

# **Pension Trust**

1000 Mill Street  
San Luis Obispo, CA 93408  
(805) 781-5465 Phone  
(805) 781-5697 Fax  
www.SLOPensionTrust.org



## **AGENDA**

### **PENSION TRUST BOARD OF TRUSTEES**

**Monday, February 27, 2017 9:30 AM**

Board of Supervisors Chambers  
County Government Center  
San Luis Obispo, CA 93408

## **PUBLIC COMMENT**

1. Public Comment: Members of the public wishing to address the Board on matters other than scheduled items may do so when recognized by the Chair. Presentations are limited to three minutes per individual.

## **ORGANIZATIONAL**

2. Committees – appointment of members by President.
  - a. Audit Committee (standing committee)
  - b. Personnel Committee (standing committee)
  - c. Pension Administration System Replacement Committee (ad hoc committee)

## **CONSENT**

3. Minutes of the Regular Meeting of January 23, 2017 (Approve Without Correction).
4. Report of Deposits and Contributions for the month of January 2017 (Receive and File).
5. Report of Service Retirements, Disability Retirements and DROP Participants for the month of January (Receive, Approve and File).
6. Report of Applications & Elections to participate in the Deferred Retirement Option Program (DROP) received through February 10, 2017 (Receive, Approve and File).

## **APPLICATIONS FOR DISABILITY RETIREMENT**

7. Application for Industrial Disability Retirement (Case 2017-01) (Recommend Approval)
8. Application for Disability Retirement – one case

## **OLD BUSINESS**

None

## **NEW BUSINESS**

9. Disability Hearing Process - (Recommend Approval).
10. Approval of the Annual Cost-Of-Living Adjustments provided by the San Luis Obispo County Employees Retirement Plan (Recommend Approval).
11. Reciprocity – Member Appeal of Final Average Compensation Calculation - (Discuss and Direct Staff).
12. 2017 Actuarial Audit Process - (Discuss and Direct Staff).

## **INVESTMENTS**

13. Quarterly Investment Report for the 4th Quarter of 2016 – Presentation by Scott Whalen, Verus (Receive and File).
14. Monthly Investment Report for January 2017 (Receive and File).
15. Asset Allocation Review, Capital Market Expectations, Strategic Asset Allocation Policy – Scott Whalen, Verus (Review, Discuss, Direct Staff as necessary, Approve).
16. Retirement Plan Peer Comparisons – Asset Allocation (Receive and File).
17. Asset Allocation - (Review, Discuss, and Direct Staff as necessary).

**OPERATIONS**

18. Staff Reports

19. General Counsel Reports

20. Committee Reports:

- a. Audit Committee No Report
- b. Personnel Committee No Report
- c. PAS Replacement Committee No Report

21. Upcoming Board Topics (subject to change):

- a. March 27, 2017
  - i. Disability case (tentative)
  - ii. 2017 Actuarial Valuation planning and assumptions (with Leslie Thompson)
  - iii. 2017 Employer contribution prefunding
- b. April 24, 2017
  - i. Budget – FY17-18 – discussion
  - ii. Fiduciary Refresher Training
- c. May 22, 2017
  - i. 2017 Actuarial Audit – RFP results – actuary selection
  - ii. Budget – FY17-18 – discussion
  - iii. 1Q17 quarterly investment report
  - iv. Investment Education Presentation
- d. June 26, 2017
  - i. Annual Financial Statement Audit – Report from auditors
  - ii. 2017 Actuarial Valuation – Results – Setting of ARC
  - iii. Prefunding of FY17-18 Employer Contributions

22. Trustee Comments

**REFERRED ITEMS**

None

**ADDED ITEMS**

None

## **CLOSED SESSION**

23. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION. The Board will convene in closed session pursuant to paragraph (1) of subdivision (d) of Gov. Code section 54956.9 to discuss existing litigation. One (1) case: San Luis Obispo County Deputy County Counsel Association et al. v. San Luis Obispo County Pension Trust Board et al.

## **ADJOURNMENT**



# Board of Trustees

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## JANUARY 23, 2017 MINUTES OF THE REGULAR MEETING OF THE PENSION TRUST BOARD OF TRUSTEES

**BOARD MEMBERS PRESENT:** Will Clemens, Vice President  
Guy Savage  
Gere Sibbach  
Jim Hamilton  
Jim Erb

**BOARD MEMBERS ABSENT:** Matt Janssen, President  
Jeff Hamm

**STAFF:** Carl Nelson  
Andrea Paley  
Amy Burke

**COUNSEL:** Chris Waddell, Esq.

**OTHERS:** Larry Batchelder, SLOCREA  
Tom Winfield, Retiring Litigation Counsel

The meeting was called to order by Vice President Clemens at 9:30 AM, who presided over same.

### **AGENDA ITEM NO. 1: PUBLIC COMMENT.**

None.

**ORGANIZATIONAL:**

**AGENDA ITEM NO. 2: ELECTION OF OFFICERS.**

Vice President Clemens opened the floor for nominations for President. Mr. Sibbach nominated Mr. Janssen for the position of President. There being no further nominations for President, the motion was seconded by Mr. Savage and unanimously approved.

As President Janssen was absent, Vice President Clemens opened the floor for nominations for Vice President. Mr. Erb nominated Mr. Clemens for the position of Vice President. Seeing no further nominations for Vice President, the motion was seconded by Mr. Savage and unanimously approved.

**AGENDA ITEM NO. 3: COMMITTEE APPOINTMENTS.**

Vice President Clemens deferred this item to when President Janssen would be present to confirm new and/or reappointments to the various committees.

**CONSENT:**

**AGENDA ITEM NO.s 4 - 9: CONSENT.**

Upon the motion of Mr. Savage, seconded by Mr. Clemens, and unanimously passed, the following action was taken:

- ITEM 4:** The Minutes of the Regular Meeting of December 12, 2016 were approved with the correction date should reflect December 12, 2016.
- ITEM 5:** The Report of Deposits and Contributions for the Month of December 2016, was received and filed.
- ITEM 6:** The Report of Service Retirements, Disability and DROP Retirements for the month of December 2016, was received, approved and filed.
- ITEM 7:** The Report of Applications for participation in the Deferred Retirement Option Program received through January 6, 2017 was received, approved and filed.

**ITEM 8:** The Monthly Investment Report for November, 2016 was received and filed.

**ITEM 9:** Resolution 2017-01 Modifying and Affirming Investment and Banking Authority was approved.

**APPLICATIONS FOR DISABILITY RETIREMENT:**

None.

**OLD BUSINESS:**

None.

**NEW BUSINESS:**

**AGENDA ITEM NO. 11: RESOLUTION NO. 2017-02 HONORING  
TOM WINFIELD, ESQ. FOR LEGAL SERVICE TO  
THE PENSION TRUST.**

Upon the motion of Mr. Savage, seconded by Mr. Erb, and unanimously passed, Resolution 2017-02 honoring Tom Winfield for his dedicated service to the Pension Trust as litigation Counsel was approved.

Mr. Sibbach had the honor of reading and presenting the resolution to Mr. Winfield.

**AGENDA ITEM NO. 12: DISABILITY HEARING PROCESS.**

General Counsel Waddell summarized the need to address the future disability hearing process to evaluate medical evidence and the procedural process for conducting hearings. General Counsel and Staff looked for direction from the Board.

The Board consensus was to authorize counsel and staff to work together and bring back for consideration amended language for Appendix E of the Retirement Plan that would more clearly define the procedural process for setting for hearing and conducting such hearings on future applications for disability retirement.

**AGENDA ITEM NO. 13: INDEMNIFICATION – AUTHORIZATION PURSUANT TO SECTION 16.02(j) OF THE RETIREMENT PLAN.**

Upon the motion of Mr. Clemens, seconded by Mr. Erb, and unanimously passed, the Board approved indemnification provisions for the Pension Trust investment with Pathway Private Equity Fund Investors 9, a Fund of Funds Limited Partnership Agreement pursuant to Section 16.02(j) of the Retirement Plan.

**INVESTMENTS:**

**AGENDA ITEM NO. 14: CASH FLOW ANALYSIS.**

Upon the motion of Mr. Sibbach, seconded by Mr. Savage, and unanimously passed the Cash Flow Analysis for 2017 was received and filed.

**AGENDA ITEM NO. 15: MONTHLY INVESTMENT REPORT FOR DECEMBER 2016.**

Upon the motion of Mr. Savage, seconded by Mr. Clemens, and unanimously passed the Monthly Investment Report for the period ended December 31, 2016 was received and filed.

**AGENDA ITEM NO. 16: ASSET ALLOCATION.**

Staff reported that no action regarding investment asset allocations were necessary at this time. Staff followed with a progress report to the Board on the status of previously approved investment manager changes.

**OPERATIONS:**

**AGENDA ITEM NO. 17: STAFF ORAL REPORTS.**

- A)** The Pension Trust recently received a tax qualification letter from the IRS stating that the Retirement Plan is in compliance with Internal Revenue Code provisions. Going forward, the IRS will randomly audit pension systems to determine future compliance rather than require periodic re-filing of retirement plan language.
- B)** Annual retirement and servicing activity levels were reported to the board.

- C)** Staff reported that 1099R's were mailed to recipients as early as January 6th this year. Further, the EDD (state) reporting was streamlined to ease return filing by retirees.
- D)** Staff reported that trustees have been successful in meeting their educational requirements for 2016 and have already scheduled attendance for some workshops and/or conferences to be held in 2017.

**AGENDA ITEM NO. 18: GENERAL COUNSEL ORAL REPORTS.**

General Counsel Waddell announced he will hold a brief Closed Session this meeting.

**AGENDA ITEM NO. 19: COMMITTEE REPORTS – AS NEEDED.**

- A)** AUDIT COMMITTEE: No report.
- B)** PERSONNEL COMMITTEE: No report.
- C)** PENSION ADMINISTRATION SYSTEM REPLACEMENT (PASR) COMMITTEE: Trustee Savage reported that the committee met for the first time in 6 months, that they will schedule regular quarterly meetings and reported that the PASR project is currently on time and on budget.

**AGENDA ITEM NO. 20: UPCOMING BOARD TOPICS.**

The planned topics for the next three board meetings were included in the agenda summary. This is an information item, nothing further to report.

**AGENDA ITEM NO. 21: TRUSTEE COMMENTS.**

Per the request of Trustee Savage, Mr. Nelson reported on recent media announcement that CalPERS was reducing their investment earnings assumption rate from 7.50% to 7.00% over a three-year period.

**REFERRED ITEMS:** None.

**ADDED ITEMS:** None.

**CLOSED SESSION:**

\*\* Entered into Closed Session at 10:46 AM

\*\* Returned to Open Session at 10:47 AM

**AGENDA ITEM NO. 22: CONFERENCE WITH LEGAL COUNSEL  
– EXISTING LITIGATION.**

Vice President returned the meeting to open session reporting no action was taken in closed session.

**ADJOURNMENT.**

There being no further business, the meeting was adjourned at 10:48 AM. The next Regular Meeting was set for February 27, 2017, at 9:30 AM, in the Board of Supervisors Chambers, New County Government Center, San Luis Obispo, California 93408.

**Respectfully submitted,**

**Carl Nelson  
Executive Secretary**

**REPORT OF DEPOSITS AND CONTRIBUTIONS FOR THE MONTH OF  
JANUARY 2017**

PP 1 1/6/2017	Pensionable	Employer	Employer	Employee	Employee	Combined	Additional	Buy	TOTAL
	Salary	Contributions	Rate	Contributions	Rate	Rate	Contributions	Backs	Contributions
By Employer and Tier:									
County Tier 1	4,210,183.37	824,621.50	19.59%	683,956.61	16.25%	35.84%	1,597.50	699.91	1,510,875.52
County Tier 2	850,862.97	170,314.72	20.02%	82,326.34	9.68%	29.69%	5,921.34	760.78	259,323.18
County Tier 3	1,568,507.24	290,558.89	18.52%	126,339.75	8.04%	26.56%	-	660.62	417,559.26
Superior Court Tier 1	305,775.03	66,215.51	21.65%	39,447.51	12.90%	34.56%	-	-	105,663.02
Superior Court Tier 3	39,840.82	7,650.33	19.20%	2,912.18	7.31%	26.51%	-	114.54	10,677.05
APCD Tier 1	73,940.38	13,775.47	18.63%	11,827.55	16.00%	34.63%	-	-	25,603.02
APCD Tier 3	7,548.80	1,388.33	18.39%	657.03	8.70%	27.10%	-	-	2,045.36
Pension Trust Staff Tier 1	10,029.32	1,958.72	19.53%	1,723.52	17.18%	36.71%	-	-	3,682.24
Pension Trust Staff Tier 2	7,069.60	1,380.69	19.53%	600.92	8.50%	28.03%	55.85	-	2,037.46
Pension Trust Staff Tier 3	7,640.36	1,454.72	19.04%	716.20	9.37%	28.41%	-	-	2,170.92
LAFCO Tier 1	11,575.09	2,731.72	23.60%	1,570.45	13.57%	37.17%	-	-	4,302.17
Lump Sum Buy Backs/Adjustments									-
	7,092,972.98	1,382,050.60	19.48%	952,078.06	13.42%	32.91%	7,574.69	2,235.85	\$ 2,343,939.20
<b>PP 2 1/20/2017</b>									
By Employer and Tier:									
County Tier 1	4,132,226.59	916,821.69	22.19%	777,131.60	18.81%	40.99%	1,597.50	48,682.84	1,744,233.63
County Tier 2	870,931.58	197,307.73	22.65%	107,087.11	12.30%	34.95%	294.05	760.78	305,449.67
County Tier 3	1,597,788.36	335,882.10	21.02%	168,437.79	10.52%	31.54%	-	660.62	504,980.51
Superior Court Tier 1	306,005.75	66,233.41	21.64%	39,550.31	12.92%	34.57%	-	-	105,783.72
Superior Court Tier 3	46,134.30	9,054.06	19.63%	3,353.02	7.27%	26.89%	-	216.13	12,623.21
APCD Tier 1	73,940.40	15,557.43	21.04%	13,602.11	18.40%	39.44%	-	-	29,159.54
APCD Tier 3	6,399.20	1,338.73	20.92%	730.25	11.41%	32.33%	-	-	2,068.98
Pension Trust Staff Tier 1	10,029.32	2,200.43	21.94%	1,964.23	19.58%	41.52%	-	-	4,164.66
Pension Trust Staff Tier 2	7,069.60	1,551.07	21.94%	770.59	10.90%	32.84%	-	-	2,321.66
Pension Trust Staff Tier 3	7,640.36	1,638.86	21.45%	899.57	11.77%	33.22%	-	-	2,538.43
LAFCO Tier 1	11,575.09	3,009.53	26.00%	1,849.40	15.98%	41.98%	-	-	4,858.93
Lump Sum Buy Backs/Adjustments									-
	7,069,740.55	1,550,595.04	21.93%	1,115,375.98	15.78%	37.71%	1,891.55	50,320.37	\$ 2,718,182.94
<b>TOTAL FOR THE MONTH</b>	<b>14,162,713.53</b>	<b>2,932,645.64</b>	<b>20.71%</b>	<b>2,067,454.04</b>	<b>14.60%</b>	<b>35.30%</b>	<b>9,466.24</b>	<b>52,556.22</b>	<b>\$ 5,062,122.14</b>
<b>TOTAL YEAR TO DATE</b>	<b>14,162,713.53</b>	<b>2,932,645.64</b>	<b>20.71%</b>	<b>2,067,454.04</b>	<b>14.60%</b>	<b>35.30%</b>	<b>9,466.24</b>	<b>52,556.22</b>	<b>\$ 5,062,122.14</b>

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**REPORT OF SERVICE & DISABILITY RETIREMENTS  
& DROP PARTICIPANTS FOR THE MONTH OF:**

**JANUARY 2017**

<b>RETIREE NAME</b>	<b>DEPARTMENT</b>	<b>DATE</b>	<b>MONTHLY ALLOWANCE</b>
BAIRD, ANDREW (DROP)	DISTRICT ATTORNEY	01-01-2017	Option selection
BERNA, CHARLES (DROP)	PUBLIC WORKS	01-01-2017	Option selection
BOISSEREE, SHELLY	PROBATION	01-01-2017	Option selection
BUNTON, ARLYN (DROP)	INFORMATION TECHNOLOGY	01-01-2017	3382.50
CAMPBELL, JANICE	AG COMMISSION	01-01-2017	6411.91 18.04*
DARBY, SANDRA (DROP)	LIBRARY	01-01-2017	2964.70
FLEMING, RICHARD	RESERVE / CENTRAL SERVICES	01-01-2017	811.25
HALE, SUSAN (DROP)	BEHAVIORAL HEALTH	01-01-2017	1316.54
HICKOK, JAMES (DROP)	PARKS	01-01-2017	Option selection
MECHAM, FRANK	BOARD of SUPERVISORS	01-04-2017	2198.42
PERRY, PATRICK	SUPERIOR COURT	01-14-2017	Awaiting calcs
RUDMAN, TROY (DROP)	SHERIFF	01-01-2017	Option selection
WARD, NANCY (DROP)	ASSESSOR	01-01-2017	Option selection
WEISS, SHERRI (DROP)	PUBLIC WORKS	01-01-2017	Option selection
<b>ADDENDUM:</b>			
CASTRO, GRACE	ALTERNATE PAYEE	03-01-2016	1327.47
GEORGE, MICHELLE	RECIPROCAL / SOCIAL SERVICES	08-05-2016	Option selection
KEATING, THOMAS (DROP)	SHERIFF	10-01-2016	5225.53 66.25*
McDONALD, JEAN	RECIPROCAL / SHERIFF	10-05-2016	1490.23
TRINIDADE, DEBBIE JO	RECIPROCAL / PUBLIC HEALTH	10-20-2016	Option selection
GRADI, NICHOLAS	RECIPROCAL / GENERAL SERVICES	11-12-2016	846.15
BOZNER, LORI	RECIPROCAL / PROBATION	12-31-2016	Awaiting calcs
BYRNE, PETER	PLANNING & BUILDING	12-31-2016	4416.20 18.16*
COOPER, KATHRYN	PROBATION	12-31-2016	840.22
DICKEY, KIMBERLY	SOCIAL SERVICES	12-31-2016	3047.07
FOX, JOHN	SHERIFF	12-29-2016	5735.77 4.05
GOODWIN, DAVID	SHERIFF	12-31-2016	5815.64 3.21*
KRASSNER, DAVID	RECIPROCAL / MENTAL HEALTH	12-31-2016	Awaiting calcs
LAZIER, TIM	PUBLIC WORKS	12-31-2016	2970.29
MOSKOWITZ, JACQUELINE	PUBLIC HEALTH	12-30-2016	1356.35
ROSEN, NANCY	BEHAVIORAL HEALTH	12-31-2016	6250.76

<b>RETIREE NAME</b>	<b>DEPARTMENT</b>	<b>DATE</b>	<b>MONTHLY ALLOWANCE</b>
TERRY, JAMES	RECIPROCAL / CLERK RECORDER	12-31-2016	402.54 417.39**
WELLS, KUMIM	RECIPROCAL/ PUBLIC HEALTH	12-16-2016	Option selection
WIECH, LYNN	LIBRARY	12-17-2016	4067.62 345.06*

\* *Employee Additional Contribution Allowance (per Sections 5.07, 27.12, 28.12, 29.12, 30.12, and 31.12 of the Plan)*

\*\* *Social Security Coordinated Temporary Annuity (per Section 13.06 of the Plan)*

## Board of Trustees

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Date: February 27, 2017  
To: Board of Trustees  
From: Carl Nelson – Executive Secretary

**Agenda Item 5: Applications & Elections to Participate in the Deferred Retirement Option Program (DROP)**

**Recomendation:**

It is recommended that you receive and approve the Application & Election to Participate in DROP for the individuals listed below.

**Discussion:**

The San Luis Obispo County Pension Trust has received an Application & Election to Participate in DROP from the following members listed below:

**MARCH 1, 2017**

**Barney Foster, Sheriff Department**

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## Board of Trustees

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Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary  
Chris Waddell – General Counsel

### **Agenda Item Number 9: Disability Hearing Process**

#### **Recommendation:**

Staff and the General Counsel recommend that the Board review, discuss, approve and forward to the Board of Supervisors for adoption the attached modifications to the current disability application hearing process. These modifications would result in matters first being sent to a Referee for hearing. The Referee would make evidentiary and factual findings and issue a proposed decision before the matter is submitted to the Board for a final decision. Further modifications in the Rules have been made to reflect the utilization by the Pension Trust of a Medical Review Provider in the review and evaluation of disability retirement applications.

#### **Discussion:**

Under Section 3.04(b) of Appendix E of the San Luis Obispo County Employees Retirement Plan (“Plan”), if the Executive Secretary is not satisfied with the medical reports and documents submitted in support of an application for Disability, including applications for Industrial Disability, the Executive Secretary shall make no recommendation as to the application and shall set the matter for hearing before the Board of Trustees.

As the Board has discussed previously, Appendix E of the Retirement Plan sets forth a detailed, “trial type” hearing process before the Board of Trustees and provides that the Board President is to serve as the Presiding Officer at such hearings and in that capacity is to fulfill quasi-judicial responsibilities such as overseeing the examination and cross-examination of witnesses and ruling on the admissibility of evidence.

At its January 23, 2017 meeting, the Board directed that the General Counsel and staff draft modifications to Appendix E that would reflect an alternative process, consistent with that used by most if not all other California public retirement systems, which employs a hearing officer/referee in the first instance to develop an evidentiary record and render a proposed decision. The Board agreed with the General Counsel and staff that such an approach would better serve the interests of members and place the Board in a better position to fulfill its duties with respect to disability appeals.

Attached for the Board's review and discussion is a draft of revisions to Appendix E that would incorporate a hearing process presided over by a Referee who would be responsible for conducting the hearing and preparing a written report for the Board that includes a summary of the evidence, proposed findings of fact, and recommended decision. Following the submission of the report by the Referee, the Board would then consider the matter itself at a subsequent meeting and would be able to take one of the following actions:

- (a) Approve and adopt the proposed findings and recommendations of the Referee; or
- (b) Approve and adopt the proposed evidentiary findings of the Referee and upon those findings take such action as in the Board of Trustee's opinion is indicated by such evidentiary findings;
- (c) Require a transcript or summary of all the testimony, plus all other evidence received by the Referee, and upon receipt thereof take such action as in the Board's opinion is indicated by such evidence; or
- (d) Refer the matter back to the Referee for further proceedings, with or without instructions.

The revised language is borrowed largely from the existing policies of the Santa Barbara Employees' Retirement System (SBCERS). The General Counsel has reviewed the hearing processes of several California retirement systems and believes that this language is most appropriate to the Pension Trust's needs. Both the Executive Secretary and the General Counsel have discussed the disability hearing process with their SBCERS counterparts and feel that this process is very workable for all of the involved parties. SBCERS has an existing panel of four Referees under contract, following an exhaustive search process, and is agreeable to the Pension Trust using their panel. In SBCERS' experience, the average, all-inclusive cost for a one to two day hearing runs between \$7,000 and \$10,000.

As noted at the January meeting, any permanent revisions to the hearing process set forth in Appendix E must ultimately be adopted by the Board of Supervisors. If your Board approves them, we will forward them to the County, who will provide any required notices to employee organizations related to collective bargaining rules and then place them on the agenda of a future Board of Supervisors meeting for adoption. Also, at the March Board of Trustees' meeting, we will have an agenda item that will allow the Board to approve the engagement of the SBCERS Referee panel members

If the need for a hearing arises before the Board of Supervisors adopts the revisions, we will prepare a resolution for the Board of Trustees' review and approval that would adopt the procedure set forth in the revisions on an interim basis pursuant to its current authority under Section 4.07 to order for good cause an alternative manner for the conduct of hearings.

We look forward to discussing these issues with the Board.

Respectfully submitted,

Carl Nelson  
Executive Secretary

Amy Burke  
Deputy Executive Secretary

Chris Waddell  
General Counsel

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## APPENDIX: E – Applications For Disability

### RULES FOR PROCESSING APPLICATIONS FOR DISABILITY RETIREMENT ALLOWANCE

#### SAN LUIS OBISPO COUNTY PENSION TRUST

##### ARTICLE 1: PURPOSE

**Section 1.01: Purpose of Rules.** The purpose of these rules is to provide a procedure for acting upon applications for disability retirement allowance under and pursuant to the San Luis Obispo County Employees Retirement Plan to the end that applications can be expeditiously processed and that, when a hearing is required by the Retirement Plan, the applicant will have notice of the hearing and an opportunity to appear before a neutral Referee ~~the Board of Trustees~~ and present his or her case prior to final review and action by the Board of Trustees.

##### ARTICLE 2: DEFINITIONS

In these rules, unless the context or subject matter otherwise requires:

**Section 2.01: "Applicant"** means a Member of the San Luis Obispo County Pension Trust claiming disability retirement allowance, rights or privileges under the San Luis Obispo County Employees Retirement Plan or any person claiming such allowance, rights or privileges through any Member.

**Section 2.02: "Party"** means any person disclosed by the records of the Pension Trust or by the application to have an interest or possible interest in the subject matter of a hearing or a person who has filed an application for disability allowance, rights or privileges on behalf of a Member of the Pension Trust.

**Section 2.03: "Executive Secretary"** means the Executive Secretary of the San Luis Obispo County Pension Trust.

**Section 2.04: "Medical Review Provider"** means an individual or entity under contract with the San Luis Obispo County Pension Trust to provide disability case management and evaluation services.

**Section 2.0405: "Board of Trustees"** means the Board of Trustees of the San Luis Obispo County Pension Trust.

**Section 2.0506: "Pension Trust"** means the San Luis Obispo County Pension Trust.

**Section 2.07: "Referee"** means a member of the State Bar of California who, as the duly authorized neutral representative of the Board of Trustees, serves as the presiding officer at hearings conducted pursuant to these rules.

## ARTICLE 3: FILING AND PROCESSING OF APPLICATION

**Section 3.01: Applicant's Obligations.** Upon the filing with the Board of Trustees of an application for disability retirement allowance, ~~the applicant shall:~~

- (a) Furnish within 30 days, or within such longer time as the applicant may request as approved by the Executive Secretary or the Medical Review Provider, any evidence in the form of written medical reports certificates, or other documents which will be used by the applicant in support of his or her application and
- (b) Report at a specified time to a physician designated by the Board of Trustees, the Executive Secretary or the Medical Review Provider for a medical examination as provided in Sections 8.01 – 8.03 of these rules.
- (c) Submit to medical examination(s) by the physician(s) designated by the Board of Trustees, the Executive Secretary or the Medical Review Provider as provided in Sections 8.01 through 8.03 of these rules. If the applicant refuses to submit to such medical examination(s) or does not appear for such medical examination(s), the Executive Secretary shall recommend to the Board of Trustees that the application be denied. The Board of Trustees shall deny the application unless the applicant can show good cause for such refusal or failure to appear.

**Section 3.02: Notice of Applicant's Obligations.** The Executive Secretary or the Medical Review Provider shall give written notice to the applicant of the applicant's obligations set forth in Section 3.01 of these rules.

**Section 3.03: Failure of Applicant to Satisfy Obligations.** Unless good cause appears therefore, an administrative recommendation by the Executive Secretary shall not be made nor shall a hearing date be set unless the applicant has satisfied each of the obligations set forth in Section 3.01 of these rules. Further, no hearing date shall be set for the application unless the medical reports from the medical examination(s) required of the applicant by Section 3.01 and 8.01 – 8.03 of these rules will be available at least 30 days prior to~~on~~ the date of the hearing.

**Section 3.04: Executive Secretary's Administrative Recommendation.** Upon receipt of the evidence submitted by the applicant and all reports of medical examination, and, if applicable, the recommendation of the Medical Review Provider, the Executive Secretary shall make recommendations to the Board of Trustees as follows:

- (a) If from the medical reports and other documents submitted, and from the information contained in the official records of the Board of Trustees, there is no conflict in the facts necessary to grant the application; and if the Executive Secretary is satisfied that the applicant is permanently incapacitated physically or mentally for the performance of his or her duties in the service and that the Member has the required service, the Executive Secretary shall recommend to the Board of Trustees that the applicant be granted a disability allowance for non-service-connected disability. In the case of an application for Industrial Disability, if the Executive Secretary additionally finds that the disability is service-connected and the applicant is otherwise eligible, the

**Commented [CW1]:** Current rules do not include provision that Executive Secretary must approve extensions of time to provide medical reports and do not reference the Medical Review Provider (MMRO). Also added cross- references to the Article 8 independent medical examination provisions.

Executive Secretary shall recommend to the Board of Trustees that the applicant be granted an Industrial Disability Retirement Allowance.

**Commented [CW2]:** There is no reference in the current rules to the Executive Secretary's recommendation with respect to approval of an Industrial Disability application.

- (1) The recommendation from the Executive Secretary shall be in writing and shall summarize the evidence in support of the recommendation.
- (2) Upon receipt of the recommendation of the Executive Secretary the Board of Trustees may
  - (i) If it is satisfied with the recommendation, approve it and grant the disability allowance recommended.
  - (ii) If it is not satisfied with the recommendation, reject it and set the matter for hearing.

- (b) When ~~the medical reports and other documents submitted and the information in the official records of the Board of Trustees are in conflict, the report provided by the Medical Review Provider does not recommend approval of all or part of the application for a disability allowance, or~~ if the Executive Secretary is not satisfied with the reports and documents submitted, the Executive Secretary shall make no recommendation and shall set the matter for hearing ~~before the Board of Trustees~~ as provided herein.

**Commented [CW3]:** Add reference to medical review provider process. In the case of an application for industrial disability retirement, the "all or part" language provides for a hearing if the recommendation supports ordinary disability but not industrial disability.

## ARTICLE 4: HEARINGS

**Section 4.01: Setting of Hearing.** ~~Allowing sufficient time for notice, hearings before the Board of Trustees shall, if practicable, be set for the next meeting of the Board of Trustees occurring after the processing of the application under Article 3 of these rules has occurred. If the Executive Secretary determines that a hearing shall be set pursuant to Section 3.04 of these rules, the Executive Secretary shall select and appoint a referee from the Board of Trustees' list of approved Referees. Referees will be assigned to hear applications on a rotating basis unless the assignment involves an application previously heard by a referee, in which case that referee will be assigned to the matter if available.~~

**Commented [CW4]:** New language in Article 4 is largely from the Santa Barbara County Employees' Retirement System (SBCERS) rules, as tailored to work with existing Pension Trust language.

**Section 4.02: ~~Hearing Files~~Referees.** ~~Each hearing shall be listed in the files of the Pension Trust under the name of the Member of the Pension Trust for or through whom benefits, rights, and privileges are claimed, whether such Member is the applicant or not. Reference to the hearing shall be by the name of the Member. The Board of Trustees' primary goal is the selection and retention of referee who will consider the underlying evidence and make recommendations to the Board of Trustees on a de novo basis, without giving weight to prior administrative actions or recommendations. During the conduct of disability retirement proceedings, the Referee constitutes the duly authorized representative of the Board of Trustees. Like the Board of Trustees, referees are expected to consider evidence and argument neutrally, with no pre-disposition towards the grant or denial of disability retirement applications. The Board of Trustees' duty is to determine whether the granting of a disability retirement in a particular case has merit based on the law and the evidence. The Board of Trustee's policy is to~~

encourage a full and accurate fact finding. The Pension Trust is equally well served by a grant as by a denial where the decision is based on the law and the evidence.

**Section 4.03: Notice of Hearing.** ~~The Executive Secretary shall give notice of hearing to the applicant and all parties at least ten days prior to the hearing. A copy of these rules shall be furnished to the applicant and to any party requesting a copy of these rules at the time notice of hearing is given.~~Once a Referee has been assigned to hear a matter, the Notice of Referee Assignment shall be served by the Executive Secretary on the Referee and the parties, setting forth the issues for hearing, and with instructions that the hearing be set not less than 30 days and not more than 120 days of the service date of the Notice. The Notice shall describe hearing procedures, and be served with a copy of these procedures.

**Section 4.04: Pre-Hearing Procedures.** Any interested party may request that the Referee schedule a pre-hearing telephone conference to set a hearing date and to discuss preliminary issues. In cases where the applicant is not represented by legal counsel, a mandatory pre-hearing phone conference will be scheduled to discuss the hearing procedures with the applicant and set a hearing date. Once the hearing date is set, the Referee will issue to the parties a Hearing Notice listing the time, date and location of the hearing and the issues to be heard. Where applicable, the Executive Secretary will provide a copy of the Hearing Notice to the employing department and the County or employing member district.

**Section 4.0405: Continuances.** ~~The Executive Secretary or the Board of Trustees~~Referee may continue a hearing to a later meeting with the consent of the applicant and all parties. In the event the applicant and all parties do not consent to a continuance, the Referee shall decide whether to grant the continuance and may do so only upon a clear showing of good cause.~~matter will be referred to the Board of Trustees for its decision.~~

**Section 4.0506: Report of Hearings.** ~~Hearings may be conducted without a stenographic reporter or recording machine unless some person interested in the hearing requests at least 5 days before the date set for the hearing that such hearing be reported or recorded and pays the cost or fee for such reporting or recording.~~Every hearing shall be reported by a certified shorthand reporter. Conferences shall be reported only if so ordered in advance by the Referee. The Executive Secretary shall arrange for a reporter to be present whenever one is required. Except as provided in Section 4.14, the reporter's notes shall be transcribed only if requested by the Referee or an interested party, in which case the requesting party, if not the Referee, shall pay the transcription costs. The non-requesting parties may, at their expense, order certified copies directly from the court reporting service.

**Section 4.06: Determination by Board of Trustees.** ~~In the event of a hearing as provided for herein, the Board of Trustees shall determine all material issues raised by the application.~~

**Section 4.07: Rules for Hearings.** Unless the Board of Trustees otherwise orders for good cause, all hearings before the ~~Board of Trustees~~Referee shall be conducted in the following manner:

~~(a) (a) Presiding Officer. The President of the Board of Trustees presides over all hearings, and in the absence of the President the Vice president shall preside, and in the absence of both, the Board of Trustees shall select a presiding officer pro tem. The presiding officerReferee shall exercise reasonable control over the proceedings. In addition to other duties, the presiding officerReferee shall set the date, time and place of the hearing, confirm the issues to be heard pursuant to the Hearing Notice, rule on the admissibility of evidence, question witnesses and determine whether the matter shall proceed or be adjourned subject to continuation.~~

~~(b) Any and shall order a party to yield the floor when the party's allotted time has been consumed or when the orderly and expeditious conduct of the hearing requires it. interested party desiring to introduce evidence at a hearing shall serve all other interested parties with a written statement identifying all writings that the party will introduce and all witnesses that the party will call to testify. If any of the identified writings have not previously been served, a copy thereof shall be attached to the statement. In addition to stating the name, address, and telephone number of each witness, the statement shall contain a summary of the testimony that the witness is expected to give. If service is made by personal delivery, the date of delivery shall be no later than the twentieth day before the hearing; if service is made by mail, the date of mailing shall be no later than the twenty-fifth day before the hearing.~~

~~(a) The presiding officer may permit such questioning and other participation in the proceedings by members of the Board of Trustees, or others, as will best serve the purposes of these rules.~~

~~(b) (b) Quorum. No hearing before the Board of Trustees shall be held unless at least a quorum of the Board of Trustees is present. The same Trustees must be in attendance throughout the hearing and only those Trustees who have been in attendance throughout the hearing may vote thereon.~~

(c) Representation By Legal Counsel. Any applicant or party and/or the Executive Secretary shall be entitled to be represented by legal counsel, at such person's own expense, at any hearing ~~before the Board of Trustees~~. After an attorney at law appears at a hearing on behalf of an applicant or party, or after the Executive Secretary or Referee has received written notice that an attorney at law is appearing on behalf of the applicant or a party, all notices required by these rules shall thereafter be served upon such attorney at law. Substitution of or dismissal of an attorney by an applicant or a party shall be made in the manner provided in Sections 284, 285 and 286 of the Code of Civil Procedure.

**Section 4.08: Order of Business for Hearing.** Unless the ~~presiding officerReferee~~ rules that it is not necessary to so proceed in a particular hearing, all hearings shall proceed in the following manner:

(a) The ~~presiding officerReferee~~ will read the title of the case and ask for appearances for the applicant and for all parties. ~~This information shall be recorded in the minutes of~~

- ~~the Board of Trustees.~~ The ~~presiding officer~~Referee will inquire if the applicant and all parties are ready to proceed.
- (b) If the applicant and all parties are ready to proceed, the ~~presiding officer~~Referee will mark for identification only and not as evidence, all papers in the official file of the hearing, which should include:
- (1) The application for the benefit, allowance, right or privilege.
  - (2) The notice to the applicant of the date set for hearing, with proof of service.
  - (3) Other documents in the official files.
- (c) The Executive Secretary or ~~other person authorized by the presiding officer~~his or her designee shall read the application unless waived by the applicant and the parties.
- (d) The applicant shall present his or her evidence. The applicant shall have the burden of proof.
- (e) Each other party shall then present its evidence, in the order determined by the ~~presiding officer~~Referee.
- (f) The Executive Secretary or other person representing the Executive Secretary shall then present his or her evidence.
- (g) The applicant and each party will be allowed to cross-examine witnesses.
- (h) Upon application to the ~~presiding officer~~Referee, the applicant and each party may present rebuttal evidence.
- (i) Upon the conclusion of all testimony, the ~~presiding officer~~Referee will inquire if the applicant and all parties are ready to submit the matter for decision.
- (j) The hearing will then be closed and the matter submitted to the ~~Board of Trustees~~Referee for decision. If further documentary evidence is to be filed, the ~~Board of Trustees~~Referee may allow time for filing and serving such documentary evidence, and order that the matter will be deemed submitted after such period unless the applicant or any party objects to such documentary evidence within ten (10) days after it is filed. Copies of such documentary evidence shall be served on the applicant and on all parties who appeared at the hearing. Any post-hearing briefs shall be simultaneously submitted on a date directed by the Referee within 30 days of the last day of hearing, followed by simultaneous reply briefs on a date directed by the Referee within 10 days of the date set for post-hearing brief submittal. Such briefing periods shall only be extended by the Referee for good cause.
- (k) Within forty-five days after a matter is submitted to a Referee for a decision, or upon the completion of post-hearing briefing, whichever is later, the Referee shall file with the Executive Secretary and serve upon all interested parties a written report that includes a summary of the evidence, proposed findings of fact, recommended decision and proof of service.
- (l) The interested parties shall have ten days (plus 5 days if served by mail) from the date the Referee's report is served to file written objections with the Executive Secretary, along with proof of service upon all other interested parties. Any timely filed objections shall be incorporated in the record to be considered by the Board of Trustees. The Board of Trustees has discretion to decline consideration of untimely written objections, or oral objections or argument from any party that has not filed timely written objections.

**Section 4.09: Rules of Evidence for Hearings.**

- (a) The hearing need not be conducted according to technical rules of evidence relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule which might make improper the admission of such evidence over objection in civil actions. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions. Admissibility of physicians' reports is governed by Section 4.11 and Section 4.12 of these rules.

**Section 4.10: Witnesses.**

- (a) Each party shall have the right to call and examine witnesses and to cross-examine opposing witnesses on any matter relevant to the issues.
- (b) Oral evidence shall be taken only on oath or affirmation.
- (c) If the applicant or any other party does not testify in his own behalf, he may be called and examined as if under cross-examination.
- (d) Refusal of any applicant or party to submit to examination or to answer relevant questions shall be grounds for considering such questions for the purposes of that hearing, to be answered in a way unfavorable to the refusing party, ~~and such refusal may result in dismissing the application of the applicant or party seeking affirmative relief.~~

**Commented [CW5]:** Existing language regarding dismissal of application for failure to answer relevant questions is potentially problematic from a due process perspective.

**Section 4.11: Documentary Evidence; Medical Reports.**

- (a) Government Records. Certified copies of the reports or records of any governmental agency, division or bureau will be accepted as evidence in lieu of the original thereof.
- (b) Medical Reports. The Board of Trustees favors the production of medical evidence in the form of written reports. These reports should include:
  - (1) History of the injury or illness;
  - (2) The patient's complaints;
  - (3) Source of all facts set forth in the history and complaints;
  - (4) Findings on examination;
  - (5) Opinion as to the extent of disability and working ability;
  - (6) Cause of the disability;
  - (7) Medical treatment indicated;
  - (8) Likelihood of permanent disability;
  - (9) Opinion as to whether or not the patient is permanently incapacitated physically or mentally for the performance of his duties in the service;
  - (10) The reasons for these opinions.

**Section 4.12: Cross Examination of Physician on Medical Report.**

- (a) The right of cross-examination of a physician on his or her written report may be deemed waived where the report of the physician has been filed with the ~~Board of Trustees~~Referee and served upon the applicant and any other parties ten (10) days or more prior to the hearing of the case and the applicant nor any party within five (5) days of such service requests to cross-examine the said physician.
- (b) The right of cross-examination of a physician on his or her written report may not be deemed waived where such request is made and the physician is produced at the hearing or good cause has been shown for not producing the physician. The applicant or the party submitting the written report of the physician shall, if requested by any opposing party, join in the request that the physician appear at the hearing; however, the person instituting the request that the physician be produced for cross-examination shall pay the physician's fee for such appearance. The ~~Board of Trustees~~Referee may require that this fee be deposited in advance of appearance.

**Section 4.13: Continuances by the ~~Board of Trustees~~Referee; Additional Evidence, Examinations.** The ~~Board of Trustees~~Referee may on ~~its~~his or her own motion continue any hearing to another time and place, order additional evidence to be presented, order additional medical examinations of the applicant, or allow other evidence to be gathered and presented, as in its determination a proper presentation of the case requires.

**Section 4.14: Decision of the Board of Trustees.** When a Referee's report is filed with the Executive Secretary pursuant to section 4.08(k), the Executive Secretary shall cause the matter to be placed on the agenda of the next regular Board of Trustees' meeting to take place after the expiration of the period in which the interested parties may file written objections, unless the expiration of that period occurs less than two weeks before the next regular meeting, in which case the matter shall be placed on the regular meeting agenda for the following month. The Board may, but is not required to, hear oral argument from any interested party that has filed timely written objections. If permissible under the Ralph M. Brown Act, the Board of Trustees shall hear disability retirement matters in closed session unless the member requests that the matter be heard in public session. The Board of Trustees shall take one of the following actions:

- (a) Approve and adopt the proposed findings and recommendations of the Referee; or
- (b) Approve and adopt the proposed evidentiary findings of the Referee and upon those findings take such action as in the Board of Trustee's opinion is indicated by such evidentiary findings;
- (c) Require a transcript or summary of all the testimony, plus all other evidence received by the Referee, and upon receipt thereof take such action as in the Board's opinion is indicated by such evidence; or
- (d) Refer the matter back to the Referee for further proceedings, with or without instructions.

~~The Board of Trustees shall render its decision by the second regular meeting following the meeting at which the matter is submitted for decision.~~ Any finding or decision of the Board of Trustees must be made by the affirmative votes of at least four Trustees. ~~A failure~~If the Board of Trustees fails to reach a finding or decision to obtain the affirmative votes of at least four Trustees within 100 days of the filing of the Referee's report, the Referee's report shall be deemed adopted by the Board of Trustees. ~~is a failure to find in favor of the applicant and~~



~~constitutes a denial of the application, or that portion of the application, on which the vote is taken.~~

**Section 4.15: Notice of Decision.** Written notice of the decision of the Board of Trustees, containing ~~findings of fact and conclusions of law shall~~ be delivered or mailed to the applicant and each party within ten days following the date the decision is rendered.

## ARTICLE 5: REHEARING

**Section 5.01: Petition for Rehearing.** A petition for rehearing by the applicant or by any party aggrieved by the decision of the Board of Trustees may be granted by the Board of Trustees if the petition is delivered to the Executive Secretary within thirty days after the decision of the Board of Trustees is served on the party or applicant.

