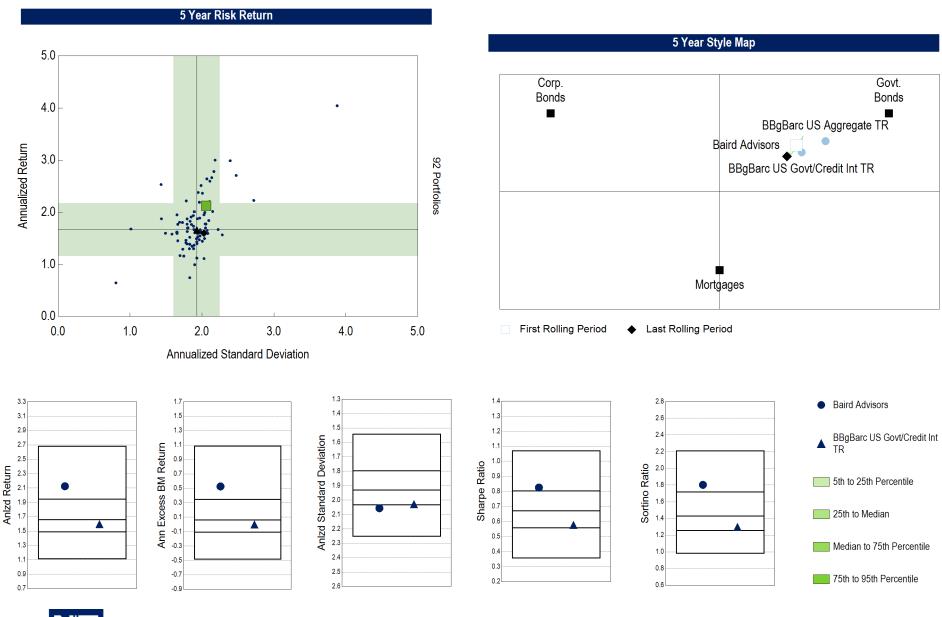
## **BAIRD ADVISORS**



		Return (Rank)										
	5th Percentile	0.25		-0.22		0.35		1.16	2.23		2.68	
2	25th Percentile	0.09		-0.82		-0.15		0.19	1.48		1.95	
- 1	Median	0.03		-0.99		-0.34		-0.11	1.24		1.67	
7	75th Percentile	-0.03		-1.12		-0.62		-0.44	1.05		1.49	
9	95th Percentile	-0.20		-1.52		-0.88		-0.68	0.80		1.12	
#	f of Portfolios	101		101		100		97	97		92	
	Baird Advisors	-0.02	(70)	-0.93	(37)	-0.32	(48)	0.08	(30) 1.65	(18)	2.13	(18)
<b>A</b>	BBgBarc US Govt/Credit Int TR	0.01	(61)	-0.97	(47)	-0.58	(71)	-0.40	(70) 1.16	(62)	1.60	(64)

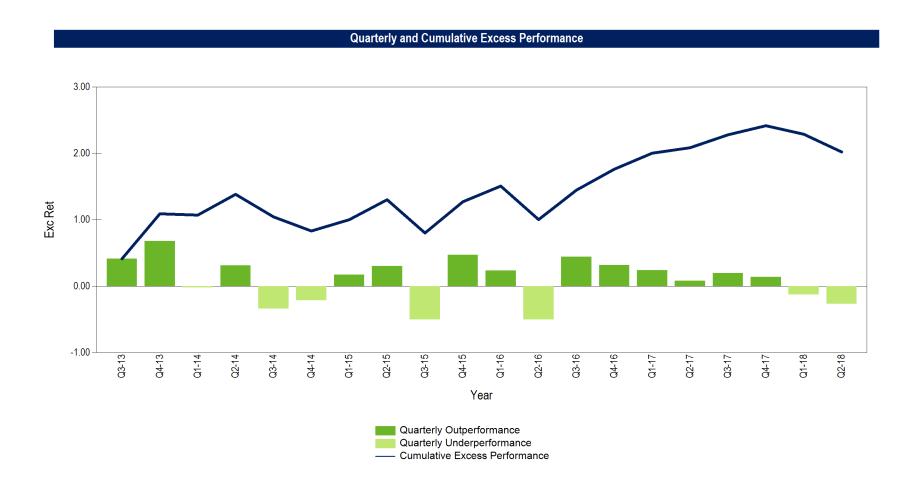


## **BAIRD ADVISORS**



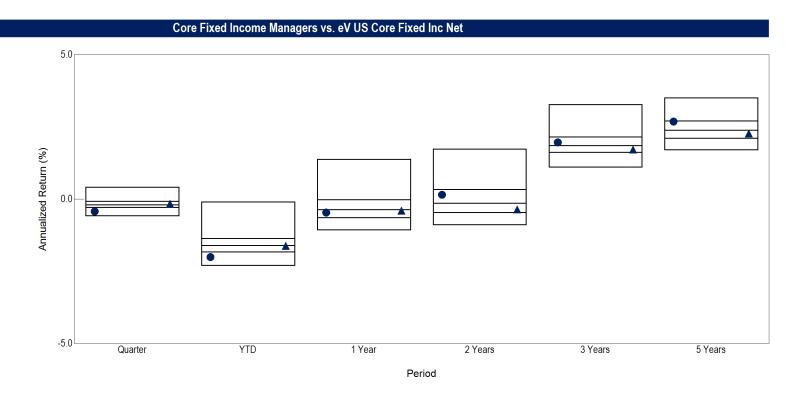


## **LM CAPITAL**





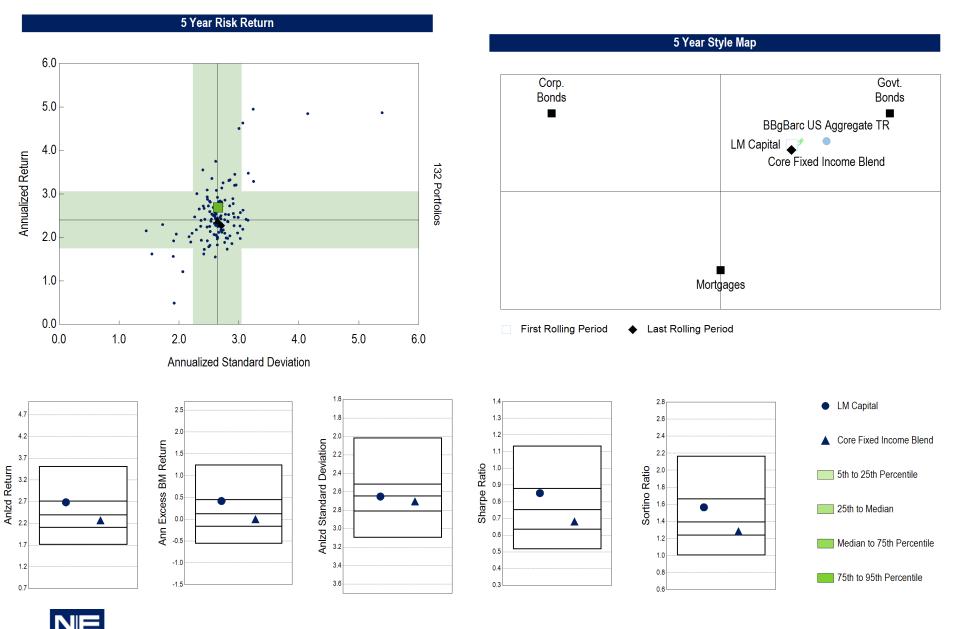
## **LM CAPITAL**



		Return (Rank)											
	5th Percentile	0.41		-0.09		1.37		1.74		3.28		3.51	
- 2	25th Percentile	-0.07		-1.36		-0.01		0.35		2.16		2.72	
1	Median	-0.19		-1.59		-0.35		-0.13		1.86		2.40	
	75th Percentile	-0.28		-1.82		-0.64		-0.45		1.63		2.12	
(	95th Percentile	-0.56		-2.28		-1.06		-0.88		1.12		1.73	
1	# of Portfolios	143		142		140		136		134		132	
	LM Capital	-0.43	(89)	-2.01	(85)	-0.47	(62)	0.15	(36)	1.97	(43)	2.69	(29)
<b>A</b>	Core Fixed Income Blend	-0.16	(41)	-1.62	(51)	-0.40	(57)	-0.36	(69)	1.72	(63)	2.27	(63)