**Section 5.02: Grounds for Petition.** A rehearing may be granted by the Board of Trustees and it may vacate its decision, or modify it, in whole or in part, and a new or further hearing may be granted on all or part of the issues, on the petition of the applicant or of any party aggrieved, for any of the following causes, materially affecting the substantial rights of the applicant or of such party:

- (a) Irregularity in the proceedings of the Board of Trustees, or any order of the Board of Trustees or any abuse of discretion by which the applicant or party was prevented from having a fair hearing;
- (b) Accident or surprise that ordinary prudence could not have guarded against;
- (c) Newly discovered evidence that could not, with reasonable diligence, have been discovered and produced at the hearing;
- (d) Insufficiency of the evidence to justify the decision of the Board of Trustees;
- (e) That the Board of Trustees acted in an arbitrary or capricious manner;
- (f) An error in law, occurring at the hearing and excepted to by the party petitioning for rehearing.

## ARTICLE 6: SERVICE OF NOTICE

**Section 6.01: Service of Notice.** Any notice required by these rules shall be sufficient when it is delivered in person to the person or persons to whom it is directed, or when it is deposited in the United States mail, postage prepaid and addressed to the last known address of the addressee or addressees. For the applicant, the place of notice shall be the applicant's address as shown on the application.

## ARTICLE 7: JUDICIAL REVIEW

**Section 7.01: Judicial Review.** In those cases where a party or applicant is entitled to a judicial review of the proceedings before this Board of Trustees, the petition to the court shall be filed

**Commented [CW6]:** Under the current procedure, a failure of the Board to act would result in denial of the application. This result seems incongruous if the Referee's report is in favor of the Member, as Board inaction on the Referee's report would result in a denial notwithstanding the favorable Referee recommendation. Under the revised language, Board inaction would result in adoption of the Referee's report, which is consistent with the approach taken in administrative hearing proceedings applicable to California state agencies.

**Commented [CW7]:** If the Board's decision is to take some action other than to approve and adopt the proposed findings and recommendations of the Referee, there would be no findings of fact or conclusions of law in that decision.

within ninety (90) days from the date the notice of the decision of the Board of Trustees is served on the party or applicant or is delivered to the party or applicant. All of the following provisions shall apply with respect to any decision of the Board of Trustees that is subject to Code of Civil Procedure section 1094.5:

- (a) The decision shall be made in writing;
- (b) The decision shall include or be accompanied by notice that the time in which judicial review must be sought is governed by CCP section 1094.6, and shall include or be accompanied by the text of section 1094.6;
- (c) The decision shall be accompanied by a copy of an affidavit or certificate of mailing;
- (d) For purposes of judicial review, a decision of the Board of Trustees is final 30 days after the date the decision is mailed pursuant to subsection (a) of this section unless a Petition for Rehearing is filed pursuant to Article 5, in which case the decision is final on the date the Board of Trustees issues a decision following its consideration of the Petition for Rehearing.
- (e) The provisions of CCP section 1094.6 apply to the judicial review of any decision of the Board that is subject to judicial review pursuant to CCP section 1094.5.
- (a)(f) Any request for the preparation of the administrative record pursuant to CCP section 1094.6 shall be made in writing and filed with the Executive Secretary. The Executive Secretary shall, within ten days of receiving such a request, notify the requesting party of the estimated cost of preparing the record. Any requesting party other than the Pension Trust shall, within 10 days of receiving such notification, deposit with the Executive Secretary an amount sufficient to cover the estimated cost. If during the preparation of the record it becomes apparent that the costs will exceed the amount of the deposit, the requesting party shall be notified and shall deposit the additional amounts before the record will be completed. If the cost of preparing the record exceeds the amount deposited, the party requesting the record shall pay the excess. If the amount deposited exceeds the cost, the difference shall be returned to the party requesting such record. Upon receiving the required deposit, the Executive Secretary promptly shall prepare the record, and shall include the transcript of the proceedings, all pleadings, all notices and orders, any proposed decision by a Referee, the final decision, all admitted exhibits, all rejected exhibits in the possession of the Pension Trust, its officers, or agent, all written evidence, and any other papers in the case.

## **ARTICLE 8: MEDICAL EXAMINATION ORDERED BY BOARD OF TRUSTEES**

**Section 8.01: Medical Examination Ordered By the Board of Trustees, Executive Secretary or Medical Review Provider.** At any time while an application is pending, including during the hearing process, if the Board of Trustees, Executive Secretary or Medical Review Provider if it is not satisfied with the medical reports, opinion and information submitted by the Executive Secretary and the applicant, at any hearing under these rules, or if the Board of Trustees, at any time while an application is pending, finds it needs additional medical opinion and information, it may require that the applicant may be required to submit to a one or more medical examinations by a physician selected by the Board of Trustees, Executive Secretary, Medical

Review Provider or Referee as applicable –to determine the existence of the disability and the causes therefore.

**Section 8.02: Applicant Required to Attend Medical Examination.** The applicant shall submit to the examination unless he or she can show good cause why he or she should not. Refusal of any applicant to submit to such medical examination without a showing of good cause for such refusal shall be grounds for the denial of application by the Board of Trustees.

**Section 8.03: Hearing Continued.** Unless good cause appears therefore, a hearing date shall not be set unless the medical reports required by this paragraph will be available on the date of the hearing. If a hearing has begun and the ~~Board of Trustees has required that the applicant~~ has been required to submit to a medical examination under this Article 8 of these rules, the hearing shall not be completed until the medical report from such examination is filed with the Board of Trustees, Executive Secretary or Medical Review Provider as applicable.

**Commented [CW8]:** Section broadened to explicitly provide that in addition to the Board, the Executive Secretary or Medical Review Provider can also order the applicant to submit to an independent medical examination (IME). Also provides for the possibility of more than one IME if necessary to cover disabilities that cross over between more than one medical specialty.

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## Board of Trustees

1000 Mill Street  
San Luis Obispo, CA 93408  
Phone: (805) 781-5465  
Fax: (805) 781-5697  
www.SLOPensionTrust.org



Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item 10: Annual Cost-Of-Living Adjustments provided by the San Luis Obispo County Employees Retirement Plan**

#### **Recommendation:**

It is recommended that the Board approve Cost-Of-Living Adjustments (COLAs) as recommended by the SLOCPT's Actuary (Gabriel Roeder, Smith and Company), and in accordance with the Retirement Plan. For most benefit recipients, this COLA totals **2.10%**.

#### **Discussion:**

The Retirement Plan provides for annual cost-of-living adjustments for retirees in: Section 19.01 and Section 19.02 of Article 19: Cost-Of-Living; Section 27.25 of Article 27: Tier Two – Miscellaneous; Section 28.25 of Article 28: Tier Two – Safety; Section 29.25 of Article 29: Tier Three – AB 340: Miscellaneous; Section 30.25 of Article 30: Tier Three – AB 340: Safety; and Section 31.24 of Article 31: Tier Three – AB 340: Probation.

The COLA percentage, as specified by the Plan, is determined by the average of the All Urban Consumers Consumer Price Index – all items (CPI-U) for the Los Angeles - Riverside - Orange County and the San Francisco - Oakland - San Jose areas. The Plan specifies the use of the annual average of these two metropolitan area's CPI-U data. The SLOCPT's actuary calculates the recommended COLA as a smoothed value using the two most recent annual averages published by the Bureau of Labor Statistics for each specified metropolitan area. While COLAs have historically been calculated as increases to benefits with positive inflation, the Plan also allows for decreases should there be deflation in the CPI-U data.

The recommended COLA based on average of the years 2016 and 2015 has been calculated as **2.1%**. As dictated by the Plan, COLAs may not exceed 3% for Tier 1 retirees or 2% for Tier 2 and Tier 3 retirees. Furthermore, for Tier 1 retirees, if the calculated average percentage increase is

greater than 3%, the amount in excess of 3% will be “banked” and used in subsequent years where the calculated percentage increase is less than 3% (aka: the “Cumulative Carryover”). Tier Two and Tier Three retirees are not eligible for the Cumulative Carryover as stipulated by the Plan.

Upon Board approval, all eligible retirees will receive a COLA on April 1, 2017 as shown in the following table. The Cumulative Carryover (COLA Bank) for each vintage year of retirees will change as shown on the attached letter from the SLOCPT’s Actuary.

<b>Tier:</b>	<b>Retirement Date:</b>	<b>COLA:</b>
1	On or Before January 1, 1981	3.00%
1	On or After January 2, 1981 but Before January 2, 2017	2.10%
2 & 3	On or Before January 1, 2017	2.00%

It is of interest to note that of the 2,631 retirees from Tier 1 receiving monthly payments as of 01/01/17, only 24 are affected by the Tier 1 Cumulative Carryover provision.

Tier 2 (2 at present) and Tier 3 (none at present) retirees will receive a 2.00% COLA.

This year’s recommended COLA is expected to cumulatively increase the current monthly retiree payroll distribution by approximately \$143,000.

Respectfully Submitted

January 26, 2017

Mr. Carl Nelson  
 Executive Secretary  
**San Luis Obispo County Pension Trust**  
 1000 Mill Street  
 San Luis Obispo, CA 93408

**Subject: COST-OF-LIVING ADJUSTMENT, APRIL 1, 2017**

Dear Carl,

Sections 19.01 and 19.02 of the by-laws of the San Luis Obispo County Pension Trust provides for cost-of-living adjustments to certain Tier 1 members who retire or die as of, or prior to, the previous January 1<sup>st</sup> each year. The following is the determination of the cost-of-living adjustment payable as of April 1, 2017.

The percentage changes of the All Urban Consumers C.P.I. annual average for the Los Angeles - Riverside - Orange County and the San Francisco - Oakland - San Jose areas are as follows:

2016 San Francisco – Oakland – San Jose	3.1%
2016 Los Angeles – Riverside – Orange County	1.9%
2015 San Francisco – Oakland – San Jose	2.6%
2015 Los Angeles – Riverside – Orange County	0.9%

The average of the percentage changes for the years 2016 and 2015 is used to determine the County’s cost-of-living adjustment (COLA) factor for April 2017 but the COLA may not exceed 3.0%. However, if the percentage increase is greater than three percent, then the excess may be carried forward and applied in a future year when the increase is less than three percent.

The average percentage increase for the last two years is **2.1%**. However, due to prior excess increases that have been carried forward for some retirees, the COLA increase this year is 2.1% to 3.0%, depending on the year of retirement. The attached schedule details the implementation of this factor to each Tier 1 retiree based on the date they entered the pension roll. Note that all Tier 1 retirees who retired on or before January 1, 1981 will receive a 3.0% increase and have their Cumulative Carryover account decreased by 0.9%. All other Tier 1 retirees have no Cumulative Carryover account and will receive an increase of 2.1%.

While the Cumulative Carryover is consistent with last year, we are making no representation as to whether the historical Cumulative Carryover figures are accurate.

These calculations comply with Sections 19.01 and 19.02 of the by-laws of the San Luis Obispo County Pension Trust. Sections 27.25 and 28.25 specify cost-of-living adjustments for Tier 2 Miscellaneous and Safety retirees respectively. Sections 29.25, 30.25, and 31.25 specify cost-of-living adjustments for Tier 3 AB 340 Miscellaneous, Safety, and Probation retirees respectively.

The initial COLA for Tier 2 and Tier 3 members is also governed by sections 19.01 and 19.02 but the COLA may not exceed 2.0% for these groups and they do not carry forward any accumulation of COLAs beyond the annual 2% maximum. Since the initial COLA this year is 2.1%, any Tier 2 or Tier 3 retirees as of January 1, 2017 would be eligible for a 2.0% COLA.

The actuary submitting this statement is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

If you have any questions about the information requested above or need any additional information, please contact me at 720-274-7271 or [leslie.thompson@gabrielroeder.com](mailto:leslie.thompson@gabrielroeder.com) or Joe Herm at 720-274-7274 or [joe.herm@gabrielroeder.com](mailto:joe.herm@gabrielroeder.com).

Sincerely,

**Gabriel, Roeder, Smith & Company**



Leslie L. Thompson, EA, FSA, FCA, MAAA  
Senior Consultant

Enclosure

Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this communication (or any attachment) concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.

This communication shall not be construed to provide tax advice, legal advice or investment advice.



**San Luis Obispo County  
Suggested Cost-of-Living Increase**

<b><u>Entered Pension Roll</u></b>	<b><u>As of April 1, 2016</u></b>			<b><u>As of April 1, 2017</u></b>		
	<b><u>CPI Change</u></b>	<b><u>Used</u></b>	<b><u>Cumulative Carryover</u></b>	<b><u>CPI Change</u></b>	<b><u>Used</u></b>	<b><u>Cumulative Carryover</u></b>
On or Before 1/1/1979	1.9%	3.0%	17.6%	2.1%	3.0%	16.7%
1/2/1979 to 1/1/1980	1.9%	3.0%	13.3%	2.1%	3.0%	12.4%
1/2/1980 to 1/1/1981	1.9%	3.0%	6.6%	2.1%	3.0%	5.7%
1/2/1981 to 1/1/2016	1.9%	1.9%	0.0%	2.1%	2.1%	0.0%
1/2/2016 to 1/1/2017	-	-	0.0%	2.1%	2.1%	0.0%

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## Board of Trustees

1000 Mill Street  
San Luis Obispo, CA 93408  
Phone: (805) 781-5465  
Fax: (805) 781-5697  
www.SLOPensionTrust.org



Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item 11: Reciprocity – Member Appeal of Final Average Compensation Calculation**

#### **Recommendation:**

It is recommended that the Board consider the appeal of Member D. Trinidad over the Final Average Compensation (FAC) used in the calculation of her SLOCPT reciprocal retirement benefit.

The recommendation of Staff is that the pension benefit to be paid to Ms. Trindade under reciprocity between retirement systems use the FAC calculated based only on Base Salary as specified in the San Luis Obispo County Employees Retirement Plan. Such calculation of FAC, or pensionable compensation, should not include a pay differential deemed pensionable by the other retirement system that the Member is retiring from at the same time.

#### **Discussion:**

The SLOCPT member, D. Trinidad worked for SLO County and has approximately 27 years of PTSC under this retirement system. Ms. Trinidad has subsequently worked for Stanislaus County for approximately three years and has established reciprocity between the two systems. Under reciprocity, each retirement system pays a pension benefit based on their retirement plan, but uses the highest FAC of the two plans to base the pension on.

In the case of Ms. Trinidad, her highest FAC was at Stanislaus County so her reciprocal benefit from the SLOCPT would be based on her FAC from the other County. However, the Stanislaus County Employees Retirement Association (STANCERA) reported a FAC for Ms. Trinidad that included elements of pay not included under the SLO County Retirement Plan for FAC.

Specifically, STANCERA included in Ms. Trinidad's pensionable compensation employer-paid deferred compensation contributions, a car allowance and a 5% pay differential for holding a Registered Nurse License. However, the SLO County Retirement Plan includes as allowable elements of pay in FAC only: a) base pay' b) employer paid "pick-up" contributions for some bargaining units; and, c) auto allowance for some bargaining units. Ms. Trinidad was not in a bargaining unit that is eligible to have either "pick-up" contributions or the auto allowance included in pensionable compensation, and she is not challenging staff's determination that such amounts should not be included in her final compensation. However, she is appealing staff's determination not to include the 5% pay differential in her final compensation.

Under the SLO County Retirement Plan, pay differentials such as the 5% pay differential Ms. Trinidad received for holding a Registered Nurse License are not included within the Plan's definitions of pensionable compensation. Under established case law in California – specifically *Stillman v. Fresno County Employees Retirement* (2011) 198 Cal. App. 4th 1355, – reciprocal pension benefits have been determined to use the definitions of FAC contained in the retirement plan of the system paying each benefit. As the *Stillman* court observed: "Noncompensation does not become compensation just because it is paid by a reciprocal employer."

Ms. Trinidad further contends in her appeal that the Registered Nurse License differential should in fact be treated as a portion of her base compensation because the license is required by state regulations for a Director of Public Health Nursing. Even if this license was required for her position with Stanislaus County, under *Stillman* it would still not be creditable because the amount is paid as a differential. Further, we note that Stanislaus County's current recruitment for the position (attached) contains the following language:

"A Manager will be compensated an additional 5% if he/she holds a current California Registered Nurse or California Nurse Practitioner License (issued by the State of California)."

This language undercuts Ms. Trinidad's argument because it contemplates the possibility that an employee can serve in the position without holding a Nurse Practitioner's license.

As a result, the pension benefit payable from the SLOCPT to Ms. Trinidad to be in compliance with the provisions of the SLO County Retirement Plan must be based only on the base pay element of her compensation at Stanislaus County. A SLOCPT memo detailing this calculation is attached.

**Attachments:**

- a. SLOCPT memo detailing FAC calculation
- b. Stanislaus County Job Bulletin – Asst. Dir. Of Nursing
- c. Member's letter of appeal to FAC calculation

Respectfully Submitted

**MEMO**

December 16, 2016

Re: Debbie Jo Trinidadé’s Final Compensation Calculation

Based on the definitions of Compensation within the San Luis Obispo County Employees Retirement Plan and the information provided by Ms. Trinidadé’s Reciprocal Employer StanCERA, it has been determined that the Final Compensation figure to be used in calculating her monthly retirement benefit with SLOCPT should be **\$8,957.87**.

StanCERA’s final compensation figures are based on a 36 month average and was determined to be \$9,269.18 for Ms. Trinidadé. StanCERA also provided a 12 month average of \$9,649.01 which would be the appropriate figure to use for Mrs. Trinidadé based on the terms of the formula applicable to her retirement benefit with the SLOCPT. However, also provided was detail indicating the elements of salary used in StanCERA’s calculation of final compensation, which along with base pay included the following: a car allowance, deferred compensation and RN license differential. The SLOCPT only recognizes base pay as pensionable compensation for Members within Ms. Trinidadé’s bargaining unit. Therefore, the following table has been provided to show the recalculation using figures supplied by StanCERA:

<b>FINAL COMPENSATION CALCULATION COMPARISON</b>		
<b>12 Month Average Compensation</b>	<b>StanCERA</b>	<b>SLOCPT</b>
Annual Base Pay (\$4,134.40 x 26)	107,494.40	107,494.40
Annual RN License (\$206.72 x 26)	5,374.72	N/A
Annual ER Def. Comp (\$65.81 x 26)	1,711.06	N/A
Annual Car Allowance (\$46.15 x 26)	1,199.90	N/A
Total Annual Compensation:	115,780.08	107,494.40
	÷ 12	÷ 12
Final Average Monthly Compensation	\$9,648.34	\$8,957.87
StanCERA adjustment	\$1.57	N/A
<b>TOTAL</b>	<b>\$9,649.91</b>	<b>\$8,957.87</b>

More typical of the way SLOCPT calculates final compensation would be as follows:

Average Hourly Rate for 12 Months ended 10/10/16 = \$51.68

Annualized (51.68 x 2080) = \$107,494.40

Final Average Monthly Compensation (107,494.40 ÷ 12) = **\$8,957.87**

Thank you,

Amy Burke - Deputy Executive Secretary

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STANISLAUS COUNTY  
invites applications for the position of:

# Assistant Director (Director of Nursing)

An Equal Opportunity Employer

## **SALARY:**

<u>Hourly</u>	<u>Biweekly</u>	<u>Monthly</u>	<u>Annually</u>
\$39.38 - \$59.06	\$3,150.40 - \$4,724.80	\$6,825.87 - \$10,237.07	\$81,910.40 - \$122,844.80

**OPENING DATE:** 09/17/13

**CLOSING DATE:** 05/07/14 11:29 AM

**ABOUT THE DEPARTMENT AND THE POSITION:** The salary listed on this flyer and our County Website does not reflect the 5% salary deduction implemented for all classifications effective July 1, 2013.

**Proof of education MUST accompany Application; otherwise it will NOT be considered. Copy of Degree or unofficial transcripts are acceptable. If you are unable to attach you MUST call 209-525-6333 to make other arrangements before 5pm on the Final Filing Date.**

## **ABOUT THE DEPARTMENT**

The Health Services Agency (HSA) is a network of outpatient medical programs and services. The HSA includes: medical offices in six locations throughout Stanislaus County; Community Health Services (offering traditional public health services to the community); health education programs and participates in the Valley Consortium for Medical Education (VCME), a California nonprofit public benefit corporation.

The HSA holds strongly to its vision of "leading the way to a healthy community" by developing its services with the community, in ways that support community need.

## **ABOUT THE POSITION**

Plans, organizes, directs, advises, supervises, coordinates, and designs the operations of comprehensive Public Health and Community Clinic programs that may include: communicable disease control, prevention, and intervention; STD/HIV, tuberculosis control, health promotion, and chronic disease prevention education and outreach; public health and community clinics; public health nursing field services, maternal, child, and adolescent health (MCAH); Children's Medical Services (CMS), all-hazards emergency preparedness and bioterrorism defense programs; Community Assessment, Planning and Evaluation (CAPE), public health microbiology; vital statistics; epidemiology and surveillance; medical marijuana identification card registration, and other related services. The Director of Nursing recommends, develops, implements, measures and evaluates programs, goals, objectives, outcomes, policies, and procedures related to assigned program operation; coordinates services with other divisions, departments and outside agencies; and provides highly complex staff assistance

to the Associate and Managing Directors of the Health Services Agency. Based on a critical review and evaluation of research and national and state standards the Director integrates evidence and best practices into both programmatic and nursing policies, procedures, and practice. Critically evaluates the application of these policies and procedures.

**Distinguishing Characteristics:**

This position serves as the Assistant Director in charge of Nursing Services of the Health Services Agency for Stanislaus County and is a member of the senior management team. It has full administrative and supervisory responsibility for the division subject to policy determinations. This position reports to the Associate Director of the Public Health division of the Agency.

**TYPICAL TASKS: TYPICAL TASKS:**

- Assists the Associate Directors for Public Health, and Clinic/Ancillary Services and the manager of Indigent Health Services in planning, directing, implementing, and coordinating a variety of health services and operations with specific emphasis on nursing practice including: communicable disease programs, community clinics, education, outreach, various health and emergency response activities, and related services;
- Plans, organizes and directs the programs and staff of Nursing Services in accordance with national and state laws and standards;
- Assists in preparing the annual budget for public health programs and services; forecasts the need for additional funds; monitors operations in order to ensure the accomplishment of objectives within budget restrictions;
- Hires, supervises, trains, and evaluates managerial, clinical, technical, and clerical personnel;
- Assesses public health needs of the community and develops, based on current evidence and standards of practice, programs and services to address these needs;
- Interprets and implements pertinent State, Federal, County, and other local government regulations at the programmatic level and across the agency;
- Recommends and participates in the development of countywide goals, objectives, policies, and procedures meeting current and projected service delivery needs;
- Develops, implements, and interprets objectives, goals, policies, and procedures that meet and satisfy all public health regulations and accreditation standards;
- Seeks and obtains funding for countywide health promotion/public education and chronic disease prevention programs and measures outcome effectiveness;
- Develops information programs and provide public information to promote program goals, objectives, ordinances, laws, and improve the health of the public;



- Establishes, facilitates, and maintains effective communication between staff, other departments, labor partners, and community agencies and promotes the provision of exemplary customer service to internal customers;
- Identifies operational and service delivery problems;
- Researches, prepares, and interprets administrative, clinical, financial and technical reports; prepare written correspondence as necessary;
- Ensures that all services are coordinated throughout Health Services Agency Divisions;
- Critiques nursing and health care research as it applies to the incorporation of evidence into the foundations of nursing practice;
- Defines qualitative problems and issues in ways that support their definition, examination, and measurement; and
- Performs related duties as assigned.

**MINIMUM QUALIFICATIONS (SKILLS, ABILITY, KNOWLEDGE, EDUCATION/ EXPERIENCE):**

**MINIMUM QUALIFICATIONS:**

**Abilities:**

- Outstanding writing skills;
- Critique, design, implement, and write research and research reports;
- Integrate evidenced based practice into everyday nursing care;
- Fluent with public budgeting processes and their application to nursing practice;
- Public speaking skills that support effective communication with diverse audiences including: medical, clinical professional, and citizen groups; and
- Articulate the causes of health disparities, their affects and potential solutions.

**Knowledge of:**

- Principles and practices of population based public health practice;
- Principles, methods, and procedures of ambulatory care and public health nursing;
- Causes, means of transmission, and method of control of communicable diseases, including sexually transmitted diseases, AIDS, and tuberculosis;
- Mandated reporting responsibilities related to child and elder dependent adult abuse, and domestic violence;
- Applicable local, state and federal ordinances, codes, laws, rules and regulations related to public health and the statutory responsibilities; and

- Principles of supervision, training, and staff evaluation.

**Education/Experience:**

- Bachelor's degree from an accredited four year college or university; **and**
- One year of full-time experience in a public health setting; **AND**
- Two (2) years of experience in a health care delivery system supervising Public Health and/or Registered Nurses.

**License:**

- Valid California Driver's License;
- A Manager will be compensated an additional 5% if he/she holds a current California Registered Nurse or California Nurse Practitioner License (issued by the State of California).

**Applicant screening, in addition to the minimum qualifications, could also focus on the following desirable categories. Please list any desirables you may have within the "Additional Information" section of the online application.**

**DESIRABLE QUALIFICATIONS:**

- Master's degree in Nursing, Public Health, Health Administration, or other applicable Master's degree or at least 35 units completed (degree completion must occur with two years of date of hire); **AND**
- Five (5) years of nursing experience in ambulatory care or hospital delivery system. **AND**
- California Registered Nurse License and Public Health Nurse Certificate (or ability to obtain same).

**APPLICATION AND SELECTION PROCEDURES:**

**CLASSIFICATION INFORMATION**

Unless otherwise provided, this position is part of the Unclassified Service of the County and is considered "at-will" and designated Management for labor relations purposes.

**EQUAL EMPLOYMENT OPPORTUNITY**

The County of Stanislaus is an Equal Opportunity Employer. All qualified applicants are encouraged submit online application(s) for open position(s).

**APPLICATION PROCEDURES/FINAL FILING DATE**

Applications cannot be submitted later than 5:00 p.m. on the final filing date. Make your online application as complete as possible so a full and realistic appraisal may be made of your qualifications. **Resumes will not be accepted in lieu of a completed application form.**

**TESTING ACCOMMODATIONS**

Arrangements may be made to accommodate disabilities or religious convictions. Describe the special test arrangements you require in the "Additional Information" section of the application form.

**APPLICATION AND/OR EXAMINATION APPEAL RIGHTS**

Application and/or examination results may be appealed by applicants presenting facts alleging irregularity, fraud and/or error in application screening or in exam scoring. Appeals must be in writing and submitted to the Chief Executive Officer within seven (7) days after the examination results are mailed.

**GENERAL QUALIFICATIONS**

- Pass County-paid pre-employment drug screening and job-related background investigation.
- Perform job duties in a manner assuring a safe working environment for oneself and others.
- Establish and maintain effective working relationships with the general public, co-workers, supervisors, and members of diverse cultural and linguistic backgrounds regardless of race, color, national origin, ancestry, political affiliation, sex, sexual orientation, religion, marital status, age (over 40), pregnancy related condition, medical condition (cancer related), physical (including AIDS) or mental disability.
- Maintain confidential information according to the legal standards and/or County regulations as required.

**DISCLAIMER**

Stanislaus County reserves the right to revise the examination plan described in this flyer to better meet the needs of County service. The provisions of this bulletin do not constitute an express or implied contract. Any provision contained in this bulletin may be modified or revoked without notice. The information contained in the bulletin is information, which sets forth a general summary of benefits for this respective position. This information is not legally binding. The benefits and other information regarding this position may be found in the Stanislaus County Code, the Stanislaus County Personnel Policies manual, or in the applicable Memorandum of Understandings, and such information prevails over information contained in this flyer. Questions regarding this announcement

Agenda Item 11

may be directed to the Stanislaus County Chief Executive Office/ Personnel.

The Job Task Analysis provides information detailing the physical and functional demands of the classification. For the complete job task analysis, visit the Risk Management website at <http://www.stancounty.com/riskmgmt/> under "Disability Management".

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APPLICANTS MAY APPLY ONLINE AT:  
<http://www.stancounty.com>  
Stanislaus County/Human Resources  
1010 10th Street, Ste 6800  
Modesto, CA 95354  
209-525-6333  
[jobhelp@stancounty.com](mailto:jobhelp@stancounty.com)

Job #1109  
ASSISTANT DIRECTOR (DIRECTOR OF NURSING)  
EV

An Equal Opportunity Employer

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### Assistant Director (Director of Nursing) Supplemental Questionnaire

- \* 1. Have you had experience integrating evidence into practice?  
 Yes    No
  
- \* 2. If you answered yes to the above, give specific examples of how you did this. Describe the evidence you used and discuss the resulting practice changes. Provide examples of the methods you used to get staff on board with these changes.
  
- \* 3. Have you written successful grants before?  
 Yes    No
  
- \* 4. If you answered yes, tell us how you found the grant. Discuss the writing of the grant and your role and how you implemented and tracked grant compliance
  
- \* 5. Have you defined a research question?  
 Yes    No
  
- \* 6. If so, provide an example with the specific and address data collection and analysis.
  
- \* 7. Have you done any work integrating health care systems?  
 Yes    No

- \* 8. If you answered yes to the above, describe what type of systems you integrated and what you did to assure adequate infrastructure.
  
- \* 9. Have you had one year experience mounting integrated county-wide public education and prevention programs and measuring outcome effects?  
 Yes    No
  
- \* 10. If you responded yes to the above question, please describe the public education or prevention program and how you developed it. Include a summary of services with which this project was integrated, describe important considerations in implementation, list outcome measures and discuss the success of the program.
  
- \* 11. Describe the difference between a CQI project and developing a culture of quality assurance. If you have this experience, use an example to illustrate your description and outline your role in the process.

\* Required Question

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January 18, 2017

TO: SLO County Pension Trust Board  
1000 Mill Street  
San Luis Obispo, CA 93408

SUBJECT: Appeal of SLOCPT Memo Dated December 16, 2016, Re: Debbie Jo Trinidad's Final Compensation Calculation.

Dear Board,

This appeal concerns the decision of SLOCPT staff to disallow the routine monthly compensation for RN License, or as Stanislaus County refers to in their retirement plan as Certificate Pay, in the Final Compensation calculation for SLOCPT. The above memo documents that the certificate pay is considered pensionable compensation under StanCERA. As such the Stanislaus county employee and employer pension trust contributions were calculated based on including certificate pay.

I have reviewed the SLO Pension Trust Plan and its definitions, and do not locate any reference to "certificate or credential" pay.

It was the intent of reciprocity to allow and encourage employees from two covered system to retain benefits and seek promotional opportunities. Such was my circumstance when I accepted employment with the County of Stanislaus for Director of Public Health Nursing. Stanislaus county classification for this position was Assistant Director – Health Service Agency, with the requirement of an RN license and PHN certificate. Stanislaus County is unique in their employment classifications, and compensates all management positions which "require" an RN License with an additional 5% as a component of their base pensionable compensation. This is in agreement with Article 4. California Public Employees' Pension Reform Act of 2013, section 7522.34 "(a) *"Pensionable compensation" of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules.....*

The SLOCPT Plan disallows "differential pay", which in SLO County is defined as shift differential for working evening or night hours, and would be in addition to any nurse or PHN job classification. This definition is also utilized by Stanislaus County and is referenced in their retirement plan as "shift differential", which is different from "certificate" pay. As a matter of reference, management in the Stanislaus County Health Service Agency does not receive shift differential or overtime pay.

Furthermore the website for the SLOCPT Plan – Reciprocity, cites the following, *"Reciprocity provides a type of 'portability' of benefits among reciprocal systems. When a member establishes reciprocity, service rendered in the various reciprocal systems is counted toward vesting the member in all systems. In addition, the highest final compensation determined by the retirement systems with which a member*

JAN 19 2017



*has established reciprocity will be used by all the member's reciprocal systems to calculate his or her retirement benefit.* " I have paid into and am receiving benefits from StanCERA that include the 5% certificate pay as part of their "system".

Article 4 California PEPR, section 7522.34(a) (attach.) states that pensionable compensation of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment of services rendered on a full-time basis during normal working hours. This is exactly my situation.

As noted in the referenced SLOPT Memo of 12/16/16, Stanislaus included a monthly routine car allowance and contribution to deferred compensation in their final compensation, but I am not requesting these items to be applied to the SLOCPT calculation. The RN Certificate pay is a component of the base salary for the Director of PH Nursing in the Assistant Director classification, as the license is required in state regulations for a Director of Public Health Nursing, and as such meets the intent and legal definition for Final Compensation. While it is understandable that staff misinterpreted the compensation numbers and considered the "certificate" pay as a "differential", I trust you will agree that since the position requires the qualification and certificate it is in fact part of my base compensation.

I respectfully ask the SLOCPT Board to approve inclusion of the RN Certificate pay in the calculation for final compensation. I have been waiting for almost three months to start receiving my retirement from SLOCPT and have had to rely on savings to pay living expenses, so would greatly appreciate any expediency you can apply to this matter.

Sincerely,



Debbie Jo Trinidad, RN, PHN, MPH



San Luis Obispo County

JAN 19 2017

Pension Trust



**MEMO**

December 16, 2016

Re: Debbie Jo Trinidad's Final Compensation Calculation

Based on the definitions of Compensation within the San Luis Obispo County Employees Retirement Plan (Plan) and the information provided by Ms. Trinidad's Reciprocal retirement system StanCERA, it has been determined that the Final Compensation figure to be used in calculating her monthly retirement benefit with SLOCPT should be **\$8,957.87**.

StanCERA provided final compensation figures based on 36 month and 12 month averages, together with detail of the elements of compensation. While Ms. Trinidad is eligible under the terms of the Plan to have her final compensation calculated using a 12 month average, the 12 month average of \$9,649.01 provided by StanCERA includes elements of compensation (car allowance, deferred compensation and RN license differential) that do not constitute pensionable compensation under the terms of the Plan for Members within Ms. Trinidad's bargaining unit. Therefore, the following table has been provided to show the calculation of her final SLOCPT final compensation as compared to her final StanCERA final compensation:

<b>FINAL COMPENSATION CALCULATION COMPARISON</b>		
<b>12 Month Average Compensation</b>	<b>StanCERA</b>	<b>SLOCPT</b>
Annual Base Pay (\$4,134.40 x 26)	107,494.40	107,494.40
Annual RN License (\$206.72 x 26)	5,374.72	N/A
Annual ER Def. Comp (\$65.81 x 26)	1,711.06	N/A
Annual Car Allowance (\$46.15 x 26)	1,199.90	N/A
Total Annual Compensation:	115,780.08	107,494.40
	÷ 12	÷ 12
Final Average Monthly Compensation	\$9,648.34	\$8,957.87
StanCERA adjustment	\$1.57	N/A
<b>TOTAL</b>	<b>\$9,649.91</b>	<b>\$8,957.87</b>

Thank you,

Amy Burke - Deputy Executive Secretary

San Luis Obispo County

**JAN 19 2017**

Pension Trust

## San Luis Obispo County, California

# Reciprocity

## Definition

Reciprocity is an agreement between the San Luis Obispo County Pension Trust and the California Public Employees Retirement System (Cal-PERS). Through sections of the California Government Code cited in the agreement, reciprocity also exists between the Pension Trust and those County Retirement Plans that are established pursuant to the County Employees Retirement Law of 1937 as well as certain other systems that have established reciprocity with Cal-PERS.

Reciprocity DOES NOT extend to the State Teachers Retirement System (STRS) or the University of California Retirement Plan (UCRP) nor to systems maintained by or in other states or by the Federal Government.

## Establishing Reciprocity

In order to establish reciprocity, an individual must terminate membership in one system (System A) and enter into membership in the second system (System B) within six months. There should be no overlap of service and the break in service between systems cannot be greater than six months.

The election to establish Reciprocity is irrevocable. The only way a member can abrogate reciprocity is by terminating his or her employment and withdrawing contributions from all systems where reciprocity was established. This is important to remember because once reciprocity is established, contributions in the reciprocal system are not available for refund unless employment in all systems where reciprocity is established is terminated.

If you have worked or are planning to go to work for a reciprocal system and would like to establish reciprocity please contact the Pension Trust Office at (805) 781-5465. Reciprocity must be established prior to retirement. If you have any questions on this or any other matter you should contact the Pension Trust Office at (805) 781-5465 or email us!

## Benefits

San Luis Obispo County

JAN 19 2017

Pension Trust

Reciprocity provides a type of "portability" of benefits among reciprocal systems. When a member establishes reciprocity, service rendered in the various reciprocal systems is counted toward vesting the member in all systems. In addition, the highest final compensation determined by the retirement systems with which a member has established reciprocity will be used by all the member's reciprocal systems to calculate his or her retirement benefit. There is no transfer of assets nor service credit.

Members that have established reciprocity must retire concurrently from all reciprocal systems.



# Public Employee Pension Reform Act of 2013 (PEPRA), AB 340

## Frequently Asked Questions

This summary is provided for information only and is based on an analysis that attempts to accurately interpret PEPRA according to the legislative intent. To the extent that amendments are passed by the legislature or a different interpretation is made by a court of law, this information will be updated accordingly.

**17. Q. Does PEPRA eliminate the ability to buy "Air Time" or my ability to buy back leave time?**

A. Yes. "Air time" is defined as the ability to buy service credit without having rendered any service, and has never been permitted by the Pension Trust plan. However, leave time is not considered "air time" because it is time that otherwise would have been credited had the individual not been on the leave. Purchase of time while on an approved leave of absence as a County employee, or provisions for purchase of military leave, are not affected in the Pension Trust plan as a result of PEPRA.

**18. Q. What is "Pensionable Compensation" under PEPRA?**

A. Pensionable Compensation includes "...the normal monthly rate of pay or base pay...for services rendered on a full-time basis..." This definition excludes all other types of compensation, such as uniform allowance, auto allowance, shift differential, bonuses, overtime, etc. The current pension plan also excludes these types of compensation as pensionable, which will be specified with the plan revisions. This does not represent a change for current employees.

"Pensionable Compensation" is limited under the legislation, for new hires on or after January 1, 2013, to the Social Security wage base as of January 1, 2013. For January 1, 2013, that amount is \$113,700. No compensation over this amount may be recognized for contribution deductions and for final compensation. This limit is subject to adjustment annually by the Board of Trustees based on the All Urban CPI.

**19. Q. If existing public employees move to other public agencies after Jan 1, 2013, do they enter in as a new employee with the provisions of PEPRA?**

A. Public employees who leave their current employer and leave their retirement contributions on deposit, and within 6 months become a retirement member of another public agency with reciprocity, will enter into the agency's pension plan in existence for new hires as of December 31, 2012 for that bargaining unit.

Note: Reciprocity is only within the State of California.

**20. Q. What is considered a break in service?**

A. A break in service is when a member of the Pension Trust ceases to be a County employee and therefore ceases to be a Member. A break in service is not catastrophic leave, sick leave, or any other approved leave of absence.

San Luis Obispo County

JAN 19 2017

Pension Trust



# LEGISLATIVE INFORMATION



Code:  Section:



[Up](#) | [<< Previous](#) | [Next >>](#) | [cross-reference chaptered bills](#) | [PDF](#) | [Add To My Favorites](#)

## GOVERNMENT CODE - GOV

**TITLE 1. GENERAL [100 - 7914]** ( *Title 1 enacted by Stats. 1943, Ch. 134.* )

**DIVISION 7. MISCELLANEOUS [6000 - 7599.2]** ( *Division 7 enacted by Stats. 1943, Ch. 134.* )

**CHAPTER 21. Public Pension and Retirement Plans [7500 - 7522.74]** ( *Heading of Chapter 21 renumbered from Chapter 19 (as added by Stats. 1974, Ch. 1478) by Stats. 1977, Ch. 579.* )

**ARTICLE 4. California Public Employees' Pension Reform Act of 2013 [7522 - 7522.74]** ( *Article 4 added by Stats. 2012, Ch. 296, Sec. 15.* )

**7522.34.** (a) "Pensionable compensation" of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules, subject to the limitations of subdivision (c).

(b) Compensation that has been deferred shall be deemed pensionable compensation when earned rather than when paid.

(c) Notwithstanding any other law, "pensionable compensation" of a new member does not include the following:

- (1) Any compensation determined by the board to have been paid to increase a member's retirement benefit under that system.
- (2) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member and which was converted to and received by the member in the form of a cash payment.



- (3) Any one-time or ad hoc payments made to a member.
- (4) Severance or any other payment that is granted or awarded to a member in connection with or in anticipation of a separation from employment, but is received by the member while employed.
- (5) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, regardless of when reported or paid.
- (6) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.
- (7) Any employer-provided allowance, reimbursement, or payment, including, but not limited to, one made for housing, vehicle, or uniforms.
- (8) Compensation for overtime work, other than as defined in Section 207(k) of Title 29 of the United States Code.
- (9) Employer contributions to deferred compensation or defined contribution plans.
- (10) Any bonus paid in addition to the compensation described in subdivision (a).
- (11) Any other form of compensation a public retirement board determines is inconsistent with the requirements of subdivision (a).
- (12) Any other form of compensation a public retirement board determines should not be pensionable compensation.
- (13) (A) Any form of compensation identified that has been agreed to be nonpensionable pursuant to a memorandum of understanding for state employees bound by the memorandum of understanding. The state employer subject to the memorandum of understanding shall inform the retirement system of the excluded compensation and provide a copy of the memorandum of understanding.  
(B) The state employer may determine if excluded compensation identified in subparagraph (A) shall apply to nonrepresented state employees who are aligned with state employees subject to the memorandum of understanding described in subparagraph (A). The state employer shall inform the retirement system of the exclusion of this compensation and provide a copy of the public pay schedule detailing the exclusion.  
*(Amended by Stats. 2013, Ch. 528, Sec. 8. Effective October 4, 2013.)*

## Board of Trustees

1000 Mill Street  
San Luis Obispo, CA 93408  
Phone: (805) 781-5465  
Fax: (805) 781-5697  
www.SLOPensionTrust.org



Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item Number 12: Actuarial Audit Process**

#### **Recommendation:**

Staff recommends that the Board of Trustees direct staff to –

- Continue with the practice of having an actuarial audit performed every five years.
- Draft an RFP for actuarial audit services for Board of Trustees approval
  - To audit the 2017 Annual Actuarial Valuation to be performed by the Plan Actuary, Gabriel Roeder Smith
  - To be a full replication actuarial audit
  - To be performed in the second half of 2017
  - To be reported to the Board of Trustees prior to the commencement of the 2018 Annual Actuarial Valuation to inform any needed changes to the 2018 Valuation process.
  - To be widely distributed to possible candidate actuarial firms (approximately 7 firms known to be active in this area)

In addition, Staff recommends that the Board of Trustees discuss the prior actuarial audit performed in 2012-2013 and direct staff with any comments or requested changes to the audit process.

#### **Background:**

It is the practice of the Pension Trust to have the following actuarial reports prepared –

- **Actuarial Valuation** – annual basis – the norm for pension systems
- **Actuarial Experience Study** – biennial basis – the last Experience Study was completed in 2016 and the next one is planned for 2018. Experience studies are typically performed by pension systems every 2-5 years and inform the systems on appropriate actuarial assumptions for annual valuations.

- **Actuarial Audit** – every 5 years – A review of the Plan Actuary’s valuation results and methodology by a separate actuarial firm. This is similar to a peer review in the financial auditing area. Actuarial Audits can be performed on a “full replication basis” or a “limited procedures” basis. While more costly, the SLOCPT has historically had full replication actuarial audits performed. Pension systems typically have actuarial audits performed on a 5-10 year cycle.

The last Actuarial Audit performed for the SLOCPT was by Cheiron on the 2012 Actuarial Valuation. Results were reported to the Board early in 2013 and provided input for minor changes to process for Gabriel Roeder Smith in the preparation of the 2013 and subsequent Actuarial Valuations. Cheiron’s actuarial audit validated the Valuation results arrived at by GRS. The cost of the 2012 Actuarial Audit was \$65,000 and it was a full replication audit that repeated the valuation done by GRS.

Respectfully Submitted



## Board of Trustees

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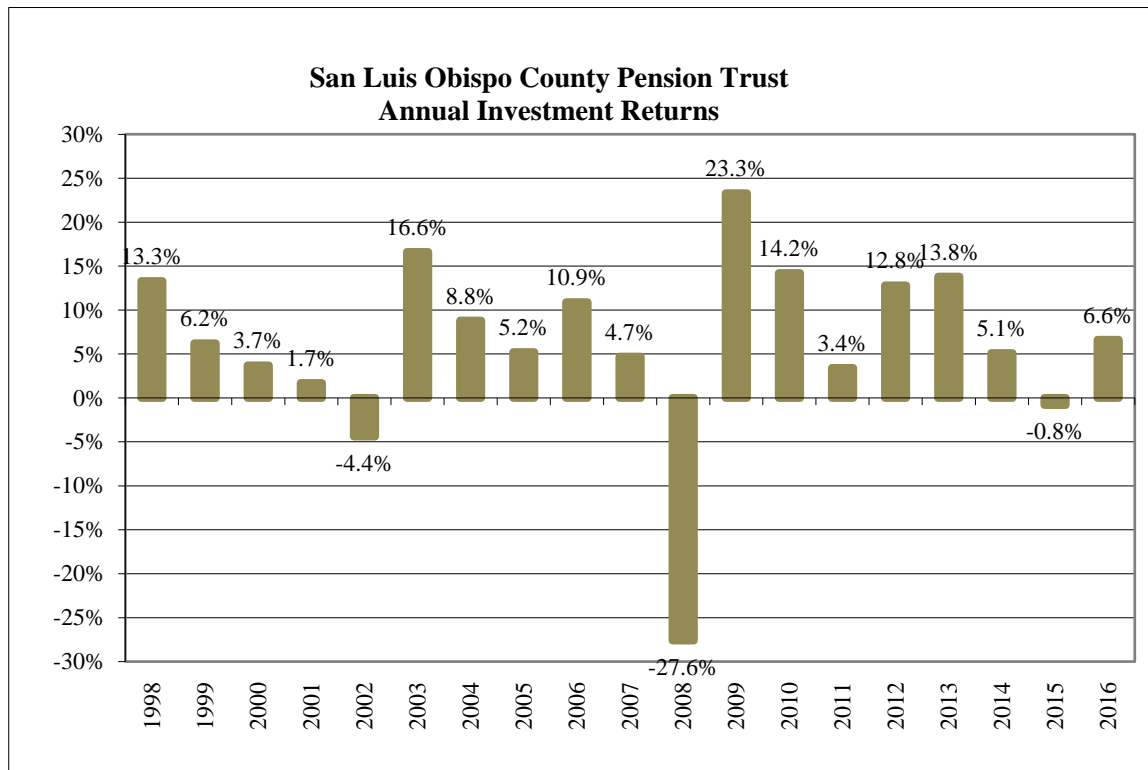
Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item 13: Quarterly Investment Report for the 4th Quarter of 2016**

Attached to this memo is the 4Q16 quarterly investment report prepared by the Trust's investment consultant Verus. Scott Whalen of Verus will make a detailed presentation and discuss the quarterly report. The long term history of the rates of return gross of fees of the Pension Trust are shown below as an extension of the data in the Verus report.



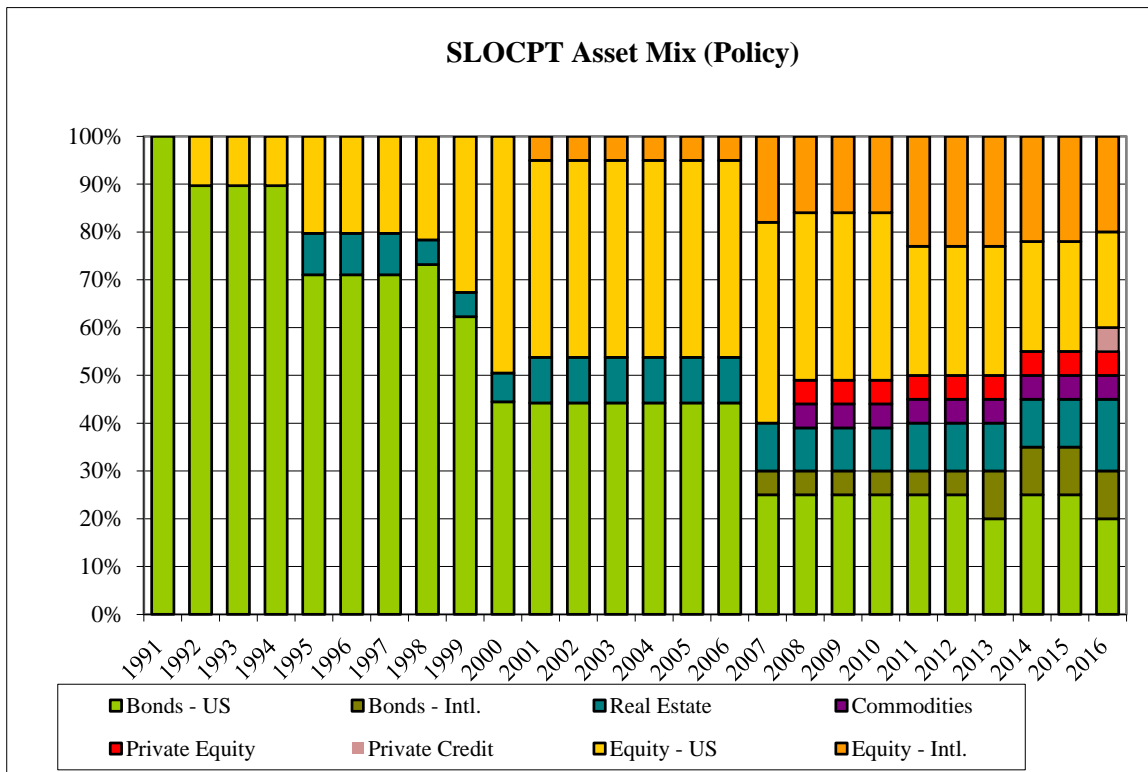
Cumulative rates of return for years ending December 31, 2016 are shown below on an annualized basis.

1 year	3 years	5 years	10 years	15 years
6.6%	3.6%	7.4%	4.6%	5.5%

The rates of return for the Pension Trust are heavily influenced by the 2008 Global Financial Crisis and market crash. To illustrate this, annualized rates of return for years ending December 31<sup>st</sup> for periods before, during and after the 2008 market crash are shown below.

7 years 2001-2007	2008	2009	7 years 2010-2016
+6.0%	-27.6%	+23.3%	+7.7%

The Asset Allocation policy of the Pension Trust is a key determinant of investment returns and the following graph shows the history of asset allocation mix policy.





**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: DECEMBER 31, 2016**

Investment Performance Review for

**San Luis Obispo County Pension Trust**

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[VERUSINVESTMENTS.COM](https://www.verusinvestments.com)

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

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Investment Landscape

TAB I

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Investment Performance  
Review

TAB II





**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

1<sup>ST</sup> QUARTER 2017  
Investment Landscape



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Economic environment 5

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Fixed income rates & credit 21

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Equity 26

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Other assets 35

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Appendix 38

# 4<sup>th</sup> quarter summary

## THE ECONOMIC CLIMATE

- Economies around the globe experienced higher inflation as the effects of lower energy prices fall out of year-over-year inflation figures. U.S. headline inflation rose to 1.7% YoY and the market's inflation expectations increased sharply, as indicated by TIPS breakeven rates. *p. 14*
- U.S. consumer and business sentiment indicators improved markedly in the fourth quarter based on positive expectations of future economic growth. *p. 12*

## MARKET PORTFOLIO IMPACTS

- U.S. interest rates moved higher in Q4, returning the yield curve to levels experienced one year ago. The Federal Reserve is not likely to increase rates drastically because of lower yields and economic growth around the globe, and due to an already strong U.S. dollar. *p. 22*
- The U.S. dollar rose 6.4% in Q4 on a trade-weighted basis. Currency movement continues to contribute to higher volatility for investors with unhedged currency exposure. *p. 37*

## THE INVESTMENT CLIMATE

- The U.S. presidential election results took many investors by surprise. After an initial overnight plunge in the futures market, U.S. equities rallied on expectations of a more pro-business regulatory environment and the possibility of large-scale fiscal stimulus. U.S. equities may possess greater upside potential post-election. *p. 16*
- Fourth quarter earnings for the S&P 500 are estimated to grow 3.2% YoY, according to FactSet. If this positive growth comes to fruition it will mark the second quarter of positive growth and may indicate that the recent oil-driven earnings slump is behind us. *p. 28*

## ASSET ALLOCATION ISSUES

- Global inflation rises in Q4 may mark a change in trend from disinflation seen in recent years. Investors should work to understand the degree of inflation protection in their portfolio. *p. 14 & 19*

A neutral risk stance seems warranted

Global reflation trends should be watched, and investors should understand the degree of inflation protection in their portfolio

# What drove the market in Q4?

## “World Markets Plunge, Then Steady, On Trump Victory”

### POST-ELECTION ASSET PRICE MOVEMENTS

S&P 500		10-Yr Treasury		Bloomberg USD Spot	
Nov 9 <sup>th</sup>	Dec 30 <sup>th</sup>	Nov 9 <sup>th</sup>	Dec 30 <sup>th</sup>	Nov 9 <sup>th</sup>	Dec 30 <sup>th</sup>
2163	2239	2.06%	2.44%	1237	1267

Source: Fortune, November 9<sup>th</sup> 2016

## “U.S. Consumer Sentiment Rises To Highest Level Since 2004”

### U OF MICHIGAN CONSUMER SENTIMENT SURVEY

Jul 31st	Aug 31st	Sep 30th	Oct 31st	Nov 30th	Dec 31st
90.0	89.8	91.2	87.2	93.8	98.2

Source: WSJ, December 23<sup>rd</sup> 2016

## “OPEC Reaches Deal To Limit Production, Sending Prices Soaring”

### WTI OIL (\$/BARREL)

Jul 29 <sup>th</sup>	Aug 31 <sup>st</sup>	Sep 30 <sup>th</sup>	Oct 31 <sup>st</sup>	Nov 30 <sup>th</sup>	Dec 30 <sup>th</sup>
\$41.60	\$44.70	\$48.24	\$46.86	\$49.44	\$53.72

Source: New York Times, November 30<sup>th</sup> 2016

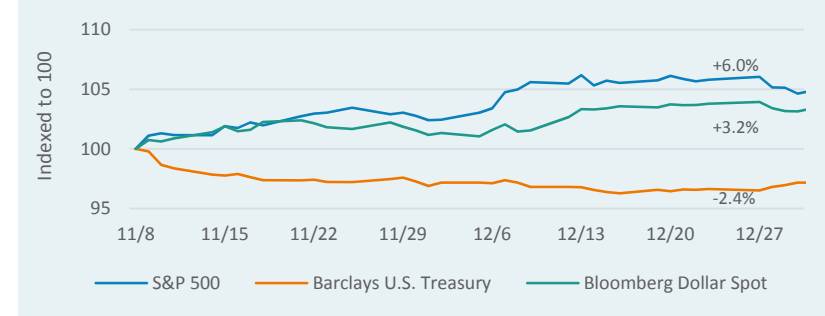
## “Inflation Expectations Hit Highest Level In More Than A Decade”

### 10-YEAR U.S. TIPS BREAK-EVEN RATE

Jul 29 <sup>th</sup>	Aug 31 <sup>st</sup>	Sep 30 <sup>th</sup>	Oct 31 <sup>st</sup>	Nov 30 <sup>th</sup>	Dec 30 <sup>th</sup>
1.49%	1.47%	1.60%	1.73%	1.94%	1.95%

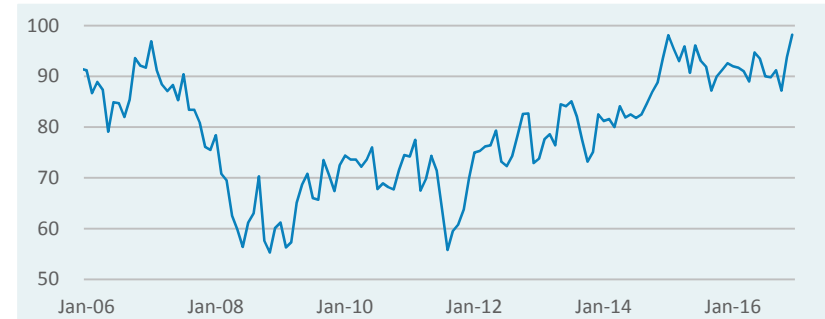
Source: Financial Times, November 16<sup>th</sup> 2016

### POST-ELECTION ASSET PRICE MOVEMENTS



Source: Bloomberg, 11/8/16-12/31/16

### U.S. CONSUMER SENTIMENT



Source: Bloomberg, as of 12/31/16

### WTI CRUDE OIL



Source: Bloomberg, as of 12/31/16



# Economic environment

# U.S. economics summary

— U.S. real GDP grew 1.7% YoY in Q3, up from 1.3% in Q2. Consumer spending continued to account for the majority of economic growth, and rising sentiment may act as a boon for future growth. Net exports helped boost production, as well as private investment.

— Inflation moved higher during the quarter as headline CPI rose to 1.7% YoY, as of November, while core CPI rose to 2.1%. Increases in energy prices have resulted in a convergence between headline and core inflation figures. If oil prices remain stable, this will act as a tailwind for headline inflation in the future.

— The Fed raised its target federal funds rate to 0.50%-0.75% and forecast three rate hikes in 2017 at its December meeting, citing

continued modest economic growth and a tightening labor market, in addition to firming consumer prices.

— The labor market added 165,000 jobs per month on average during the fourth quarter. This is slightly below the expansion average of 199,000, but still a solid pace of hiring given where we are at in the labor cycle. The unemployment rate fell 0.2% to 4.7% at the end of December.

— While the economy continued to steadily add jobs, wage growth has lagged behind. Real average hourly earnings only increased 0.7% YoY in November. Softer wage growth may be due in part to workers taking on part-time roles who could not find full time work.

	Most Recent	12 Months Prior
GDP ( <i>annual YoY</i> )	1.7% 9/30/16	2.2% 9/30/15
Inflation ( <i>CPI YoY, Headline</i> )	1.7% 11/30/16	0.4% 11/30/15
Expected Inflation ( <i>5yr-5yr forward</i> )	2.1% 12/31/16	1.8% 12/31/15
Fed Funds Rate	0.50% 12/31/16	0.25% 12/31/15
10 Year Rate	2.5% 12/31/16	2.3% 12/31/15
U-3 Unemployment	4.7% 12/31/16	5.0% 12/31/15
U-6 Unemployment	9.2% 12/31/16	9.9% 12/31/15

# U.S. economics – GDP growth

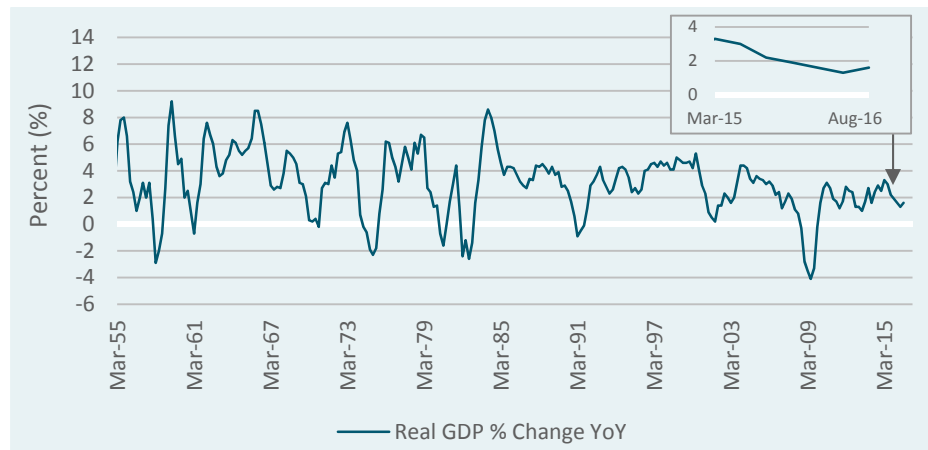
In the third quarter U.S. real GDP rose 1.7% YoY, and 3.5% (annualized) from the previous quarter. This marked the highest quarterly growth rate in two years.

Consumer spending continued to be the main driver of overall growth, contributing 2.0% to quarterly GDP growth. During this economic recovery, the American consumer has been aided by low interest rates that have decreased household debt burdens. The pace of interest rate increases will be an important factor in consumer spending moving forward.

Net exports and private domestic investment were the next two largest contributors to economic growth. Private domestic investment had been a drag on GDP over the past three quarters and was driven by a positive change in private inventories.

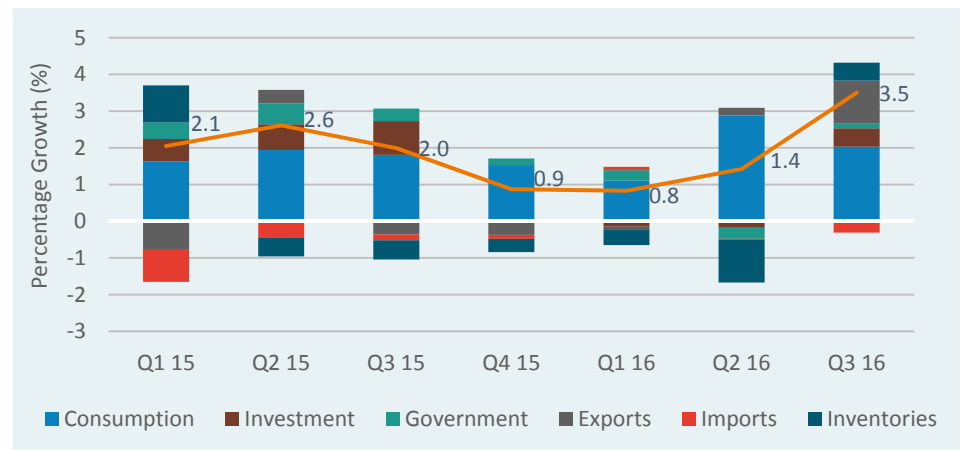
The Atlanta Fed GDP Now forecast as of January 10<sup>th</sup> for the fourth quarter stood at a 2.9% annualized rate, suggesting the economy is continuing to grow at a slow, but positive rate.

## U.S. REAL GDP GROWTH



Source: FRED, as of 9/30/16

## U.S. GDP COMPONENTS



Source: BEA, annualized quarterly rate, as of 9/30/16

# U.S. economics – Labor market

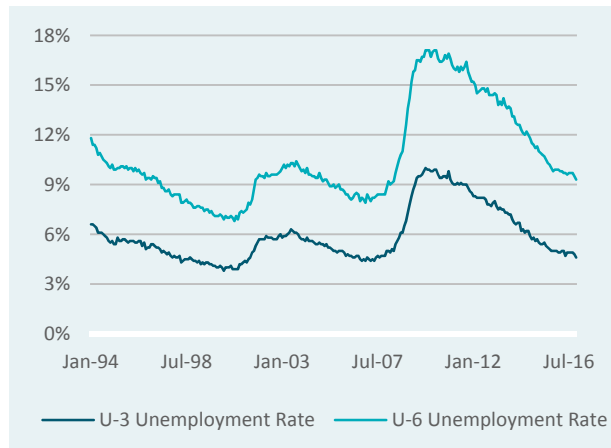
The U.S. labor market added 165,000 jobs on average in the third quarter, compared to an average of 199,000 during the current economic expansion. The unemployment rate fell to a recovery period low of 4.6% in November before rising to 4.7% in December. The participation rate continued its long-term downtrend to finish the quarter at 62.7%. Much of this effect can likely be explained by demographic changes.

While the overall labor market appears strong, some pockets of weakness may still exist. The broader U-6 unemployment rate that includes people who want a job but have stopped

looking and workers who are employed part-time but would like a full-time job currently sits at 9.2%, slightly above pre-recession levels. Another indicator of weakness is the lack of recovery in unemployment duration. It still takes job seekers 26 weeks to find a job after being unemployed, on average.

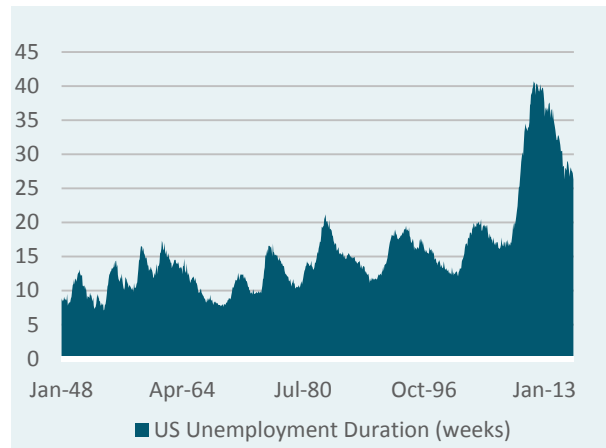
U.S. workers have yet to experience robust wage growth, which we would expect to see under current labor conditions. Real average hourly earnings only rose 0.7% in November.

## U.S. UNEMPLOYMENT



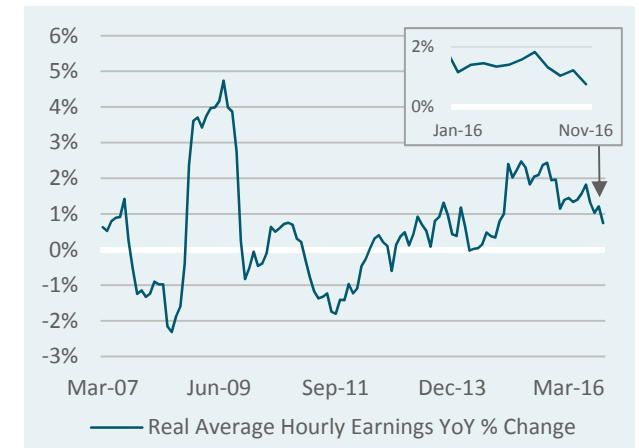
Source: FRED, as of 11/30/16

## UNEMPLOYMENT DURATION



Source: FRED, as of 11/30/16

## REAL AVERAGE HOURLY EARNINGS



Source: FRED, as of 11/30/16

# U.S. economics – The consumer

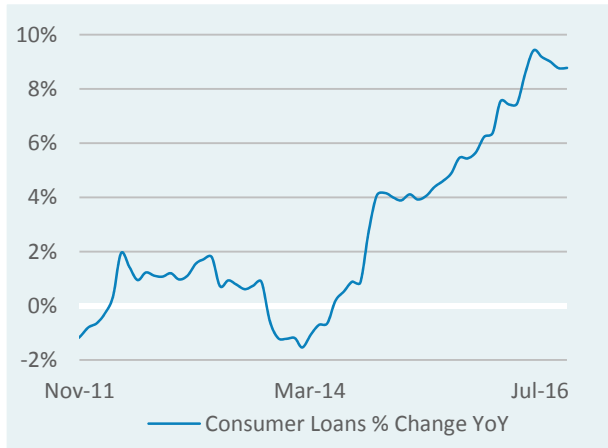
The U.S. consumer continued to buoy the overall economy as historically low interest rates have helped reduce debt burdens and provided a tailwind for consumer spending. While low interest rates have decreased consumer debt payments, they have not resulted in a credit boom. Tighter post-recession lending standards created a headwind to consumer loan growth.

Consumer spending grew 1.6% YoY in November, reiterating the trend of modest spending growth over the

past five years. Sales of durable goods, such as autos, however, have displayed relative strength.

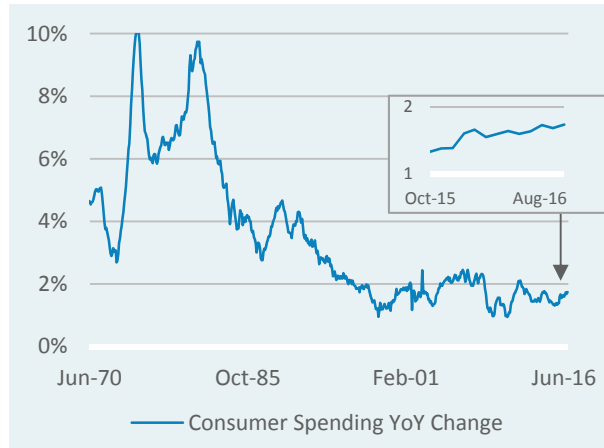
Consumer spending has been a relatively strong area of the economy despite only modest gains in wages and personal income. Higher wages could be an important factor for greater spending growth moving forward, especially if interest rates rise, resulting in greater household debt payments.

**CONSUMER LOAN GROWTH**



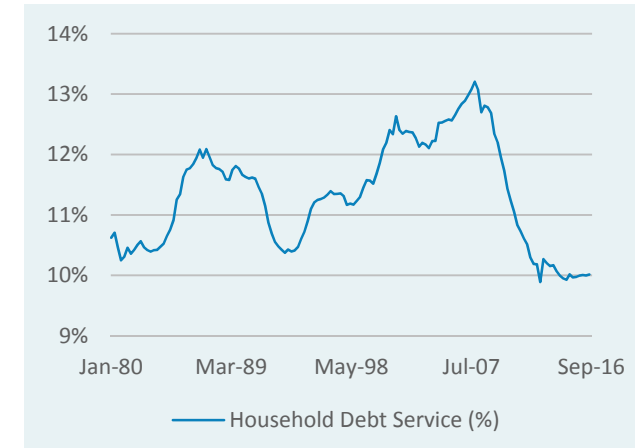
Source: FRED, as of 11/30/16

**CONSUMER SPENDING**



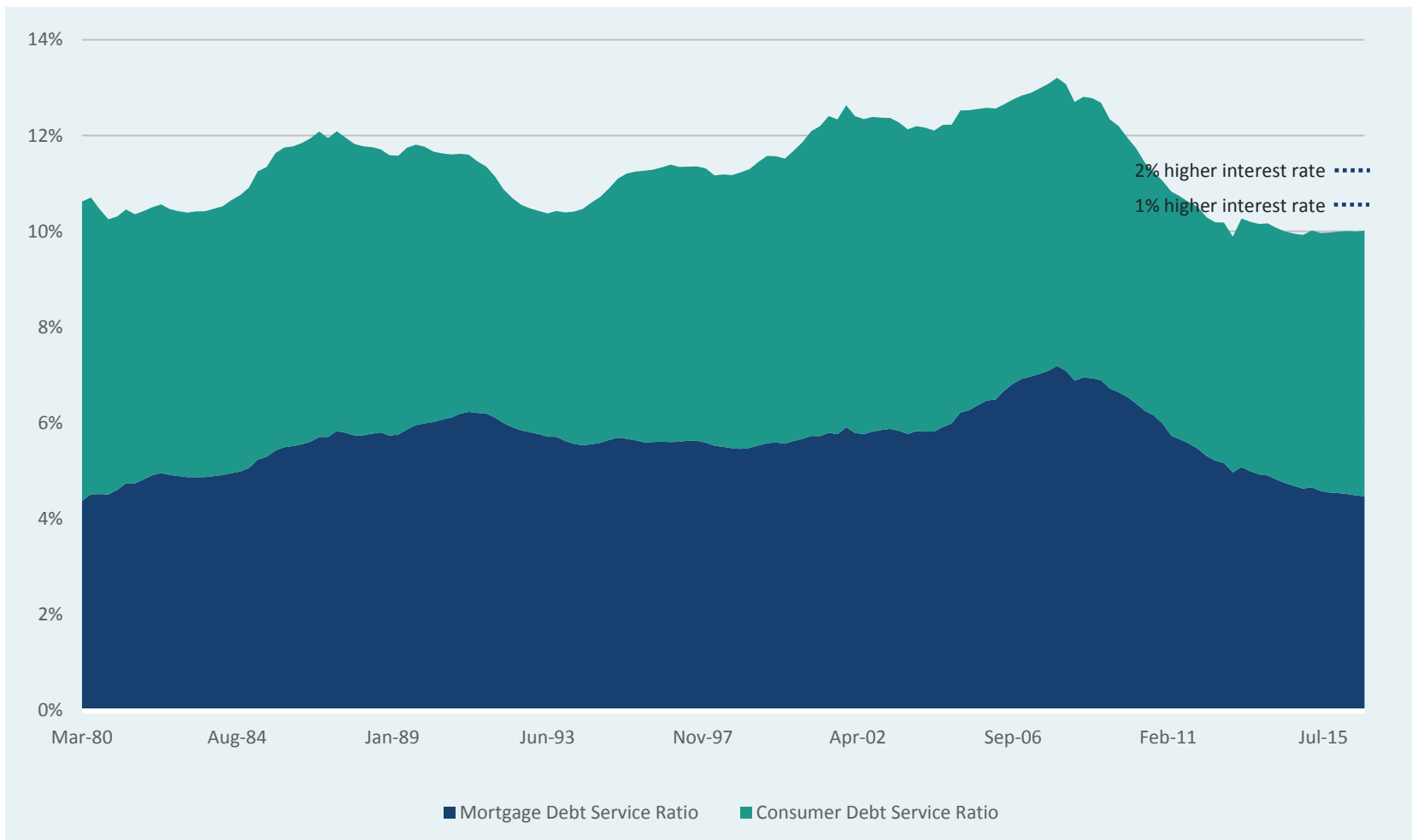
Source: Bloomberg, as of 10/31/16

**HOUSEHOLD DEBT SERVICE**



Source: FRED, as of 9/30/16

# A closer look at household debt burden



Low interest rates have helped decrease household debt burden

If interest rates continue to rise, concurrent gains in income will be important

Source: Federal Reserve Bank, as of 9/30/16. Household debt service payments are composed of mortgage payments and other consumer payments. This analysis assumes an equal weight of debt burden between mortgage and consumer debt. It is also assumed that interest rates on consumer debt move 1:1 with market rates and effective mortgage rates have only a 5% sensitivity to changes in market rates given the preference for fixed mortgages.

# U.S. economics – Sentiment

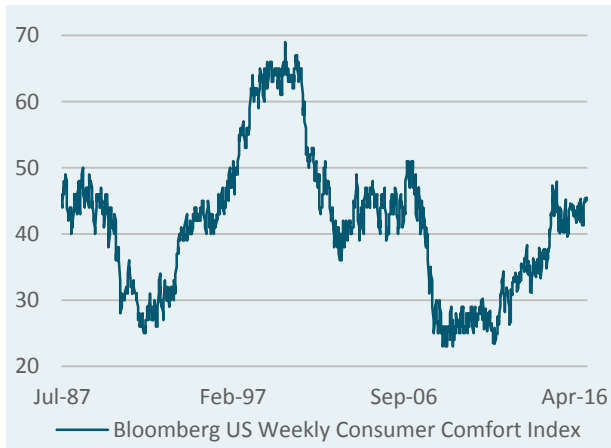
Consumer sentiment hit its highest level since January 2004 as the University of Michigan sentiment survey reached 98.2 in December. A record 18% of survey respondents spontaneously mentioned that they expected a favorable impact from Trump’s economic policies. Favorable expectations of policy changes was the main reason identified for the jump in sentiment.

The Bloomberg Consumer Comfort Index also moved higher during the period. The index rose 4.4 points to

46.0 for the week ending December 25<sup>th</sup>.

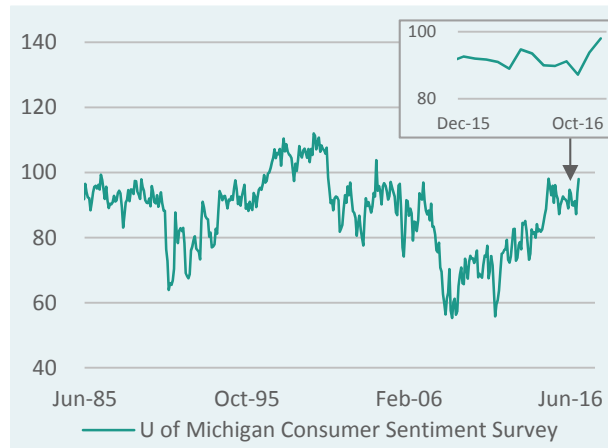
Higher consumer sentiment could have positive flow through effects on the economy if consumers base current spending decisions on expectations of future economic conditions. However, much of this positive sentiment is based on the uncertain economic policies of the new political administration and may only be temporary if these policies do not come to fruition.

**CONSUMER COMFORT INDEX**



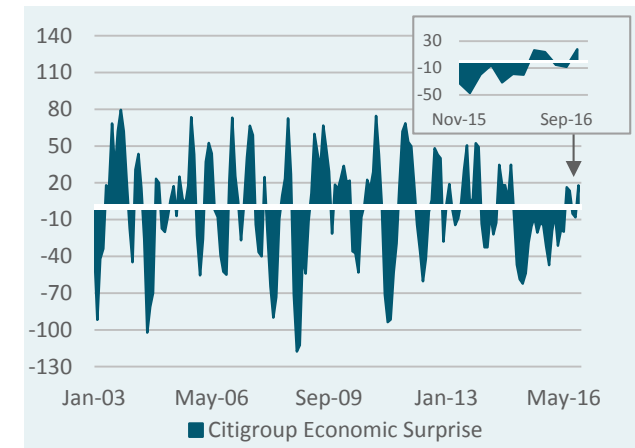
Source: Bloomberg, as of 12/4/16 (see Appendix)

**CONSUMER SENTIMENT**



Source: University of Michigan, as of 12/9/16 (see Appendix)

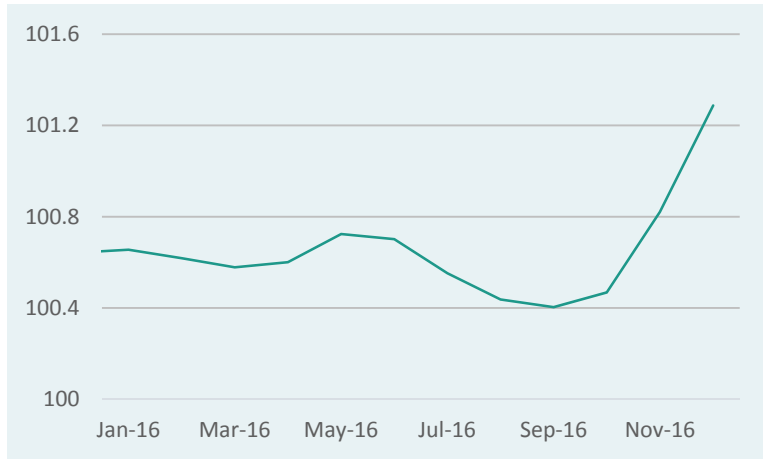
**ECONOMIC SURPRISE**



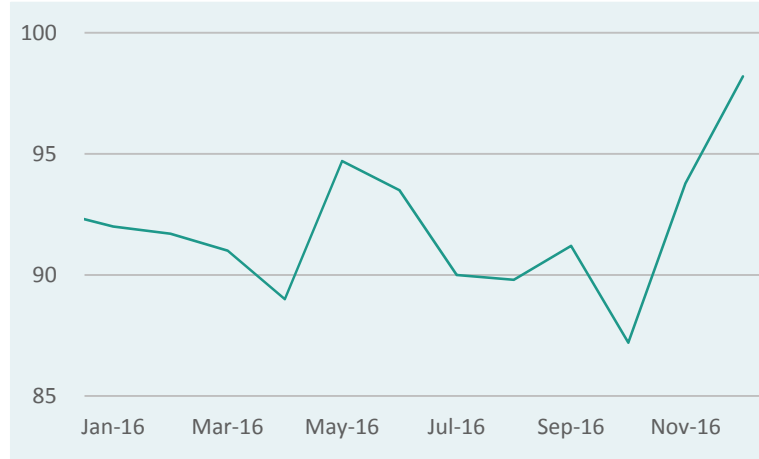
Source: Bloomberg, as of 11/30/16 (see Appendix)

# A broad rise in confidence

OECD U.S. CONSUMER CONFIDENCE

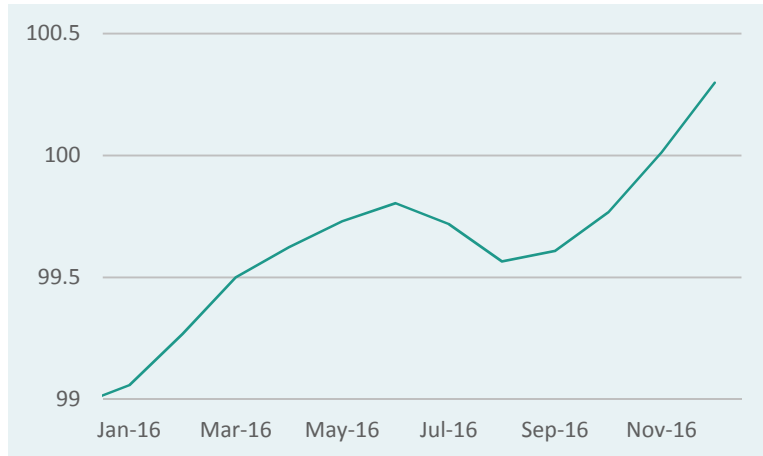


U OF MICHIGAN CONSUMER SENTIMENT

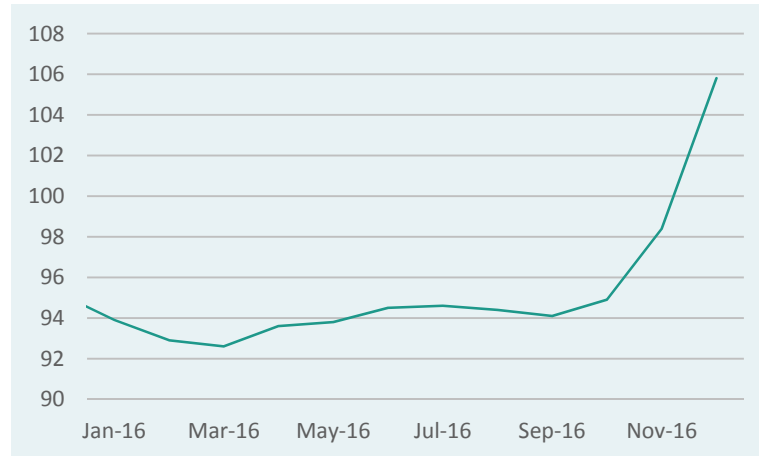


The U.S. has experienced a rise in confidence in nearly all areas of the economy

OECD U.S. BUSINESS CONFIDENCE



NFIB SMALL BUSINESS OUTLOOK



Sources: OECD, University of Michigan, NFIB, as of 12/31/16 See Appendix for details regarding the surveys shown above



# U.S. economics – Housing

U.S. mortgage rates moved sharply higher during the quarter. The 30-year fixed mortgage rate rose 90 bps to 4.3% to finish the year at its highest rate since April of 2014. If higher mortgage rates are sustained, it will put downward pressure on demand for single-family homes and in turn home prices. However, if mortgage rates rise in tandem with consumer exuberance and higher spending the net effects could in fact be positive.

There is still a large imbalance between supply and demand in the housing market. While the number of

single-family houses for sale has recently increased, the overall supply of houses is well below historical norms. At the end of October, there were only 239,000 homes on the market – very low by historical standards.

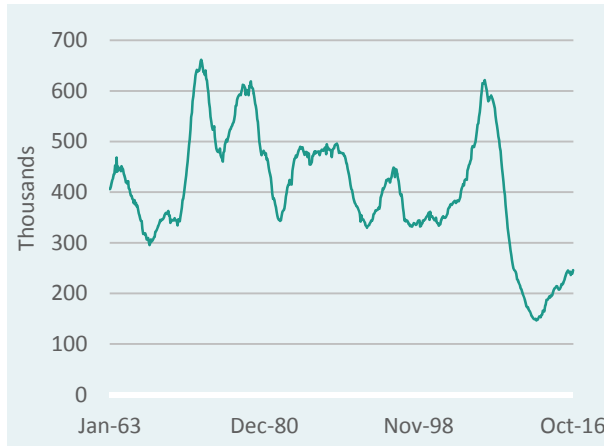
Low interest rates and a lack of supply have helped push median home prices well above pre-recession levels. Increasing interest rates and greater supply coming to market could provide a headwind for prices going forward.

**30-YEAR FIXED MORTGAGE RATE**



Source: FRED, as of 12/29/16

**SINGLE-FAMILY HOUSES FOR SALE**



Source: U.S. Census Bureau, as of 10/31/16, adj. for pop. growth

**MEDIAN HOUSE SALES PRICE**



Source: FRED, as of 9/30/16

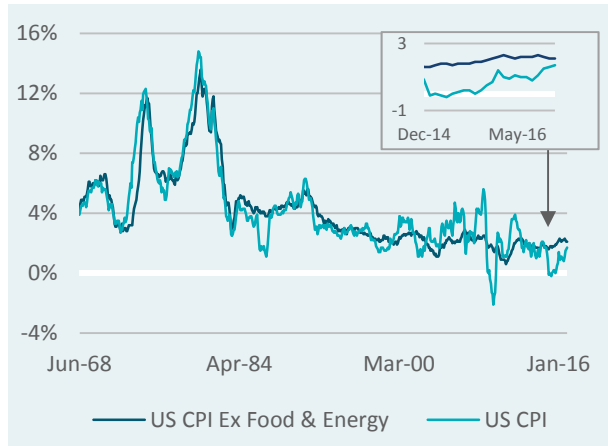
# U.S. economics – Inflation

Realized inflation and future inflation expectations both rose in recent months. Headline CPI was 1.7% YoY in November, up 0.2% from September, while core CPI fell 0.1% during the same time period to 2.1%. Higher rent and energy prices contributed to an increased headline CPI figure.

Market expectations for inflation rose after the U.S. presidential election on anticipation of increased fiscal stimulus from the new administration. The 10-year TIPS breakeven rate finished December at 1.95%, an increase of 35 bps during the quarter.

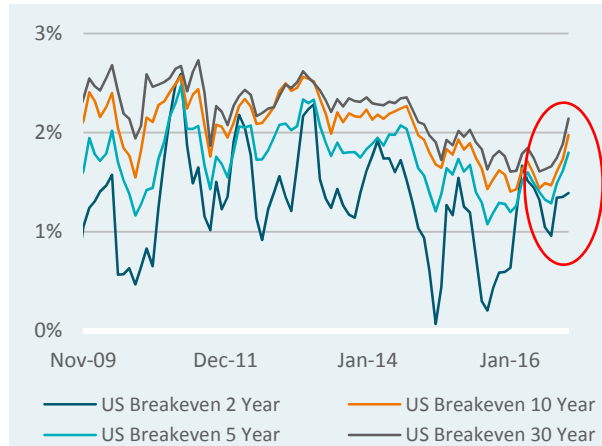
We believe the risk of inflation is skewed to the upside while the market is only discounting a small rise in prices over the next 10 years. Oil prices appear to have stabilized and may continue higher if global rebalancing occurs faster than anticipated. At the same time, the new political administration's proposed fiscal and trade policies suggest higher inflation. Investors may consider reexamining their inflation protecting portfolio and how their overall portfolio might behave in a rising inflation environment.