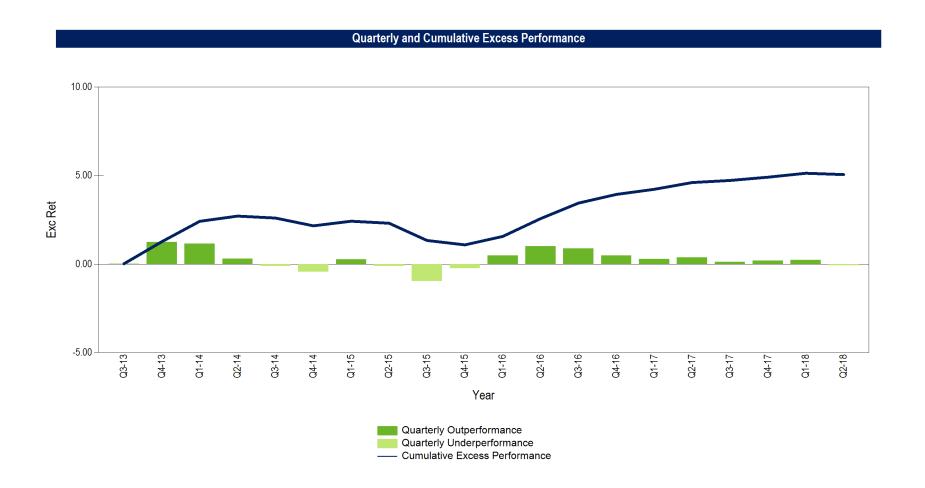


## **LM CAPITAL**



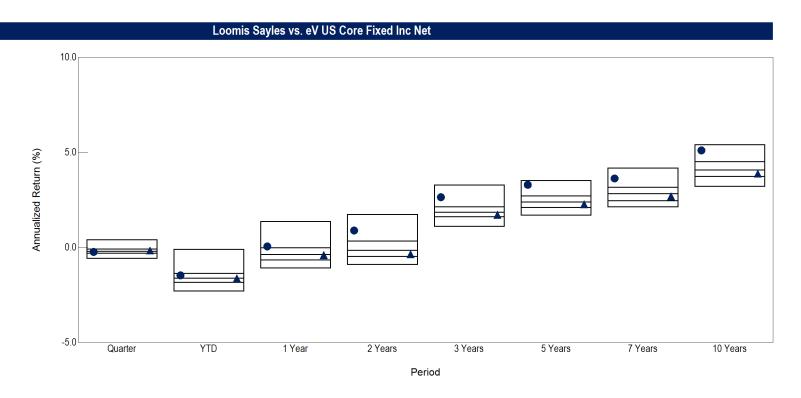


## **LOOMIS SAYLES**





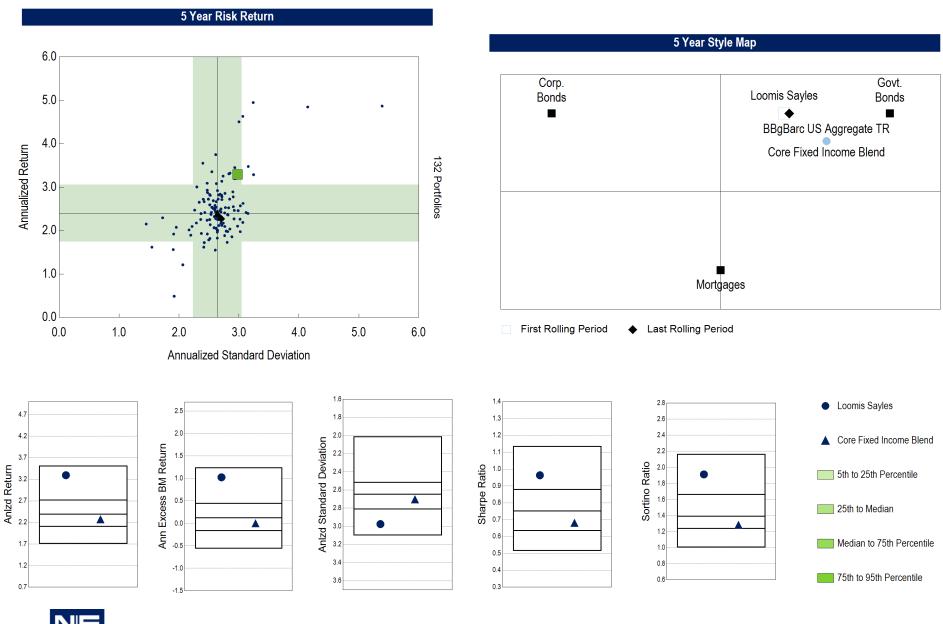
## **LOOMIS SAYLES**



	Return (Rank)								
5th Percentile	0.41	-0.09	1.37	1.74	3.28	3.51	4.18	5.40	
25th Percentile	-0.07	-1.36	-0.01	0.35	2.16	2.72	3.18	4.54	
Median	-0.19	-1.59	-0.35	-0.13	1.86	2.40	2.84	4.10	
75th Percentile	-0.28	-1.82	-0.64	-0.45	1.63	2.12	2.48	3.76	
95th Percentile	-0.56	-2.28	-1.06	-0.88	1.12	1.73	2.16	3.23	
# of Portfolios	143	142	140	136	134	132	125	112	
Loomis Sayles	-0.23 (6	62) -1.47	(35) 0.05	(22) 0.89	(11) 2.64	(12) 3.30	(9) 3.63	(12) 5.11	(10)
Core Fixed Income Blend	-0.16	-1.62	(51) -0.40	(57) -0.36	(69) 1.72	(63) 2.27	(63) 2.69	(64) 3.89	(66)

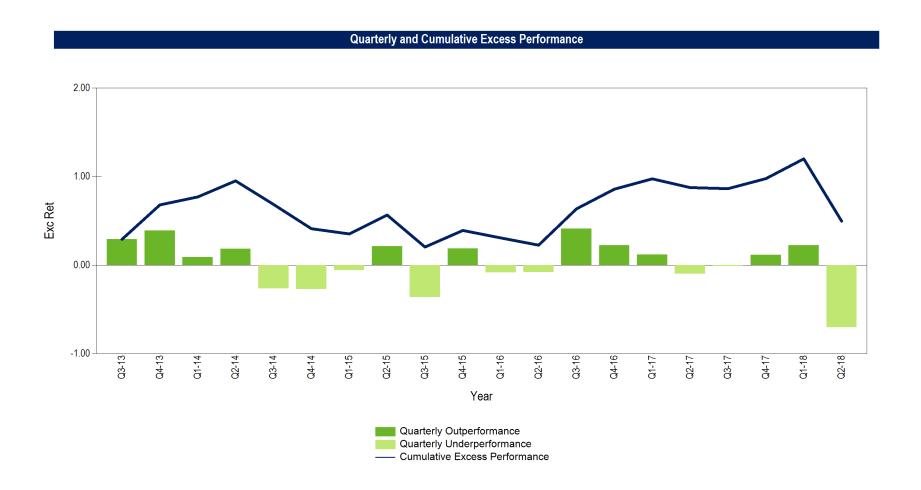


## **LOOMIS SAYLES**



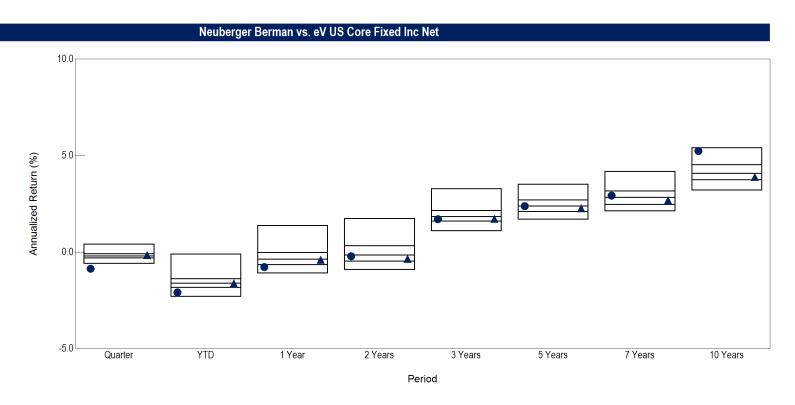


## **NEUBERGER BERMAN**





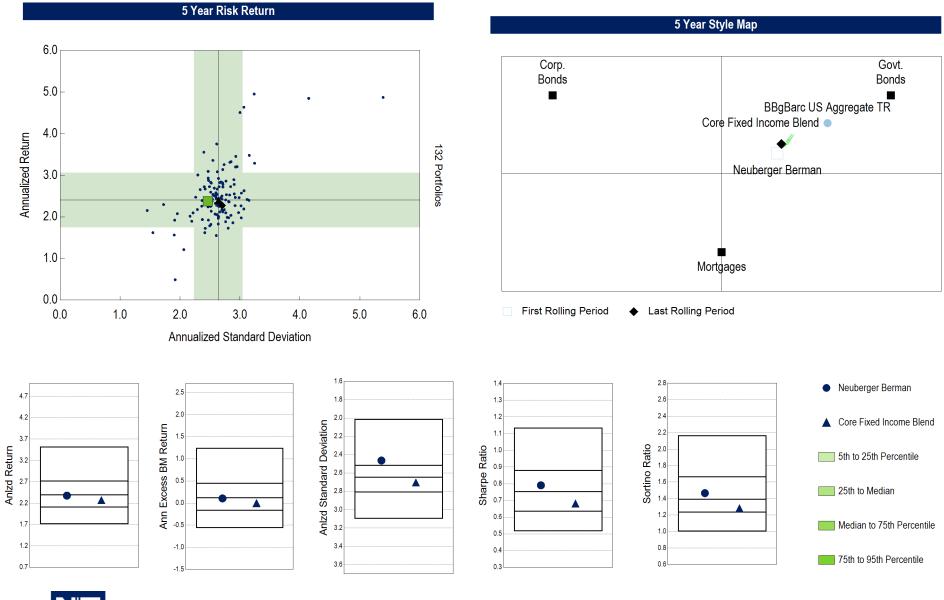
## **NEUBERGER BERMAN**



	Return (Rank)								
5th Percentile	0.41	-0.09	1.37	1.74	3.28	3.51	4.18	5.40	
25th Percentile	-0.07	-1.36	-0.01	0.35	2.16	2.72	3.18	4.54	
Median	-0.19	-1.59	-0.35	-0.13	1.86	2.40	2.84	4.10	
75th Percentile	-0.28	-1.82	-0.64	-0.45	1.63	2.12	2.48	3.76	
95th Percentile	-0.56	-2.28	-1.06	-0.88	1.12	1.73	2.16	3.23	
# of Portfolios	143	142	140	136	134	132	125	112	
Neuberger Berman	-0.86	(97) -2.09	(88) -0.78	(84) -0.22	(58) 1.70	(65) 2.38	(52) 2.92	(45) 5.23	(8)
Core Fixed Income Blend	-0.16	(41) -1.62	(51) -0.40	(57) -0.36	(69) 1.72	(63) 2.27	(63) 2.69	(64) 3.89	(66)

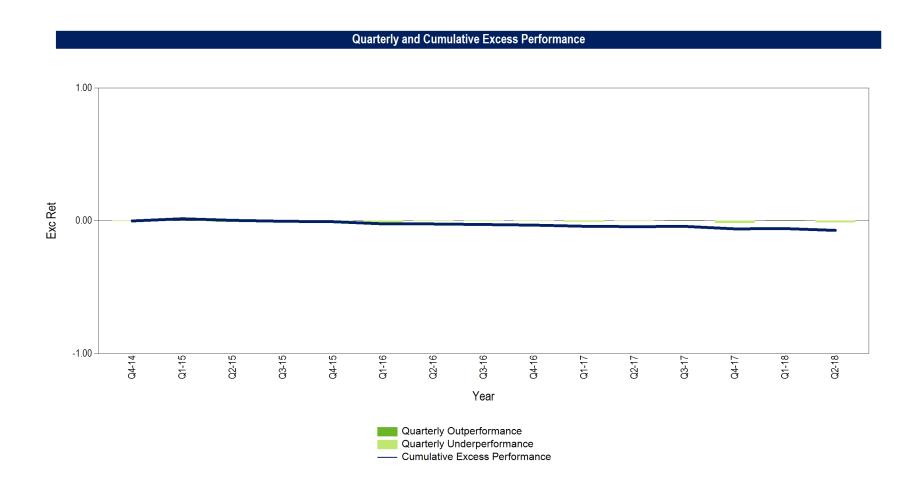


## **NEUBERGER BERMAN**



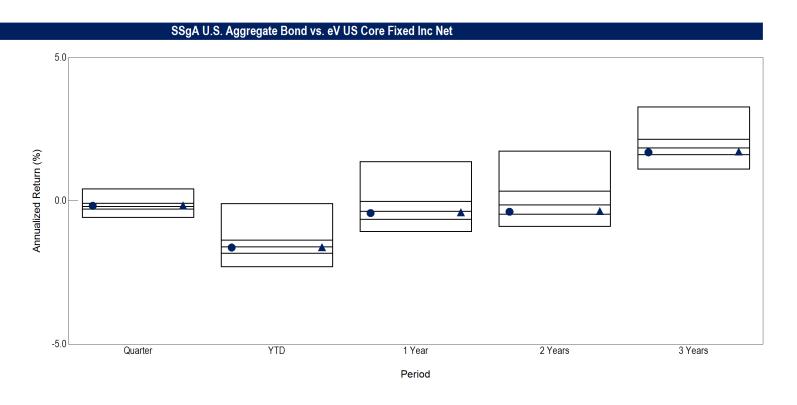


## **SSGA U.S. AGGREGATE BOND**





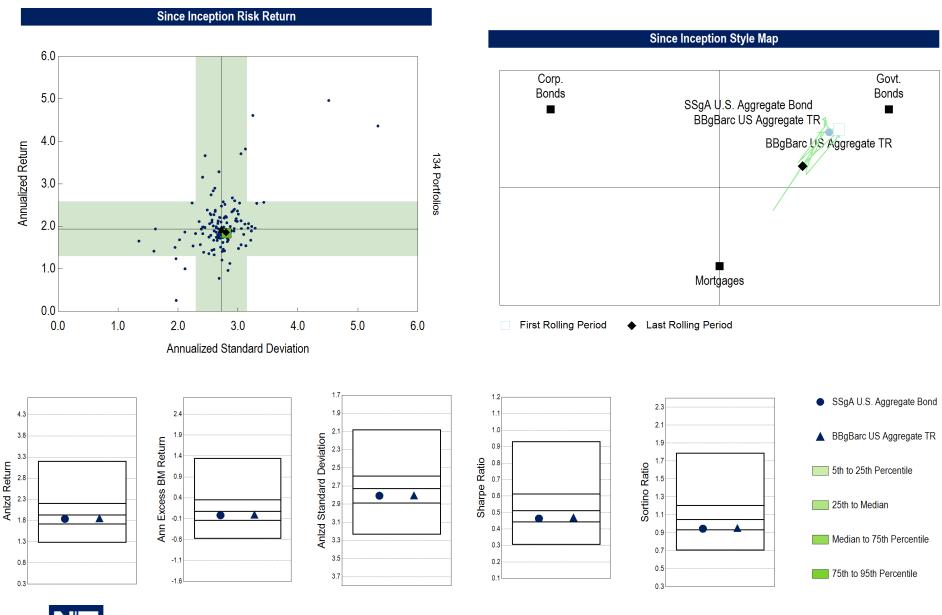
## SSGA U.S. AGGREGATE BOND



		Return (Rank)					
	ith Percentile	0.41	-0.09	1.37	1.7	4 3.28	
2	25th Percentile	-0.07	-1.36	-0.01	0.3	5 2.16	
	Median	-0.19	-1.59	-0.35	-0.1	3 1.86	
7	'5th Percentile	-0.28	-1.82	-0.64	-0.4	5 1.63	
9	95th Percentile	-0.56	-2.28	-1.06	-0.8	8 1.12	
#	of Portfolios	143	142	140	13	6 134	
•	SSgA U.S. Aggregate Bond	-0.17	(45) -1.63	(52) -0.43	(60) -0.3	8 (71) 1.69	(66)
<b>A</b>	BBgBarc US Aggregate TR	-0.16	(41) -1.62	(51) -0.40	(57) -0.3	6 (69) 1.72	(63)