**U.S. CPI (YOY)**



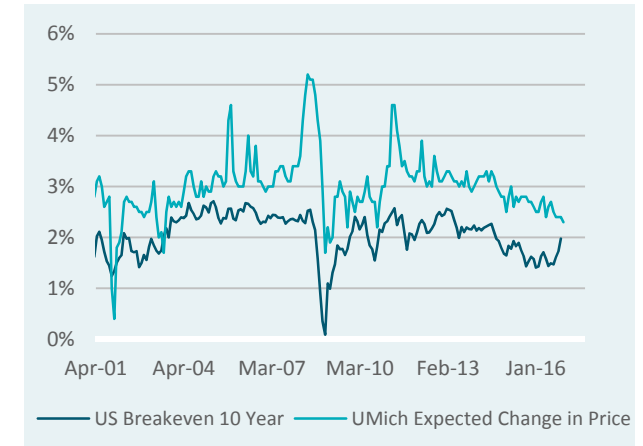
Source: FRED, as of 11/30/16

**U.S. TIPS BREAKEVEN RATES**



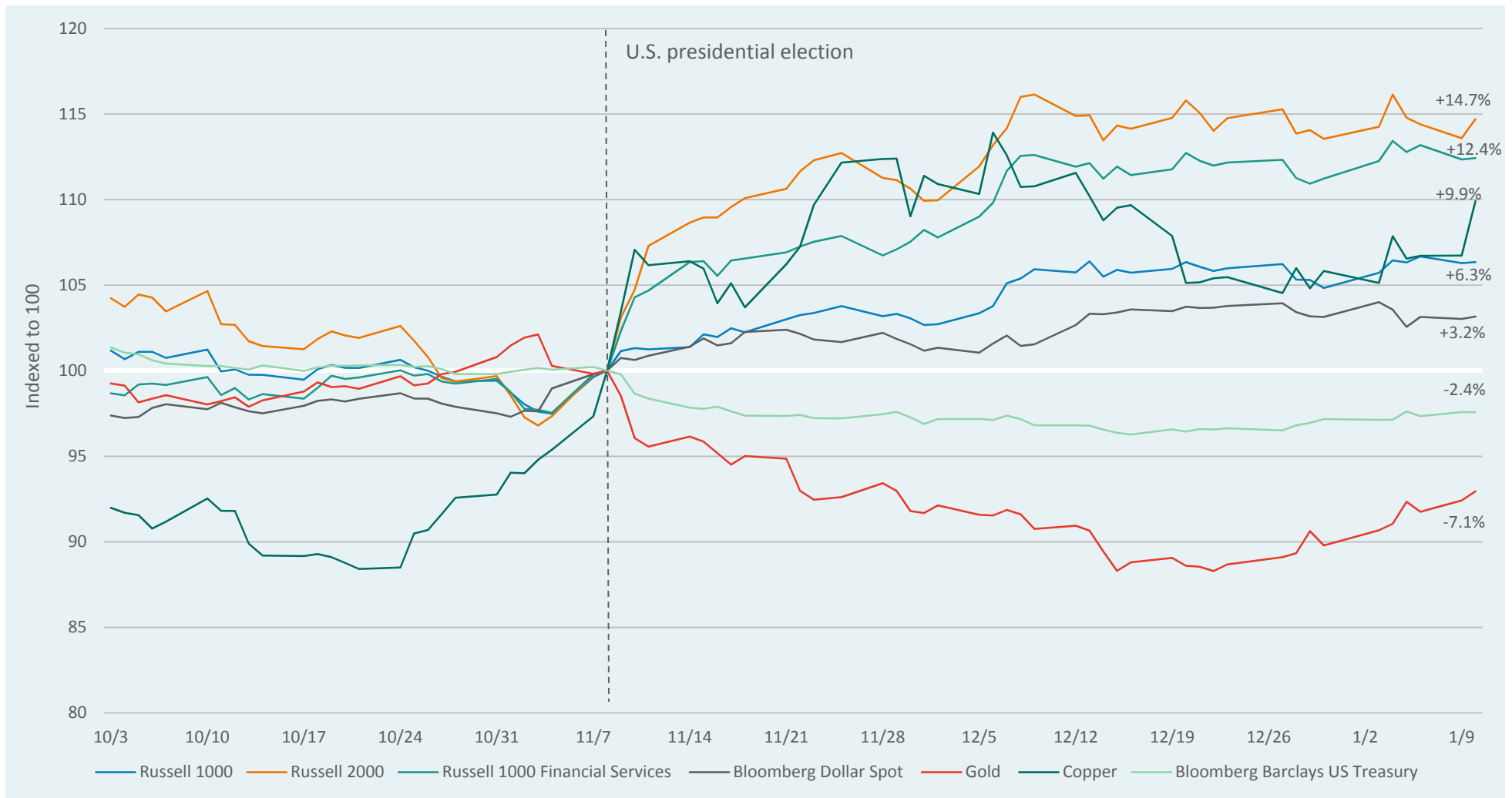
Source: FRED, as of 11/30/16

**INFLATION EXPECTATIONS**



Source: Bloomberg, as of 12/31/16

# Post-election price movements



Source: Bloomberg, 10/3/16-1/10/17

# Implications of the election

At first, financial markets reacted negatively to the news of Trump's victory as equity market futures fell sharply the night of the election. S&P 500 futures dropped 6% in a four hour span and then recovered before market open the next morning. Much like Brexit, this was another example where the market's initial response was incorrect and equity prices snapped back quickly.

Risk assets in the U.S. have moved higher while safe haven assets such as Treasuries have declined since the election results on the prospects of improved domestic economic growth.

While a Trump presidency has materially altered the confidence outlook for the U.S. economy, we believe that markets and consumers should avoid overreacting to policies that have yet to be determined in nature and scope.

Although much uncertainty surrounds Trump's actual policy changes, there has been an upswing in confidence in nearly every area of the U.S. economy. Higher confidence from consumers and businesses could have a self-enforcing effect on the economy. At the same time, expectations act as a double edged sword. Increased confidence in the Trump administration's economic policies could leave more room for disappointment.

S&P 500 FUTURES THE NIGHT OF THE ELECTION



Source: Bloomberg, 11/8/16-11/9/16

# Trump policies – Initial areas of focus

POLICY AREA	PROPOSED POLICY
Taxes	<ul style="list-style-type: none"> <li>— Trump has proposed tax cuts for both individuals and corporations that will cost \$4.5 trillion over the next 10 years according to the Center for a Responsible Fiscal Budget.</li> <li>— The CFRB has also estimated that more than half of the tax cuts for individuals will go to the richest 1% of Americans on a total dollar basis.</li> <li>— Corporate tax rates may be lowered to 15% from the current statutory rate of 35%, although the actual rate paid is estimated at only around 25%.</li> </ul>
Trade	<ul style="list-style-type: none"> <li>— The President has also promised to renegotiate trade deals, such as NAFTA, to better protect American businesses from foreign interests.</li> <li>— The details on how he will go about doing so remains unclear.</li> <li>— More protectionist policies could result in higher consumer prices as domestic businesses will face less competition.</li> </ul>
Deregulation	<ul style="list-style-type: none"> <li>— Perhaps the biggest unknown is how President Trump will work to lessen regulations on businesses.</li> <li>— This may also be the area that he can have the quickest impact through the use of executive orders.</li> <li>— Repealing parts of both the Affordable Care Act and the Dodd Frank Act are two of the more notable pieces of regulation Trump has said he will target.</li> </ul>
Infrastructure Spending	<ul style="list-style-type: none"> <li>— President Trump has proposed tax breaks on private infrastructure equity investment that he hopes will result in \$1 trillion of total spending on a levered basis.</li> <li>— While the private sector may be able to provide more efficiency, it may be difficult to incentivize them to complete projects that will benefit the public and overall economy.</li> </ul>

# International economics summary

- The central theme of slow, but positive growth in countries across the globe continued in the third quarter. The U.S., western Europe, and Japan all experienced year-over-year growth rates between 1-2%.
  - The tapering of ECB purchases is likely more a result of mechanical and political obstacles than due to a need for tightening. If the central bank is forced to tighten quicker than desired, it could have an adverse impact on the current economic recovery.
- Developed countries experienced a coordinated pick up in inflation in recent months, suggesting we may be moving into a reflationary environment. Headline CPI was up 1.1% in the Eurozone in December, its highest rate in more than three years.
  - Italy voted against a referendum on constitutional reform on December 4<sup>th</sup> that would have weakened the power of the Senate in an attempt to make the country easier to govern. The Italian Prime Minister, Matteo Renzi, resigned shortly thereafter. Although Renzi's Democratic party will remain in power, the country's anti-establishment Five Star party has recently gained popularity.
- The ECB announced it would continue its asset purchase program through the initially scheduled end date of March 2017, but at a reduced rate. The program will extend until at least the end of 2017, and monthly bond purchases will fall to €60 billion from €80 billion in April.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	1.7% <i>9/30/16</i>	1.7% <i>11/30/16</i>	4.7% <i>12/31/16</i>
Western Europe	1.8% <i>9/30/16</i>	0.9% <i>12/31/16</i>	8.4% <i>9/30/16</i>
Japan	1.1% <i>9/30/16</i>	0.5% <i>11/30/16</i>	3.1% <i>11/30/16</i>
BRIC Nations	5.1% <i>9/30/16</i>	3.4% <i>6/30/16</i>	5.5% <i>9/30/16</i>
Brazil	(2.9%) <i>9/30/16</i>	6.3% <i>12/31/16</i>	11.9% <i>12/31/16</i>
Russia	(0.4%) <i>9/30/16</i>	5.4% <i>12/31/16</i>	5.2% <i>9/30/16</i>
India	7.3% <i>9/30/16</i>	3.6% <i>11/30/16</i>	7.1% <i>12/31/15</i>
China	6.7% <i>9/30/16</i>	2.1% <i>12/31/16</i>	4.0% <i>12/30/16</i>

# International economics

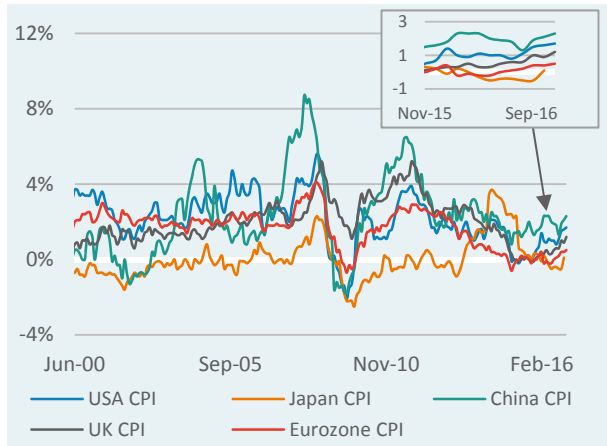
Outside of the U.S., developed market central banks have remained accommodative, which has helped inflation gradually increase and economic growth move forward slowly. Eurozone headline CPI was 1.1% YoY in December, its highest reading in more than three years. Unemployment rates have continued to trend downward, although the European rate is still elevated at 9.8%.

Both the Bank of Japan and European Central Bank have continued their negative rate policies and asset purchase programs, although the ECB announced a tapering of purchases that will begin in April.

Especially in Europe, there is a risk that the central bank may need to tighten more quickly than desired due to a lack of eligible bonds to purchase, and perhaps due to political opposition.

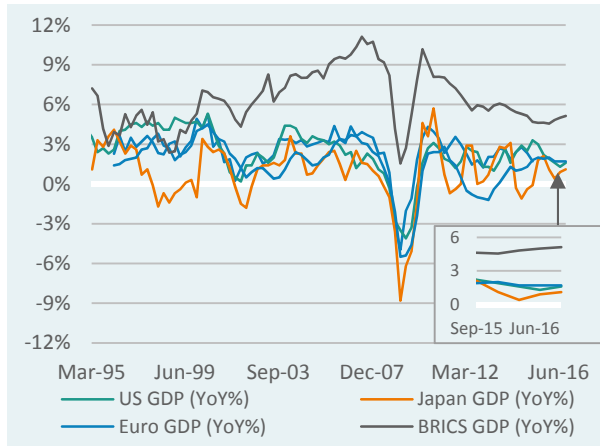
Emerging market economies grew at 5.1% in the third quarter based on the combined real GDP of the BRICs countries. Growth in these countries was driven by China and India, while Brazil and Russia remained in recession.

## INTERNATIONAL INFLATION



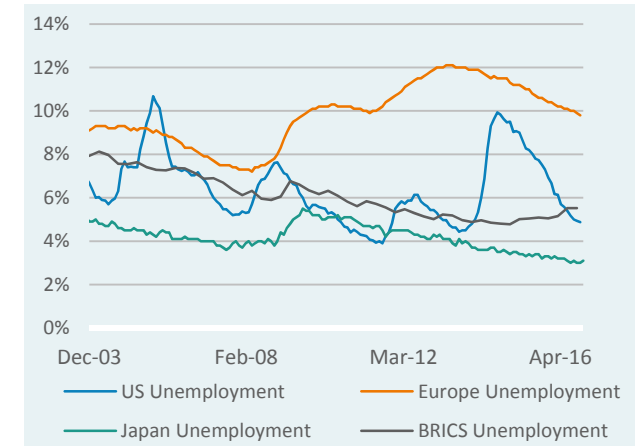
Source: Bloomberg, as of 11/30/16

## REAL GDP GROWTH



Source: Bloomberg, as of 9/30/16

## GLOBAL UNEMPLOYMENT



Source: Bloomberg, as of 11/30/16 or most recent release

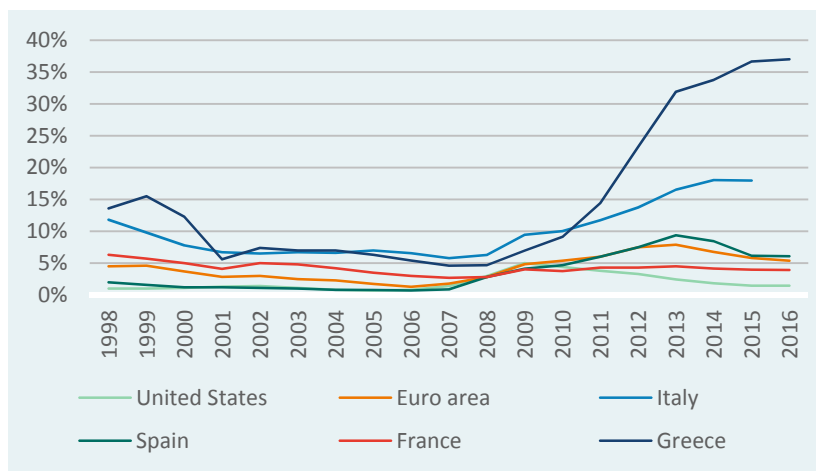
# European banking crisis

While the European economic recovery has continued at a modest pace, due in part to extremely accommodative monetary policy, a major systematic risk is still apparent in the financial system. In other areas, such as the United States, banks have worked through the pain of cleaning up their loan books after the financial crisis. Meanwhile, the loan quality in European banks, notably in Italy and Greece, has deteriorated.

Instead of writing off bad loans, many European banks have kept these loans as assets to avoid insolvency. Overall in the Euro Area, the percentage of non-performing loans (NPLs) to total gross loans was 5.4% as of year-end. This number has fallen only slightly since peaking at 7.9% in 2013. Comparatively, this figure in the U.S. was 1.5% at the end of December.

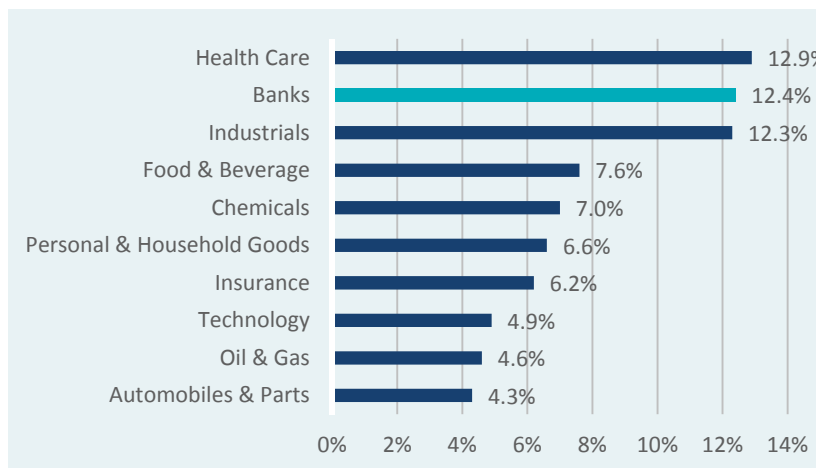
Risks stemming from the Italian financial system may be the most important to the overall health of Europe. As of the last data point, the ratio of NPLs to total gross loans was 18.0% at the end of 2015. In many circumstances, the banks have carried these loans at 50% of face value, when some analysts have suggested they would be more accurately valued at 20-30%. The adverse consequences from these NPLs cannot be avoided and only delayed. Given the risks and the large weight to financials, we believe exposure to European equities should be considered carefully.

**NON-PERFORMING LOANS TO TOTAL GROSS LOANS**



European equities should be considered carefully given the large exposure to banks

**EURO STOXX 600 EX U.K. SECTOR WEIGHTINGS (TOP 10)**



Top chart source: World Bank, as of 12/31/16. Data on Italy only available through 12/31/15. Bottom chart source: Stoxx, as of 11/30/16.



# Fixed income rates & credit

# Interest rate environment

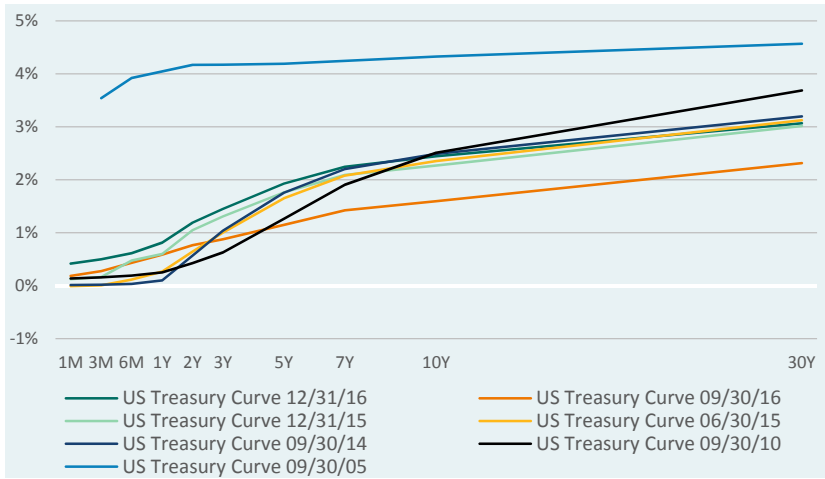
- The Federal Reserve raised interest rates at its December meeting, increasing the federal funds target rate by 0.25%, to a range of 0.50% to 0.75%. The Fed also increased its outlook for the number of 2017 rate hikes from two to three. Lower yields and economic growth outside of the U.S., along with an already strong dollar, reduce the probability of drastic rate rises.
- U.S. Treasury yields moved higher and the curve steepened on the prospects of higher inflation and economic growth. The spread between the 10 and 2-year yields was 1.25% at the end of December, its highest level in more than a year.
- Developed sovereign yields increased along with U.S. rates following the presidential election. The Japanese 10-year bond yield moved out of negative territory to 0.46% at the end of December, while the German 10-year bund yield hit an 11-month high of 0.37% before falling to finish the month at 0.20%.
- The U.S. is much further ahead in the monetary policy cycle than other developed countries, which has led to a widening yield differential between Treasuries and global sovereign bonds. While Treasuries remain expensive compared to history, the higher yield makes them relatively attractive.

Area	Short Term (3M)	10 Year
United States	0.50%	2.45%
Germany	(0.99%)	0.20%
France	(0.90%)	0.68%
Spain	(0.49%)	1.38%
Italy	(0.50%)	1.81%
Greece	1.37%	7.02%
U.K.	0.51%	1.24%
Japan	(0.42%)	0.04%
Australia	1.70%	2.77%
China	2.35%	3.06%
Brazil	12.91%	10.55%
Russia	8.78%	8.29%

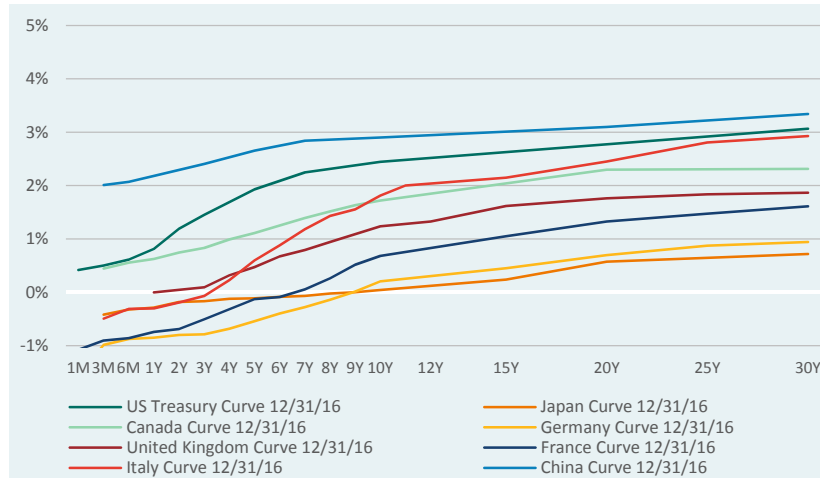
Source: Bloomberg, as of 12/31/16

# Yield environment

**U.S. YIELD CURVE**

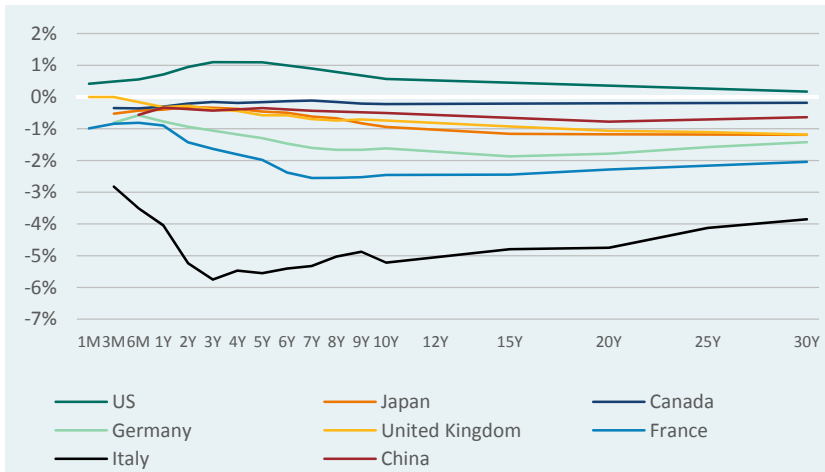


**GLOBAL GOVERNMENT YIELD CURVES**

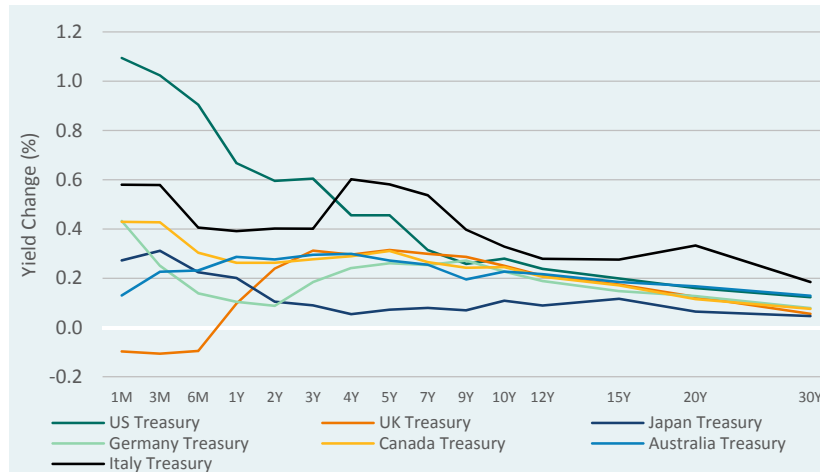


Global investors continue to prefer U.S. Treasuries due to higher relative yields

**YIELD CURVE CHANGES OVER LAST FIVE YEARS**



**IMPLIED CHANGES OVER NEXT YEAR**



Source: Bloomberg, as of 12/31/16

# Credit environment

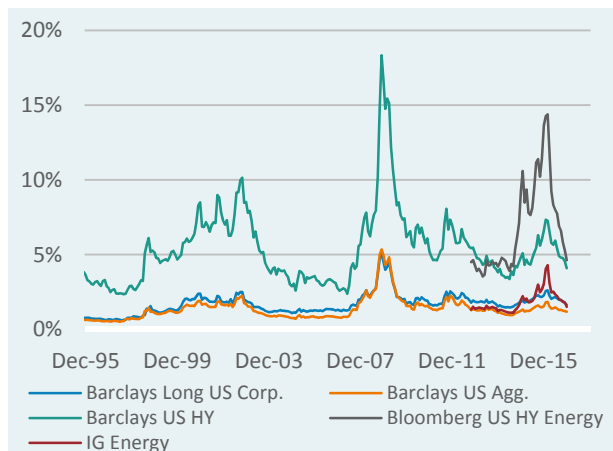
High yield returns across all sectors - energy and metals and mining in particular - have been strong since the trough in Q1. As evidence of this performance, high yield spreads have compressed to below 4.3% as of December from a high of 8.0% earlier in the year.

U.S. credit markets showed surprising strength following a brief period of increased volatility in Q1. While below the long-term trend, U.S. GDP growth has begun to show signs of improvement which has provided a tailwind to credit markets in general. Overall foreign demand for U.S. credit issuance has

remained positive as low developed market yields have been supportive of the “carry trade”, where investors buy relatively higher yielding assets.

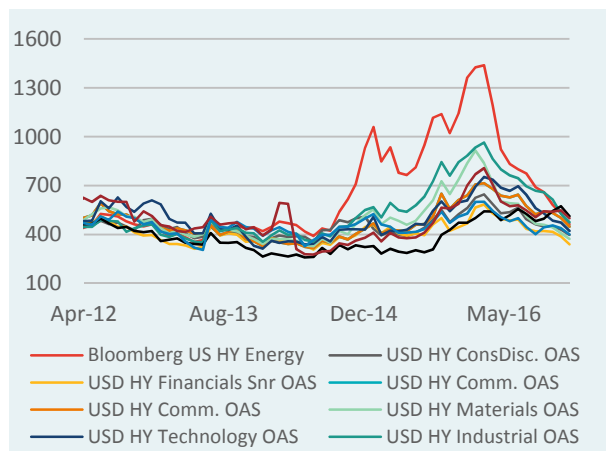
The Federal Reserve Bank moved to increase rates by 0.25% in December and hinted at higher rates in 2017. Continued growth in the job market and increasing inflation were key considerations for the increase. While rising rates may increase borrowing costs and put downward pressure on bond prices, the U.S. credit market remains attractive compared to other developed markets.

## CREDIT SPREADS



Source: Barclays Capital Indices, Bloomberg, as of 12/31/16

## HIGH YIELD SECTOR SPREADS



Source: Bloomberg, as of 12/31/16

## SPREADS

Market	Credit Spread (12/31/16)	Credit Spread (1 Year Ago)
Long US Corporate	1.5%	2.1%
US Aggregate	0.9%	1.1%
US High Yield	4.4%	7.1%
US High Yield Energy	4.6%	13.6%
US Bank Loans	3.9%	3.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/16

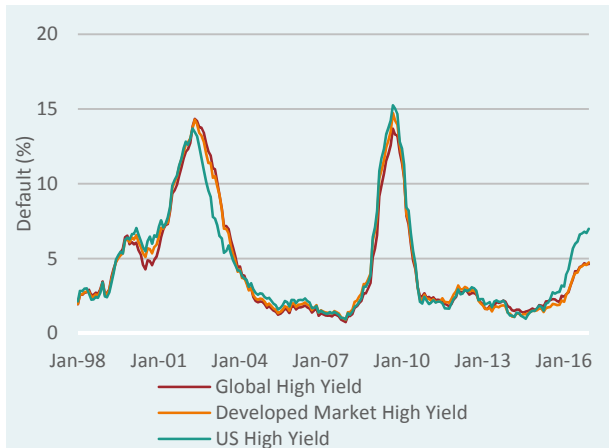
# Issuance and default

Defaults have been trending higher from their lows in 2014 due mostly to lower commodity prices. While the current level of default have risen above the trailing 20-year average, it remains below the peak in 2002 and 2009, respectively.

Corporate issuance in emerging markets has remained strong due mainly to perceived relative value compared to developed market corporates. Rising U.S. rates will most likely result in increased borrowing costs.

Issuance in both high yield bonds and bank loans has been trending lower. Some of the fall in issuance volume can be attributed to the recent sell off in the energy sector. Additionally, rising U.S. interest rates have resulted in increased borrowing costs which has acted as a headwind.

**HY DEFAULT TRENDS (ROLLING 1 YEAR)**



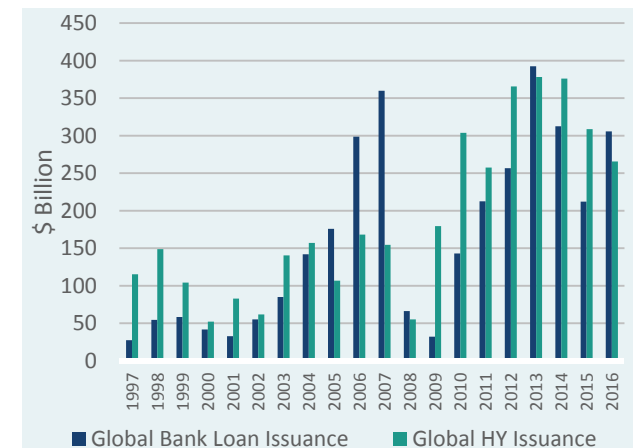
Source: Credit Suisse, BofA, as of 12/31/16

**EM DEBT ISSUANCE**



Source: JP Morgan, as of 11/30/16

**GLOBAL ISSUANCE**



Source: Bloomberg, BofA Merrill Lynch, as of 12/31/16

# Equity

# Equity environment

- We believe the U.S. election results have had a material impact on possible future equity return outcomes. There is likely greater upside potential for U.S. equities, though some of this has already been priced in with higher prices post-election.
- Both consumer and private sector sentiment have risen robustly. This positive shift may provide a tailwind to U.S. economic growth through spending and investment.
- Fourth quarter earnings for the S&P 500 are estimated to grow 3.2% year-over-year, according to FactSet. If this positive growth comes to fruition it will mark the second quarter of positive growth and may mean the recent earnings slump is now behind us.
- Value equities outperformed growth equities in the fourth quarter. The Russell 1000 Value index and Russell 1000 Growth index returned 6.7% and 1.0%, respectively. Energy and financial service companies have contributed to the performance rebound.
- The U.S. dollar rose 6.4% in Q4 on a trade-weighted basis which directly detracts from investment returns of U.S. investors with unhedged currency exposure.
- Japanese equities (Nikkei 225) delivered a 16.1% return on a hedged basis, but 1.2% on an unhedged basis – a 15% swing caused by currency movement.

	QTD TOTAL RETURN		YTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (Russell 1000)	3.8%		12.1%		12.1%	
US Small Cap (Russell 2000)	8.8%		21.3%		21.3%	
US Large Value (Russell 1000 Value)	6.7%		17.3%		17.3%	
US Large Growth (Russell 1000 Growth)	1.0%		7.1%		7.1%	
International Large (MSCI EAFE)	(-0.7%)	7.3%	1.5%	6.2%	1.5%	6.2%
Eurozone (Euro Stoxx 50)	3.2%	10.3%	0.7%	5.1%	0.7%	5.1%
U.K. (FTSE 100)	(0.8%)	4.4%	(0.2%)	19.0%	(0.2%)	19.0%
Japan (NIKKEI 225)	1.2%	16.1%	5.8%	1.3%	5.8%	1.3%
Emerging Markets (MSCI Emerging Markets)	(4.1%)	(2.0%)	11.6%	7.5%	11.6%	7.5%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 12/31/16

# Domestic equity

U.S. equity markets fell sharply in futures markets on the night of the election, but then recovered before market open the next morning. After this initial stumble, equities rallied higher to finish the quarter.

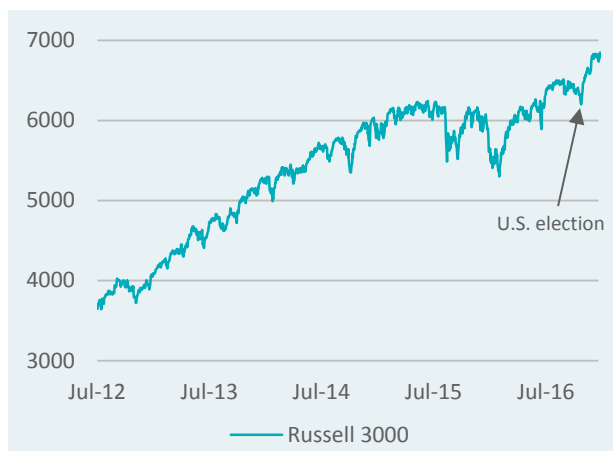
Post-election equity movement was likely driven by an improved economic outlook as well as several proposed policy changes that would benefit corporations, including lower tax rates and deregulation.

The financials sector was responsible for much of the gain in equity prices, likely due to the prospects of higher rates and a steeper curve. The S&P 500 Financials sector was up 16.5% after the election, compared to a 2.8% gain across the rest of the index.

As of December 30<sup>th</sup>, estimated earnings growth for the fourth quarter was 3.2% from the previous year, according to FactSet. Looking ahead, bottom-up analyst EPS forecasts point toward improving corporate earnings growth.

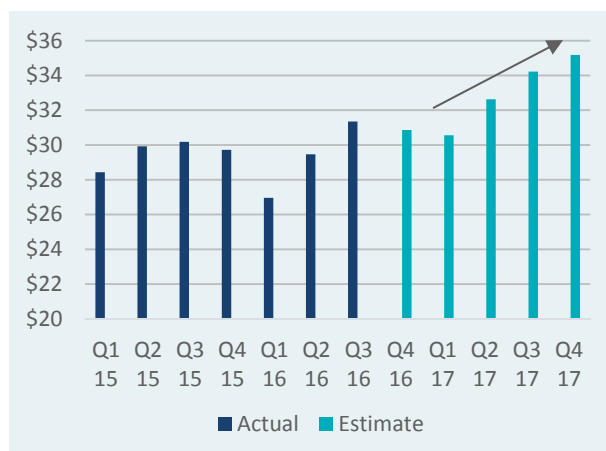
Proposed tax reform and deregulation have helped improve the U.S. earnings outlook

## U.S. EQUITIES



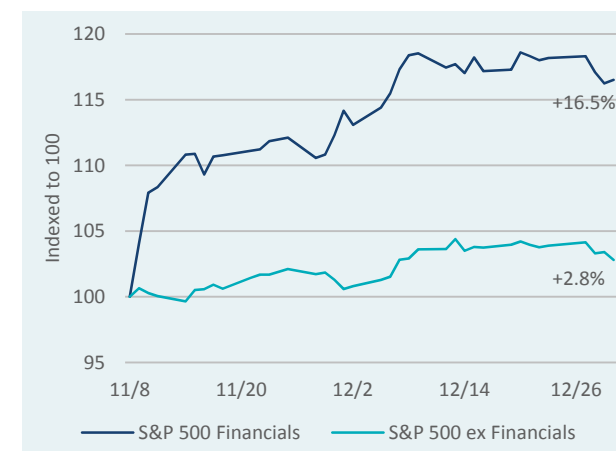
Source: Russell Investments, as of 12/30/16

## S&P 500 EPS



Source: FactSet, as of 12/30/16

## S&P 500 FINANCIALS



Source: Bloomberg, as of 12/30/16

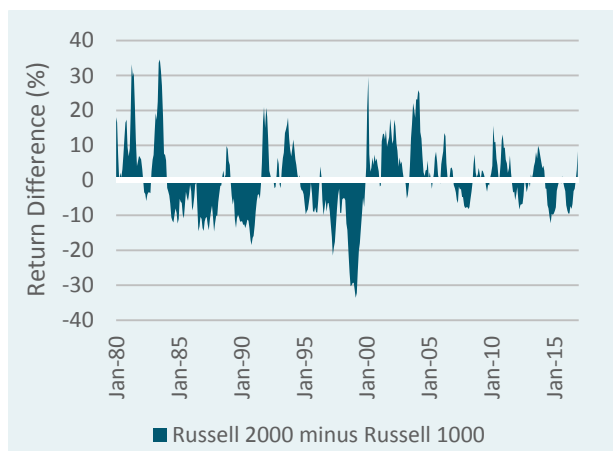


# Domestic equity size and style

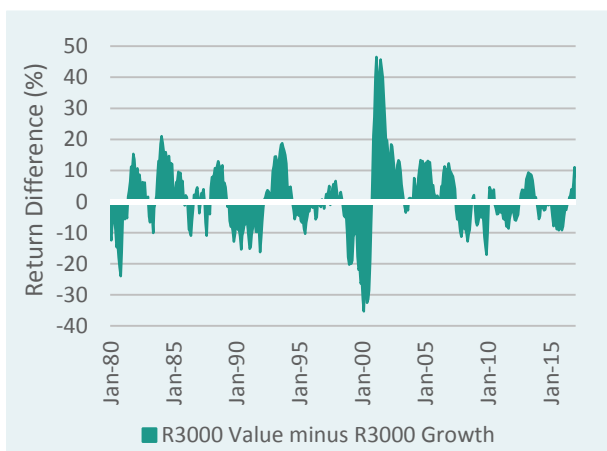
Small cap equities outperformed large cap equities in the fourth quarter as the Russell 2000 Index and Russell 1000 Index returned 8.8% and 3.8%, respectively. Much of this outperformance came after the U.S. presidential election as smaller companies could receive greater marginal benefit from deregulation proposed by Donald Trump. Renewed U.S. dollar strength also benefits smaller companies relative to larger companies due to greater insulation from foreign currency movements.

Value equities outperformed growth equities during the quarter. The Russell 1000 Value Index and Russell 1000 Growth Index returned 6.7% and 1.0%, respectively. This relative outperformance was driven by the Financials and Energy sectors, which are the two largest sectors in the value index. The magnitude of this recent value bounce back has brought the value premium back into positive territory for most trailing windows.

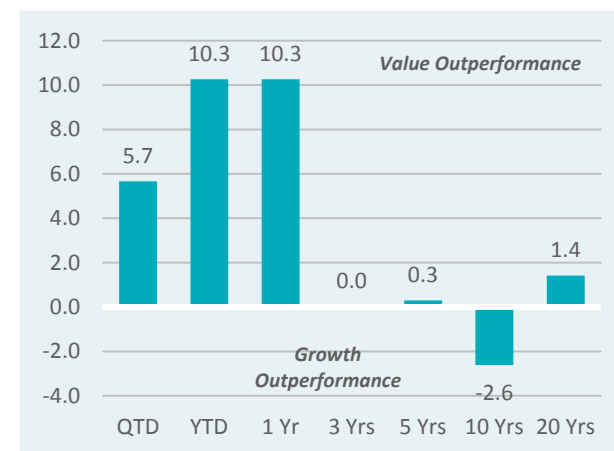
**SMALL CAP VS LARGE CAP (YOY)**



**VALUE VS GROWTH (YOY)**



**U.S. VALUE VS. GROWTH RELATIVE PERFORMANCE**



Source: Russell Investments, as of 12/31/16

Source: Russell Investments, as of 12/31/16

Source: Morningstar, as of 12/31/16

# International equity

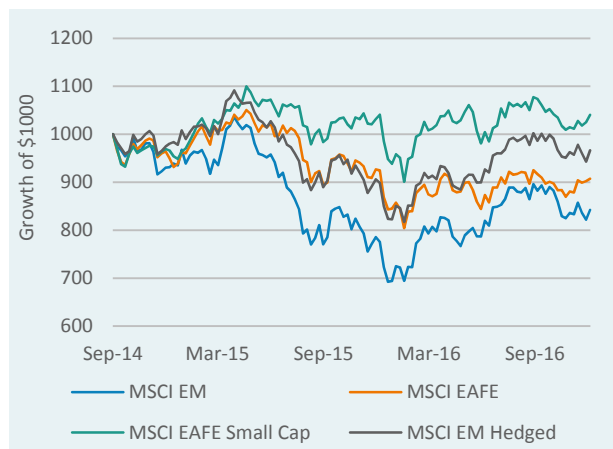
International equity markets narrowly outperformed domestic equities in December (S&P 500 2.0%) as the MSCI ACWI ex U.S. returned 2.2%.

European equity markets remained calm on the back of the announcement that the ECB would continue its asset purchase program through the initially scheduled end date of March 2017, but at a reduced rate. Adjustments to program constraints will be likely, given the mandated rule that the ECB cannot purchase more than 33% of any one country's national debt.

International developed equities delivered a 7.3% total return on a hedged basis over the quarter, but delivered -0.7% on an unhedged basis. Unhedged currency exposure continues to cause higher volatility for investors who choose not to hedge.

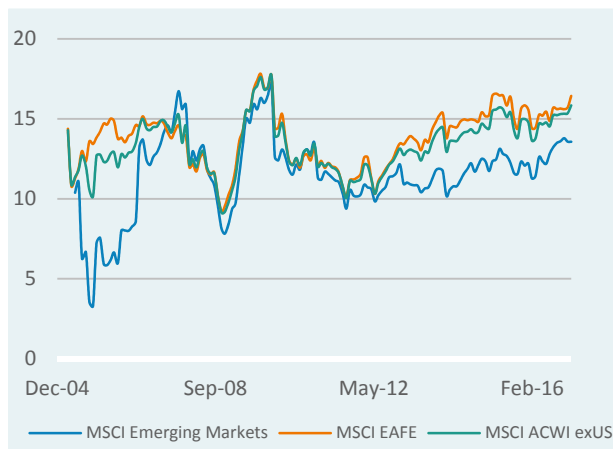
Japanese equities delivered a 16.1% return on a hedged basis, but 1.2% on an unhedged basis – a 15% swing caused by currency movement. Expectations of continued loose monetary policy and low interest rates in Japan contributed to yen weakness.

## GLOBAL EQUITY PERFORMANCE



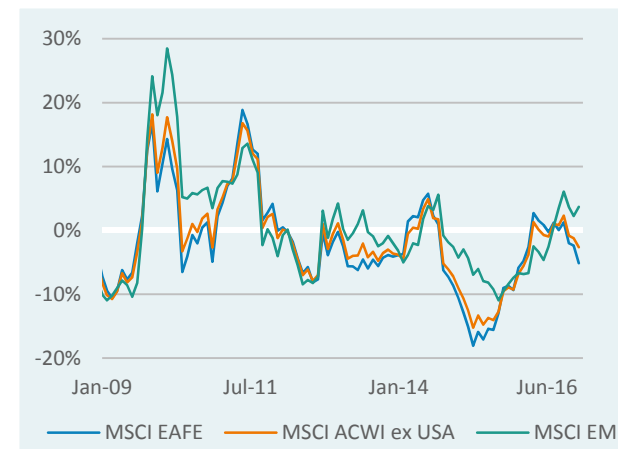
Source: Bloomberg, as of 12/31/16

## INTERNATIONAL FORWARD P/E RATIOS



Source: Bloomberg, as of 12/31/16

## EFFECT OF CURRENCY (1 YEAR ROLLING)



Source: MSCI, as of 12/31/16

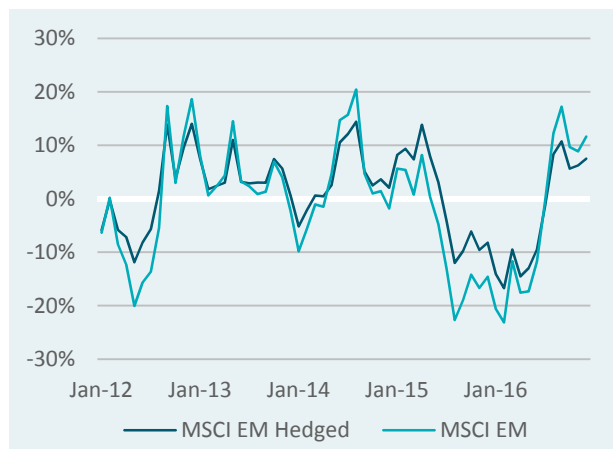
# Emerging market equity

Emerging market economic growth has shown recovery as Russia and Brazil begin moving out of severe depressions and as commodity prices improve. Economic growth of the “BRIC” nations continues at a pace materially higher than that of developed nations, consistent with recent decades.

Some renewed investor optimism can be seen as equity valuations move higher. Emerging market equities

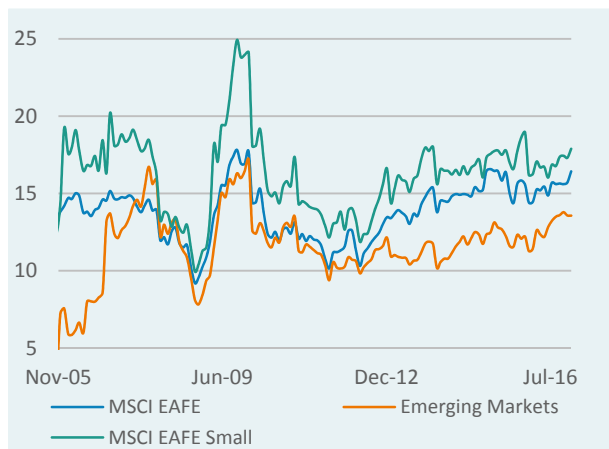
provided a muted quarter with a -2.0% return on a hedged basis, but delivered a positive 7.5% return for the year (MSCI Emerging Markets). Much of the recent performance stability can be attributed to a reversal or flattening of emerging market currency depreciation trends occurring since 2012. Earnings across the broader emerging markets have also reversed their downward trend, though not as quickly as the pace of price improvement as demonstrated in higher equity valuations.

**12-MONTH ROLLING PERFORMANCE**



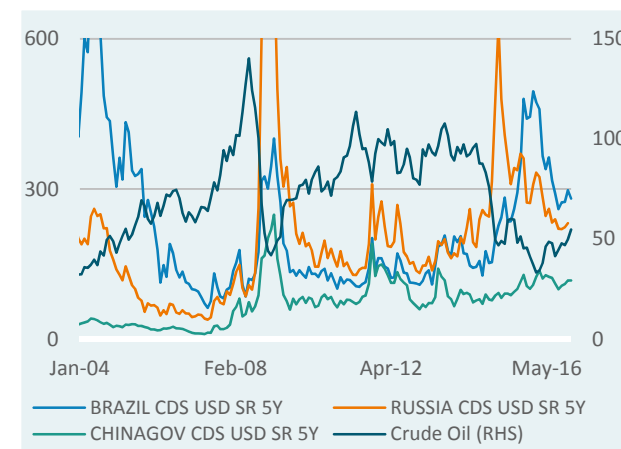
Source: MPI, as of 12/31/16

**FORWARD P/E RATIOS**



Source: Bloomberg, as of 12/31/16

**CDS SPREADS**



Source: MSCI, as of 12/31/16

# Equity valuations

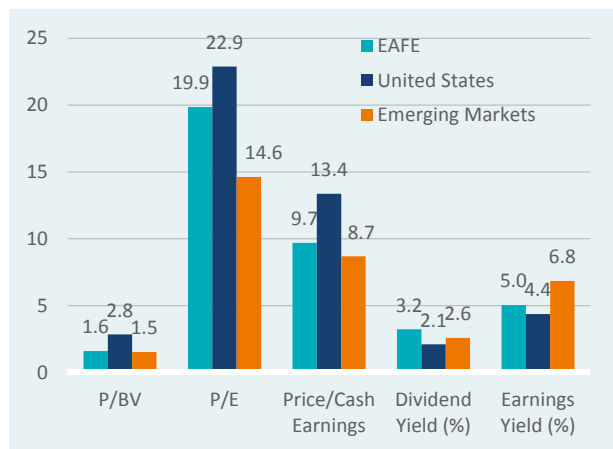
The forward P/E ratio for the S&P 500 was 18.8 at year-end and remains above the long-term average of 16.9 since 1995. The current P/E of 18.8 places it in the 79<sup>th</sup> percentile.

While elevated, valuations for U.S. large cap equities remain within one standard deviation of the average. The expected pick up in corporate earnings would help bring P/E ratios more in line with long-term averages, all else equal.

Low real interest rate and inflation environments have historically supported higher equity valuations, meaning current valuations may not be unusual given the conditions.

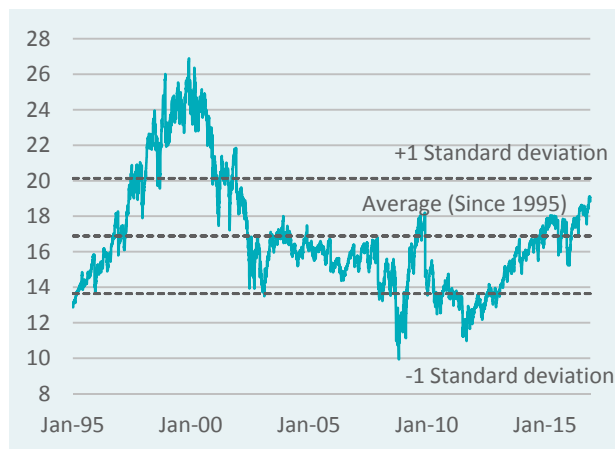
International developed valuations expanded during the quarter, especially in Europe, but are still relatively cheap compared to the U.S. Emerging market P/E ratios expanded off historic lows and emerging market equities remain relatively attractive from a valuation standpoint.

## MSCI VALUATION METRICS (3 MONTH AVERAGE)



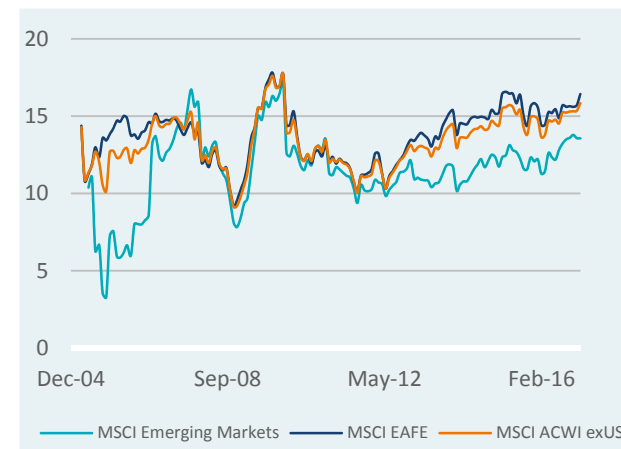
Source: MSCI, as of 12/31/16

## S&P 500 FORWARD P/E



Source: Bloomberg, as of 12/31/16

## INTERNATIONAL FORWARD P/E RATIOS



Source: Bloomberg, as of 12/31/16

# Equity volatility

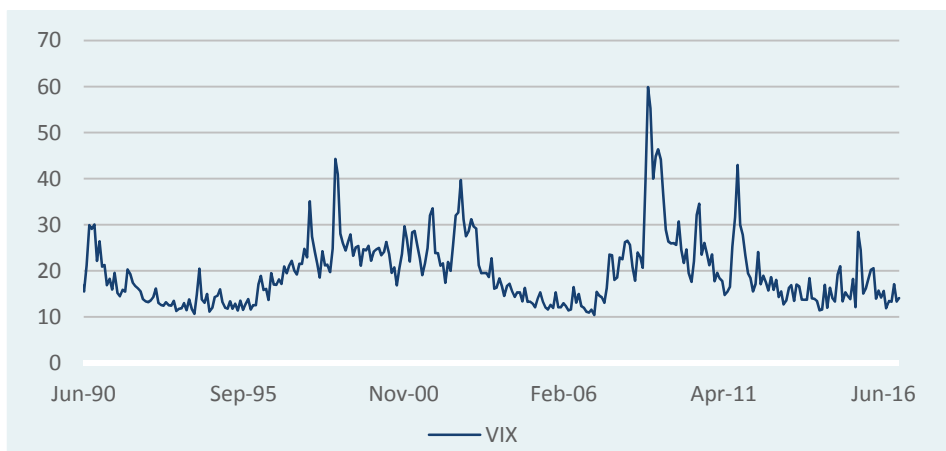
Equity volatility has remained subdued, despite the arguably surprising U.S. election results and uncertain future policy environment. However, uncertainty surrounding a set of policies with highly unclear ramifications for the markets is different from uncertainty in the traditional sense.

Low implied volatility, as shown by the VIX index, is consistent with the renewed bull market in U.S.

equities. Realized risk has also been low across international developed equity markets (MSCI EAFE).

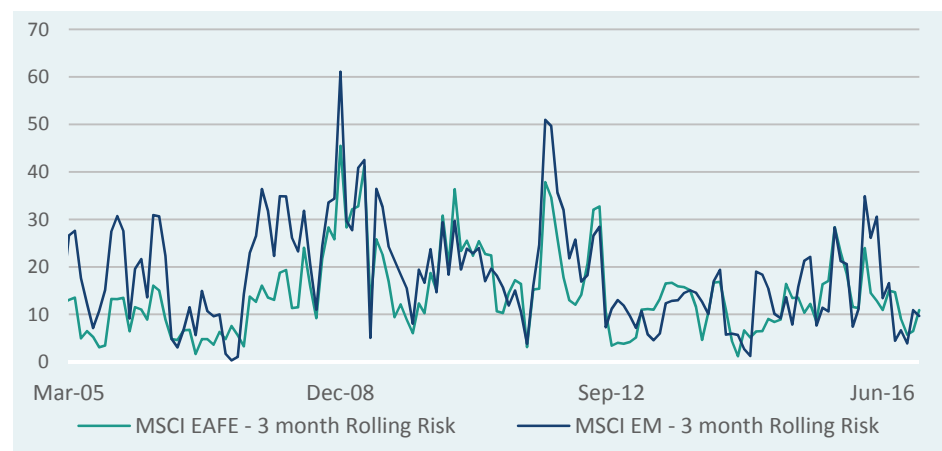
Unhedged currency exposure has resulted in materially higher volatility and often significant variation in equity portfolio performance.

U.S. IMPLIED EQUITY VOLATILITY



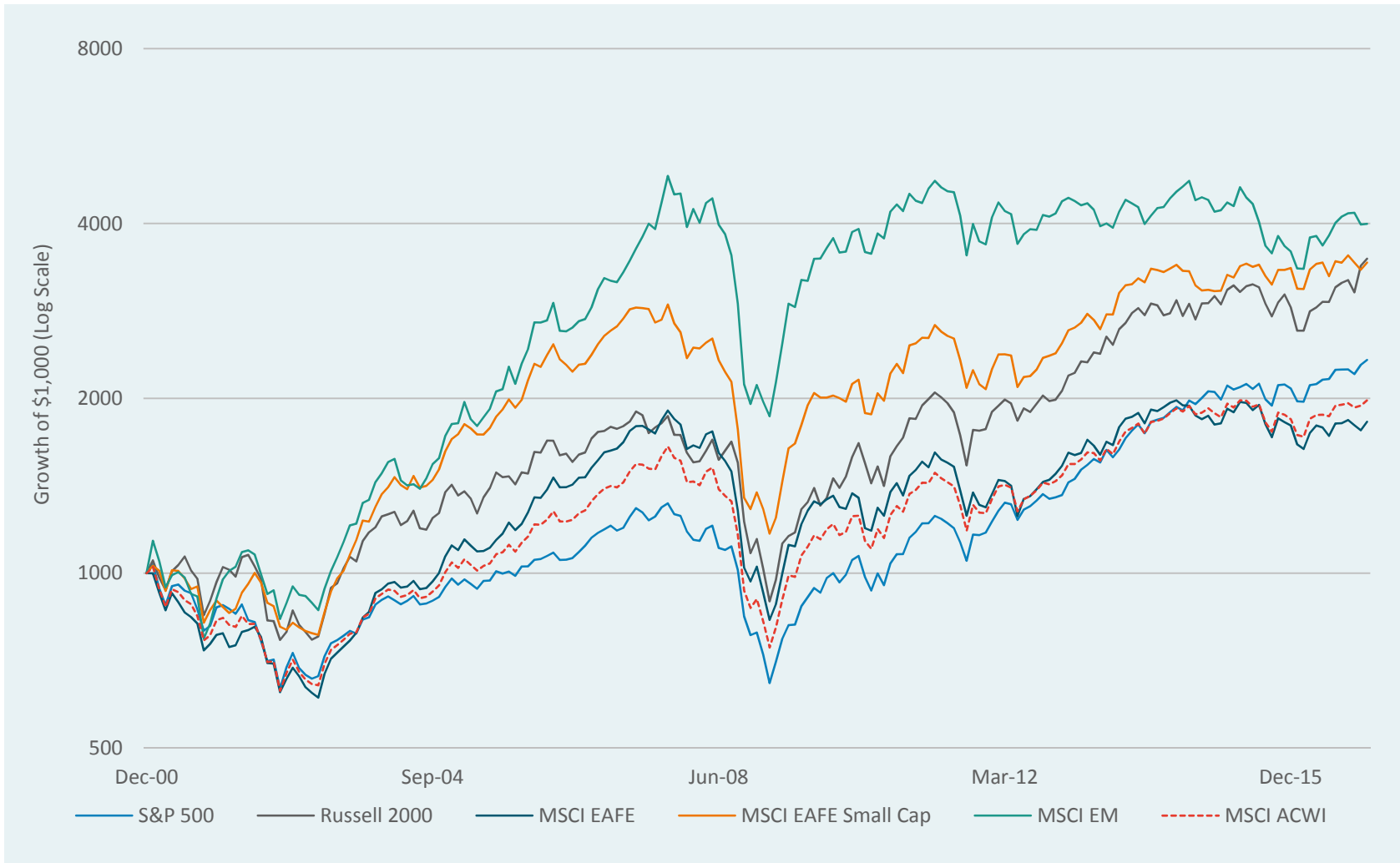
Source: CBOE, as of 12/30/16

INTERNATIONAL EQUITY VOLATILITY



Source: MSCI, as of 12/31/16

# Long-term equity performance



Source: MPI, as of 12/31/16

# Other assets

# Real estate & REITs

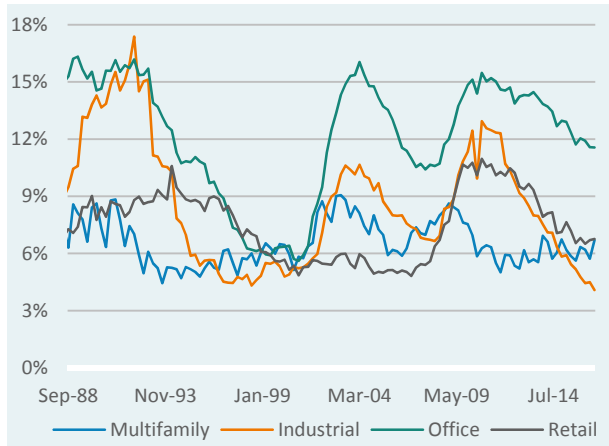
After six consecutive years of double digit returns in core real estate, 2016 is on pace to come in around 8-9% - still a very good return, but slightly down from the pace of recent history.

Fundamentals remain strong with generally declining vacancy rates. The exception is multifamily, where vacancies have come up slightly off historic lows. NOI growth rates are positive and strong for all property types, near or above 5% for all over the last year.

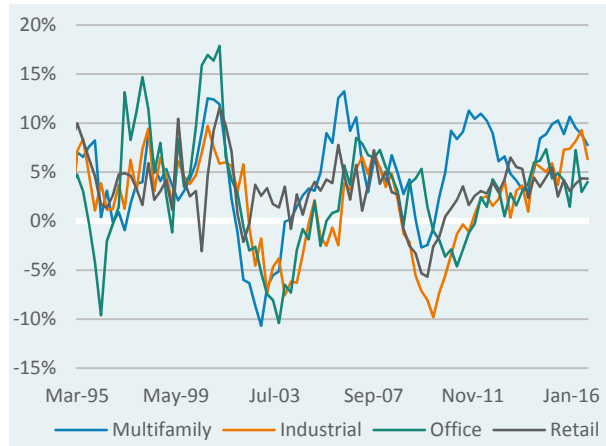
New supply remains below historical averages in all property types except multifamily. Continued tight lending standards have kept new construction, especially speculative construction, under control relative to previous cycles.

Pricing from a cap rate perspective looks historically high at 4.5%, however relative spreads to Treasuries remain healthy. Rising interest rates could put pressure on pricing, but the spread keeps a small cushion in place.

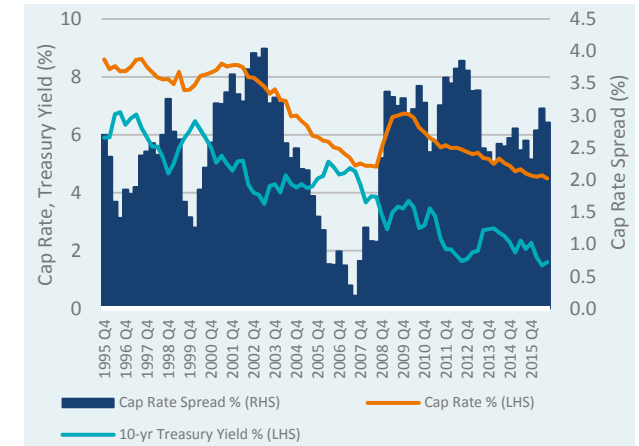
## VACANCY RATES



## NET OPERATING INCOME GROWTH



## CAP RATES AND SPREADS



Source: NCREIF, as of 9/30/16

Source: NCREIF, as of 9/30/16

Source: NCREIF, as of 9/30/16



# Currency

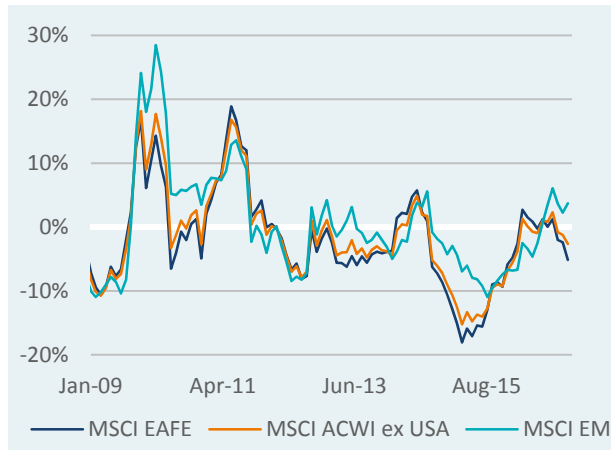
The U.S. dollar rose considerably in the fourth quarter, up 6.4% against a basket of major currencies. The strong dollar created a large gap between hedged and unhedged international exposures, as foreign currency losses eroded unhedged returns.

Renewed dollar strength occurred after the presidential election likely due to increased expectations of U.S. economic growth and higher interest rates. A widening gap between Treasury yields and other developed sovereign bonds could cause greater demand for

Treasuries and provide a tailwind for further dollar appreciation. However, higher inflation at the same time could offset some of the potential strength.

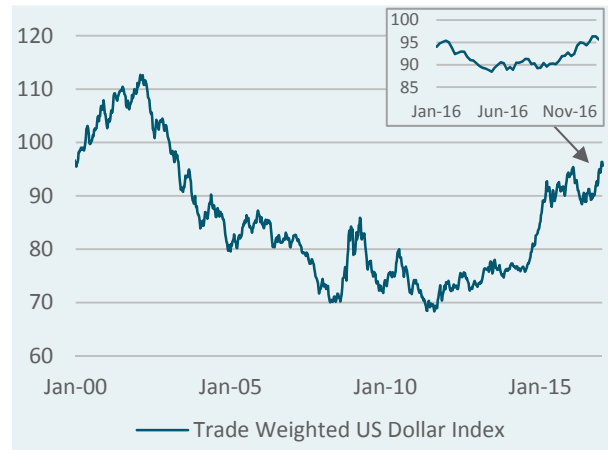
Emerging market currencies were hit hard by the strength in the U.S. dollar, influenced by the Fed pointing towards faster than anticipated interest rates increases and possible protectionist trade policies from the Trump administration. The JPM EM Currency Index was down 4.0% in the fourth quarter.

**EFFECT OF CURRENCY (1YR ROLLING)**



Source: MPI, as of 12/31/16

**LONG-TERM TRADE WEIGHTED DOLLAR**



Source: FRED, as of 12/31/16

**JPM EM CURRENCY INDEX**



Source: Bloomberg, as of 12/31/16

# Appendix

# Periodic table of returns – December 2016

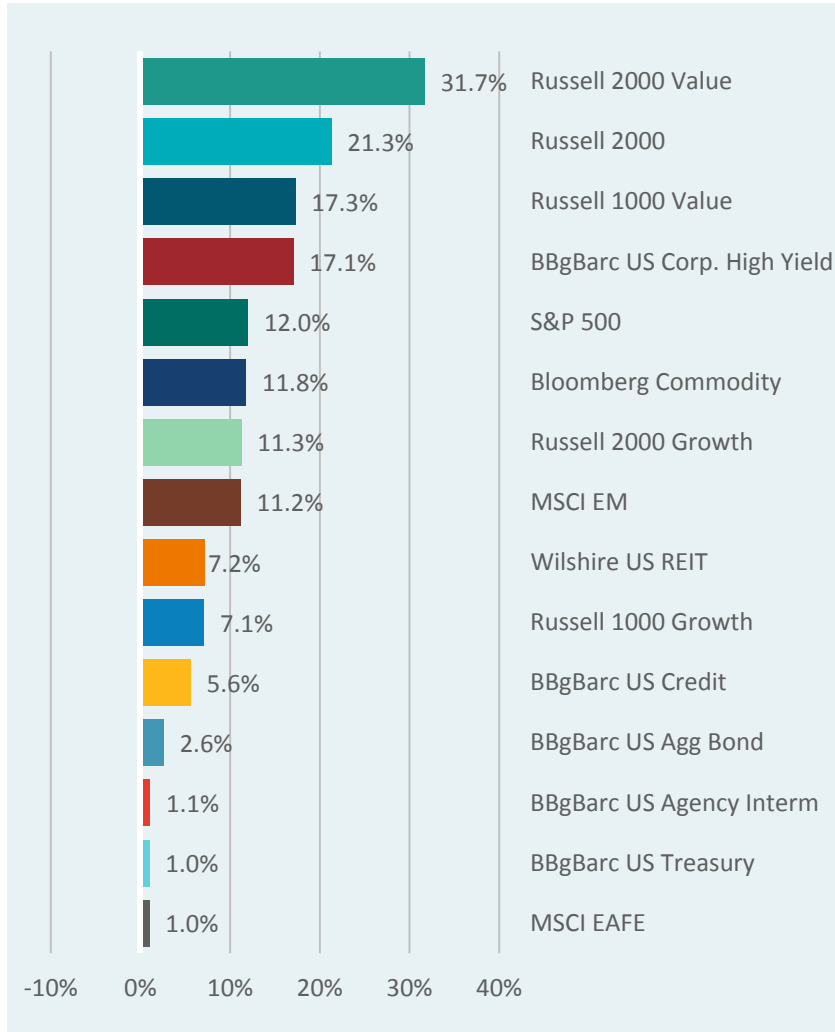
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	5-Year	10-Year
Small Cap Value	74.8	16.6	38.4	23.2	35.2	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	10.1	31.7	15.1	8.3
Small Cap Equity	32.9	8.1	37.8	23.1	32.9	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	14.8	7.8
Large Cap Value	26.3	6.4	37.2	22.4	31.8	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	14.7	7.2
Large Cap Equity	23.8	4.4	31.0	21.6	30.5	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	14.5	7.1
Commodities	19.3	3.2	28.5	21.4	22.4	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	14.5	7.1
Small Cap Growth	18.9	2.6	25.7	16.5	16.2	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	13.7	6.3
Emerging Markets Equity	18.1	0.4	19.6	14.4	13.9	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	11.2	5.7
Large Cap Growth	13.4	-1.5	18.5	11.3	12.9	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	7.1	6.5	4.3
Real Estate	10.2	-1.8	15.2	10.3	10.6	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	6.1	5.8	3.8
60/40 Global Portfolio	9.7	-2.0	11.6	9.9	9.7	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	3.4	1.8
US Bonds	3.1	-2.4	11.1	6.4	5.2	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	2.2	1.3
International Equity	2.9	-2.9	7.5	6.0	2.1	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	1.3	0.7
Hedge Funds of Funds	1.4	-3.5	5.7	5.1	-3.4	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	0.1	0.7
Cash	-1.1	-7.3	-5.2	3.6	-11.6	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	-9.0	-5.6

- Large Cap Equity
- Small Cap Growth
- Commodities
- Large Cap Value
- International Equity
- Real Estate
- Large Cap Growth
- Emerging Markets Equity
- Hedge Funds of Funds
- US Bonds
- 60% MSCI ACWI/40% BC Global Bond
- Small Cap Value
- Cash

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BC Agg, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BC Global Bond. NCREIF Property performance data as of 9/30/16.

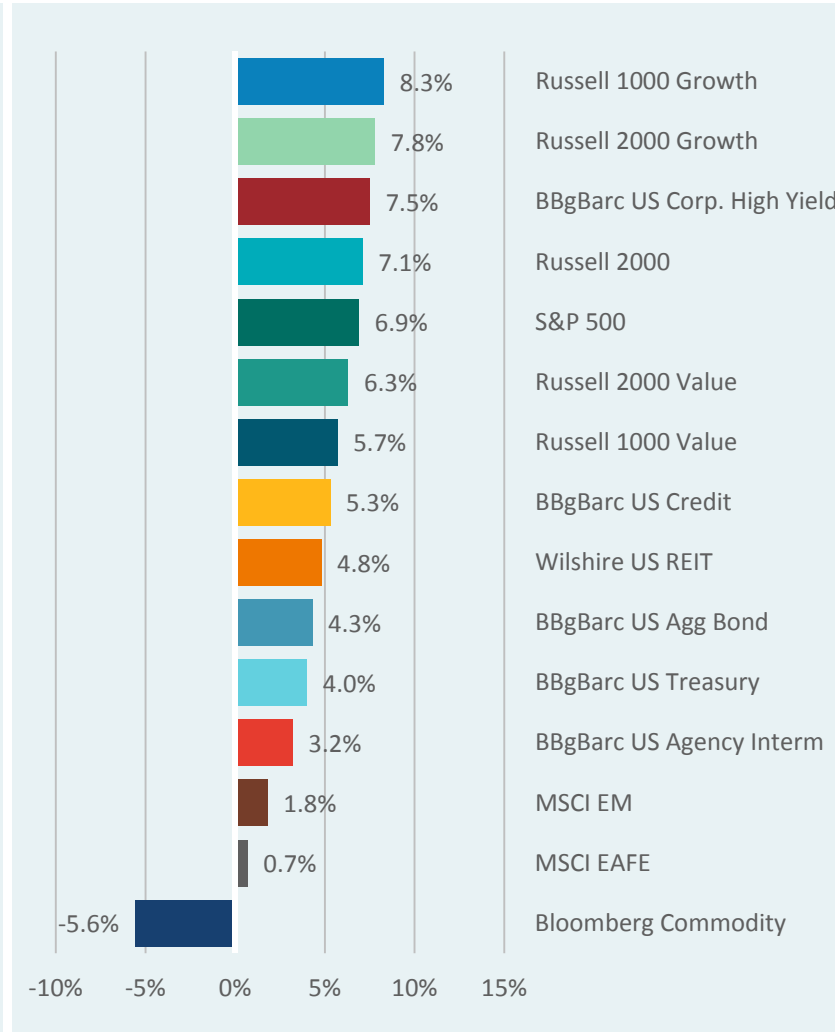
# Major asset class returns

ONE YEAR ENDING DECEMBER



Source: Morningstar, as of 12/31/16

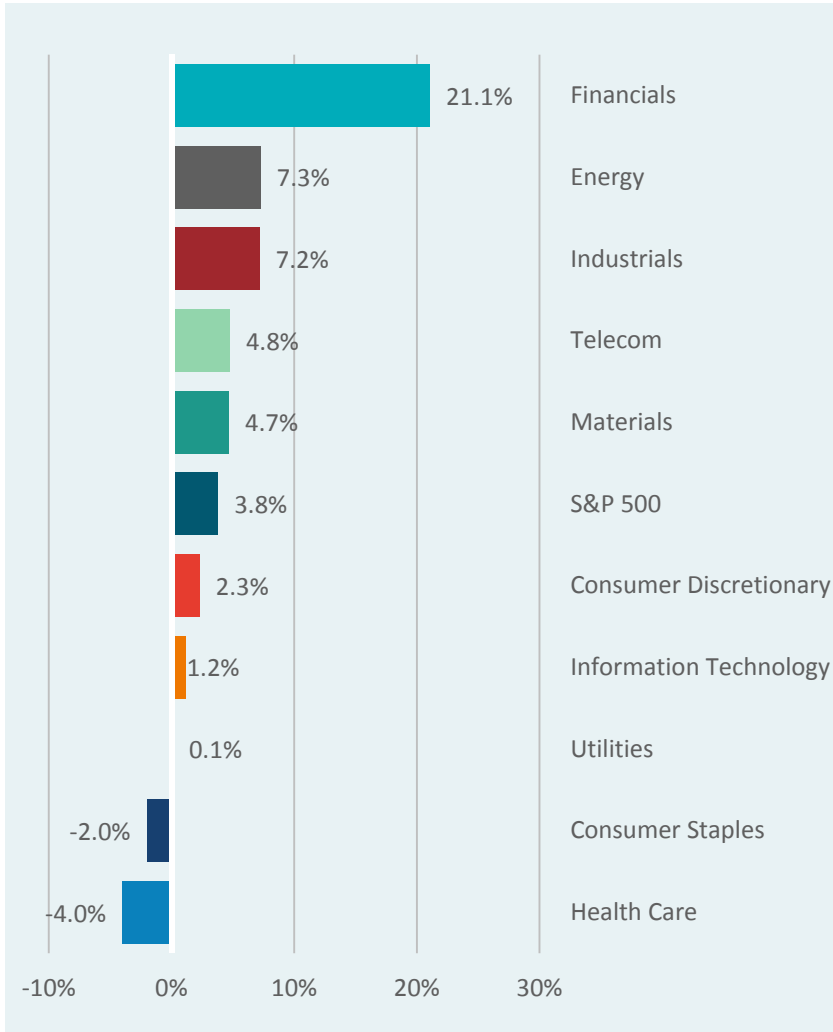
TEN YEARS ENDING DECEMBER



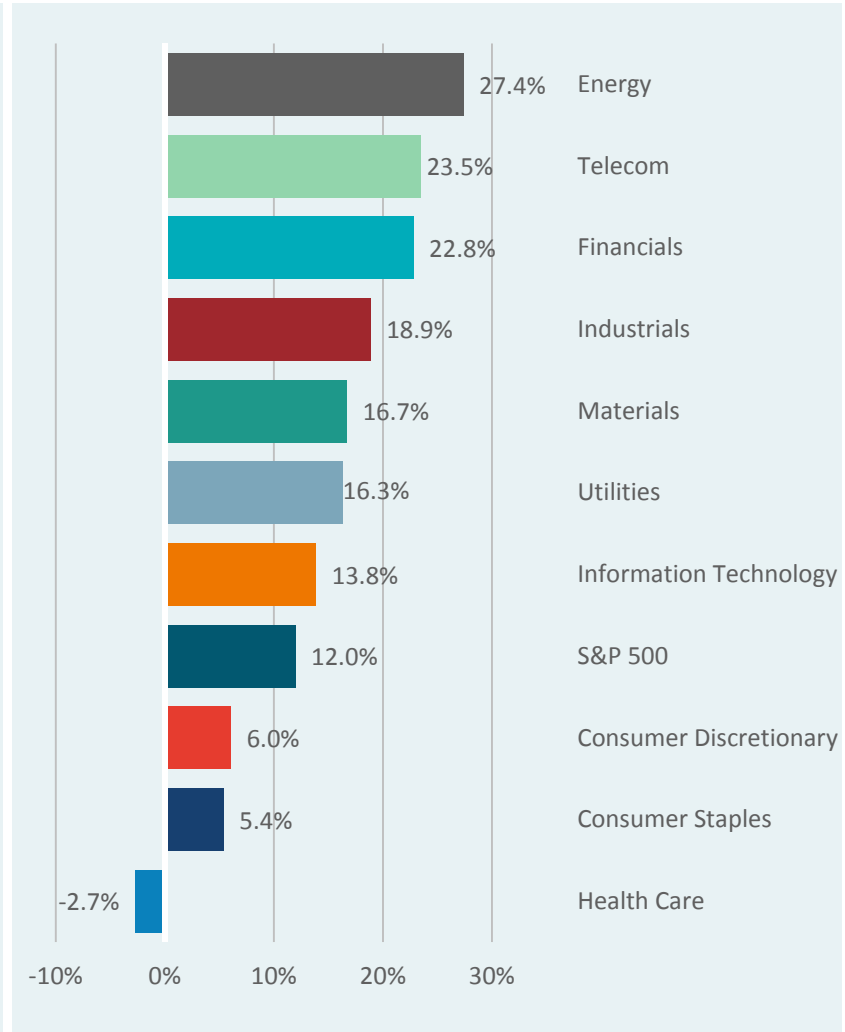
Source: Morningstar, as of 12/31/16

# S&P 500 and S&P 500 sector returns

4<sup>TH</sup> QUARTER



ONE YEAR ENDING DECEMBER



Source: Morningstar, as of 12/30/16

Source: Morningstar, as of 12/30/16

# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	2.0	3.8	12.0	12.0	8.9	14.7	6.9
S&P 500 Equal Weighted	1.1	3.8	14.8	14.8	8.7	15.5	8.4
DJ Industrial Average	3.4	8.7	16.5	16.5	8.7	12.9	7.5
Russell Top 200	2.2	4.1	11.3	11.3	8.9	14.7	6.8
Russell 1000	1.9	3.8	12.1	12.1	8.6	14.7	7.1
Russell 2000	2.8	8.8	21.3	21.3	6.7	14.5	7.1
Russell 3000	2.0	4.2	12.7	12.7	8.4	14.7	7.1
Russell Mid Cap	1.1	3.2	13.8	13.8	7.9	14.7	7.9
<b>Style Index</b>							
Russell 1000 Growth	1.2	1.0	7.1	7.1	8.6	14.5	8.3
Russell 1000 Value	2.5	6.7	17.3	17.3	8.6	14.8	5.7
Russell 2000 Growth	1.4	3.6	11.3	11.3	5.1	13.7	7.8
Russell 2000 Value	4.1	14.1	31.7	31.7	8.3	15.1	6.3

## INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
MSCI ACWI	2.2	1.2	7.9	7.9	3.1	9.4	3.6
MSCI ACWI ex US	2.6	(1.3)	4.5	4.5	(1.8)	5.0	1.0
MSCI EAFE	3.4	(0.7)	1.0	1.0	(1.6)	6.5	0.7
MSCI EM	0.2	(4.2)	11.2	11.2	(2.6)	1.3	1.8
MSCI EAFE Small Cap	2.9	(2.9)	2.2	2.2	2.1	10.6	2.9
<b>Style Index</b>							
MSCI EAFE Growth	2.2	(5.5)	(3.0)	(3.0)	(1.2)	6.7	1.6
MSCI EAFE Value	4.6	4.2	5.0	5.0	(2.1)	6.3	(0.2)
<b>Regional Index</b>							
MSCI UK	4.1	(0.9)	(0.1)	(0.1)	(4.4)	4.0	0.3
MSCI Japan	1.0	(0.2)	2.4	2.4	2.5	8.2	0.5
MSCI Euro	6.6	2.0	1.4	1.4	(3.3)	7.1	(0.6)
MSCI EM Asia	(1.4)	(6.1)	6.1	6.1	0.1	4.4	3.4
MSCI EM Latin American	0.9	(0.9)	31.0	31.0	(7.5)	(5.7)	0.3

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
BBgBarc US Treasury US TIPS	(0.1)	(2.4)	4.7	4.7	2.3	0.9	4.4
BBgBarc US Treasury Bills	0.0	0.1	0.4	0.4	0.2	0.2	0.9
BBgBarc US Agg Bond	0.1	(3.0)	2.6	2.6	3.0	2.2	4.3
<b>Duration</b>							
BBgBarc US Treasury 1-3 Yr	0.0	(0.5)	0.9	0.9	0.7	0.6	2.1
BBgBarc US Treasury Long	(0.5)	(11.7)	1.3	1.3	7.8	2.5	6.7
BBgBarc US Treasury	(0.1)	(3.8)	1.0	1.0	2.3	1.2	4.0
<b>Issuer</b>							
BBgBarc US MBS	(0.0)	(2.0)	1.7	1.7	3.1	2.1	4.3
BBgBarc US Corp. High Yield	1.8	1.8	17.1	17.1	4.7	7.4	7.5
BBgBarc US Agency Interm	(0.0)	(1.1)	1.1	1.1	1.5	1.1	3.2
BBgBarc US Credit	0.6	(3.0)	5.6	5.6	4.1	3.8	5.3

## OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Index</b>							
Bloomberg Commodity	1.8	2.7	11.8	11.8	(11.3)	(9.0)	(5.6)
Wilshire US REIT	4.9	(2.3)	7.2	7.2	13.8	12.0	4.8
<b>Regional Index</b>							
JPM EMBI Global Div	1.3	(4.0)	10.2	10.2	6.2	5.9	6.9
JPM GBI-EM Global Div	1.9	(6.1)	9.9	9.9	(4.1)	(1.3)	3.8
<b>Hedge Funds</b>							
HFRI Composite	1.1	1.3	5.6	5.6	2.4	4.5	3.4
HFRI FOF Composite	0.9	0.8	0.5	0.5	1.2	3.4	1.3
<b>Currency (Spot)</b>							
Euro	(0.6)	(6.1)	(2.9)	(2.9)	(8.5)	(4.1)	(2.2)
Pound	(1.1)	(4.9)	(16.2)	(16.2)	(9.3)	(4.5)	(4.5)
Yen	(2.3)	(13.2)	3.1	3.1	(3.4)	(8.0)	0.2

Source: Morningstar, as of 12/31/16

# Definitions

**Bloomberg US Weekly Consumer Comfort Index** - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. ([www.lanqerresearch.com](http://www.lanqerresearch.com))

**University of Michigan Consumer Sentiment Index** - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. ([www.Bloomberg.com](http://www.Bloomberg.com))

**Citi Economic Surprise Index** - objective and quantitative measures of economic news. Defined as weighted historical standard deviations of data surprises (actual releases vs Bloomberg survey median). A positive reading of the Economic Surprise Index suggests that economic releases have on balance been beating consensus. The indices are calculated daily in a rolling three-month window. The weights of economic indicators are derived from relative high-frequency spot FX impacts of 1 standard deviation data surprises. The indices also employ a time decay function to replicate the limited memory of markets. ([www.Bloomberg.com](http://www.Bloomberg.com))

**Merrill Lynch Option Volatility Estimate (MOVE) Index** – a yield curve weighted index comprised of a weighted set of 1-month Treasury options, including 2.5.10 and 30 year tenor contracts. This index is an indicator of the expected (implied) future volatility in the rate markets. ([www.Bloomberg.com](http://www.Bloomberg.com))

**OECD Consumer Confidence Index** - based on households' plans for major purchases and their economic situation, both currently and their expectations for the immediate future. Opinions compared to a "normal" state are collected and the difference between positive and negative answers provides a qualitative index on economic conditions. (<https://data.oecd.org/>)

**OECD Business Confidence Index** - based on enterprises' assessment of production, orders and stocks, as well as its current position and expectations for the immediate future. Opinions compared to a "normal" state are collected and the difference between positive and negative answers provides a qualitative index on economic conditions. (<https://data.oecd.org/>)

**NFIB Small Business Outlook** - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

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# San Luis Obispo County Pension Trust

Investment Performance Review

Period Ending: December 31, 2016



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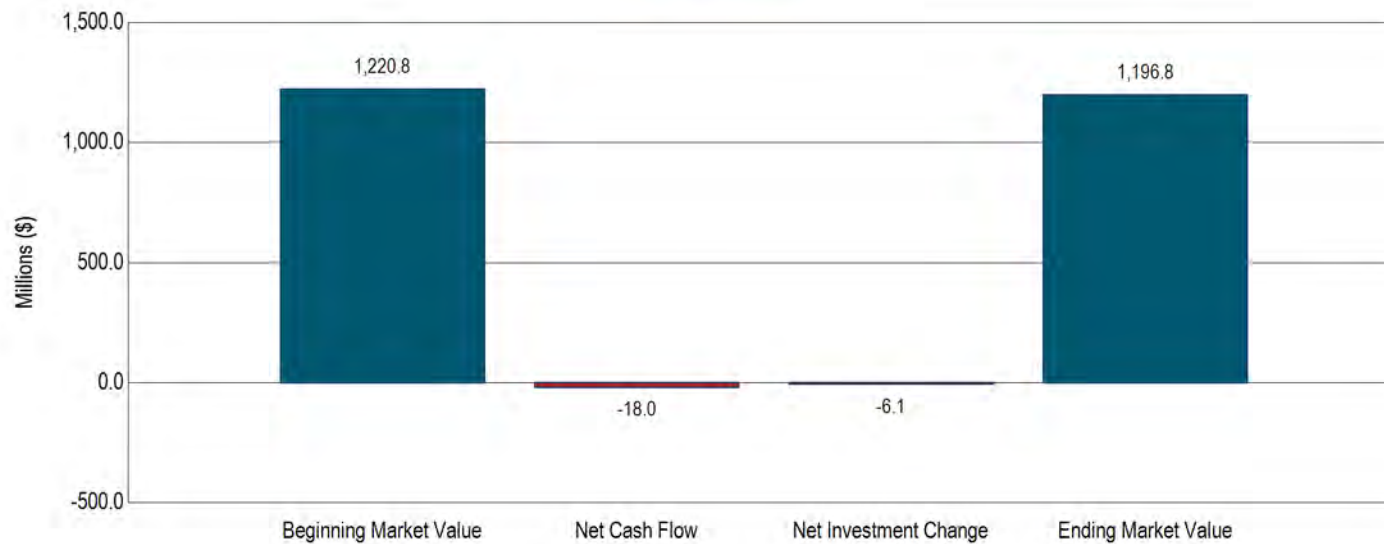
SAN FRANCISCO 415-362-3484



Portfolio Reconciliation

	Last Three Months	Year-To-Date	One Year
Beginning Market Value	\$1,220,807,534	\$1,150,869,570	\$1,150,869,570
Net Cash Flow	-\$17,964,477	-\$24,818,732	-\$24,818,732
Net Investment Change	-\$6,068,406	\$70,723,813	\$70,723,813
Ending Market Value	\$1,196,774,651	\$1,196,774,651	\$1,196,774,651

Change in Market Value  
Last Three Months



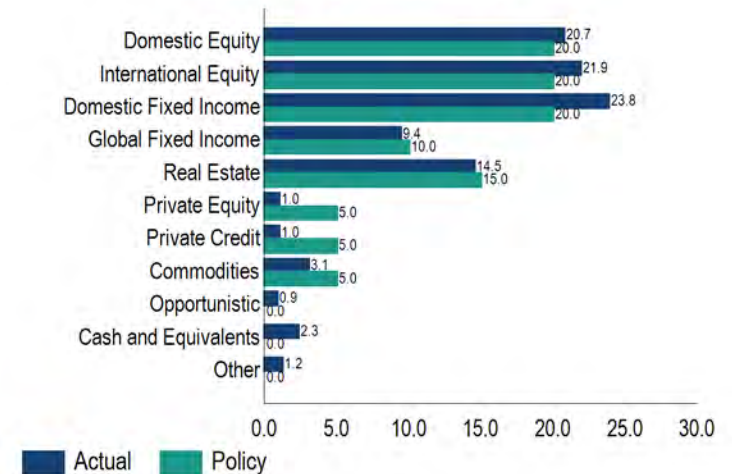
Contributions and withdrawals may include intra-account transfers between managers/funds.