# SSGA U.S. AGGREGATE BOND

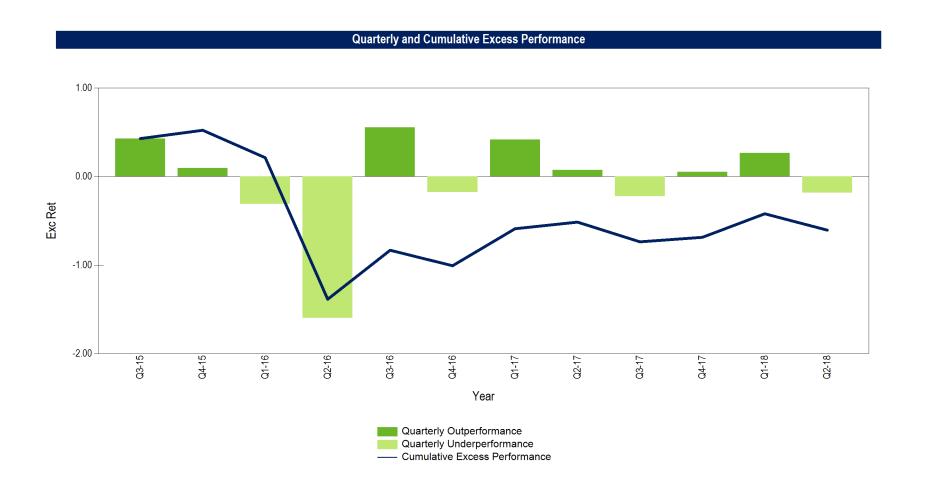




# CREDIT OPPORTUNITIES MANAGER PERFORMANCE

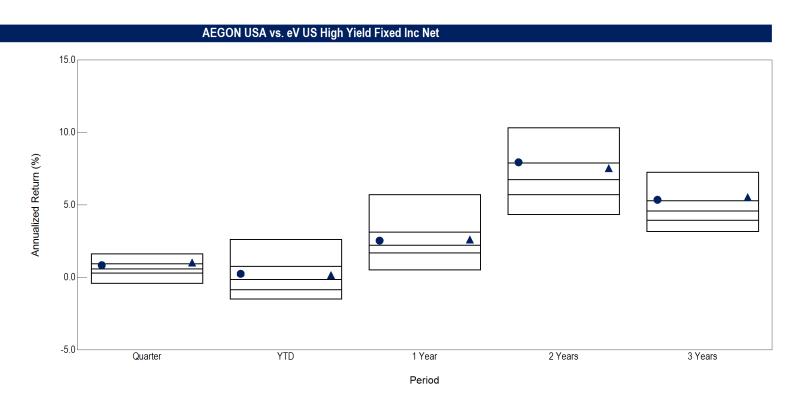
NEPC, LLC -

# **AEGON USA**





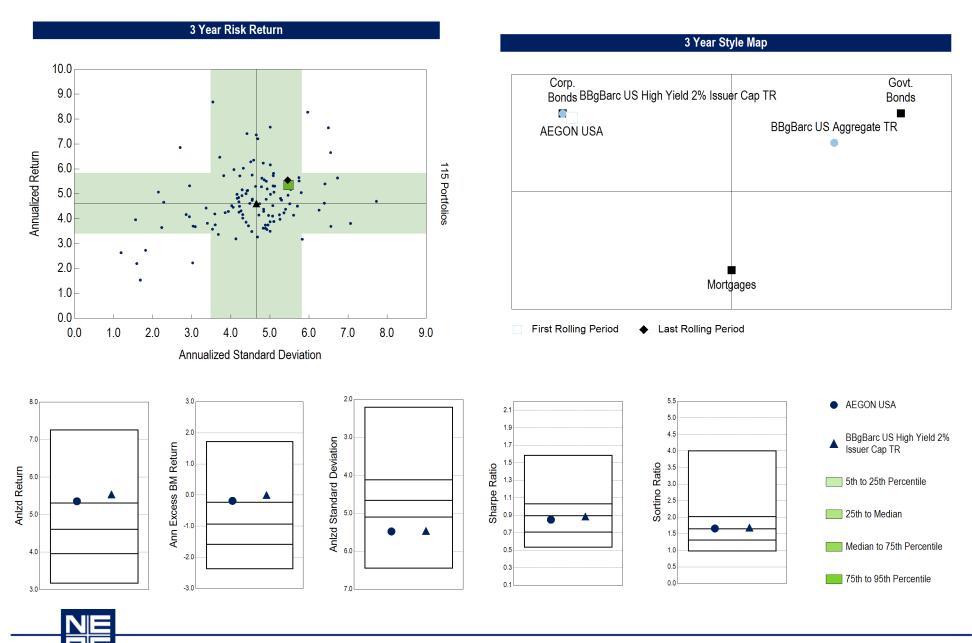
# **AEGON USA**



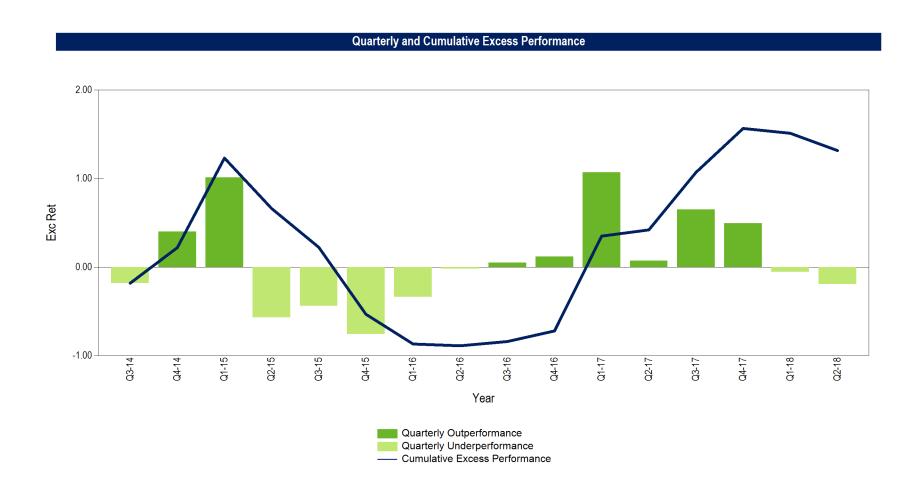
		Return (Rank)								
5	th Percentile	1.63		2.62		5.71	10.31		7.25	
2	5th Percentile	0.97		0.78		3.15	7.92		5.32	
N	ledian	0.61		-0.11		2.24	6.77		4.61	
7	5th Percentile	0.31		-0.84		1.71	5.72		3.96	
9	5th Percentile	-0.38		-1.46		0.55	4.36		3.18	
#	of Portfolios	123		121		121	118		115	
	AEGON USA	0.84	(33)	0.25	(34)	2.54 (38	8) 7.94	(25)	5.35	(25)
<b>A</b>	BBgBarc US High Yield 2% Issuer Cap TR	1.03	(22)	0.16	(37)	2.62 (35	5) 7.54	(30)	5.54	(22)



# **AEGON USA**

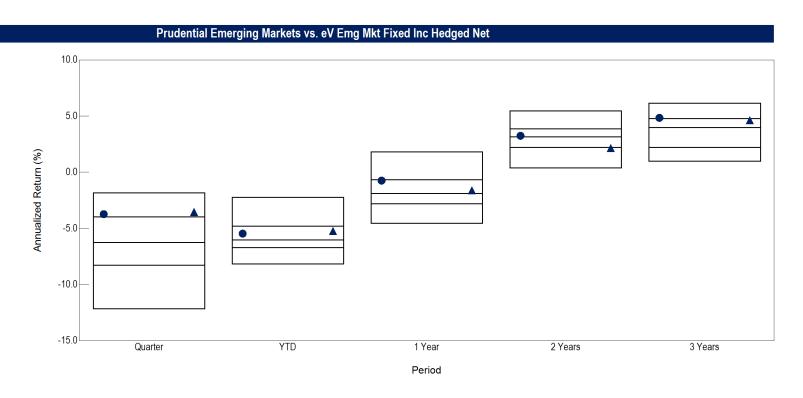


# PRUDENTIAL EMERGING MARKETS





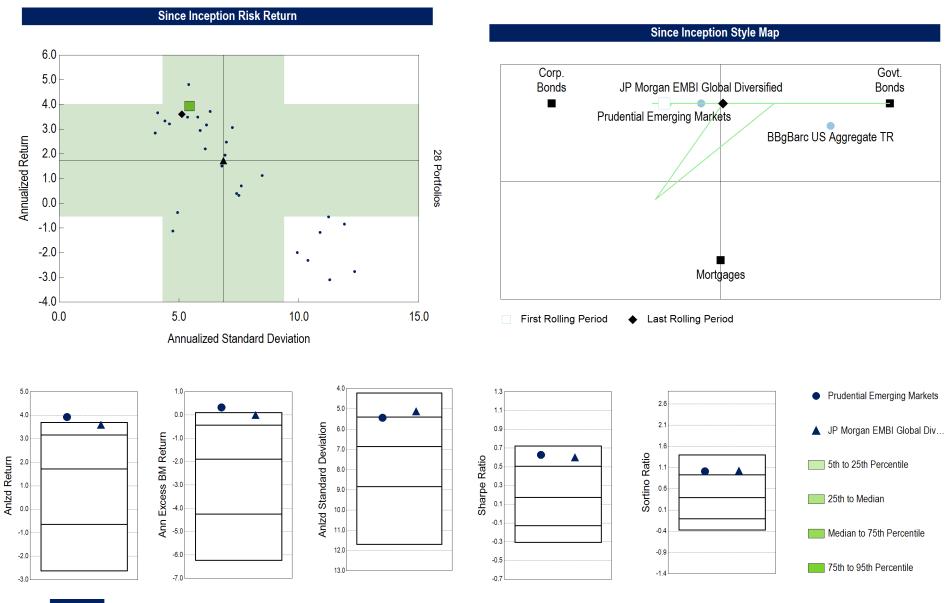
# PRUDENTIAL EMERGING MARKETS



	Return (Rank)								
5th Percentile	-1.86	-2.23		1.80		5.44		6.13	
25th Percentile	-3.96	-4.77		-0.66		3.90		4.81	
Median	-6.24	-6.02		-1.87		3.18		4.01	
75th Percentile	-8.25	-6.69		-2.77		2.22		2.24	
95th Percentile	-12.13	-8.14		-4.53		0.42		1.01	
# of Portfolios	39	38		38		38		35	
Prudential Emerging Markets	-3.74	(24) -5.47	(35)	-0.75	(29)	3.24	(46)	4.84	(25)
▲ JP Morgan EMBI Global Diversified	-3.54	(23) -5.23	(31)	-1.60	(45)	2.15	(76)	4.63	(28)