# Total Fund Executive Summary (Gross of Fees)

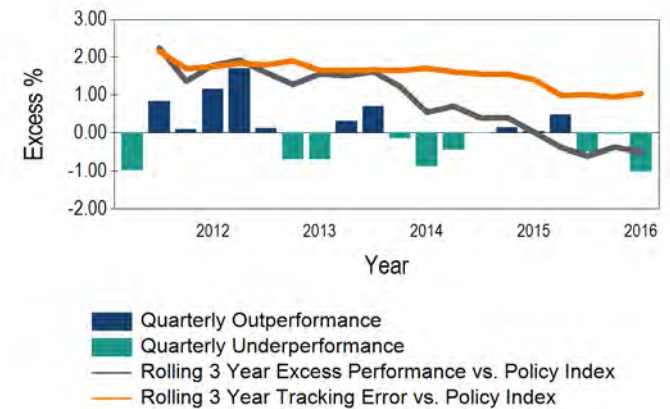
Period Ending: December 31, 2016

	QTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
<b>Total Fund</b>	<b>-0.4</b>	<b>95</b>	<b>6.6</b>	<b>84</b>	<b>3.6</b>	<b>82</b>	<b>7.4</b>	<b>76</b>
<i>Policy Index</i>	0.6	59	7.7	51	4.1	68	7.4	76
<b>Total Fund ex Clifton</b>	<b>-0.4</b>	<b>96</b>	<b>6.6</b>	<b>83</b>	<b>3.6</b>	<b>81</b>	<b>7.4</b>	<b>76</b>
<i>Policy Index</i>	0.6	59	7.7	51	4.1	68	7.4	76
<b>Total Domestic Equity</b>	<b>4.0</b>	<b>45</b>	<b>13.0</b>	<b>20</b>	<b>8.3</b>	<b>48</b>	<b>13.6</b>	<b>65</b>
<i>Russell 3000</i>	4.2	40	12.7	22	8.4	43	14.7	35
<b>Total International Equity</b>	<b>-2.3</b>	<b>56</b>	<b>2.2</b>	<b>43</b>	<b>0.0</b>	<b>59</b>	<b>7.4</b>	<b>63</b>
<i>MSCI ACWI ex USA Gross</i>	-1.2	40	5.0	20	-1.3	75	5.5	97
<b>Total Domestic Fixed Income</b>	<b>-1.8</b>	<b>49</b>	<b>4.5</b>	<b>40</b>	<b>3.4</b>	<b>46</b>	<b>3.0</b>	<b>51</b>
<i>BBgBarc US Aggregate TR</i>	-3.0	82	2.6	60	3.0	58	2.2	68
<b>Total Global Fixed</b>	<b>-6.6</b>	<b>72</b>	<b>5.8</b>	<b>30</b>	<b>-3.0</b>	<b>96</b>	<b>0.0</b>	<b>82</b>
<i>Citi World Govt Bond Index</i>	-8.5	95	1.6	79	-0.8	86	-1.0	94
<b>Total Real Estate</b>	<b>1.7</b>	<b>--</b>	<b>7.8</b>	<b>--</b>	<b>12.0</b>	<b>--</b>	<b>11.7</b>	<b>--</b>
<i>NCREIF Property Index</i>	1.7	--	8.0	--	11.0	--	10.9	--
<b>Total Commodities</b>	<b>4.1</b>	<b>--</b>	<b>12.6</b>	<b>--</b>	<b>-10.9</b>	<b>--</b>	<b>-8.6</b>	<b>--</b>
<i>Bloomberg Commodity Index TR USD</i>	2.7	--	11.8	--	-11.3	--	-9.0	--
<b>Total Private Equity</b>	<b>4.4</b>	<b>--</b>	<b>15.8</b>	<b>--</b>	<b>17.6</b>	<b>--</b>	<b>15.9</b>	<b>--</b>
<i>Russell 3000 + 3%</i>	5.0	--	16.1	--	11.7	--	18.1	--
<b>Total Private Credit</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Russell 3000 + 3%</i>	--	--	--	--	--	--	--	--
<b>Total Cash</b>	<b>0.2</b>	<b>--</b>	<b>0.5</b>	<b>--</b>	<b>0.4</b>	<b>--</b>	<b>0.4</b>	<b>--</b>
<i>91 Day T-Bills</i>	0.1	--	0.3	--	0.1	--	0.1	--
<b>Total Opportunistic</b>	<b>6.4</b>	<b>--</b>	<b>12.3</b>	<b>--</b>	<b>7.3</b>	<b>--</b>	<b>11.9</b>	<b>--</b>
<i>Russell 3000 + 3%</i>	5.0	--	16.1	--	11.7	--	18.1	--

Actual vs Target Allocation (%)



Rolling Annualized Excess Performance and Tracking Error  
Total Fund vs. Policy Index



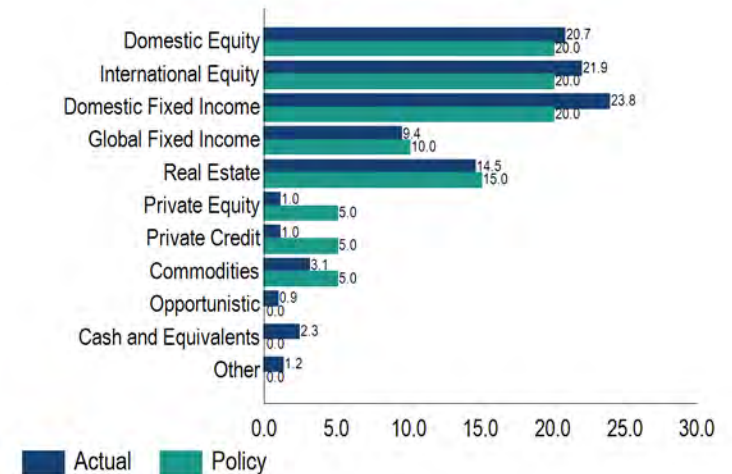
New Policy Index as of 10/1/2016: 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity Index, 10% Russell 3000 +300 bp. Private Equity composite returns are lagged by one quarter. Stone Harbor funded 7/9/13. Gresham TAP funded 8/30/13. Pacific Asset Corporate Loan funded 9/1/2014. All returns are (G) Gross of fees.

# Total Fund Executive Summary (Net of Fees)

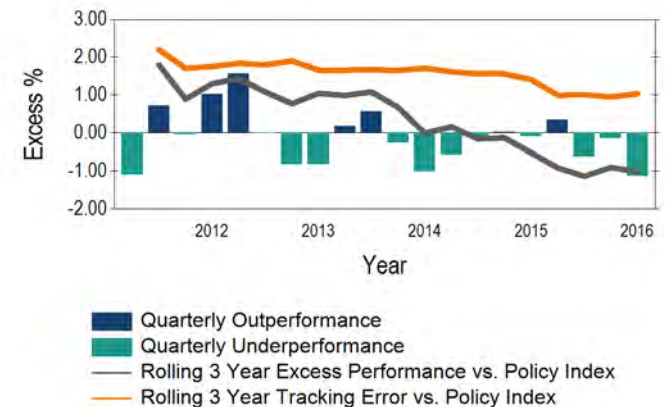
Period Ending: December 31, 2016

	QTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
<b>Total Fund</b>	<b>-0.5</b>	<b>98</b>	<b>6.0</b>	<b>91</b>	<b>3.1</b>	<b>91</b>	<b>6.8</b>	<b>86</b>
<i>Policy Index</i>	0.6	59	7.7	51	4.1	68	7.4	76
<b>Total Fund ex Clifton</b>	<b>-0.6</b>	<b>98</b>	<b>6.1</b>	<b>90</b>	<b>3.1</b>	<b>90</b>	<b>6.8</b>	<b>86</b>
<i>Policy Index</i>	0.6	59	7.7	51	4.1	68	7.4	76
<b>Total Domestic Equity</b>	<b>4.0</b>	<b>48</b>	<b>12.7</b>	<b>23</b>	<b>7.9</b>	<b>58</b>	<b>13.1</b>	<b>74</b>
<i>Russell 3000</i>	4.2	40	12.7	22	8.4	43	14.7	35
<b>Total International Equity</b>	<b>-2.5</b>	<b>59</b>	<b>1.6</b>	<b>48</b>	<b>-0.7</b>	<b>71</b>	<b>6.7</b>	<b>88</b>
<i>MSCI ACWI ex USA Gross</i>	-1.2	40	5.0	20	-1.3	75	5.5	97
<b>Total Domestic Fixed Income</b>	<b>-1.8</b>	<b>51</b>	<b>4.2</b>	<b>42</b>	<b>3.2</b>	<b>54</b>	<b>2.8</b>	<b>56</b>
<i>BBgBarc US Aggregate TR</i>	-3.0	82	2.6	60	3.0	58	2.2	68
<b>Total Global Fixed</b>	<b>-6.8</b>	<b>74</b>	<b>5.1</b>	<b>37</b>	<b>-3.6</b>	<b>96</b>	<b>-0.6</b>	<b>89</b>
<i>Citi World Govt Bond Index</i>	-8.5	95	1.6	79	-0.8	86	-1.0	94
<b>Total Real Estate</b>	<b>1.5</b>	<b>--</b>	<b>6.8</b>	<b>--</b>	<b>11.0</b>	<b>--</b>	<b>10.9</b>	<b>--</b>
<i>NCREIF Property Index</i>	1.7	--	8.0	--	11.0	--	10.9	--
<b>Total Commodities</b>	<b>3.9</b>	<b>--</b>	<b>11.8</b>	<b>--</b>	<b>-11.6</b>	<b>--</b>	<b>-9.2</b>	<b>--</b>
<i>Bloomberg Commodity Index TR USD</i>	2.7	--	11.8	--	-11.3	--	-9.0	--
<b>Total Private Equity</b>	<b>4.0</b>	<b>--</b>	<b>13.7</b>	<b>--</b>	<b>15.0</b>	<b>--</b>	<b>7.4</b>	<b>--</b>
<i>Russell 3000 + 3%</i>	5.0	--	16.1	--	11.7	--	18.1	--
<b>Total Private Credit</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Russell 3000 + 3%</i>	--	--	--	--	--	--	--	--
<b>Total Cash</b>	<b>0.2</b>	<b>--</b>	<b>0.5</b>	<b>--</b>	<b>0.4</b>	<b>--</b>	<b>0.4</b>	<b>--</b>
<i>91 Day T-Bills</i>	0.1	--	0.3	--	0.1	--	0.1	--

Actual vs Target Allocation (%)



Rolling Annualized Excess Performance and Tracking Error  
Total Fund vs. Policy Index



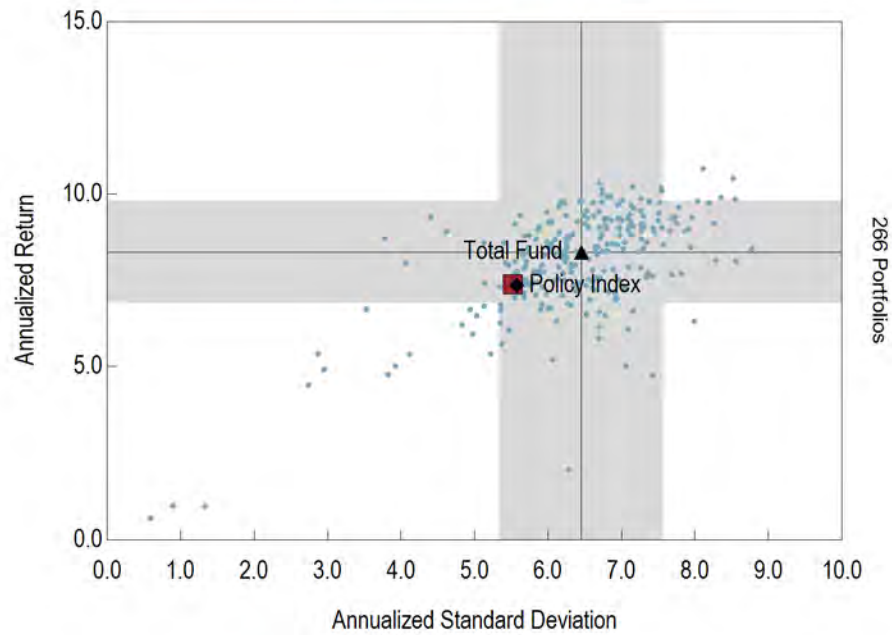
New Policy Index as of 12/1/2016: 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity Index, 10% Russell 3000 +300 bp. Private Equity composite returns are lagged by one quarter. Stone Harbor funded 7/9/13. Gresham TAP funded 8/30/13. Pacific Asset Corporate Loan funded 9/1/2014. All returns are (N) Net of fees.

Total Fund  
Risk Analysis - 5 Years (Gross of Fees)

Period Ending: December 31, 2016

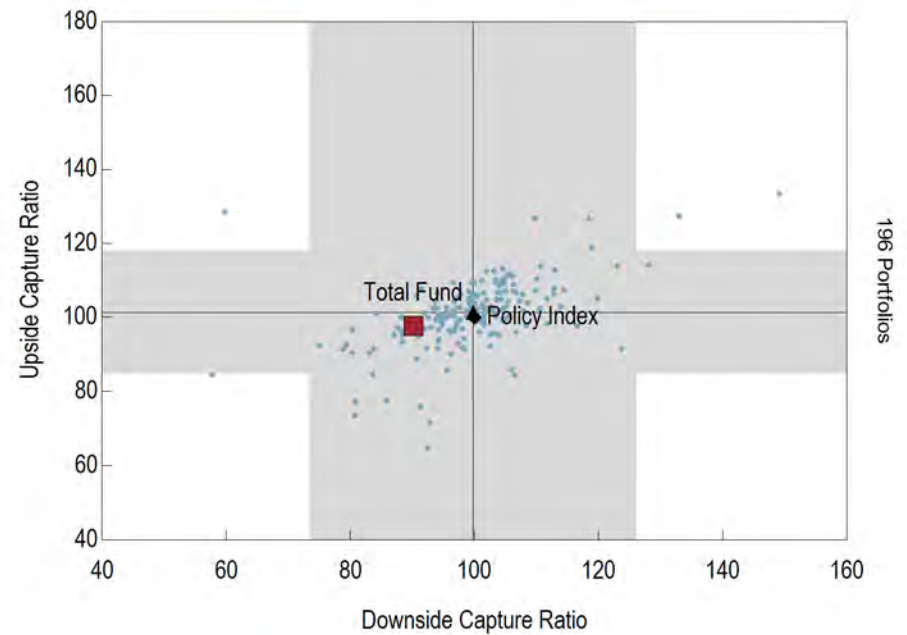
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	7.38%	0.02%	5.52%	0.34%	0.96	1.45%	0.93	1.32	0.01	97.58%	90.15%

Annualized Return vs. Annualized Standard Deviation



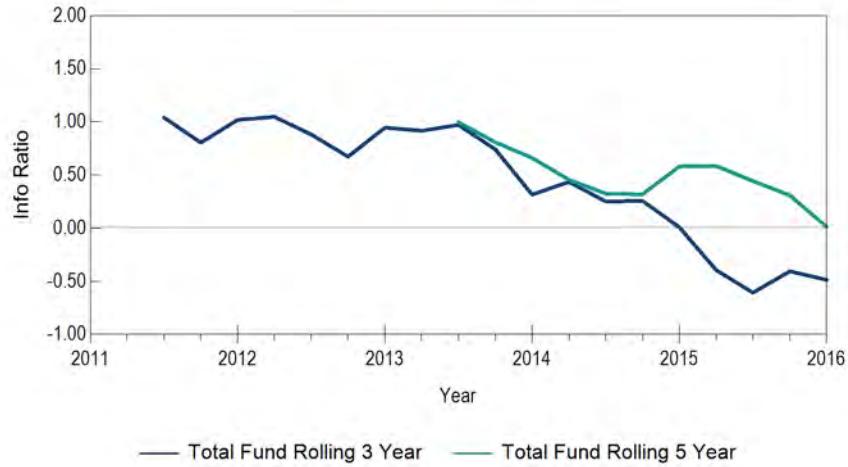
- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

Upside Capture Ratio vs. Downside Capture Ratio

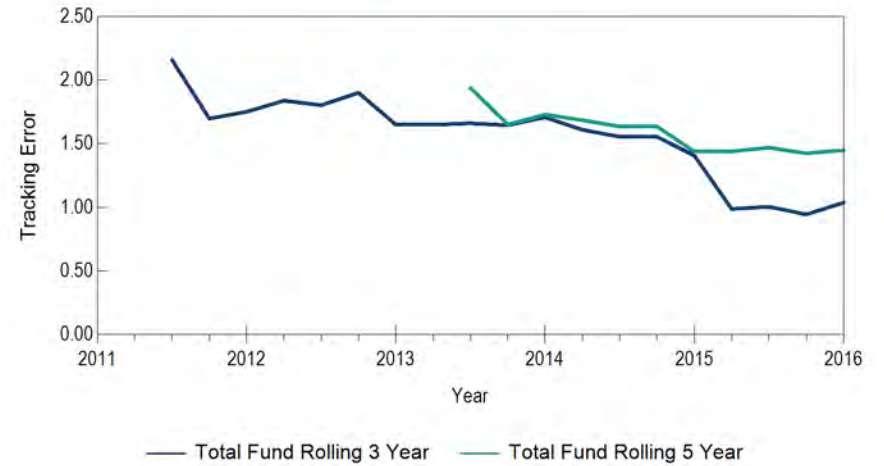


- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

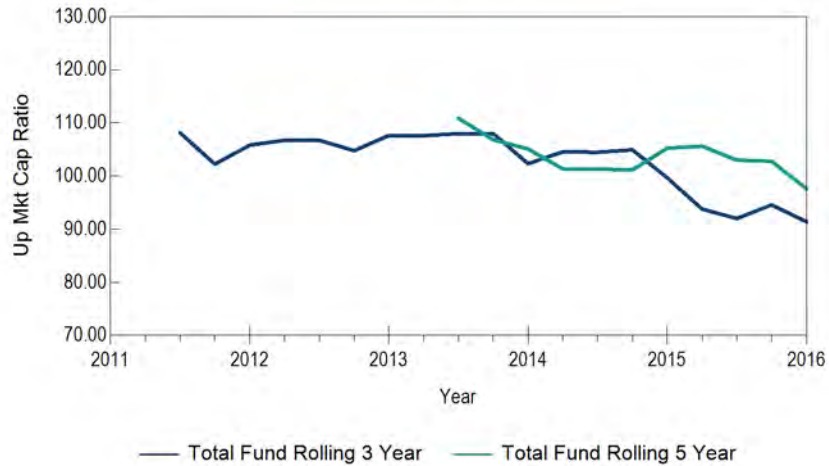
Rolling Information Ratio



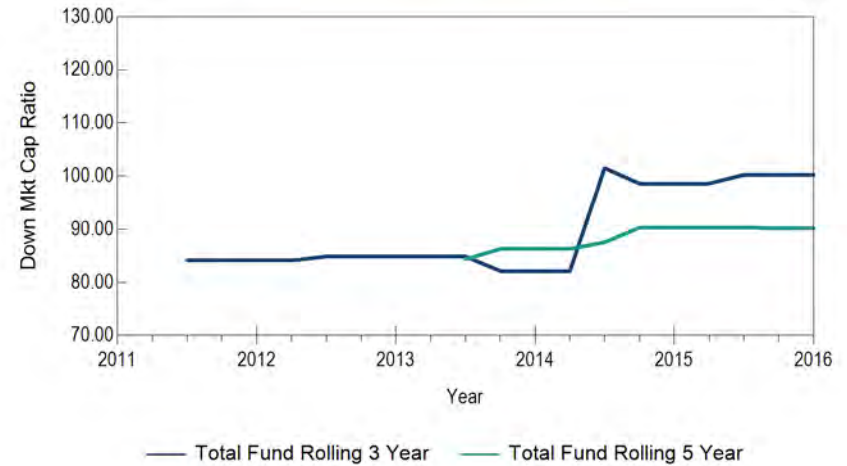
Rolling Tracking Error



Rolling Up Market Capture Ratio (%)



Rolling Down Market Capture Ratio (%)





Total Fund  
Performance Summary (Gross of Fees)

Period Ending: December 31, 2016

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012	Return	Since
<b>Total Fund</b>	<b>1,196,774,651</b>	<b>100.0</b>	<b>-0.4</b>	<b>6.6</b>	<b>3.6</b>	<b>7.4</b>	<b>--</b>	<b>6.6</b>	<b>-0.8</b>	<b>5.1</b>	<b>13.8</b>	<b>12.8</b>	<b>--</b>	
<i>InvestorForce Public DB Gross Rank</i>			95	84	82	76	--	84	74	66	71	40	--	
Total Fund ex Clifton	1,181,875,603	98.8	-0.4	6.6	3.6	7.4	4.6	6.6	-0.8	5.2	13.8	12.7	--	
<i>Policy Index</i>			0.6	7.7	4.1	7.4	4.8	7.7	-0.5	5.2	13.4	11.6	--	
<i>InvestorForce Public DB Gross Rank</i>			96	83	81	76	81	83	75	64	72	43	--	
<b>Total Domestic Equity</b>	<b>248,191,606</b>	<b>20.7</b>	<b>4.0</b>	<b>13.0</b>	<b>8.3</b>	<b>13.6</b>	<b>--</b>	<b>13.0</b>	<b>1.2</b>	<b>11.0</b>	<b>32.2</b>	<b>12.8</b>	<b>--</b>	
<i>Russell 3000</i>			4.2	12.7	8.4	14.7	--	12.7	0.5	12.6	33.6	16.4	--	
<i>eA US Large Cap Core Equity Gross Rank</i>			45	20	48	65	--	20	44	83	60	79	--	
SSGA S&P 500 Flag.	78,890,128	6.6	3.9	12.0	8.9	14.7	--	12.0	1.5	13.7	32.4	16.1	11.9	Feb-11
<i>S&amp;P 500</i>			3.8	12.0	8.9	14.7	--	12.0	1.4	13.7	32.4	16.0	11.9	Feb-11
<i>eA US Large Cap Core Equity Gross Rank</i>			49	31	30	34	--	31	40	42	58	39	41	Feb-11
PIMCO RAE Fundamental PLUS Instl	50,024,385	4.2	5.3	15.9	8.3	15.1	7.4	15.9	-2.7	12.7	36.0	16.8	7.5	Nov-07
<i>S&amp;P 500</i>			3.8	12.0	8.9	14.7	6.9	12.0	1.4	13.7	32.4	16.0	7.0	Nov-07
<i>eA US Large Cap Core Equity Gross Rank</i>			17	6	45	26	52	6	86	58	22	29	45	Nov-07
Loomis Sayles Large Cap Growth	70,000,000	5.8	--	--	--	--	--	--	--	--	--	--	--	Dec-16
<i>Russell 1000 Growth</i>			--	--	--	--	--	--	--	--	--	--	--	Dec-16
<i>eA US Large Cap Growth Equity Gross Rank</i>			--	--	--	--	--	--	--	--	--	--	--	Dec-16
Atlanta Capital Mgmt	49,277,093	4.1	2.8	12.6	9.6	15.9	--	12.6	10.4	5.8	37.8	15.5	18.3	Aug-10
<i>Russell 2500</i>			6.1	17.6	6.9	14.5	--	17.6	-2.9	7.1	36.8	17.9	15.3	Aug-10
<i>eA US Small-Mid Cap Equity Gross Rank</i>			74	62	16	28	--	62	1	56	52	55	1	Aug-10
<b>Total International Equity</b>	<b>262,107,462</b>	<b>21.9</b>	<b>-2.3</b>	<b>2.2</b>	<b>0.0</b>	<b>7.4</b>	<b>--</b>	<b>2.2</b>	<b>-4.3</b>	<b>2.1</b>	<b>17.9</b>	<b>21.5</b>	<b>--</b>	
<i>MSCI ACWI ex USA Gross</i>			-1.2	5.0	-1.3	5.5	--	5.0	-5.3	-3.4	15.8	17.4	--	
<i>eA EAFE All Cap Equity Gross Rank</i>			56	43	59	63	--	43	90	3	94	37	--	
Dodge & Cox Intl Stock	138,738,443	11.6	3.5	9.0	-0.7	8.7	--	9.0	-10.8	0.7	27.1	21.8	1.5	Dec-07
<i>MSCI EAFE Gross</i>			-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9	-0.1	Dec-07
<i>eA All EAFE Equity Gross Rank</i>			3	3	63	41	--	3	99	13	32	37	48	Dec-07
Vontobel	123,369,019	10.3	-8.1	-4.4	0.7	5.9	--	-4.4	3.1	3.6	8.3	20.7	1.4	Dec-07
<i>MSCI EAFE Gross</i>			-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9	0.0	Dec-07
<i>eA All EAFE Equity Gross Rank</i>			99	93	37	94	--	93	37	5	96	47	51	Dec-07

Since Inception ranking is from the beginning of the first complete month of performance. Research Affiliates converted to PIMCO RAE Fundamental Plus Instl on 6/5/15 (performance prior to this date represents previously held Research Affiliates Equity US Large, L.P.). ARA American funded 6/22/2016. Fidelity Real Estate Growth II liquidated 12/31/2015. Loomis Sayles Large Cap Growth funded 12/31/2016. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.

Total Fund  
Performance Summary (Gross of Fees)

Period Ending: December 31, 2016

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012	Return	Since
<b>Total Domestic Fixed Income</b>	<b>285,328,663</b>	<b>23.8</b>	<b>-1.8</b>	<b>4.5</b>	<b>3.4</b>	<b>3.0</b>	<b>--</b>	<b>4.5</b>	<b>1.1</b>	<b>4.7</b>	<b>-2.7</b>	<b>7.9</b>	<b>--</b>	
BBgBarc US Aggregate TR			-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2	--	
eA All US Fixed Inc Gross Rank			49	40	46	51	--	40	36	46	88	36	--	
PIMCO Core Plus	185,961,946	15.5	-2.9	3.0	3.1	2.9	--	3.0	1.2	5.1	-2.1	7.6	4.2	Oct-09
BBgBarc US Aggregate TR			-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2	3.5	Oct-09
eA All US Fixed Inc Gross Rank			81	55	56	54	--	55	30	43	84	38	51	Oct-09
Pacific Asset Corporate Loan	65,764,668	5.5	2.7	9.2	--	--	--	9.2	2.5	--	--	--	4.4	Sep-14
S&P/LSTA Leveraged Loan Index			2.3	10.2	--	--	--	10.2	-0.7	--	--	--	3.4	Sep-14
eA Float-Rate Bank Loan Gross Rank			8	51	--	--	--	51	9	--	--	--	21	Sep-14
SSGA TIPS	33,602,048	2.8	-2.4	4.7	2.2	0.9	--	4.7	-1.5	3.6	-8.6	6.9	1.8	Jul-11
BBgBarc US TIPS TR			-2.4	4.7	2.3	0.9	--	4.7	-1.4	3.6	-8.6	7.0	1.9	Jul-11
eA TIPS / Infl Indexed Fixed Inc Gross Rank			71	51	51	72	--	51	64	44	77	67	20	Jul-11
<b>Total Global Fixed</b>	<b>112,984,798</b>	<b>9.4</b>	<b>-6.6</b>	<b>5.8</b>	<b>-3.0</b>	<b>0.0</b>	<b>--</b>	<b>5.8</b>	<b>-11.8</b>	<b>-2.2</b>	<b>-3.8</b>	<b>13.8</b>	<b>--</b>	
Citi World Govt Bond Index			-8.5	1.6	-0.8	-1.0	--	1.6	-3.6	-0.5	-4.0	1.6	--	
eA Global Fixed Inc Unhedged Gross Rank			72	30	96	82	--	30	99	94	82	30	--	
Brandywine Global Fixed Income	57,734,375	4.8	-7.0	2.2	-1.6	1.3	--	2.2	-9.3	2.9	-1.6	13.8	3.5	Nov-07
JPM GBI Global TR USD			-8.3	1.6	-0.1	-0.7	--	1.6	-2.6	0.7	-4.5	1.3	2.5	Nov-07
eA Global Fixed Inc Unhedged Gross Rank			78	71	93	60	--	71	96	43	59	30	47	Nov-07
Stone Harbor Local Markets Ins	55,250,423	4.6	-6.2	9.9	-4.6	--	--	9.9	-14.4	-7.7	--	--	-4.9	Jul-13
JPM GBI-EM Global Diversified TR USD			-6.1	9.9	-4.1	--	--	9.9	-14.9	-5.7	--	--	-3.9	Jul-13
eA All Emg Mkts Fixed Inc Gross Rank			93	67	96	--	--	67	79	98	--	--	99	Jul-13
<b>Total Real Estate</b>	<b>174,005,923</b>	<b>14.5</b>	<b>1.7</b>	<b>7.8</b>	<b>12.0</b>	<b>11.7</b>	<b>--</b>	<b>7.8</b>	<b>18.0</b>	<b>10.4</b>	<b>12.9</b>	<b>9.8</b>	<b>--</b>	
NCREIF Property Index			1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5	--	
ARA American Strategic Value Realty	10,851,862	0.9	3.2	--	--	--	--	--	--	--	--	--	5.5	Jun-16
NCREIF-ODCE			2.1	--	--	--	--	--	--	--	--	--	4.2	Jun-16
NCREIF Property Index			1.7	--	--	--	--	--	--	--	--	--	3.5	Jun-16
Direct Real Estate	21,403,241	1.8	0.0	5.5	11.2	9.6	5.5	5.5	22.9	6.1	5.2	9.2	--	
NCREIF-ODCE			2.1	8.8	12.1	12.2	5.8	8.8	15.0	12.5	13.9	10.9	--	
NCREIF Property Index			1.7	8.0	11.0	10.9	6.9	8.0	13.3	11.8	11.0	10.5	--	
JP Morgan Core Real Estate	140,951,102	11.8	2.2	8.4	11.6	12.5	--	8.4	15.2	11.2	15.9	12.1	5.5	Mar-08
NCREIF-ODCE			2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9	4.8	Mar-08
NCREIF Property Index			1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5	6.1	Mar-08

Since Inception ranking is from the beginning of the first complete month of performance. Research Affiliates converted to PIMCO RAE Fundamental Plus Instl on 6/5/15 (performance prior to this date represents previously held Research Affiliates Equity US Large, L.P.). ARA American funded 6/22/2016. Fidelity Real Estate Growth II liquidated 12/31/2015. Loomis Sayles Large Cap Growth funded 12/31/2016. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.

Total Fund  
Performance Summary (Gross of Fees)

Period Ending: December 31, 2016

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012	Return	Since
Fidelity Real Estate Growth III	799,717	0.1	-3.3	1.3	20.8	19.1	--	1.3	35.8	28.2	20.9	12.1	-3.2	Jul-07
<i>NCREIF-ODCE</i>			2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9	5.2	<i>Jul-07</i>
<i>NCREIF Property Index</i>			1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5	6.5	<i>Jul-07</i>
<b>Total Commodities</b>	<b>36,514,186</b>	<b>3.1</b>	<b>4.1</b>	<b>12.6</b>	<b>-10.9</b>	<b>-8.6</b>	<b>--</b>	<b>12.6</b>	<b>-25.2</b>	<b>-16.0</b>	<b>-9.1</b>	<b>-0.9</b>	<b>--</b>	
<i>Bloomberg Commodity Index TR USD</i>			2.7	11.8	-11.3	-9.0	--	11.8	-24.7	-17.0	-9.5	-1.1	--	
Gresham MTAP Commodity Builder	36,514,186	3.1	4.1	12.6	-10.9	--	--	12.6	-25.2	-16.0	--	--	-10.7	Aug-13
<i>Bloomberg Commodity Index TR USD</i>			2.7	11.8	-11.3	--	--	11.8	-24.7	-17.0	--	--	-11.2	<i>Aug-13</i>
<b>Total Cash</b>	<b>27,959,461</b>	<b>2.3</b>	<b>0.2</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	<b>1.2</b>	<b>0.5</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>--</b>	
<i>91 Day T-Bills</i>			0.1	0.3	0.1	0.1	0.7	0.3	0.0	0.0	0.0	0.1	--	
Cash Account	27,959,461	2.3	0.2	0.5	0.4	0.4	1.2	0.5	0.4	0.3	0.3	0.4	--	
<i>91 Day T-Bills</i>			0.1	0.3	0.1	0.1	0.7	0.3	0.0	0.0	0.0	0.1	--	

Since Inception ranking is from the beginning of the first complete month of performance. Research Affiliates converted to PIMCO RAE Fundamental Plus Instl on 6/5/15 (performance prior to this date represents previously held Research Affiliates Equity US Large, L.P.). ARA American funded 6/22/2016. Fidelity Real Estate Growth II liquidated 12/31/2015. Loomis Sayles Large Cap Growth funded 12/31/2016. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.



Total Fund  
Performance Summary (Net of Fees)

Period Ending: December 31, 2016

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Fund</b>	<b>1,196,774,651</b>	<b>100.0</b>	<b>-0.5</b>	<b>6.0</b>	<b>3.1</b>	<b>6.8</b>	<b>--</b>	<b>6.0</b>	<b>-1.3</b>	<b>4.6</b>	<b>13.3</b>	<b>12.3</b>
Total Fund ex Clifton	1,181,875,603	98.8	-0.6	6.1	3.1	6.8	--	6.1	-1.3	4.7	13.2	12.2
Policy Index			0.6	7.7	4.1	7.4	--	7.7	-0.5	5.2	13.4	11.6
<b>Total Domestic Equity</b>	<b>248,191,606</b>	<b>20.7</b>	<b>4.0</b>	<b>12.7</b>	<b>7.9</b>	<b>13.1</b>	<b>--</b>	<b>12.7</b>	<b>0.8</b>	<b>10.5</b>	<b>31.6</b>	<b>12.3</b>
Russell 3000			4.2	12.7	8.4	14.7	--	12.7	0.5	12.6	33.6	16.4
SSGA S&P 500 Flag.	78,890,128	6.6	3.8	12.0	8.9	14.7	--	12.0	1.4	13.7	32.4	15.9
S&P 500			3.8	12.0	8.9	14.7	--	12.0	1.4	13.7	32.4	16.0
PIMCO RAE Fundamental PLUS Instl	50,024,385	4.2	5.2	15.4	7.9	14.7	7.0	15.4	-3.2	12.3	35.6	16.7
S&P 500			3.8	12.0	8.9	14.7	6.9	12.0	1.4	13.7	32.4	16.0
Loomis Sayles Large Cap Growth	70,000,000	5.8	--	--	--	--	--	--	--	--	--	--
Russell 1000 Growth			--	--	--	--	--	--	--	--	--	--
Atlanta Capital Mgmt	49,277,093	4.1	2.6	11.7	8.7	15.1	--	11.7	9.6	5.0	37.0	14.7
Russell 2500			6.1	17.6	6.9	14.5	--	17.6	-2.9	7.1	36.8	17.9
<b>Total International Equity</b>	<b>262,107,462</b>	<b>21.9</b>	<b>-2.5</b>	<b>1.6</b>	<b>-0.7</b>	<b>6.7</b>	<b>--</b>	<b>1.6</b>	<b>-4.9</b>	<b>1.4</b>	<b>17.0</b>	<b>20.6</b>
MSCI ACWI ex USA Gross			-1.2	5.0	-1.3	5.5	--	5.0	-5.3	-3.4	15.8	17.4
Dodge & Cox Intl Stock	138,738,443	11.6	3.4	8.3	-1.3	8.0	--	8.3	-11.4	0.1	26.3	21.0
MSCI EAFE Gross			-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9
Vontobel	123,369,019	10.3	-8.3	-5.0	0.1	5.3	--	-5.0	2.4	3.0	7.6	19.9
MSCI EAFE Gross			-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9
<b>Total Domestic Fixed Income</b>	<b>285,328,663</b>	<b>23.8</b>	<b>-1.8</b>	<b>4.2</b>	<b>3.2</b>	<b>2.8</b>	<b>--</b>	<b>4.2</b>	<b>0.9</b>	<b>4.4</b>	<b>-3.0</b>	<b>7.6</b>
BBgBarc US Aggregate TR			-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2
PIMCO Core Plus	185,961,946	15.5	-3.0	2.7	2.8	2.6	--	2.7	0.9	4.8	-2.4	7.4
BBgBarc US Aggregate TR			-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2
Pacific Asset Corporate Loan	65,764,668	5.5	2.7	8.8	--	--	--	8.8	2.1	--	--	--
S&P/LSTA Leveraged Loan Index			2.3	10.2	--	--	--	10.2	-0.7	--	--	--
SSGA TIPS	33,602,048	2.8	-2.4	4.6	2.2	0.8	--	4.6	-1.5	3.6	-8.7	6.9
BBgBarc US TIPS TR			-2.4	4.7	2.3	0.9	--	4.7	-1.4	3.6	-8.6	7.0
<b>Total Global Fixed</b>	<b>112,984,798</b>	<b>9.4</b>	<b>-6.8</b>	<b>5.1</b>	<b>-3.6</b>	<b>-0.6</b>	<b>--</b>	<b>5.1</b>	<b>-12.4</b>	<b>-2.8</b>	<b>-4.4</b>	<b>13.1</b>
Citi World Govt Bond Index			-8.5	1.6	-0.8	-1.0	--	1.6	-3.6	-0.5	-4.0	1.6
Brandywine Global Fixed Income	57,734,375	4.8	-7.1	1.7	-2.0	0.8	--	1.7	-9.7	2.4	-2.3	13.1
JPM GBI Global TR USD			-8.3	1.6	-0.1	-0.7	--	1.6	-2.6	0.7	-4.5	1.3
Stone Harbor Local Markets Ins	55,250,423	4.6	-6.4	9.0	-5.4	--	--	9.0	-15.1	-8.6	--	--
JPM GBI-EM Global Diversified TR USD			-6.1	9.9	-4.1	--	--	9.9	-14.9	-5.7	--	--

Research Affiliates converted to PIMCO RAE Fundamental Plus Instl on 6/5/15 (performance prior to this date represents previously held Research Affiliates Equity US Large, L.P.). ARA American funded 6/22/2016. Fidelity Real Estate Growth II liquidated 12/31/2015. Loomis Sayles Large Cap Growth funded 12/31/2016. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.

Total Fund  
Performance Summary (Net of Fees)

Period Ending: December 31, 2016

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Real Estate</b>	<b>174,005,923</b>	<b>14.5</b>	<b>1.5</b>	<b>6.8</b>	<b>11.0</b>	<b>10.9</b>	<b>--</b>	<b>6.8</b>	<b>16.9</b>	<b>9.6</b>	<b>12.1</b>	<b>9.2</b>
<i>NCREIF Property Index</i>			1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
ARA American Strategic Value Realty	10,851,862	0.9	2.9	--	--	--	--	--	--	--	--	--
<i>NCREIF-ODCE</i>			2.1	--	--	--	--	--	--	--	--	--
<i>NCREIF Property Index</i>			1.7	--	--	--	--	--	--	--	--	--
Direct Real Estate	21,403,241	1.8	0.0	4.9	10.8	9.3	5.4	4.9	22.2	6.1	5.2	9.2
<i>NCREIF-ODCE</i>			2.1	8.8	12.1	12.2	5.8	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>			1.7	8.0	11.0	10.9	6.9	8.0	13.3	11.8	11.0	10.5
JP Morgan Core Real Estate	140,951,102	11.8	1.9	7.3	10.4	11.4	--	7.3	14.1	10.0	14.8	11.0
<i>NCREIF-ODCE</i>			2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>			1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
Fidelity Real Estate Growth III	799,717	0.1	-3.6	-0.1	19.3	17.5	--	-0.1	34.0	26.7	19.3	10.6
<i>NCREIF-ODCE</i>			2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>			1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
<b>Total Commodities</b>	<b>36,514,186</b>	<b>3.1</b>	<b>3.9</b>	<b>11.8</b>	<b>-11.6</b>	<b>-9.2</b>	<b>--</b>	<b>11.8</b>	<b>-25.8</b>	<b>-16.6</b>	<b>-9.5</b>	<b>-1.2</b>
<i>Bloomberg Commodity Index TR USD</i>			2.7	11.8	-11.3	-9.0	--	11.8	-24.7	-17.0	-9.5	-1.1
Gresham MTAP Commodity Builder	36,514,186	3.1	3.9	11.8	-11.6	--	--	11.8	-25.8	-16.6	--	--
<i>Bloomberg Commodity Index TR USD</i>			2.7	11.8	-11.3	--	--	11.8	-24.7	-17.0	--	--
<b>Total Cash</b>	<b>27,959,461</b>	<b>2.3</b>	<b>0.2</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	<b>1.2</b>	<b>0.5</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>
91 Day T-Bills			0.1	0.3	0.1	0.1	0.7	0.3	0.0	0.0	0.0	0.1
Cash Account	27,959,461	2.3	0.2	0.5	0.4	0.4	1.2	0.5	0.4	0.3	0.3	0.4
91 Day T-Bills			0.1	0.3	0.1	0.1	0.7	0.3	0.0	0.0	0.0	0.1

Research Affiliates converted to PIMCO RAE Fundamental Plus Instl on 6/5/15 (performance prior to this date represents previously held Research Affiliates Equity US Large, L.P.). ARA American funded 6/22/2016. Fidelity Real Estate Growth II liquidated 12/31/2015. Loomis Sayles Large Cap Growth funded 12/31/2016. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.