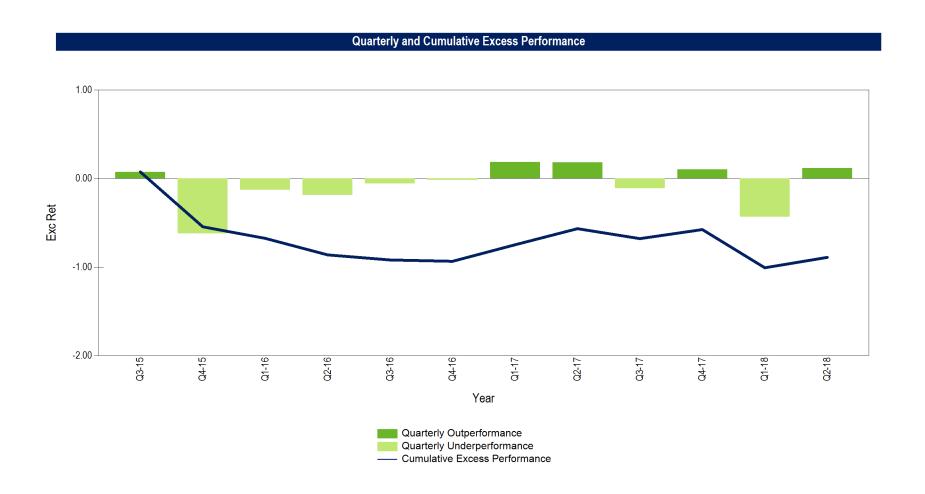


# PRUDENTIAL EMERGING MARKETS



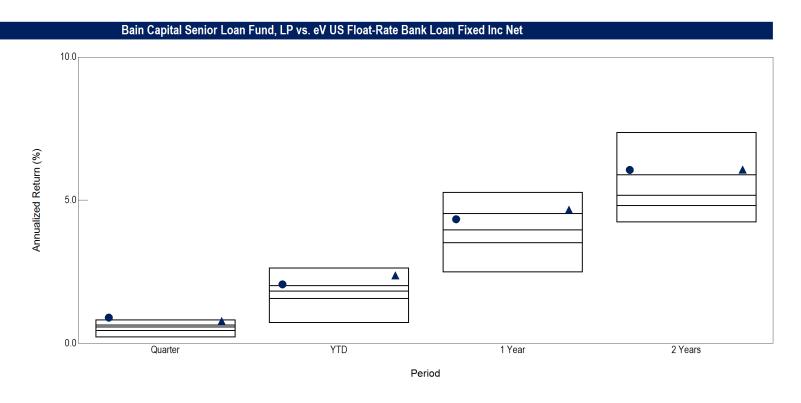


# BAIN CAPITAL SENIOR LOAN FUND, LP





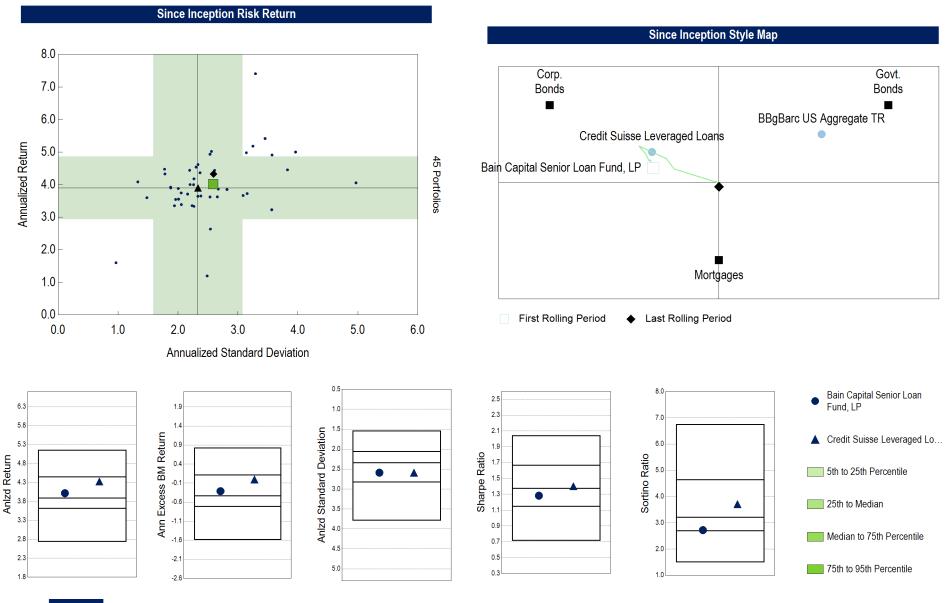
# BAIN CAPITAL SENIOR LOAN FUND, LP



		Return (Rank)						
	5th Percentile	0.83		2.63	5.28		7.36	
	25th Percentile	0.65		2.03	4.54		5.90	
	Median	0.58		1.84	3.97		5.19	
	75th Percentile	0.47		1.59	3.52		4.82	
	95th Percentile	0.24		0.74	2.51		4.26	
	# of Portfolios	46		46	46		46	
•	Bain Capital Senior Loan Fund, LP	0.90	(2)	2.06 (22)	4.34	(31)	6.06	(22)
•	Credit Suisse Leveraged Loans	0.78	(7)	2.38 (9)	4.67	(17)	6.07	(22)



# BAIN CAPITAL SENIOR LOAN FUND, LP

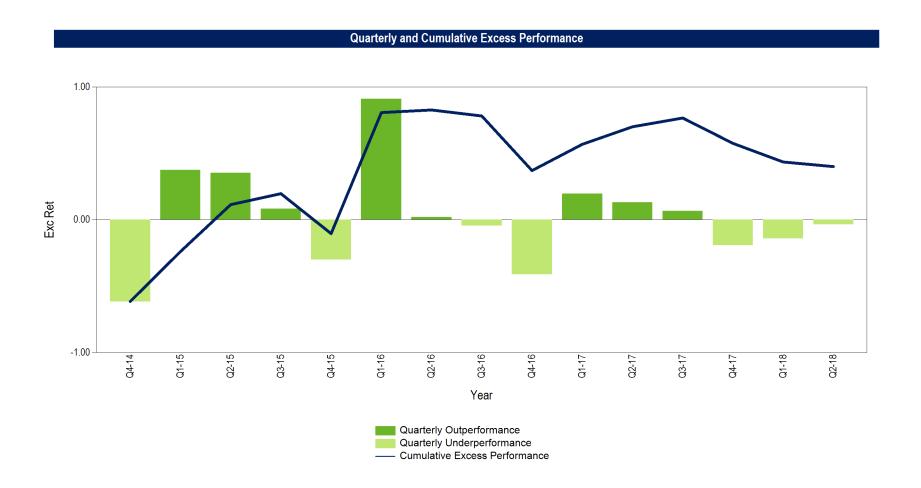




# REAL ASSETS MANAGER PERFORMANCE

NEPC, LLC —

# **DFA US TIPS**





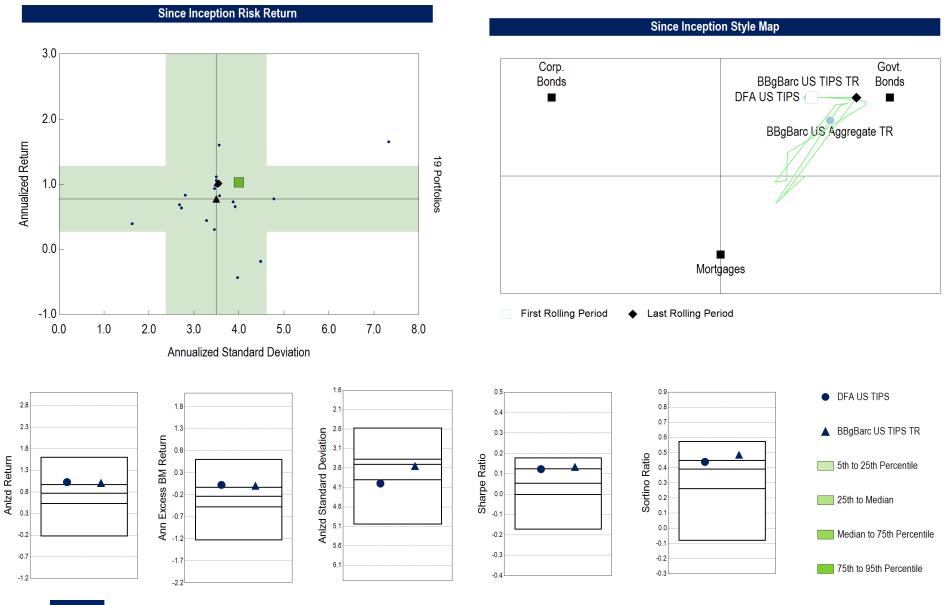
# **DFA US TIPS**

# DFA US TIPS vs. eV US TIPS / Inflation Fixed Inc Net 5.0 Quarter YTD 1 Year 2 Years 3 Years Period

		Return (Rank)									
	5th Percentile	1.04		1.06		3.62		2.93		2.75	
	25th Percentile	0.77		0.11		2.31		1.27		1.96	
	Median	0.68		-0.06		2.03		0.66		1.77	
	75th Percentile	0.59		-0.23		1.70		0.53		1.41	
	95th Percentile	0.42		-1.05		1.22		0.22		1.01	
	# of Portfolios	22		21		21		21		21	
	DFA US TIPS	0.74	(32)	-0.20	(73)	1.81	(68)	0.51	(79)	2.00	(20)
•	BBgBarc US TIPS TR	0.77	(24)	-0.02	(42)	2.11	(41)	0.73	(39)	1.93	(32)

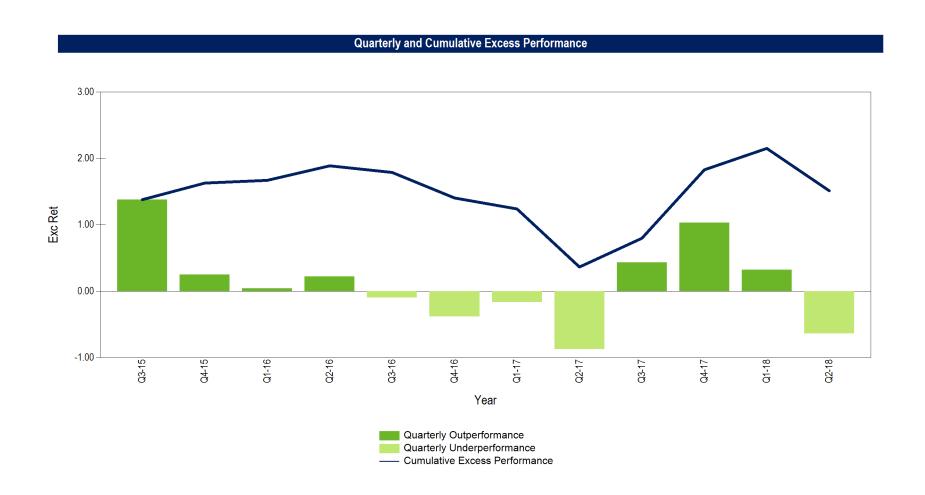


# **DFA US TIPS**



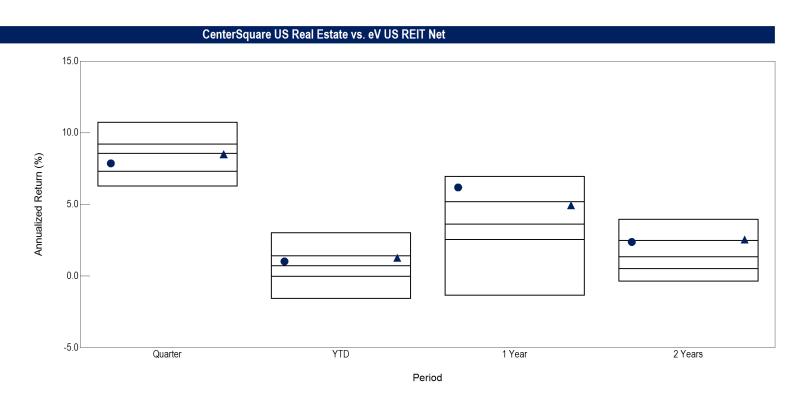


# **CENTERSQUARE US REAL ESTATE**





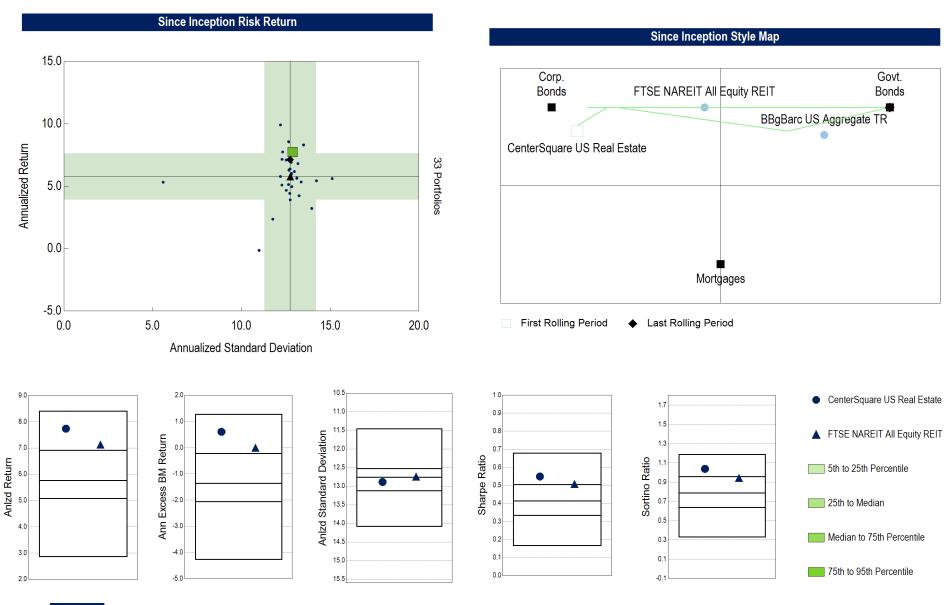
# **CENTERSQUARE US REAL ESTATE**



		Return (Rank)							
5	th Percentile	10.72		3.03		6.95		3.95	
2	5th Percentile	9.24		1.43		5.20		2.50	
N	Median (1997)	8.57		0.75		3.64		1.36	
7	5th Percentile	7.33		0.00		2.58		0.54	
9	5th Percentile	6.30		-1.54		-1.32		-0.33	
#	of Portfolios	34		34		34		33	
	CenterSquare US Real Estate	7.86	(62)	1.02 (	42)	6.18	(11)	2.38	(32)
<b>A</b>	FTSE NAREIT All Equity REIT	8.50	(52)	1.27 (	30)	4.93	(27)	2.55	(22)

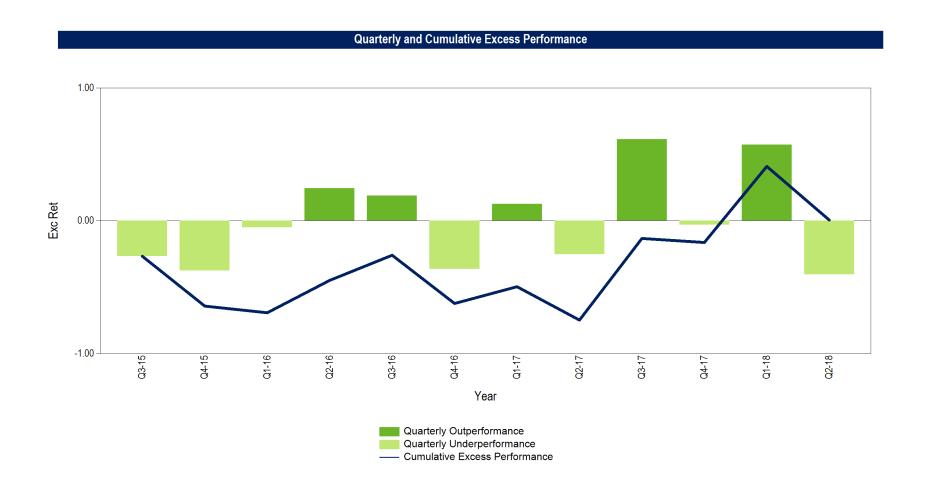


# **CENTERSQUARE US REAL ESTATE**





# **CORE COMMODITY MGMT**





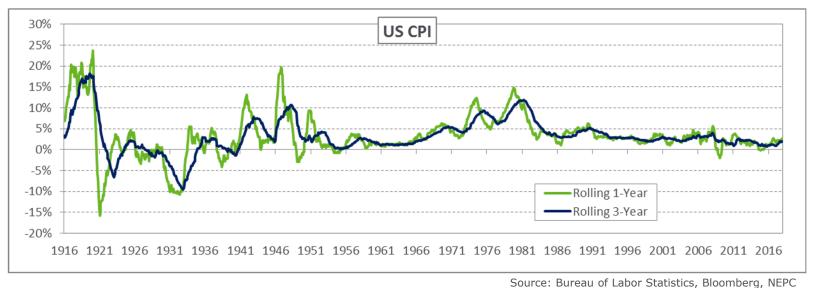
# MARKET ENVIRONMENT

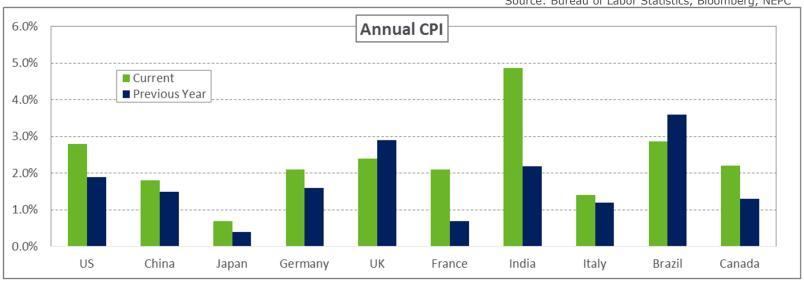
NEPC, LLC —

# **MACRO**

NEPC, LLC —

### **INFLATION**

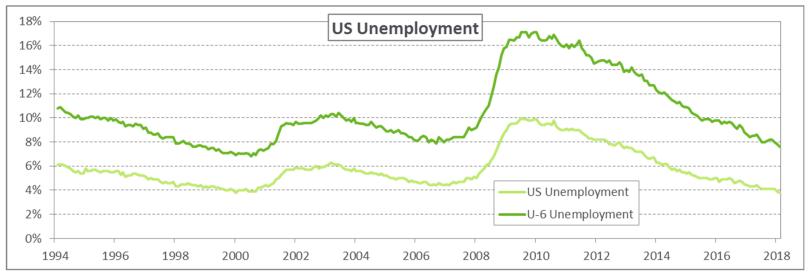




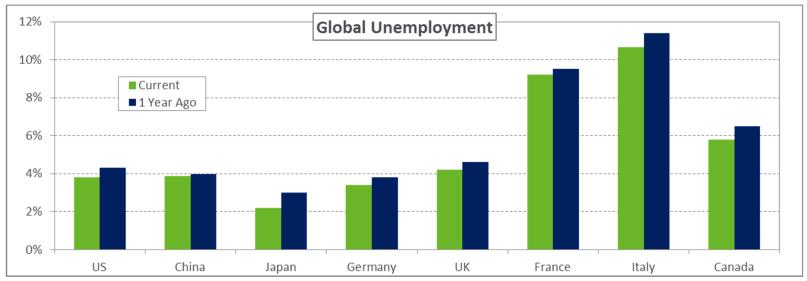


Source: Bureau of Labor Statistics, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, India Central Statistical Organization, ISTAT, IBGE, STCA, Bloomberg

# **UNEMPLOYMENT**



Source: Bureau of Labor Statistics, Bloomberg



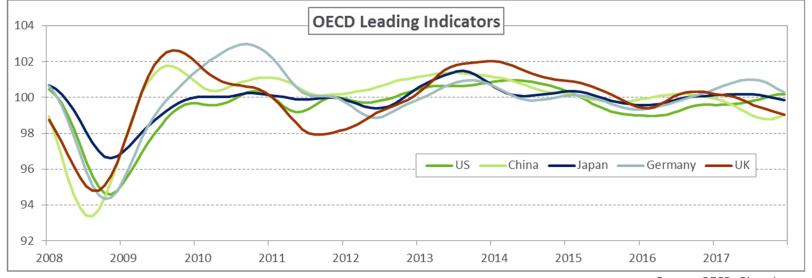
Source: Bureau of Labor Statistics, STA, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, ISTAT, IBGE, Bloomberg