Investment Manager  
Performance Analysis - 3 & 5 Years (Net of Fees)

Period Ending: December 31, 2016

3 Years

	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
SSGA S&P 500 Flag.	8.89%	0.02%	6.79%	0.04%	1.00	0.04%	1.00	1.29	0.39	99.98%	99.22%
PIMCO RAE Fundamental PLUS Instl	7.86%	-1.02%	7.22%	-0.97%	0.99	2.51%	0.88	1.07	-0.41	92.85%	111.96%
Atlanta Capital Mgmt	8.72%	1.80%	8.46%	4.23%	0.65	6.35%	0.62	1.02	0.28	85.76%	45.31%
Dodge & Cox Intl Stock	-1.34%	-0.18%	12.74%	0.00%	1.16	5.72%	0.81	-0.11	-0.03	101.31%	102.82%
Vontobel	0.06%	1.22%	7.77%	0.67%	0.52	7.45%	0.45	-0.01	0.16	76.66%	69.65%
PIMCO Core Plus	2.79%	-0.24%	3.27%	0.03%	0.91	0.63%	0.97	0.82	-0.38	91.06%	90.89%
SSGA TIPS	2.18%	-0.08%	4.38%	-0.07%	1.00	0.02%	1.00	0.47	-3.06	99.15%	101.43%
Brandywine Global Fixed Income	-2.01%	-1.87%	8.26%	-1.88%	0.90	4.59%	0.70	-0.26	-0.41	67.32%	101.96%
Stone Harbor Local Markets Ins	-5.43%	-1.33%	12.26%	-1.16%	1.04	1.54%	0.99	-0.45	-0.87	96.55%	108.48%
Direct Real Estate	10.83%	-1.23%	8.11%	-20.93%	2.63	7.64%	0.18	1.32	-0.16	88.78%	--
JP Morgan Core Real Estate	10.45%	-1.61%	1.46%	-1.09%	0.96	0.75%	0.74	7.10	-2.16	85.30%	--
Fidelity Real Estate Growth III	19.26%	7.20%	10.51%	-51.91%	5.90	9.59%	0.54	1.82	0.75	170.96%	--
Gresham MTAP Commodity Builder	-11.57%	-0.31%	16.64%	-0.79%	0.96	2.28%	0.98	-0.70	-0.14	94.17%	99.64%

5 Years

	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
SSGA S&P 500 Flag.	14.66%	0.00%	9.10%	0.04%	1.00	0.05%	1.00	1.60	-0.03	99.89%	99.49%
PIMCO RAE Fundamental PLUS Instl	14.70%	0.04%	9.17%	0.55%	0.97	2.56%	0.92	1.59	0.01	97.07%	82.74%
Atlanta Capital Mgmt	15.08%	0.54%	10.12%	3.55%	0.79	5.06%	0.81	1.48	0.11	88.41%	57.59%
Dodge & Cox Intl Stock	7.99%	0.96%	13.93%	0.14%	1.12	4.87%	0.89	0.57	0.20	109.41%	100.01%
Vontobel	5.26%	-1.76%	9.61%	0.85%	0.63	7.53%	0.59	0.54	-0.23	70.89%	81.36%
PIMCO Core Plus	2.62%	0.38%	3.28%	0.43%	0.98	1.08%	0.89	0.77	0.36	110.74%	99.53%
SSGA TIPS	0.82%	-0.07%	5.14%	-0.07%	1.00	0.02%	1.00	0.14	-2.89	98.94%	100.77%
Brandywine Global Fixed Income	0.79%	1.54%	7.23%	1.40%	0.81	5.05%	0.54	0.10	0.30	74.30%	55.29%
Direct Real Estate	9.35%	-2.86%	6.38%	-9.70%	1.56	6.14%	0.08	1.45	-0.47	72.33%	--
JP Morgan Core Real Estate	11.41%	-0.79%	1.44%	-0.45%	0.97	0.87%	0.63	7.88	-0.91	92.03%	--
Fidelity Real Estate Growth III	17.48%	5.28%	8.30%	-37.91%	4.54	7.60%	0.42	2.10	0.69	159.00%	--

Private Markets  
Non Marketable Securities Overview

Period Ending: December 31, 2016

Vintage	Manager & Fund Name	Estimated 12/31 Market Value <sup>3</sup>	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI) <sup>1</sup>	Tot. Value/ Paid-In (TVPI) <sup>2</sup>	Net IRR Since Inception <sup>5</sup>	IRR Date
2011	HarbourVest Partners IX-Buyout Fund L.P.	\$11,949,936	\$20,000,000	\$12,050,000	60%	\$7,950,000	\$3,359,441	\$12,386,264	27.9%	127.0%	14.9%	9/30/16
2010	KKR Mezzanine Partners I L.P. <sup>6</sup>	\$8,318,974	\$20,000,000	\$20,000,000	100%	\$0	\$20,244,956	\$8,445,262	101.2%	142.8%	8.0%	9/30/16
2010	PIMCO Distressed Credit Fund <sup>4</sup>	\$2,240,492	\$20,000,000	\$20,000,000	100%	\$0	\$25,623,865	\$2,240,492	128.1%	139.3%	12.3%	12/31/16
2016	TPG Diversified Credit Program	\$12,274,102	\$75,000,000	\$12,274,102	16%	\$62,725,898	\$0	-	0.0%	100.0%	-	9/30/16
<b>Total Alternative Illiquids</b>		<b>\$34,783,504</b>	\$135,000,000	\$64,324,102	48%	\$70,675,898	\$49,228,262	\$23,072,018	35.9%	112.4%		
<b>% of Portfolio (Market Value)</b>		<b>2.9%</b>										

	Management Fee	Admin Fee	Interest Expense	Other Expense	Total Expense <sup>7</sup>
HarbourVest Partners IX-Buyout Fund L.P.	\$49,442	\$0	\$0	\$3,187	\$52,629
KKR Mezzanine Partners I L.P.	\$31,153	\$0	\$0	\$0	\$31,153
PIMCO Distressed Credit Fund <sup>4</sup>	\$12,589	\$2,518	\$0	\$2,566	\$17,673
TPG Diversified Credit Program	\$0	\$0	\$0	\$0	\$0
	\$93,184	\$2,518	\$0	\$5,753	<b>\$101,455</b>

<sup>1</sup>(DPI) is equal to (capital returned / capital called)

<sup>2</sup>(TVPI) is equal to (market value + capital returned) / capital called

<sup>3</sup>Last known market value + capital calls - distributions (HarbourVest as of 9/30/2016)

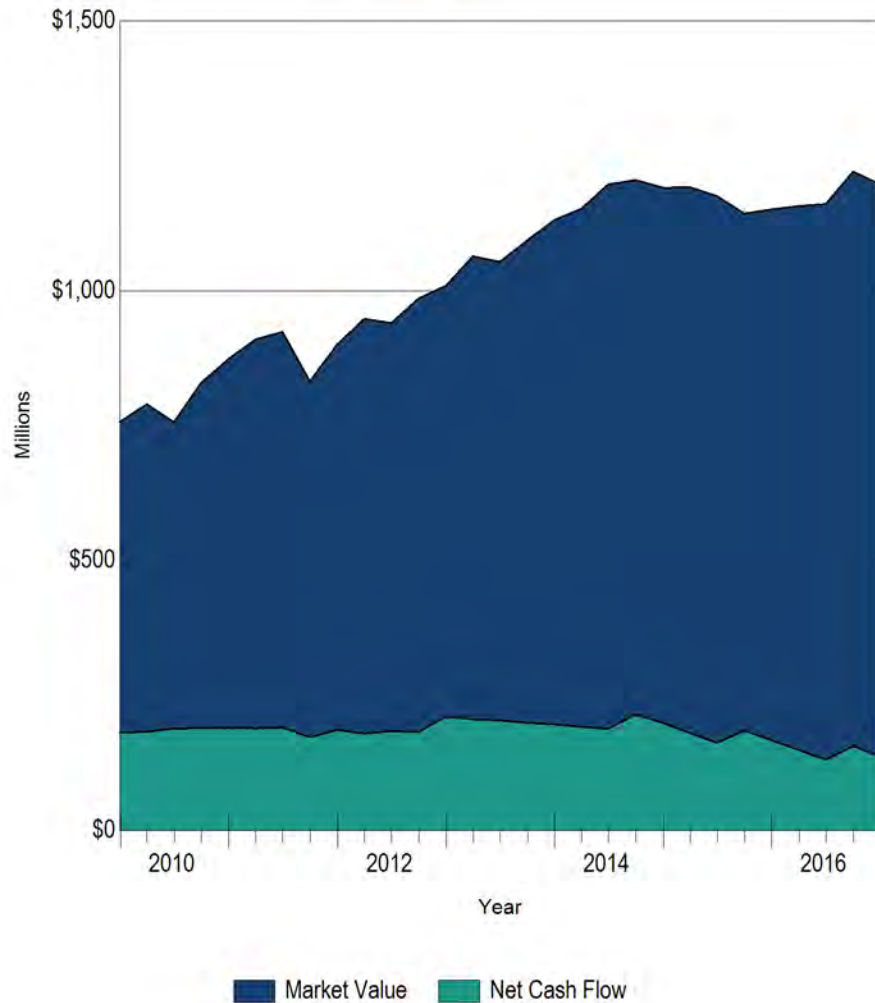
<sup>4</sup>Investment period ended, no further capital to be called.

<sup>5</sup>Net IRR is calculated on the cash flows of the underlying investments of the fund and is net of the underlying fund fees and carried interest

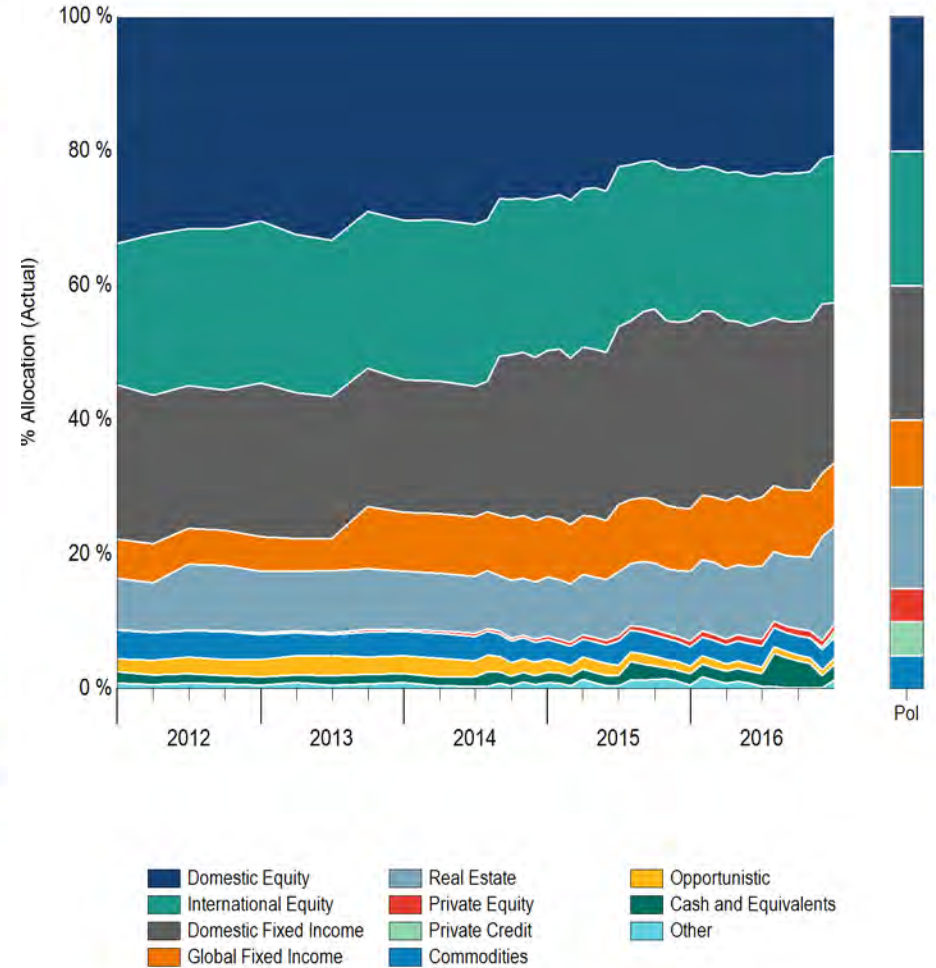
<sup>6</sup>KKR: Total capital called is \$22,892,574, which includes recycled distributions. Unused capital commitment is \$2,653,999 after including distribution proceeds available for reinvestment

<sup>7</sup>All HarbourVest fees and expenses are for 3Q 2016

Market Value History



Asset Allocation History



\*Other balance represents Clifton Group

Total Fund  
Asset Allocation vs. Policy

Period Ending: December 31, 2016





# Total Fund Investment Fund Fee Analysis

Period Ending: December 31, 2016

Account	Fee Schedule	Market Value As of 12/31/2016	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
ARA American Strategic Value Realty	1.25% of First \$10.0 Mil, 1.20% of Next \$15.0 Mil, 1.10% of Next \$25.0 Mil, 1.00% Thereafter	\$10,851,862	0.9%	\$135,222	1.25%
Atlanta Capital Mgmt	0.80% of First \$50.0 Mil, 0.70% of Next \$100.0 Mil, 0.60% Thereafter	\$49,277,093	4.1%	\$394,217	0.80%
Brandywine Global Fixed Income	0.45% of First \$50.0 Mil, 0.40% of Next \$50.0 Mil, 0.35% Thereafter	\$57,734,375	4.8%	\$255,937	0.44%
Cash Account	No Fee	\$27,959,461	2.3%	--	--
Direct Real Estate	No Fee	\$21,403,241	1.8%	--	--
Dodge & Cox Intl Stock	0.64% of Assets	\$138,738,443	11.6%	\$887,926	0.64%
Fidelity Real Estate Growth III	1.40% of Assets	\$799,717	0.1%	\$11,196	1.40%
Gresham MTAP Commodity Builder	0.75% of First \$50.0 Mil, 0.50% Thereafter	\$36,514,186	3.1%	\$273,856	0.75%
Harbourvest Partners IX Buyout Fund L.P.	\$200,000 Annually	\$11,949,936	1.0%	\$200,000	1.67%
JP Morgan Core Real Estate	1.00% of Assets	\$140,951,102	11.8%	\$1,409,511	1.00%
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	\$300,000 Annually	\$8,318,974	0.7%	\$300,000	3.61%
Loomis Sayles Large Cap Growth	0.45% of First \$100.0 Mil, 0.40% Thereafter	\$70,000,000	5.8%	\$315,000	0.45%
Pacific Asset Corporate Loan	0.37% of Assets	\$65,764,668	5.5%	\$243,329	0.37%
PIMCO Core Plus	0.50% of First \$25.0 Mil, 0.38% of Next \$25.0 Mil, 0.25% Thereafter	\$185,961,946	15.5%	\$558,655	0.30%
PIMCO Distressed Credit Fund	\$150,000 Annually	\$2,240,492	0.2%	\$150,000	6.69%
PIMCO RAE Fundamental PLUS Instl	0.40% of Assets	\$50,024,385	4.2%	\$200,098	0.40%
SSGA S&P 500 Flag.	0.04% of First \$100.0 Mil, 0.03% Thereafter	\$78,890,128	6.6%	\$31,556	0.04%
SSGA TIPS	0.05% of First \$100.0 Mil, 0.04% Thereafter	\$33,602,048	2.8%	\$18,145	0.05%
Stone Harbor Local Markets Ins	0.89% of Assets	\$55,250,423	4.6%	\$491,729	0.89%
The Clifton Group	\$50,000 Annually	\$14,899,048	1.2%	\$50,000	0.34%
TPG Diversified Credit Program	Please see footnote	\$12,274,102	1.0%	--	--
Vontobel	0.85% of First \$50.0 Mil, 0.75% of Next \$50.0 Mil, 0.65% Thereafter	\$123,369,019	10.3%	\$951,899	0.77%
<b>Investment Management Fee</b>		<b>\$1,196,774,651</b>	<b>100.0%</b>	<b>\$6,878,276</b>	<b>0.57%</b>

\*HarbourVest, KKR and PIMCO Distressed Credit fees are estimated gross management fees only and do not include incentive allocations or offsetting cash flows received by the fund.

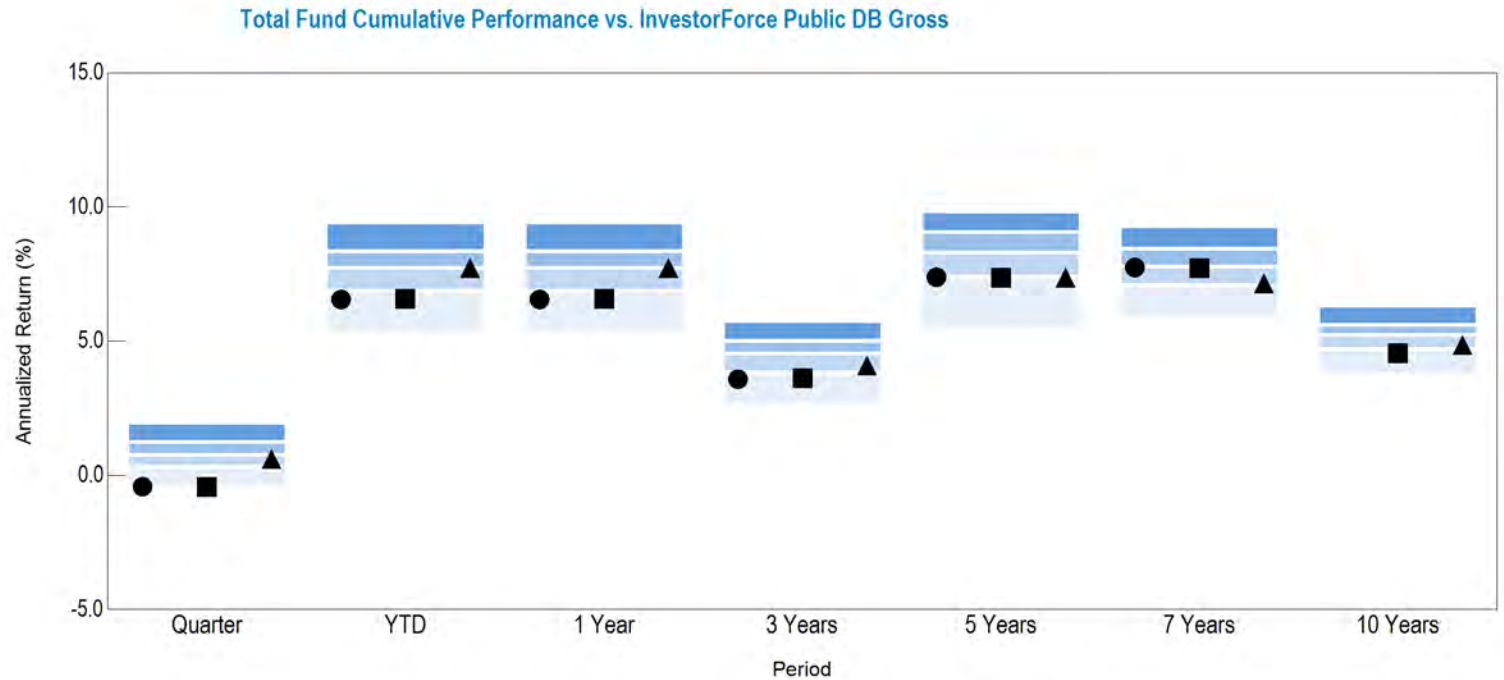
\*Clifton Group fee schedule represents contractual minimum fee. Actual fee charged is \$1,500 per month through at least 6/30/2015.

\*TPG: No management fee at SMA level. Subject to the annual fees of each of the underlying TSSP funds. (1) TAO 65bps on unfunded commitments and 1.35% on remaining capital contributions (long-term designation) (2) TSLE 1.5% on commitments, 1.25% on remaining capital contributions post commitment period (3) TICP 30bps on remaining capital contributions.

Total Fund

Peer Universe Comparison: Cumulative Performance (Gross of Fees)

Period Ending: December 31, 2016



	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	1.9	9.4	9.4	5.7	9.8	9.3	6.3							
25th Percentile	1.2	8.4	8.4	5.0	9.1	8.5	5.6							
Median	0.8	7.7	7.7	4.5	8.3	7.8	5.2							
75th Percentile	0.3	6.9	6.9	3.8	7.4	7.1	4.7							
95th Percentile	-0.4	5.3	5.3	2.7	5.4	5.9	3.8							
# of Portfolios	311	305	305	284	266	236	216							
● Total Fund	-0.4 (95)	6.6 (84)	6.6 (84)	3.6 (82)	7.4 (76)	7.7 (52)	-- (--)							
■ Total Fund ex Clifton	-0.4 (96)	6.6 (83)	6.6 (83)	3.6 (81)	7.4 (76)	7.7 (52)	4.6 (81)							
▲ Policy Index	0.6 (59)	7.7 (51)	7.7 (51)	4.1 (68)	7.4 (76)	7.2 (74)	4.8 (70)							

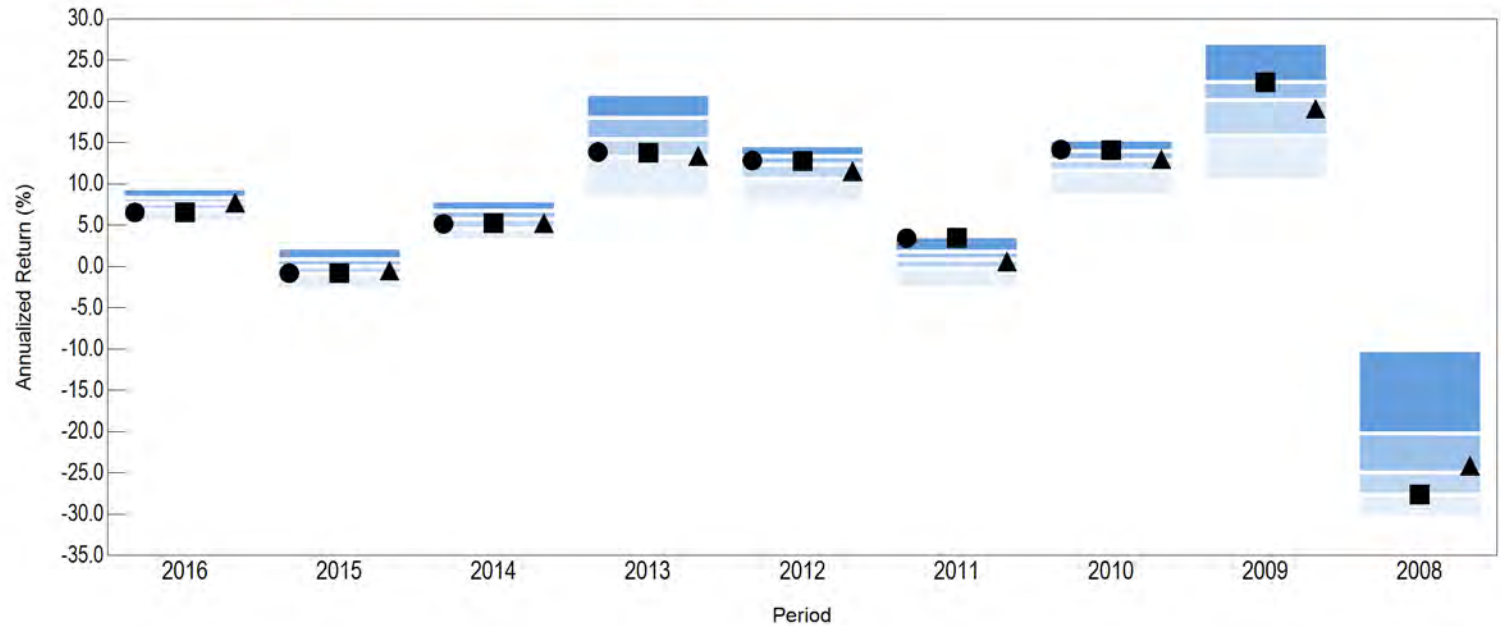


Total Fund

Peer Universe Comparison: Consecutive Periods (Gross of Fees)

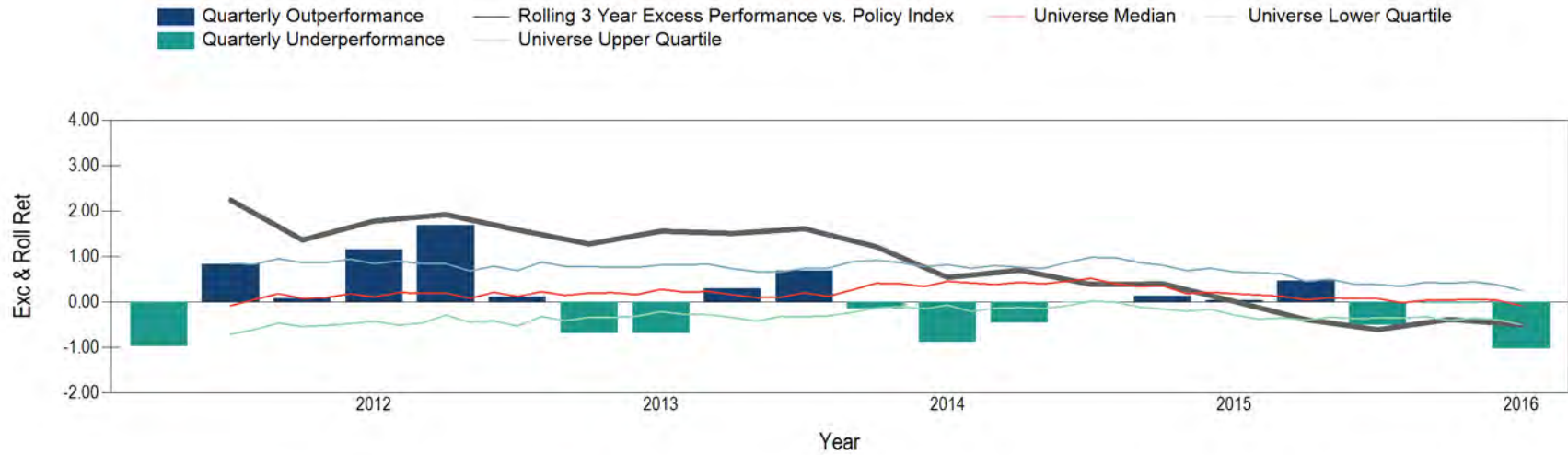
Period Ending: December 31, 2016

Total Fund Consecutive Periods vs. InvestorForce Public DB Gross

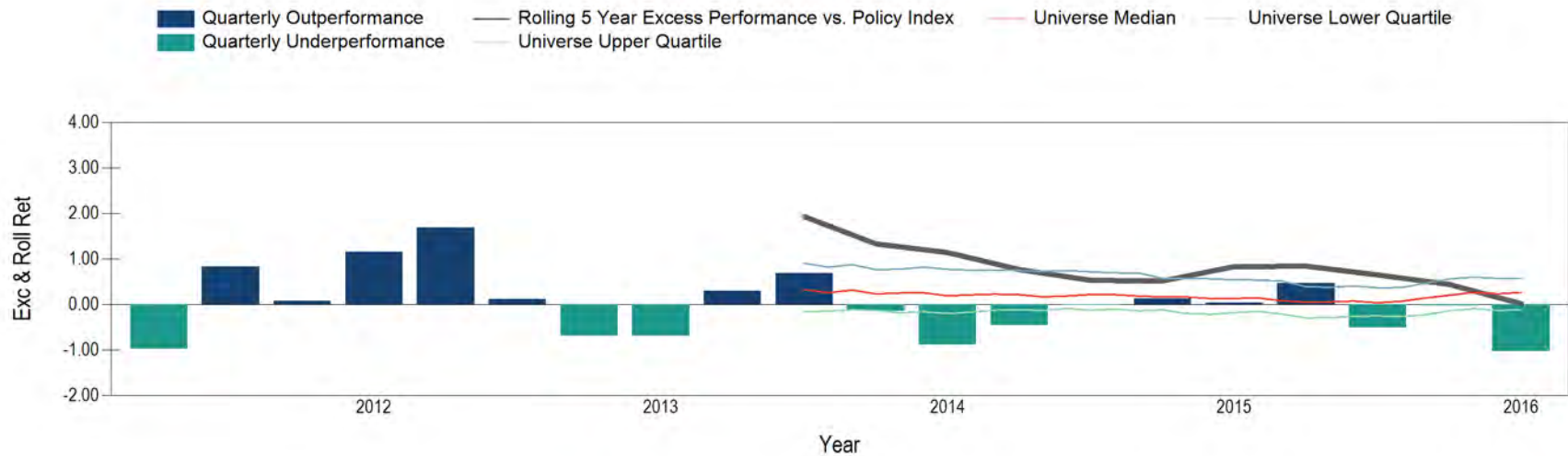


	2016		2015		2014		2013		2012		2011		2010		2009		2008	
<b>5th Percentile</b>	9.4	2.2	8.0	20.8	14.6	3.6	15.4	27.0	-10.1									
<b>25th Percentile</b>	8.4	0.9	6.8	18.0	13.4	1.9	14.0	22.4	-20.1									
<b>Median</b>	7.7	0.1	5.8	15.5	12.4	0.9	12.9	20.2	-24.9									
<b>75th Percentile</b>	6.9	-0.9	4.6	13.3	10.7	-0.3	11.7	15.9	-27.6									
<b>95th Percentile</b>	5.3	-2.6	3.2	8.5	7.8	-2.5	8.6	10.5	-30.3									
<b># of Portfolios</b>	305	316	248	231	236	206	188	184	181									
<b>● Total Fund</b>	6.6 (84)	-0.8 (74)	5.1 (66)	13.8 (71)	12.8 (40)	3.4 (6)	14.2 (21)	-- (--)	-- (--)									
<b>■ Total Fund ex Clifton</b>	6.6 (83)	-0.8 (75)	5.2 (64)	13.8 (72)	12.7 (43)	3.5 (6)	14.1 (24)	22.3 (27)	-27.6 (76)									
<b>▲ Policy Index</b>	7.7 (51)	-0.5 (67)	5.2 (64)	13.4 (74)	11.6 (69)	0.6 (60)	13.0 (48)	19.1 (57)	-24.1 (44)									

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance

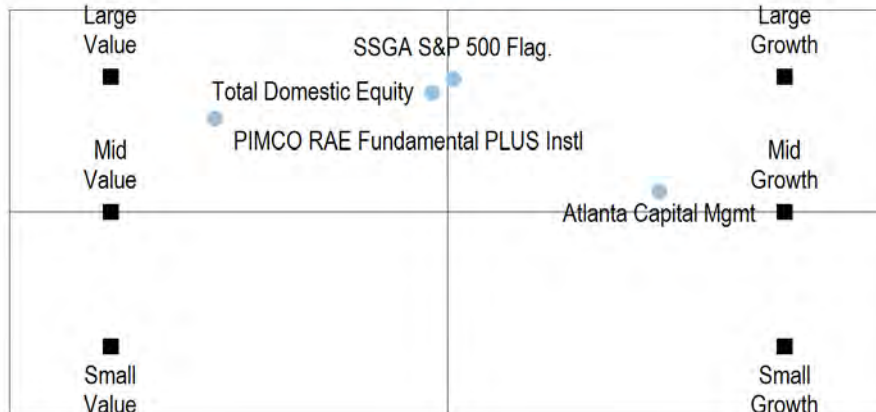


Total Domestic Equity  
Asset Class Overview (Gross of Fees)

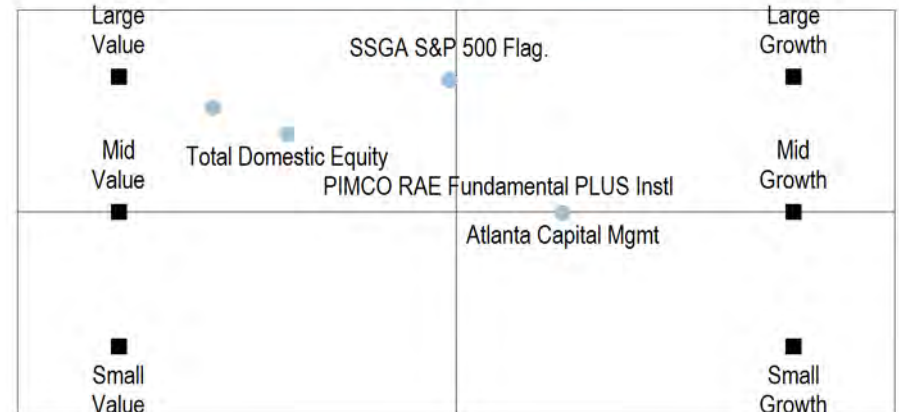
Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Domestic Equity</b>	<b>248,191,606</b>	<b>4.0</b>	<b>13.0</b>	<b>8.3</b>	<b>13.6</b>	<b>--</b>	<b>13.0</b>	<b>1.2</b>	<b>11.0</b>	<b>32.2</b>	<b>12.8</b>
<i>Russell 3000</i>		4.2	12.7	8.4	14.7	--	12.7	0.5	12.6	33.6	16.4
<i>eA US Large Cap Core Equity Gross Rank</i>		45	20	48	65	--	20	44	83	60	79
SSGA S&P 500 Flag.	78,890,128	3.9	12.0	8.9	14.7	--	12.0	1.5	13.7	32.4	16.1
<i>S&amp;P 500</i>		3.8	12.0	8.9	14.7	--	12.0	1.4	13.7	32.4	16.0
<i>eA US Large Cap Core Equity Gross Rank</i>		49	31	30	34	--	31	40	42	58	39
PIMCO RAE Fundamental PLUS Instl	50,024,385	5.3	15.9	8.3	15.1	7.4	15.9	-2.7	12.7	36.0	16.8
<i>S&amp;P 500</i>		3.8	12.0	8.9	14.7	6.9	12.0	1.4	13.7	32.4	16.0
<i>eA US Large Cap Core Equity Gross Rank</i>		17	6	45	26	52	6	86	58	22	29
Loomis Sayles Large Cap Growth	70,000,000	--	--	--	--	--	--	--	--	--	--
<i>Russell 1000 Growth</i>		--	--	--	--	--	--	--	--	--	--
<i>eA US Large Cap Growth Equity Gross Rank</i>		--	--	--	--	--	--	--	--	--	--
Atlanta Capital Mgmt	49,277,093	2.8	12.6	9.6	15.9	--	12.6	10.4	5.8	37.8	15.5
<i>Russell 2500</i>		6.1	17.6	6.9	14.5	--	17.6	-2.9	7.1	36.8	17.9
<i>eA US Small-Mid Cap Equity Gross Rank</i>		74	62	16	28	--	62	1	56	52	55

U.S. Effective Style Map  
3 Years Ending December 31, 2016



U.S. Effective Style Map  
5 Years Ending December 31, 2016



Total Domestic Equity  
Asset Class Overview (Net of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Domestic Equity</b>	<b>248,191,606</b>	<b>4.0</b>	<b>12.7</b>	<b>7.9</b>	<b>13.1</b>	<b>--</b>	<b>12.7</b>	<b>0.8</b>	<b>10.5</b>	<b>31.6</b>	<b>12.3</b>
<i>Russell 3000</i>		4.2	12.7	8.4	14.7	--	12.7	0.5	12.6	33.6	16.4
SSGA S&P 500 Flag.	78,890,128	3.8	12.0	8.9	14.7	--	12.0	1.4	13.7	32.4	15.9
<i>S&amp;P 500</i>		3.8	12.0	8.9	14.7	--	12.0	1.4	13.7	32.4	16.0
PIMCO RAE Fundamental PLUS Instl	50,024,385	5.2	15.4	7.9	14.7	7.0	15.4	-3.2	12.3	35.6	16.7
<i>S&amp;P 500</i>		3.8	12.0	8.9	14.7	6.9	12.0	1.4	13.7	32.4	16.0
Loomis Sayles Large Cap Growth	70,000,000	--	--	--	--	--	--	--	--	--	--
<i>Russell 1000 Growth</i>		--	--	--	--	--	--	--	--	--	--
Atlanta Capital Mgmt	49,277,093	2.6	11.7	8.7	15.1	--	11.7	9.6	5.0	37.0	14.7
<i>Russell 2500</i>		6.1	17.6	6.9	14.5	--	17.6	-2.9	7.1	36.8	17.9

Common Holdings Matrix  
 As of December 31, 2016

	SSGA S&P 500 Flag.		Atlanta Capital Mgmt	
	#	%	#	%
SSGA S&P 500 Flag.	--	--	9	17.98
Atlanta Capital Mgmt	9	0.44	--	--

Correlation Matrix  
 Last 5 Years

	Total Domestic Equity	SSGA S&P 500 Flag.	PIMCO RAE Fundamental PLUS Instl	Loomis Sayles Large Cap Growth	Atlanta Capital Mgmt	Russell 3000
Total Domestic Equity	1.00	--	--	--	--	--
SSGA S&P 500 Flag.	0.93	1.00	--	--	--	--
PIMCO RAE Fundamental PLUS Instl	0.96	0.96	1.00	--	--	--
Loomis Sayles Large Cap Growth	--	--	--	--	--	--
Atlanta Capital Mgmt	0.89	0.85	0.86	--	1.00	--
Russell 3000	0.94	0.99	0.97	--	0.88	1.00

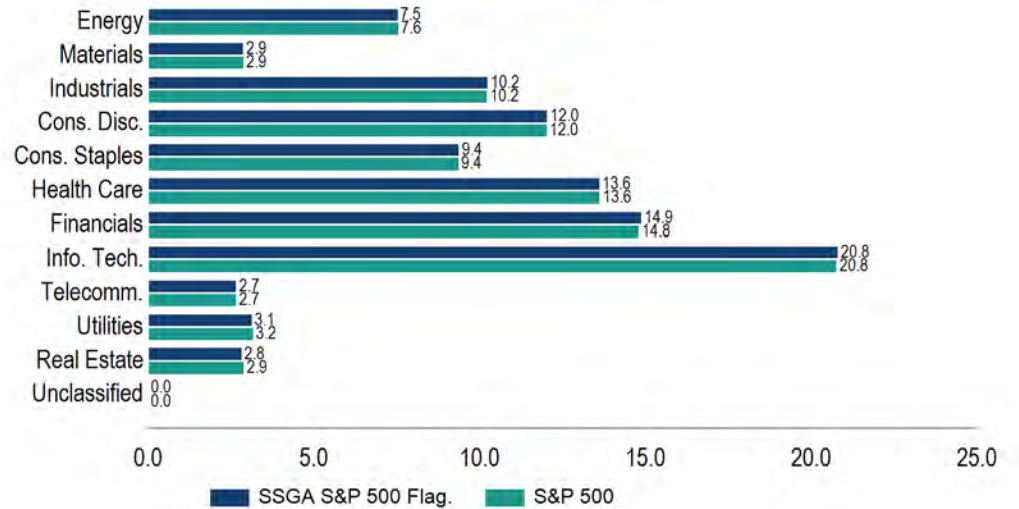
SSGA S&P 500 Flag.  
 Manager Portfolio Overview

Period Ending: December 31, 2016

Characteristics

	Portfolio	S&P 500
Number of Holdings	505	505
Weighted Avg. Market Cap. (\$B)	139.01	138.54
Median Market Cap. (\$B)	18.83	18.83
Price To Earnings	23.08	22.27
Price To Book	4.68	4.38
Price To Sales	3.51	3.34
Return on Equity (%)	20.88	18.52
Yield (%)	2.10	2.10
Beta	1.00	1.00

Sector Allocation (%) vs S&P 500



\*Unclassified includes Cash

Top Holdings  
 Ending Period Weight

APPLE	3.22%
MICROSOFT	2.52%
EXXON MOBIL	1.95%
JOHNSON & JOHNSON	1.63%
JP MORGAN CHASE & CO.	1.61%
BERKSHIRE HATHAWAY 'B'	1.60%
AMAZON.COM	1.54%
GENERAL ELECTRIC	1.46%
FACEBOOK CLASS A	1.40%
AT&T	1.36%
<b>Total</b>	<b>18.29%</b>

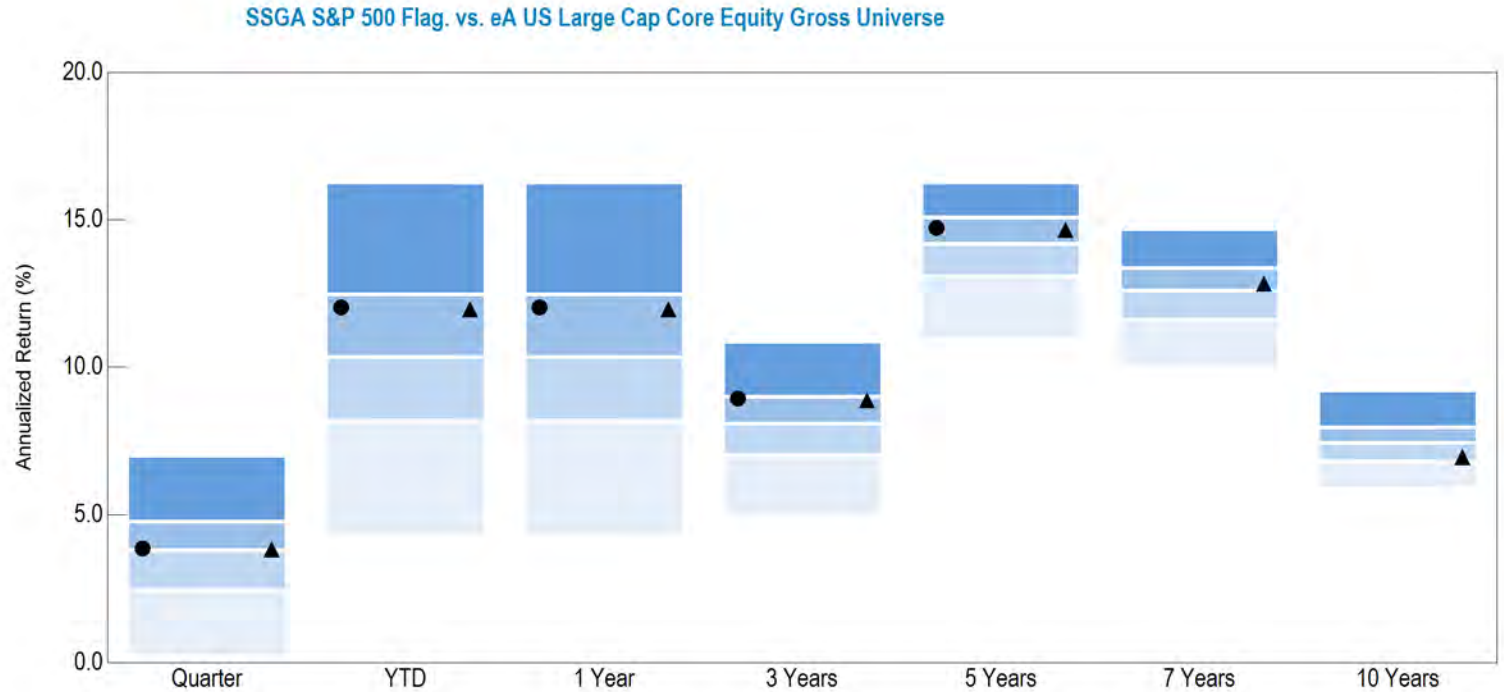
Top Contributors

	Avg Wgt	Return	Contribution
JP MORGAN CHASE & CO.	1.37	30.52	0.42
BANK OF AMERICA	0.92	41.72	0.38
WELLS FARGO & CO	1.14	25.50	0.29
MICROSOFT	2.55	8.60	0.22
CITIGROUP	0.78	26.25	0.20
BERKSHIRE HATHAWAY 'B'	1.49	12.81	0.19
GOLDMAN SACHS GP.	0.38	48.93	0.18
CHEVRON	1.08	15.50	0.17
NVIDIA	0.21	56.01	0.12
UNITEDHEALTH GROUP	0.73	14.77	0.11

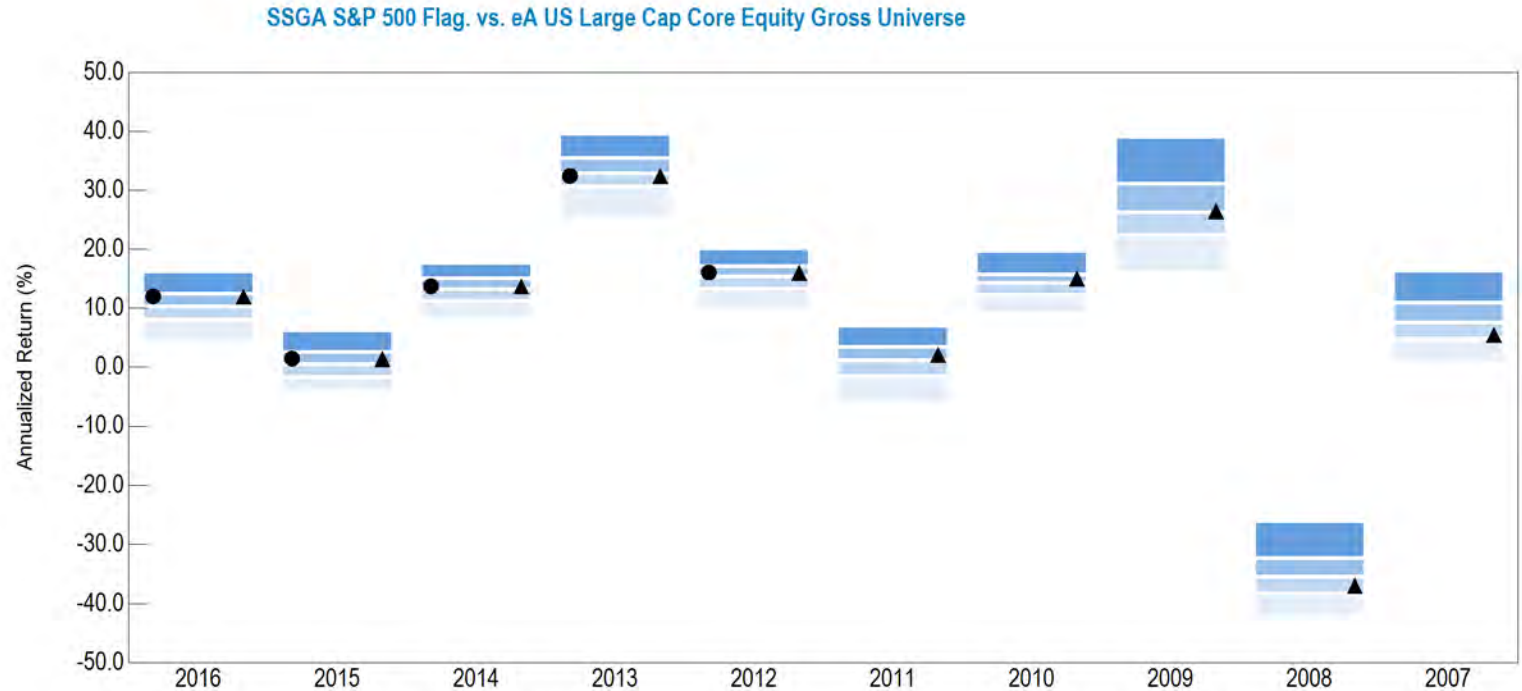
Bottom Contributors

	Avg Wgt	Return	Contribution
AMAZON.COM	1.69	-10.44	-0.18
FACEBOOK CLASS A	1.65	-10.31	-0.17
MEDTRONIC	0.62	-17.06	-0.11
PROCTER & GAMBLE	1.26	-5.58	-0.07
AMGEN	0.57	-11.75	-0.07
CVS HEALTH	0.49	-10.90	-0.05
GILEAD SCIENCES	0.53	-8.92	-0.05
VISA 'A'	0.86	-5.46	-0.05
MERCK & COMPANY	0.88	-4.95	-0.04
SIMON PROPERTY GROUP	0.32	-13.41	-0.04