# **ECONOMIC INDICATORS**



Source: IMF

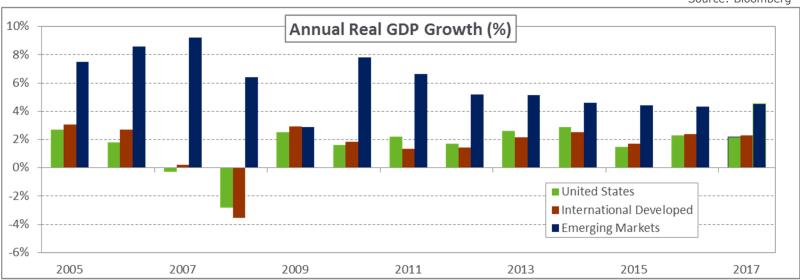


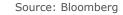
Source: OECD, Bloomberg



# **GROSS DOMESTIC PRODUCT**

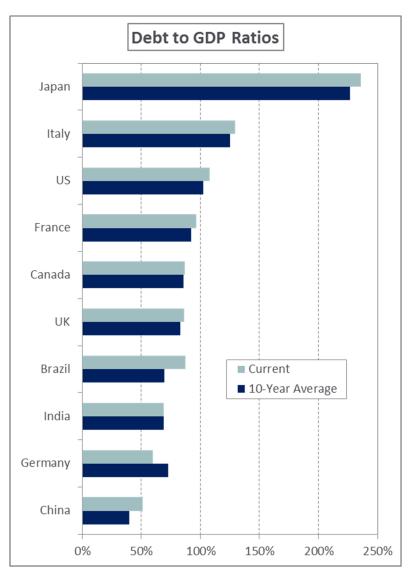


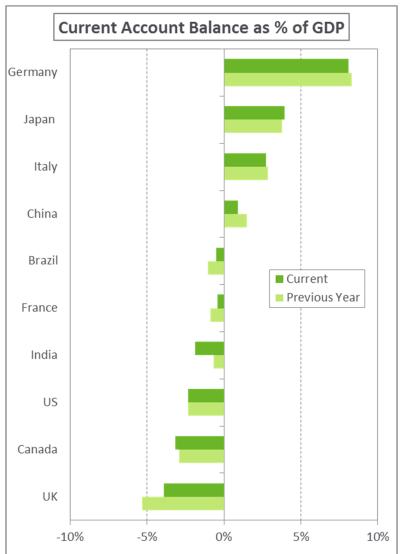






# **GROSS DOMESTIC PRODUCT METRICS**



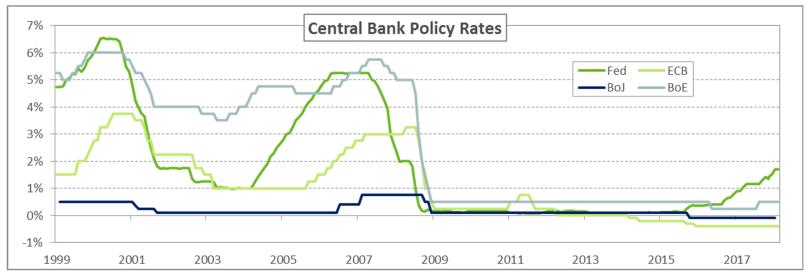




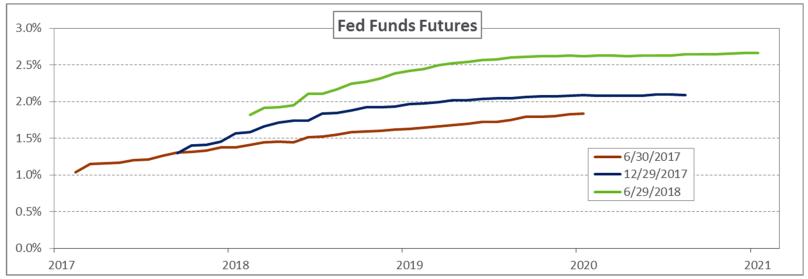


Source: Bloomberg

# **CENTRAL BANK RATES**



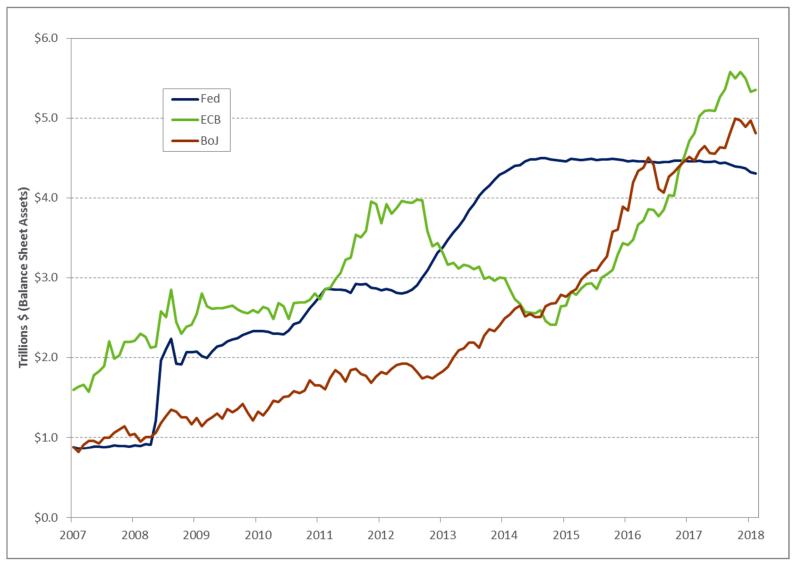
Source: Federal Reserve, ECB, Bank of Japan, Bank of England, Bloomberg

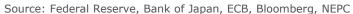






# **CENTRAL BANK BALANCE SHEETS**







# **CURRENCIES**

			% Change Relative to USD						
Currencies	Spot	1 Month	YTD	1 Year					
Euro	1.17	-0.1%	-5.9%	2.2%					
British Pound	1.32	-0.6%	-6.9%	1.4%					
Japanese Yen	110.75	-1.7%	-1.4%	1.5%					
Swiss Franc	0.99	-0.5%	-6.0%	-3.3%					
Australian Dollar	0.74	-2.2%	-8.1%	-3.7%					
Chinese Yuan	6.62	-3.2%	-5.0%	2.2%					
Brazilian Real	3.88	-3.8%	-17.8%	-14.7%					
Russian Ruble	62.76	-0.6%	-10.4%	-7.5%					
Indian Rupee	68.46	-1.5%	-7.0%	-5.6%					
Mexican Peso	19.92	-0.1%	-6.6%	-9.0%					
South African Rand	13.73	-7.5%	-13.7%	-4.8%					

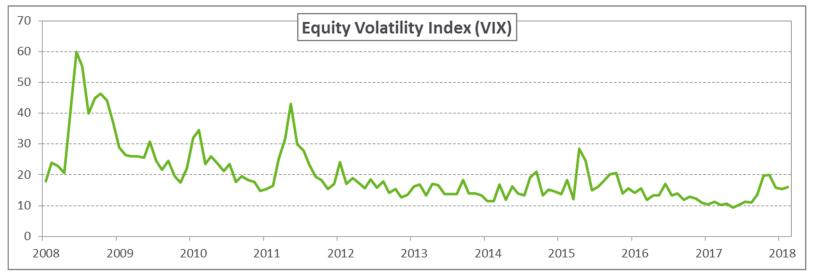
Source: Bloomberg



Source: Bloomberg



# **VOLATILITY**



Source: CBOE, Bloomberg



25 Currency Volatility Index (CVIX)

15

10

2008 2010 2012 2014 2016 2018

Source: Merrill Lynch, Bloomberg

Source: Deutsche Bank, Bloomberg

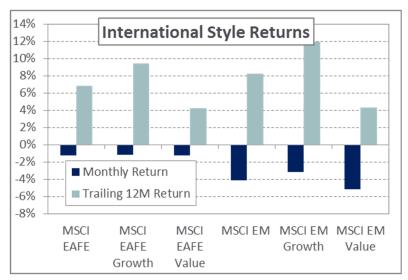


# **EQUITY**

NEPC, LLC —

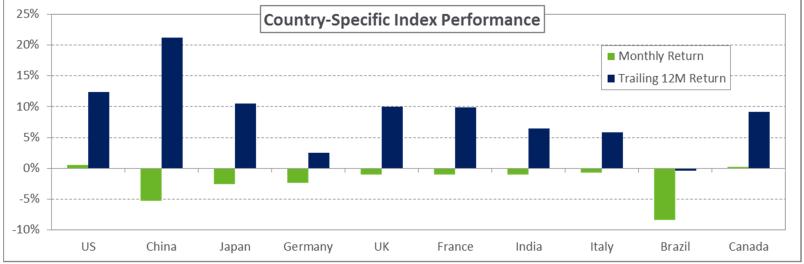
# **EQUITY INDEX PERFORMANCE**





Source: Russell, Bloomberg





Source: MSCI, Bloomberg Represents returns in USD

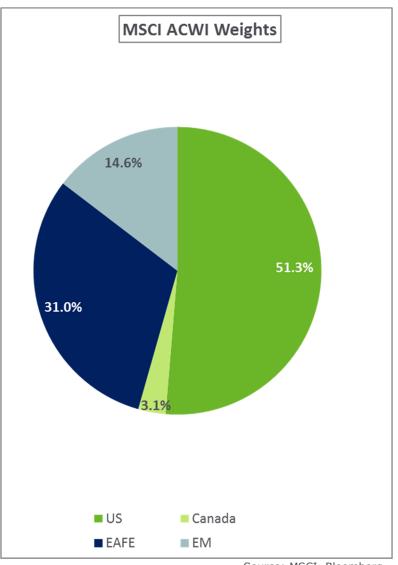


# **INDEX COMPOSITION**

	MTD	QTD	YTD	Index Weight
S&P 500	0.6%	3.4%	2.6%	100%
Cons Disc	3.6%	8.1%	11.3%	13.0%
Cons Staples	4.4%	-1.8%	-9.0%	7.0%
Energy	0.7%	13.2%	6.3%	6.4%
Financials	-1.9%	-3.3%	-4.3%	13.4%
Health Care	1.6%	3.0%	1.6%	14.3%
Industrials	-3.3%	-3.3%	-5.0%	9.6%
Info Tech	-0.4%	7.0%	10.7%	25.8%
Materials	0.3%	2.4%	-3.4%	2.6%
Real Estate	4.3%	5.8%	0.3%	2.9%
Telecom	2.3%	-1.4%	-9.1%	2.0%
Utilities	2.7%	3.5%	-0.2%	3.0%

	MTD	QTD	YTD	Index Weight
MSCI ACWI	-0.5%	0.7%	-0.2%	100%
Cons Disc	0.8%	3.0%	4.0%	12.2%
Cons Staples	2.2%	-1.3%	-6.1%	8.0%
Energy	0.6%	10.2%	6.1%	6.8%
Financials	-2.4%	-5.6%	-6.6%	17.8%
Health Care	1.2%	2.5%	1.5%	10.9%
Industrials	-2.9%	-2.7%	-4.3%	10.8%
Info Tech	-1.1%	3.9%	7.2%	19.4%
Materials	-1.8%	0.4%	-3.3%	5.2%
Real Estate	0.4%	1.4%	-2.3%	3.0%
Telecom	0.1%	-4.2%	-9.4%	2.8%
Utilities	1.3%	1.3%	0.0%	3.0%

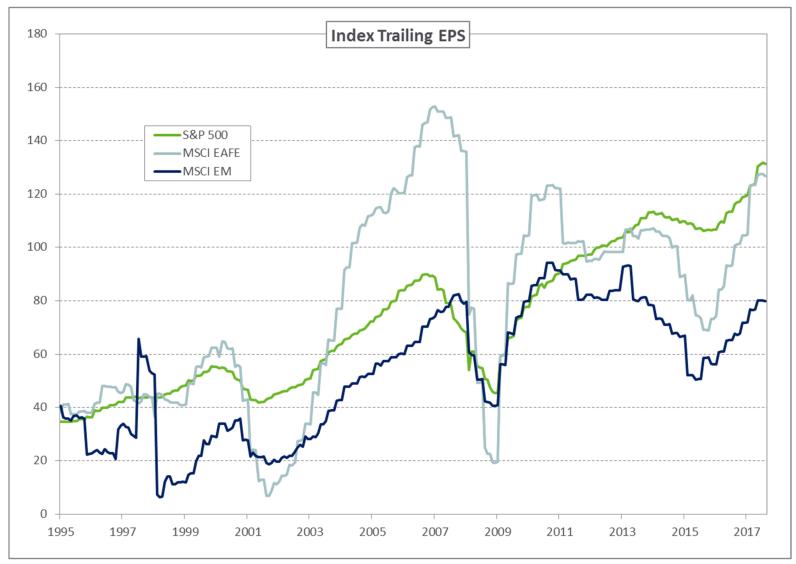








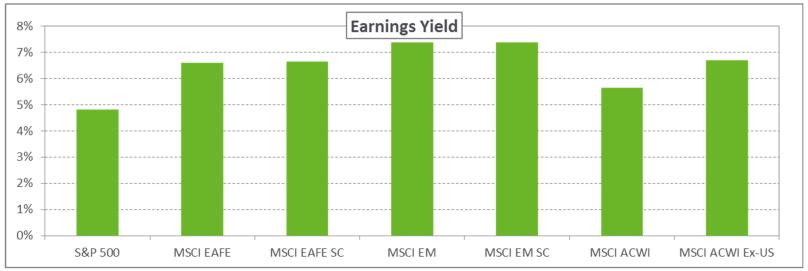
# **EARNINGS**



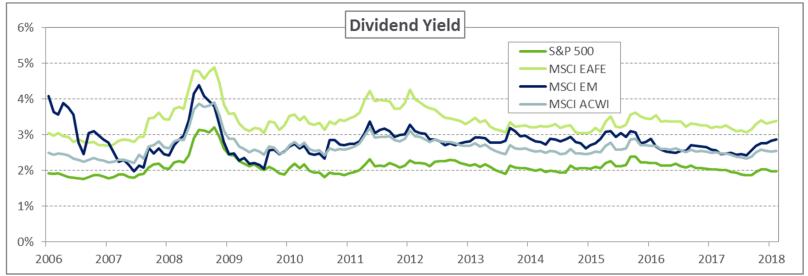




# **YIELDS**



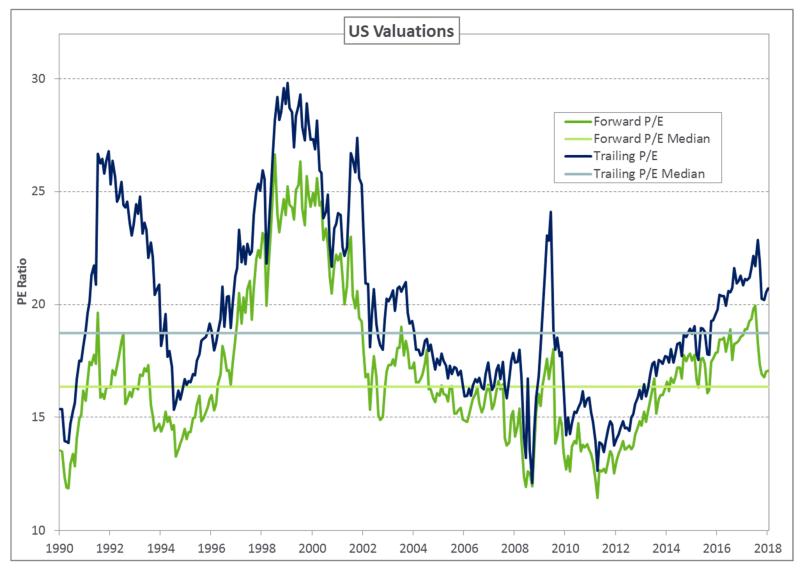
Source: S&P, MSCI, Bloomberg Earnings yield calculated as 1/PE Ratio



Source: S&P, MSCI, Bloomberg



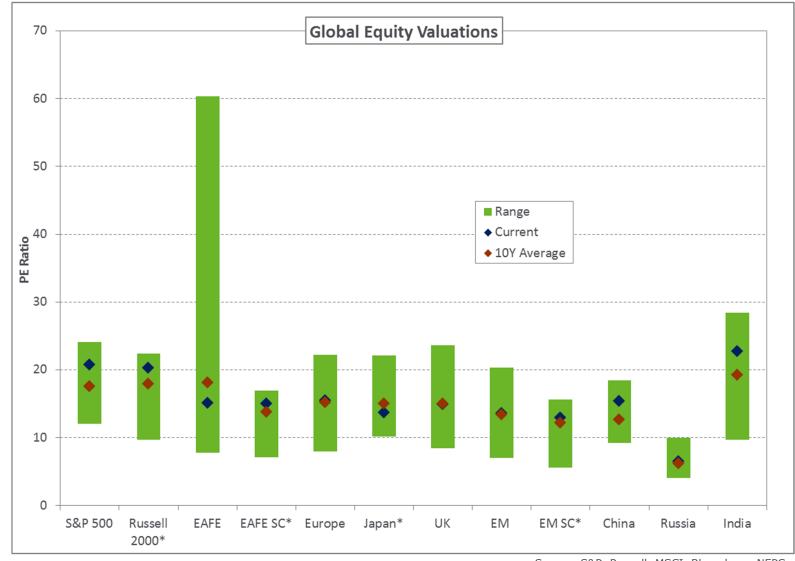
# **US EQUITY VALUATIONS**





Source: S&P, Bloomberg Medians calculated as of 01/31/1990

# **GLOBAL EQUITY VALUATIONS**





Source: S&P, Russell, MSCI, Bloomberg, NEPC \*Denotes the use of index-adjusted positive PE ratio Ranges calculated using trailing 10-year figures

# **CREDIT**

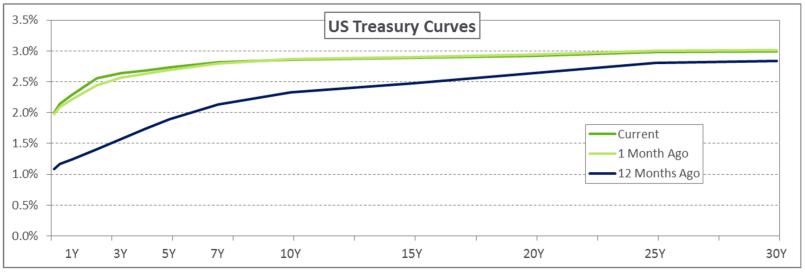
### FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)			
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year	
Barclays Aggregate	3.3%	44	6.0	-0.1%	-0.2%	-0.4%	
Barclays Treasury	2.7%	-	6.1	0.0%	0.1%	-0.6%	
Barclays Agency	2.8%	14	3.8	0.0%	0.0%	-0.1%	
Barclays MBS	3.4%	28	5.1	0.0%	0.2%	0.1%	
Barclays ABS	3.0%	42	2.2	0.0%	0.4%	0.2%	
Barclays CMBS	3.5%	70	5.3	-0.2%	-0.1%	-0.3%	
Barclays Corp IG	4.0%	123	7.3	-0.6%	-1.0%	-0.8%	
Barclays Muni	2.7%	-	6.0	0.1%	0.9%	1.6%	
Barclays HY Muni	4.8%	-	7.7	0.5%	3.1%	7.1%	
Barclays TIPS	3.0%	-	4.9	0.4%	0.8%	2.1%	
Barclays HY	6.5%	363	3.9	0.4%	1.0%	2.6%	
Barclays Global Agg	2.0%	47	7.1	-0.4%	-2.8%	1.4%	
JPM EMBI Glob Div	6.6%	388.06	7.2	-1.2%	-3.5%	-1.6%	
JPM CEMBI Broad	5.2%	298.32	4.6	-0.4%	-1.8%	-0.1%	
JPM GBI - EM	6.6%	-	5.1	-2.9%	-10.4%	-2.3%	

Source: Barclays, JPM, Bloomberg



## **TREASURIES**



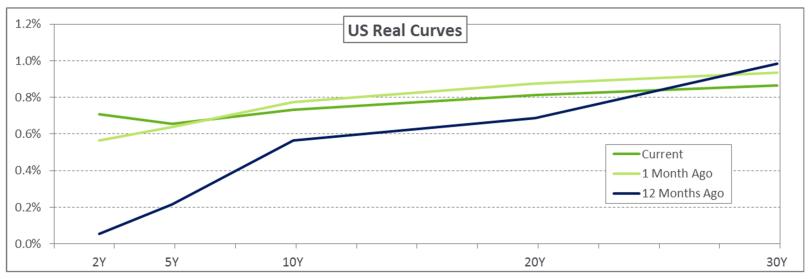
Source: Bloomberg

		Yield (%)	Total Return (%)		
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	2.00%	1.98%	1.08%	0.16%	1.29%
6M Treasury	2.14%	2.10%	1.16%	0.17%	1.35%
2Y Treasury	2.56%	2.44%	1.41%	-0.02%	-0.15%
5Y Treasury	2.74%	2.69%	1.90%	-0.05%	-1.51%
10Y Treasury	2.86%	2.87%	2.33%	0.00%	-2.64%
30Y Treasury	2.99%	3.02%	2.84%	0.30%	-0.17%

Source: Barclays, Bloomberg



## **REAL YIELDS**



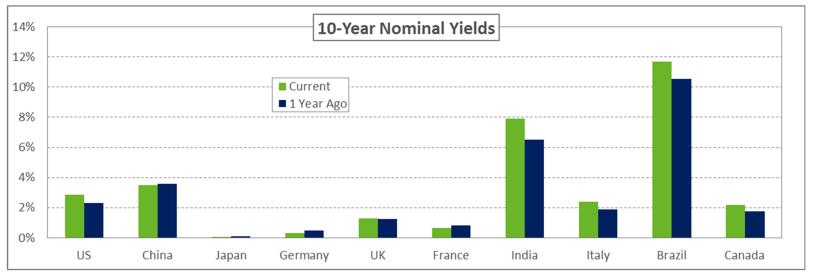
Source: Bloomberg

		Real Rates	Breakeven Rates		
	Current	1 Month Ago	12 Months Ago	Current	12 Months Ago
2Y Treasury	0.71%	0.57%	0.05%	1.80%	1.29%
5Y Treasury	0.65%	0.64%	0.22%	2.08%	1.66%
10Y Treasury	0.73%	0.78%	0.56%	2.13%	1.74%
20Y Treasury	0.81%	0.88%	0.69%	2.08%	1.70%
30Y Treasury	0.87%	0.94%	0.98%	2.12%	1.85%

Source: Barclays, Bloomberg



### **NOMINAL YIELDS**



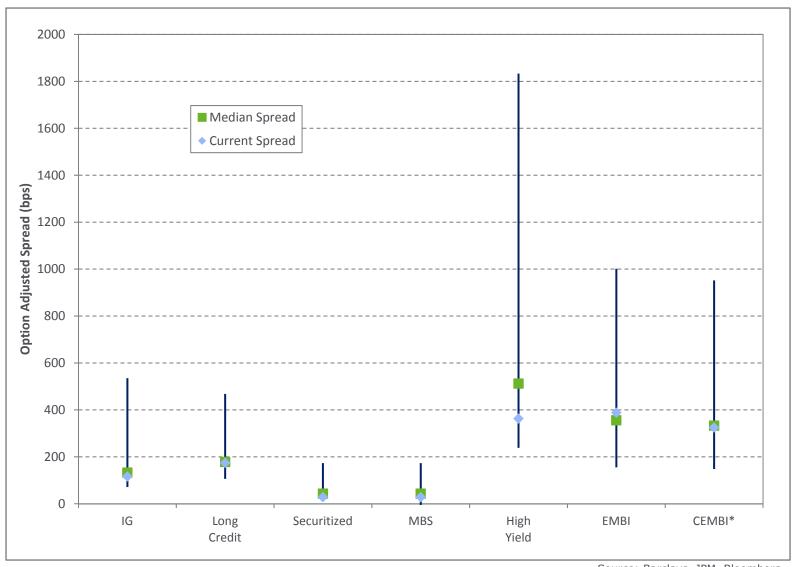
Source: Bloomberg



Source: Bloomberg



### **CREDIT SPREADS**



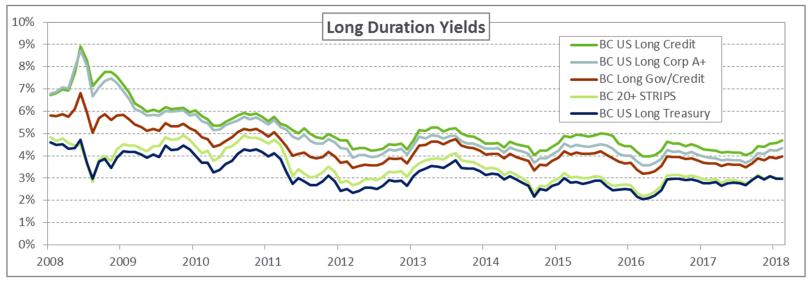


Source: Barclays, JPM, Bloomberg Data range: 01/31/2000 through month-end \*JPM CEMBI calculated since 12/31/2001

## **LONG DURATION**

Index	Month-End Yield	1 Month Prior Yield	1 Year Prior Yield	Duration
Barclays Long Treasury	3.0%	3.0%	2.8%	17.2
Barclays 20+ STRIPS	3.0%	3.0%	2.9%	25.4
Barclays Long Gov/Credit	4.0%	3.9%	3.7%	14.9
Barclays Long Credit	4.7%	4.6%	4.3%	13.4
Barclays Long Corp A+	4.3%	4.2%	3.9%	14.1

Source: Barclays, Bloomberg



Source: Barclays, Bloomberg



# **REAL ASSETS**

### **REAL ASSETS INDEX PERFORMANCE**

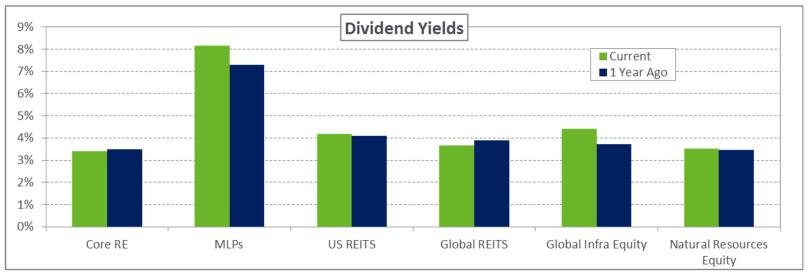
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-3.5%	0.4%	0.4%	7.3%	-4.5%	-6.4%
Bloomberg Sub Agriculture Index	-10.5%	-8.7%	-8.7%	-13.3%	-9.9%	-9.5%
Coffee	-8.5%	-5.5%	-5.5%	-16.3%	-13.1%	-9.8%
Corn	-10.8%	-11.0%	-11.0%	-16.9%	-14.7%	-16.2%
Cotton	-7.9%	6.1%	6.1%	25.2%	8.0%	1.8%
Soybean	-15.4%	-18.4%	-18.4%	-13.6%	-9.0%	-5.1%
Soybean Oil	-6.7%	-9.7%	-9.7%	-15.1%	-9.1%	-12.0%
Sugar	-6.3%	-3.1%	-3.1%	-15.3%	-6.2%	-14.7%
Wheat	-7.5%	4.7%	4.7%	-20.1%	-18.6%	-14.8%
Bloomberg Sub Energy	2.7%	10.7%	10.7%	34.8%	-9.0%	-13.0%
Brent Crude	2.7%	16.7%	16.7%	69.6%	-1.5%	-10.8%
Heating Oil	0.3%	10.5%	10.5%	52.2%	-2.5%	-8.8%
Natural Gas	-0.7%	4.2%	4.2%	-17.8%	-23.3%	-21.3%
Unleaded Gas	0.2%	7.7%	7.7%	41.8%	-4.5%	-8.7%
WTI Crude Oil	8.8%	13.2%	13.2%	58.9%	-8.3%	-14.0%
Bloomberg Sub Industrial Metals	-4.8%	1.0%	1.0%	15.2%	6.2%	0.9%
Aluminum	-6.7%	8.7%	8.7%	11.8%	6.1%	-0.2%
Copper	-3.7%	-2.7%	-2.7%	7.5%	2.6%	-1.7%
Nickel	-2.1%	12.1%	12.1%	57.7%	6.2%	0.3%
Zinc	-7.3%	-12.1%	-12.1%	6.1%	12.1%	7.4%
Bloomberg Sub Precious Metals	-3.3%	-4.5%	-4.5%	-0.8%	1.2%	-1.3%
Gold	-3.7%	-5.5%	-5.5%	0.2%	1.5%	-0.1%
Silver	-1.9%	-0.9%	-0.9%	-3.6%	-0.1%	-4.9%
Bloomberg Sub Livestock	2.7%	5.5%	5.5%	-9.4%	-4.5%	-2.7%
Lean Hogs	2.5%	3.0%	3.0%	-11.4%	-3.5%	-8.6%
Live Cattle	2.8%	6.9%	6.9%	-8.7%	-5.3%	0.7%

Source: Bloomberg

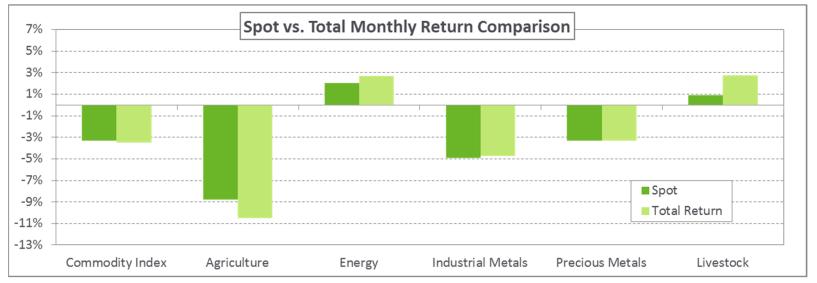
Bloomberg subindex total return indices reflects the return of the underlying one month commodity futures price movements



### **INCOME YIELD**



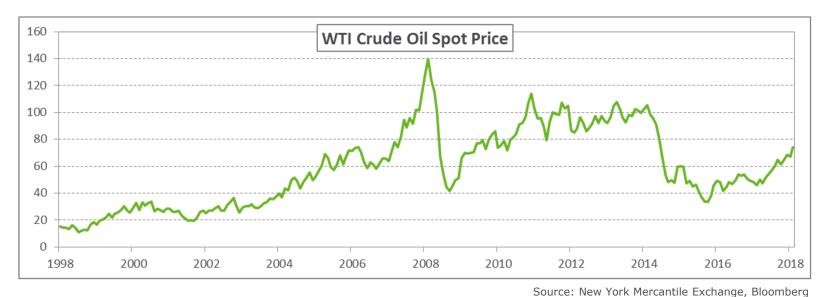
Source: Alerian, NAREIT, S&P, Bloomberg



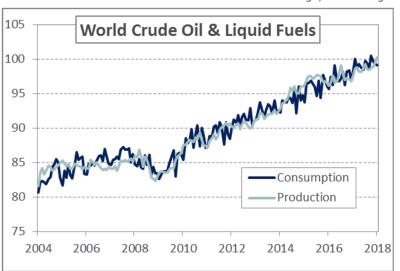
Source: Bloomberg, NEPC



#### **OIL MARKETS**



**US Crude Oil & Liquid Fuels** Consumption Production 

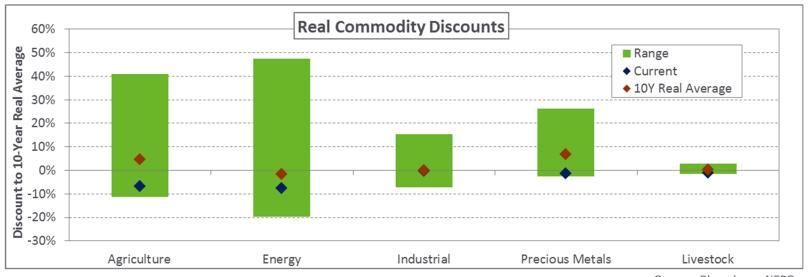


Source: US Department of Energy, Bloomberg

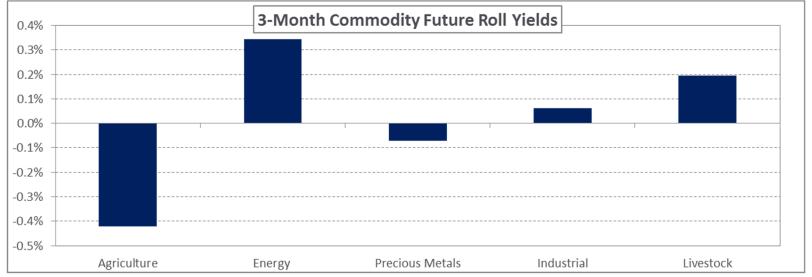




### **VALUATIONS**



Source: Bloomberg, NEPC



Source: Bloomberg



# **DEFINITIONS**

#### **POLICY INDEX DEFINITIONS**

**Policy Index:** Current (adopted January 10, 2012) 24% Russell 3000 Index, 29% MSCI ACWI ex USA Net Index, 19% BBg Barclays U.S. Aggregate Bond Index, 5% Credit Opportunities Blend, 10% Real Assets Blend, 12% Private Equity Blend, 1% Citi 3 Month T-Bill Index

**U.S. Equity Blend:** July 1, 2011 - Current: Russell 3000 Index; September 30, 1994 - December 31, 1999 S&P 500 Index 33.75, Russell 1000 Value Index 35%, Russell 1000 Growth 12.5%, Russell 2000 Value 12.5%, Russell 2000 Growth 6.25%

Core Fixed Income Blend: July 1, 2013 – Current: Bbg Barclays U.S. Aggregate Bond Index

Credit Opportunities Blend: 65% Bbg Barclays U.S. HY 2% Cap Index, 35% JPM EMBIGD Index

**Public Real Assets Blend:** 60% Bbg Barclays U.S. TIPS Index, 20% Bbg Commodity Index, 10% FTSE NAREIT All Equity Index, 10% Alerian MLP Index

**Real Estate Blend:** July 1, 2014 - Current NCREIF ODCE + 0.80%; July 1, 2012 - June 30, 2014 NCREIF Property Index Lagged +1%; October 1, 1994 - June 30, 2012 NCREIF Property Index Lagged

Private Equity Blend: February 1, 2012 - current: Russell 3000 + 3%; Inception - January 31, 2012: Russell 3000 + 4%

Note: See Investment Policy for a full description of the indices listed.



#### GLOSSARY OF INVESTMENT TERMINOLOGY

# Of Portfolios/Observations<sup>1</sup> - The total number of data points that make up a specified universe

**Allocation Index**<sup>3</sup> - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

Asset Allocation Effect<sup>2</sup> - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

Agency Bonds (Agencies)<sup>3</sup> - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

**Asset Backed Securities (ABS)**<sup>3</sup> - Bonds which are similar to mortgage-backed securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

Attribution<sup>3</sup> - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions

**Average Effective Maturity** - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

**Batting Average<sup>1</sup>** - A measurement representing an investment manager's ability to meet or beat an index.

Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.

**Brinson Fachler (BF) Attribution<sup>1</sup>** - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

Brinson Hood Beebower (BHB) Attribution<sup>1</sup> - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

Corporate Bond (Corp) <sup>4</sup> - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

**Correlation¹** - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: 'InvestorForce, 'Interaction Effect Performance Attribution, 'NEPC, LLC, 'Investopedia, 'Hedgeco.net



#### **GLOSSARY OF INVESTMENT TERMINOLOGY**

Coupon<sup>4</sup> – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate."

Currency Effect<sup>1</sup> - Is the effect that changes in currency exchange rates over time affect excess performance.

**Derivative Instrument**<sup>3</sup> - A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

**Downside Deviation<sup>1</sup>** - Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

#### Formula:

Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.

**Duration**<sup>3</sup> - Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond's duration is inversely related to interest rates and directly related to time to maturity.

Equity/Debt/Cash Ratio<sup>1</sup> – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

Foreign Bond<sup>3</sup> - A bond that is issued in a domestic market by a foreign entity, in the domestic market's currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm's debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

**Hard Hurdle<sup>5</sup>** – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

High-Water Mark<sup>4</sup> - The highest peak in value that an investment fund/ account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

**Hurdle Rate**<sup>4</sup> - The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

Interaction Effects<sup>2</sup> - The interaction effect measures the combined impact of an investment manager's selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

Median<sup>3</sup> - The value (rate of return, market sensitivity, etc.) that exceeds onehalf of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

Modified Duration<sup>3</sup> - The percentage change in the price of a fixed income security that results from a change in yield.

Mortgage Backed Securities (MBS)<sup>3</sup> - Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

Municipal Bond (Muni) <sup>4</sup> - A debt security issued by a state, municipality or county to finance its capital expenditures.

**Net Investment Change<sup>1</sup>** – Is the change in an investment after accounting for all Net Cash Flows.

Performance Fee<sup>4</sup> - A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

Data Source: 1InvestorForce, 2Interaction Effect Performance Attribution, 3NEPC, LLC, 4Investopedia, 5Hedgeco.net



#### GLOSSARY OF INVESTMENT TERMINOLOGY

**Policy Index**<sup>3</sup> - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

**Price to Book** (P/B)<sup>4</sup> - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

Price to Earnings (P/E)<sup>3</sup> - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

Price to Sales (P/S)<sup>4</sup> - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

Return on Equity (ROE)<sup>4</sup> - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Selection (or Manager) Effect<sup>2</sup> - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

Soft Hurdle rate<sup>5</sup> – is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

**Tiered Fee<sup>1</sup>** – A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

**Total Effects<sup>2</sup>** - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.

**Total Return<sup>1</sup>** - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

Universe3 - The list of all assets eligible for inclusion in a portfolio.

Upside Deviation - Standard Deviation of Positive Returns

**Weighted Avg. Market Cap.** <sup>4</sup> - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

Yield (%)<sup>3</sup> - The current yield of a security is the current indicated annual dividend rate divided by current price.

**Yield to Maturity**<sup>3</sup> -The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



# **DISCLOSURES**

#### **Information Disclaimer**

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank.
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#### **Reporting Methodology**

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