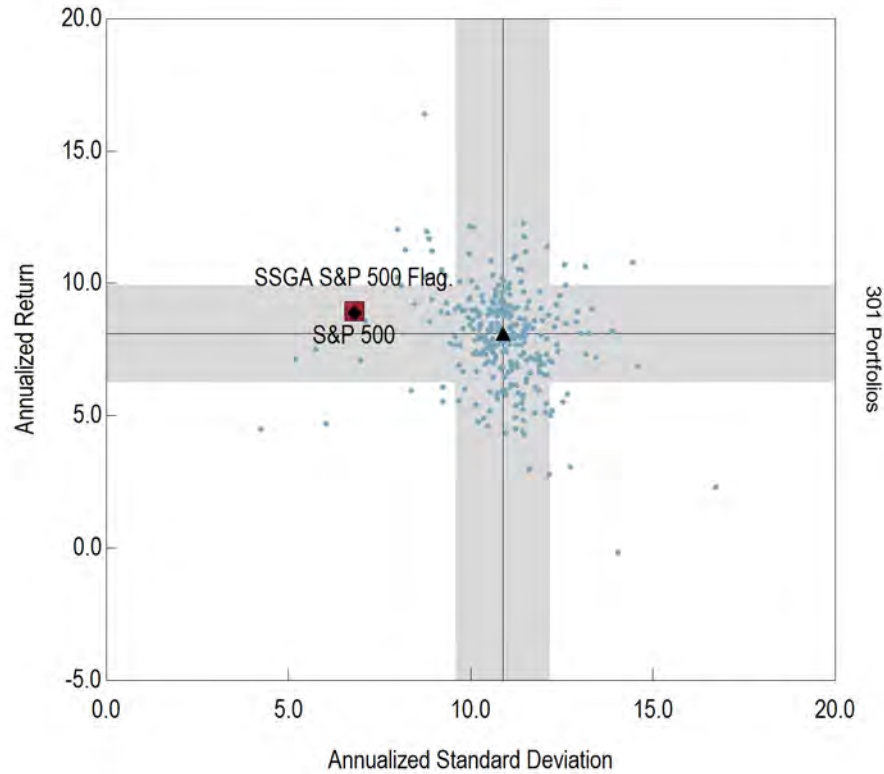
	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>5th Percentile</b>	7.0		16.3		16.3		10.9		16.3		14.7		9.2	
<b>25th Percentile</b>	4.8		12.5		12.5		9.0		15.1		13.4		8.0	
<b>Median</b>	3.8		10.4		10.4		8.1		14.2		12.6		7.4	
<b>75th Percentile</b>	2.5		8.2		8.2		7.0		13.1		11.6		6.8	
<b>95th Percentile</b>	0.2		4.3		4.3		4.9		11.0		10.0		5.9	
<b># of Portfolios</b>	308		308		308		301		277		253		226	
<b>● SSGA S&amp;P 500 Flag.</b>	3.9	(49)	12.0	(31)	12.0	(31)	8.9	(30)	14.7	(34)	--	(--)	--	(--)
<b>▲ S&amp;P 500</b>	3.8	(50)	12.0	(31)	12.0	(31)	8.9	(33)	14.7	(35)	12.8	(45)	6.9	(70)



	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>5th Percentile</b>	16.3	6.3	17.7	39.6	20.1	7.0	19.7	39.1	-26.1	16.3
<b>25th Percentile</b>	12.5	2.7	15.1	35.5	17.2	3.6	15.8	31.2	-32.3	11.1
<b>Median</b>	10.4	0.6	13.3	32.9	15.4	1.3	14.4	26.3	-35.4	7.7
<b>75th Percentile</b>	8.2	-1.6	11.4	30.8	13.4	-1.5	12.3	22.6	-38.1	4.9
<b>95th Percentile</b>	4.3	-4.1	8.2	25.4	9.8	-5.9	9.1	16.1	-42.3	0.7
<b># of Portfolios</b>	308	267	267	261	254	259	254	280	312	320
<b>● SSGA S&amp;P 500 Flag.</b>	12.0 (31)	1.5 (40)	13.7 (42)	32.4 (58)	16.1 (39)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)
<b>▲ S&amp;P 500</b>	12.0 (31)	1.4 (42)	13.7 (42)	32.4 (58)	16.0 (41)	2.1 (40)	15.1 (37)	26.5 (48)	-37.0 (62)	5.5 (71)

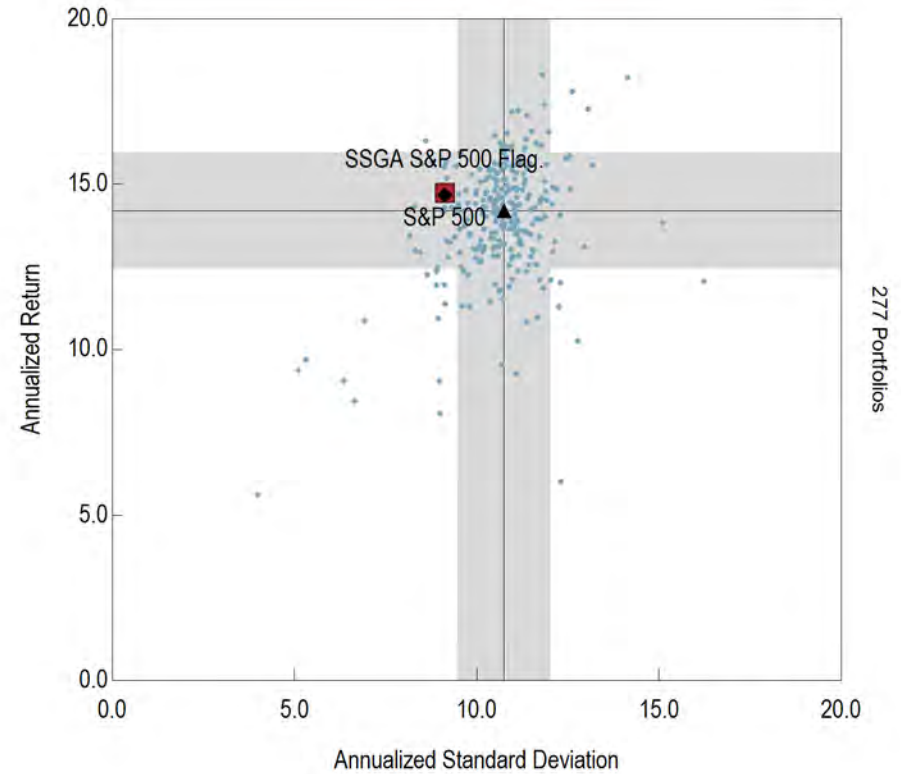


Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016



- SSGA S&P 500 Flag.
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Large Cap Core Equity Gross

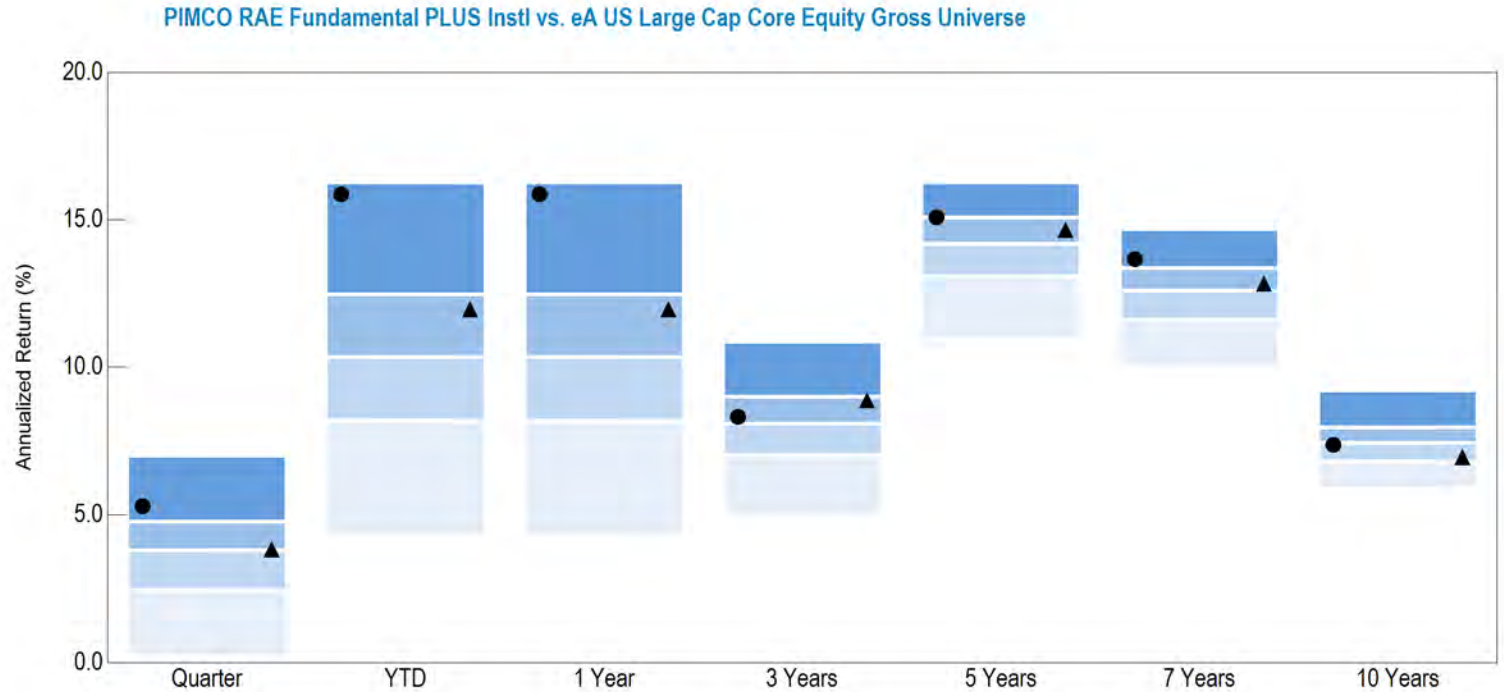
Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016



- SSGA S&P 500 Flag.
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Large Cap Core Equity Gross

PIMCO RAE Fundamental PLUS Instl  
 Cumulative Performance Comparison (Gross of Fees)

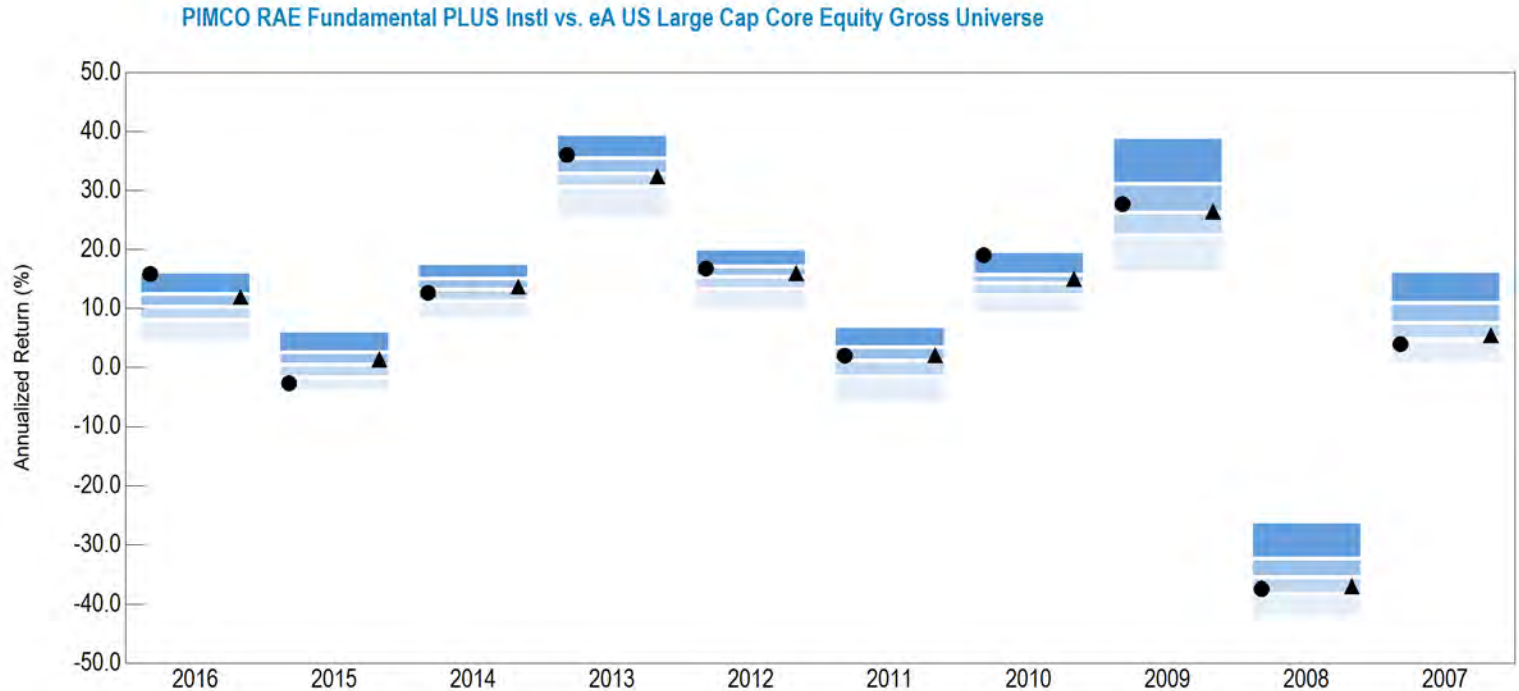
Period Ending: December 31, 2016



	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
	Quarter	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Quarter	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
5th Percentile	7.0	16.3	16.3	10.9	16.3	14.7	9.2	7.0	16.3	16.3	10.9	16.3	14.7	9.2
25th Percentile	4.8	12.5	12.5	9.0	15.1	13.4	8.0	4.8	12.5	12.5	9.0	15.1	13.4	8.0
Median	3.8	10.4	10.4	8.1	14.2	12.6	7.4	3.8	10.4	10.4	8.1	14.2	12.6	7.4
75th Percentile	2.5	8.2	8.2	7.0	13.1	11.6	6.8	2.5	8.2	8.2	7.0	13.1	11.6	6.8
95th Percentile	0.2	4.3	4.3	4.9	11.0	10.0	5.9	0.2	4.3	4.3	4.9	11.0	10.0	5.9
# of Portfolios	308	308	308	301	277	253	226	308	308	308	301	277	253	226
● PIMCO RAE Fundamental PLUS Instl	5.3 (17)	15.9 (6)	15.9 (6)	8.3 (45)	15.1 (26)	13.7 (18)	7.4 (52)	5.3 (17)	15.9 (6)	15.9 (6)	8.3 (45)	15.1 (26)	13.7 (18)	7.4 (52)
▲ S&P 500	3.8 (50)	12.0 (31)	12.0 (31)	8.9 (33)	14.7 (35)	12.8 (45)	6.9 (70)	3.8 (50)	12.0 (31)	12.0 (31)	8.9 (33)	14.7 (35)	12.8 (45)	6.9 (70)

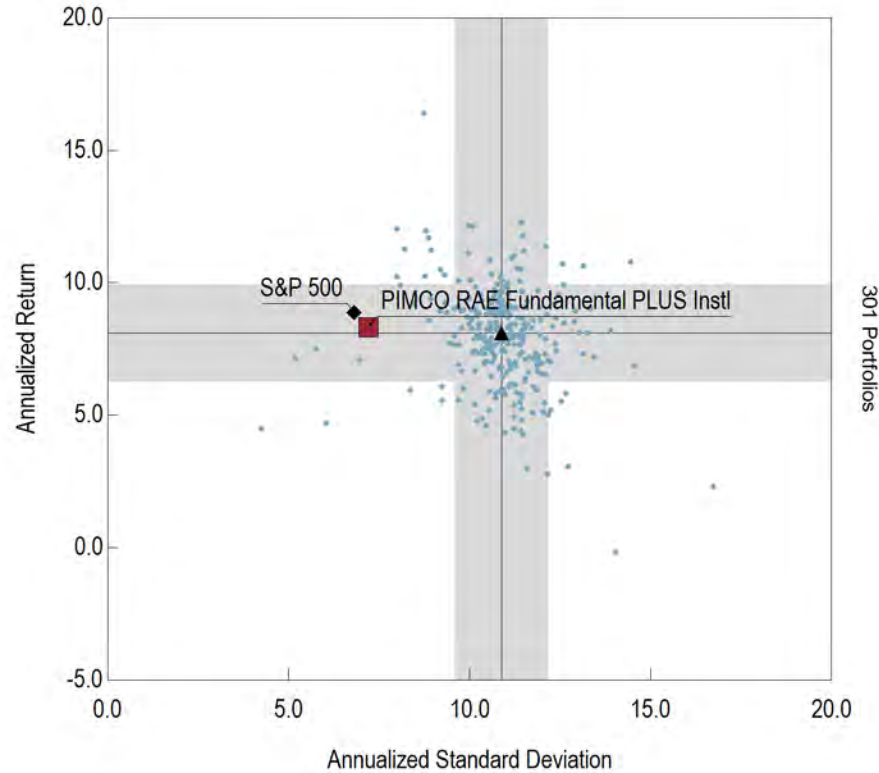
PIMCO RAE Fundamental PLUS Instl  
 Consecutive Performance Comparison (Gross of Fees)

Period Ending: December 31, 2016



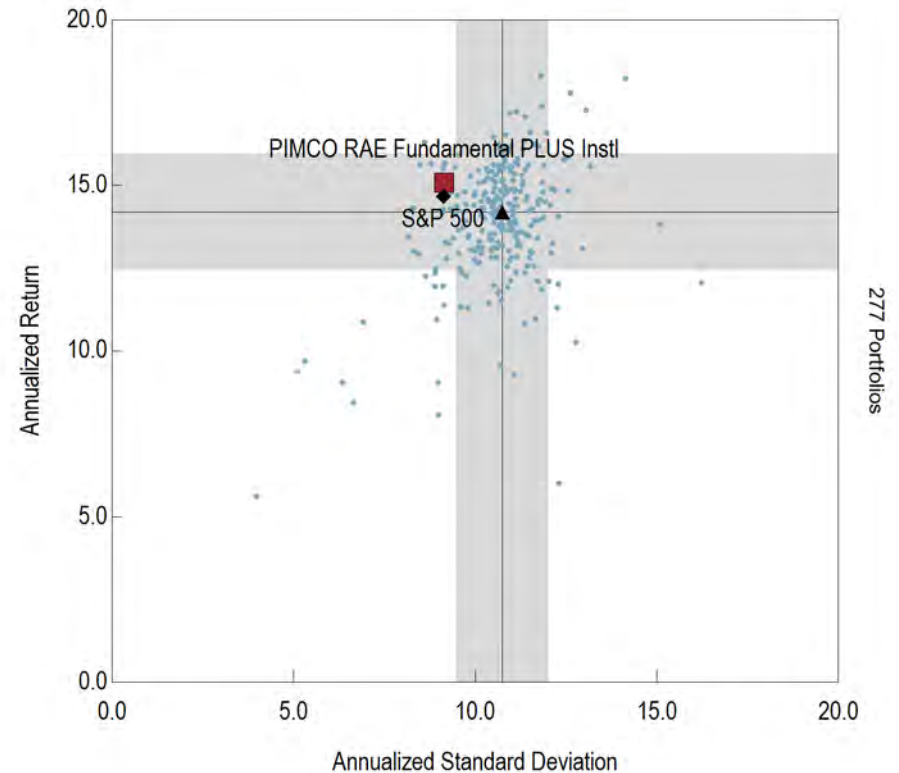
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>Return (Rank)</b>										
5th Percentile	16.3	6.3	17.7	39.6	20.1	7.0	19.7	39.1	-26.1	16.3
25th Percentile	12.5	2.7	15.1	35.5	17.2	3.6	15.8	31.2	-32.3	11.1
Median	10.4	0.6	13.3	32.9	15.4	1.3	14.4	26.3	-35.4	7.7
75th Percentile	8.2	-1.6	11.4	30.8	13.4	-1.5	12.3	22.6	-38.1	4.9
95th Percentile	4.3	-4.1	8.2	25.4	9.8	-5.9	9.1	16.1	-42.3	0.7
# of Portfolios	308	267	267	261	254	259	254	280	312	320
● PIMCO RAE Fundamental PLUS Instl	15.9 (6)	-2.7 (86)	12.7 (58)	36.0 (22)	16.8 (29)	2.0 (41)	19.0 (7)	27.7 (42)	-37.4 (68)	4.0 (80)
▲ S&P 500	12.0 (31)	1.4 (42)	13.7 (42)	32.4 (58)	16.0 (41)	2.1 (40)	15.1 (37)	26.5 (48)	-37.0 (62)	5.5 (71)

Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016

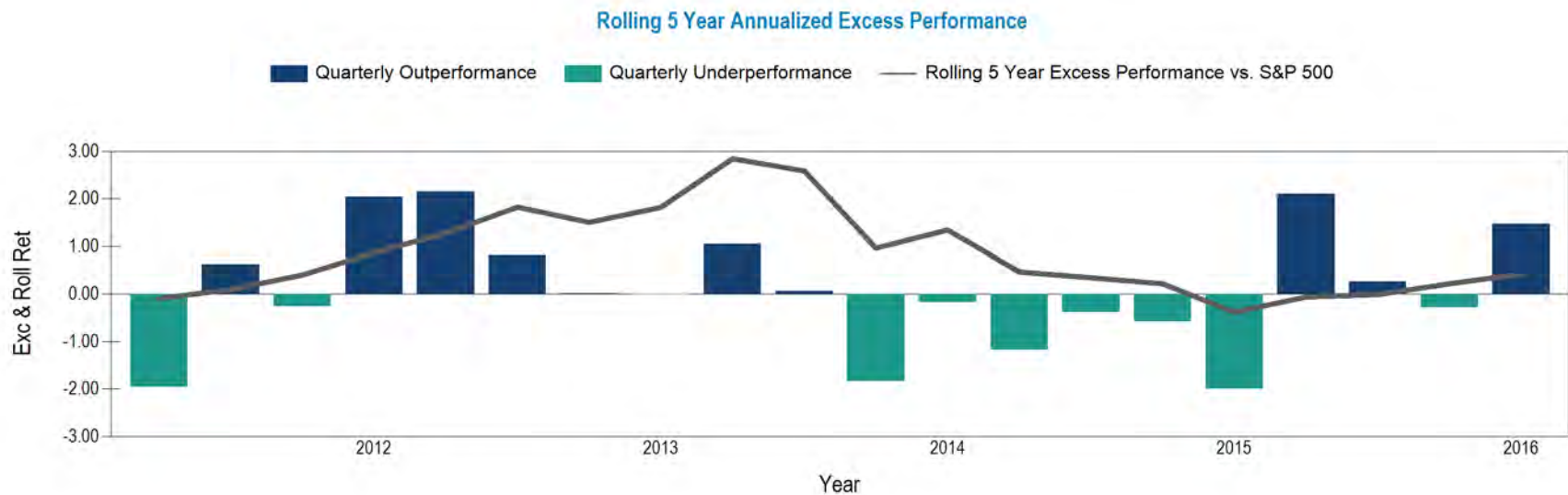
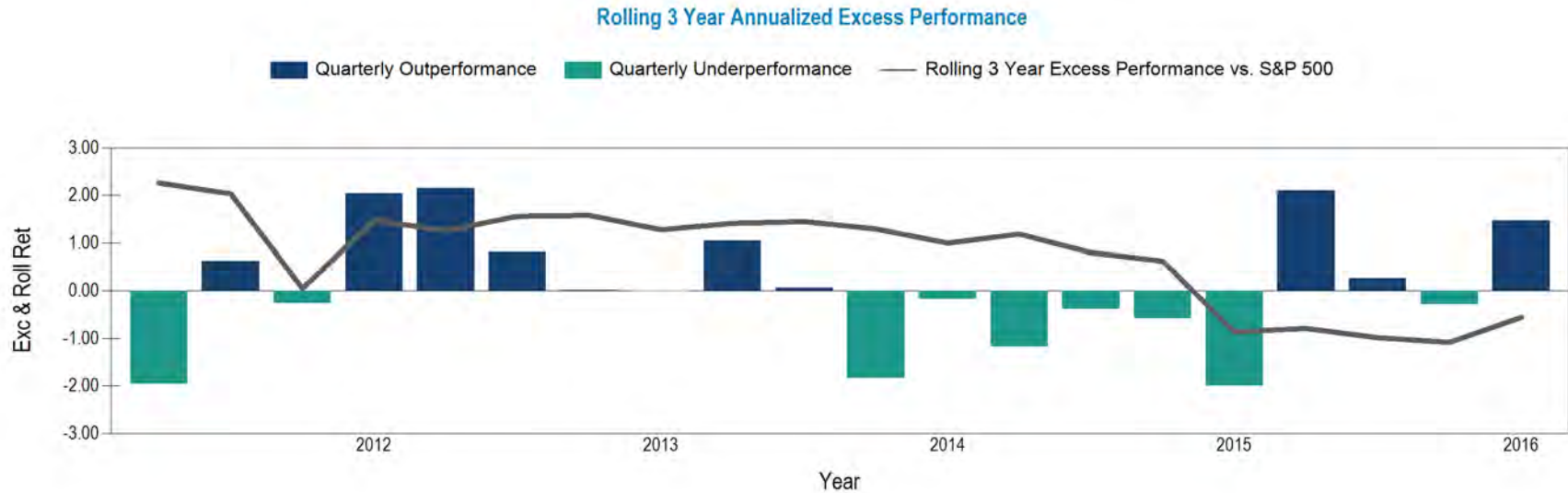


- PIMCO RAE Fundamental PLUS Instl
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Large Cap Core Equity Gross

Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016



- PIMCO RAE Fundamental PLUS Instl
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Large Cap Core Equity Gross





Characteristics

	Portfolio	Russell 2500
Number of Holdings	50	2,476
Weighted Avg. Market Cap. (\$B)	6.91	4.24
Median Market Cap. (\$B)	6.44	1.10
Price To Earnings	31.12	24.83
Price To Book	5.10	3.17
Price To Sales	3.20	2.27
Return on Equity (%)	20.99	12.10
Yield (%)	0.78	1.35
Beta	0.65	1.00

Sector Allocation (%) vs Russell 2500



\*Unclassified includes Cash

Top Holdings  
 Ending Period Weight

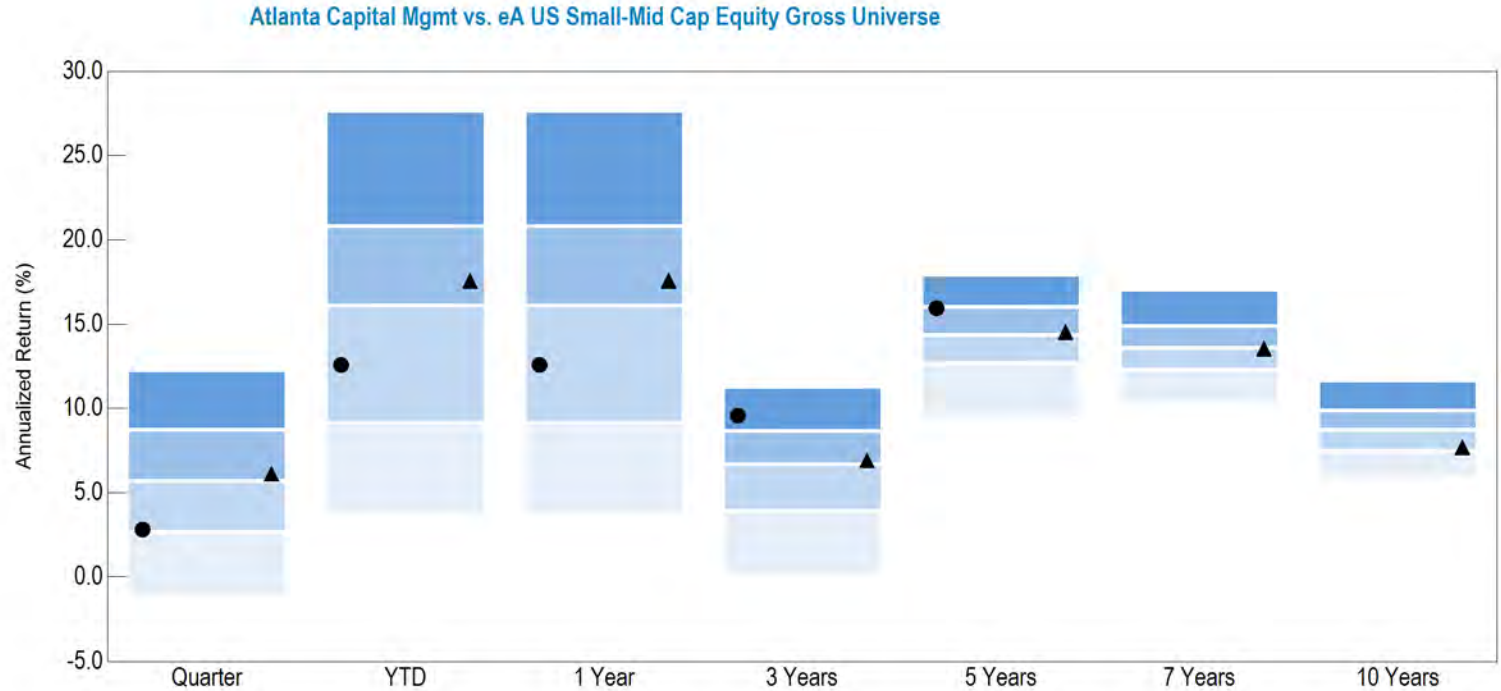
MARKEL	4.40%
TELEFLEX	3.69%
ANSYS	3.66%
SEI INVESTMENTS	3.44%
SALLY BEAUTY HOLDINGS	3.20%
DENTSPLY INTL.	2.97%
HUNT JB TRANSPORT SVS.	2.96%
MANHATTAN ASSOCS.	2.88%
BIO-RAD LABORATORIES 'A'	2.76%
IDEXX LABORATORIES	2.63%
<b>Total</b>	<b>32.58%</b>

Top Contributors

	Avg Wgt	Return	Contribution
CLARCOR	2.25	27.39	0.62
HUNT JB TRANSPORT SVS.	2.58	19.96	0.51
LANDSTAR SYSTEM	1.60	25.45	0.41
UMPQUA HOLDINGS	1.39	25.84	0.36
SEI INVESTMENTS	3.37	8.84	0.30
CDW	2.01	14.26	0.29
BIO-RAD LABORATORIES 'A'	2.45	11.28	0.28
WESTAMERICA BANCORP.	1.05	24.68	0.26
W R BERKLEY	1.55	16.40	0.25
GARTNER 'A'	1.77	14.27	0.25

Bottom Contributors

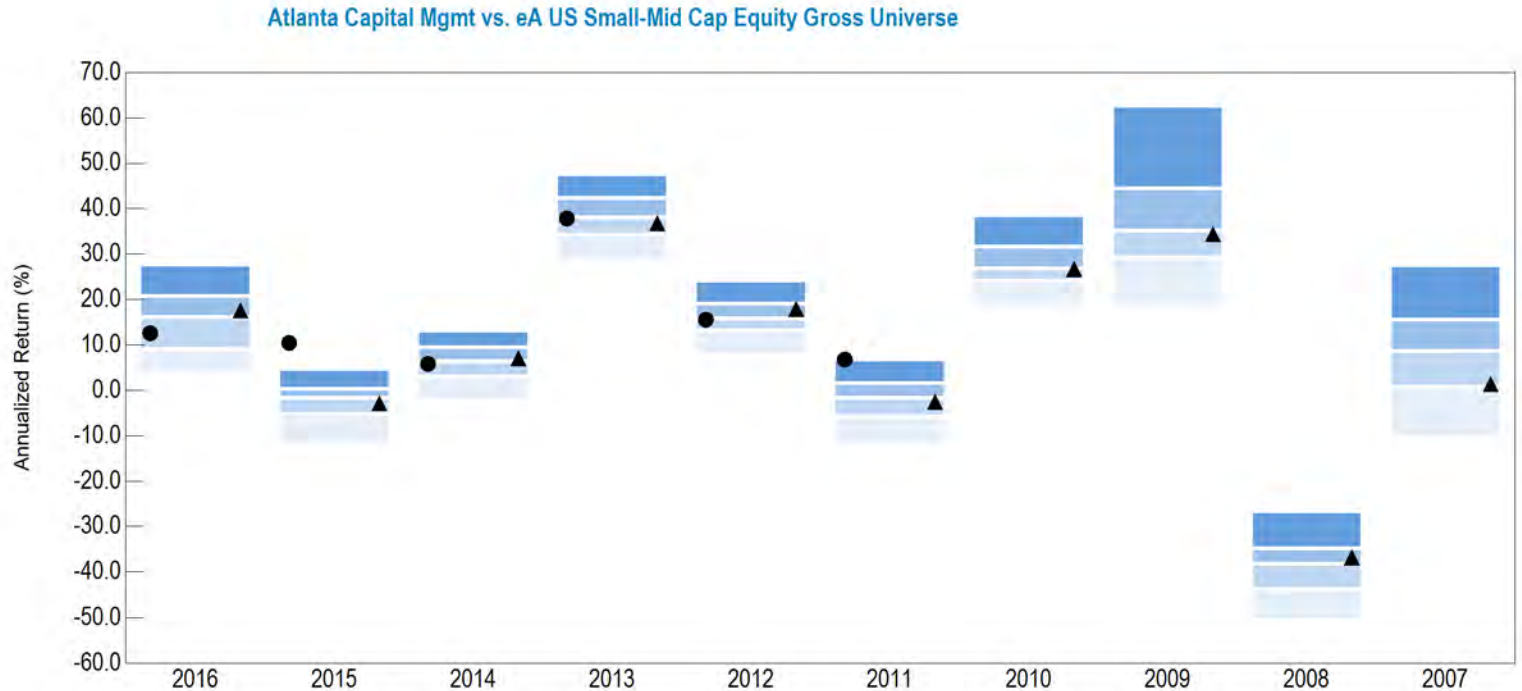
	Avg Wgt	Return	Contribution
ACUITY BRANDS	2.91	-12.71	-0.37
MANHATTAN ASSOCS.	2.06	-7.97	-0.16
MORNINGSTAR	2.33	-6.94	-0.16
TRANSUNION	1.35	-10.35	-0.14
VARIAN MEDICAL SYSTEMS	1.42	-9.80	-0.14
ARAMARK	2.32	-5.80	-0.13
JONES LANG LASALLE	1.21	-10.89	-0.13
TELEFLEX	3.29	-3.88	-0.13
MARKEL	4.62	-2.61	-0.12
FAIR ISAAC	2.72	-4.29	-0.12



	Return (Rank)													
	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	12.3		27.6		27.6		11.2		17.9		17.0		11.6	
25th Percentile	8.7		20.8		20.8		8.7		16.0		14.9		9.9	
Median	5.7		16.1		16.1		6.7		14.4		13.6		8.8	
75th Percentile	2.7		9.2		9.2		3.9		12.7		12.3		7.5	
95th Percentile	-1.1		3.8		3.8		0.1		9.5		10.3		5.9	
# of Portfolios	238		238		238		223		208		181		156	
● Atlanta Capital Mgmt	2.8	(74)	12.6	(62)	12.6	(62)	9.6	(16)	15.9	(28)	--	(--)	--	(--)
▲ Russell 2500	6.1	(46)	17.6	(38)	17.6	(38)	6.9	(49)	14.5	(49)	13.6	(51)	7.7	(72)

Atlanta Capital Mgmt  
 Consecutive Performance Comparison (Gross of Fees)

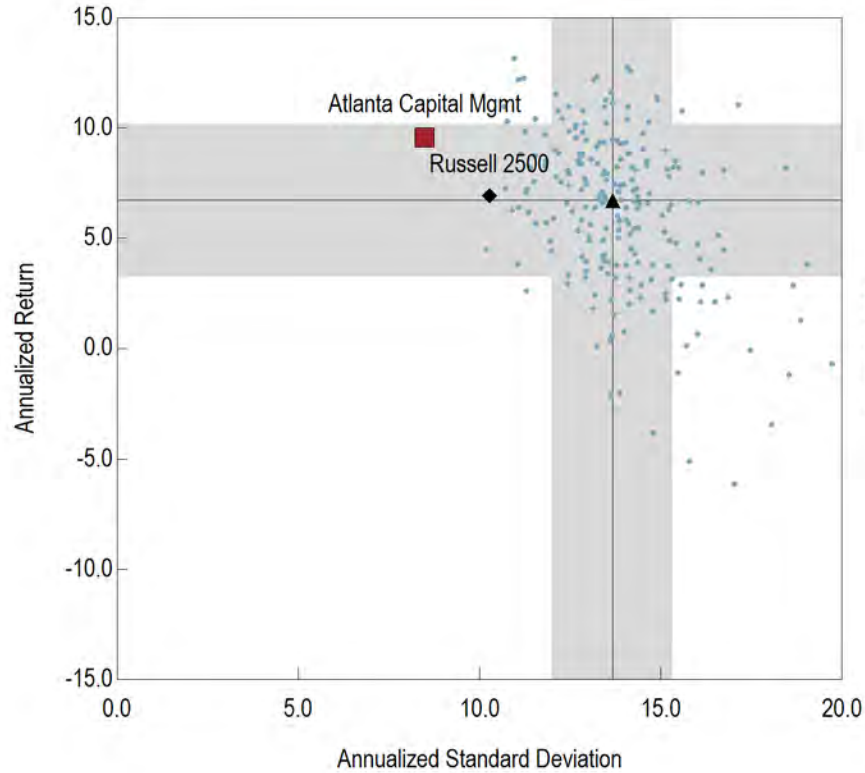
Period Ending: December 31, 2016



	Return (Rank)																													
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2016		2015		2014		2013		2012		2011		2010		2009		2008		2007	
5th Percentile	27.6	4.6	13.0	47.6	24.1	6.8	38.5	62.6	-26.7	27.5	27.6	4.6	13.0	47.6	24.1	6.8	38.5	62.6	-26.7	27.5	27.6	4.6	13.0	47.6	24.1	6.8	38.5	62.6	-26.7	27.5
25th Percentile	20.8	0.4	9.6	42.5	19.2	1.7	31.7	44.6	-34.7	15.7	20.8	0.4	9.6	42.5	19.2	1.7	31.7	44.6	-34.7	15.7	20.8	0.4	9.6	42.5	19.2	1.7	31.7	44.6	-34.7	15.7
Median	16.1	-1.5	6.5	38.2	16.0	-1.5	26.9	35.2	-38.1	8.8	16.1	-1.5	6.5	38.2	16.0	-1.5	26.9	35.2	-38.1	8.8	16.1	-1.5	6.5	38.2	16.0	-1.5	26.9	35.2	-38.1	8.8
75th Percentile	9.2	-5.0	3.1	34.4	13.3	-5.6	24.3	29.4	-43.6	0.9	9.2	-5.0	3.1	34.4	13.3	-5.6	24.3	29.4	-43.6	0.9	9.2	-5.0	3.1	34.4	13.3	-5.6	24.3	29.4	-43.6	0.9
95th Percentile	3.8	-11.6	-2.3	28.7	7.8	-11.6	18.7	18.7	-50.3	-10.4	3.8	-11.6	-2.3	28.7	7.8	-11.6	18.7	18.7	-50.3	-10.4	3.8	-11.6	-2.3	28.7	7.8	-11.6	18.7	18.7	-50.3	-10.4
# of Portfolios	238	215	210	210	216	211	210	226	243	239	238	215	210	210	216	211	210	226	243	239	238	215	210	210	216	211	210	226	243	239
● Atlanta Capital Mgmt	12.6 (62)	10.4 (1)	5.8 (56)	37.8 (52)	15.5 (55)	6.8 (5)	-- (--)	-- (--)	-- (--)	-- (--)	12.6 (62)	10.4 (1)	5.8 (56)	37.8 (52)	15.5 (55)	6.8 (5)	-- (--)	-- (--)	-- (--)	-- (--)	12.6 (62)	10.4 (1)	5.8 (56)	37.8 (52)	15.5 (55)	6.8 (5)	-- (--)	-- (--)	-- (--)	-- (--)
▲ Russell 2500	17.6 (38)	-2.9 (64)	7.1 (46)	36.8 (58)	17.9 (36)	-2.5 (56)	26.7 (52)	34.4 (55)	-36.8 (37)	1.4 (74)	17.6 (38)	-2.9 (64)	7.1 (46)	36.8 (58)	17.9 (36)	-2.5 (56)	26.7 (52)	34.4 (55)	-36.8 (37)	1.4 (74)	17.6 (38)	-2.9 (64)	7.1 (46)	36.8 (58)	17.9 (36)	-2.5 (56)	26.7 (52)	34.4 (55)	-36.8 (37)	1.4 (74)

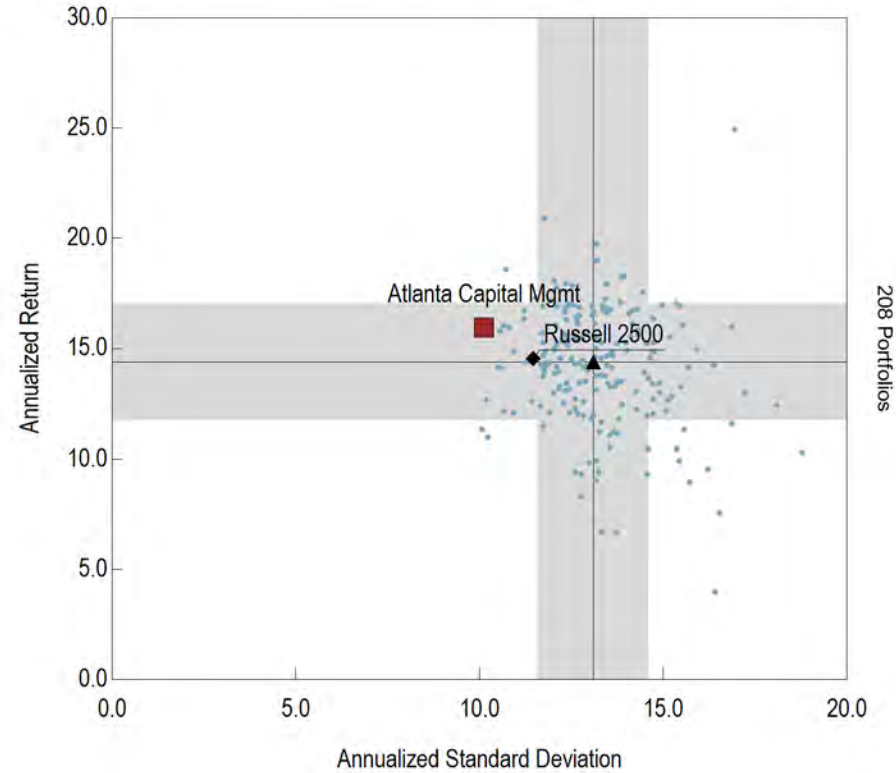


Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016

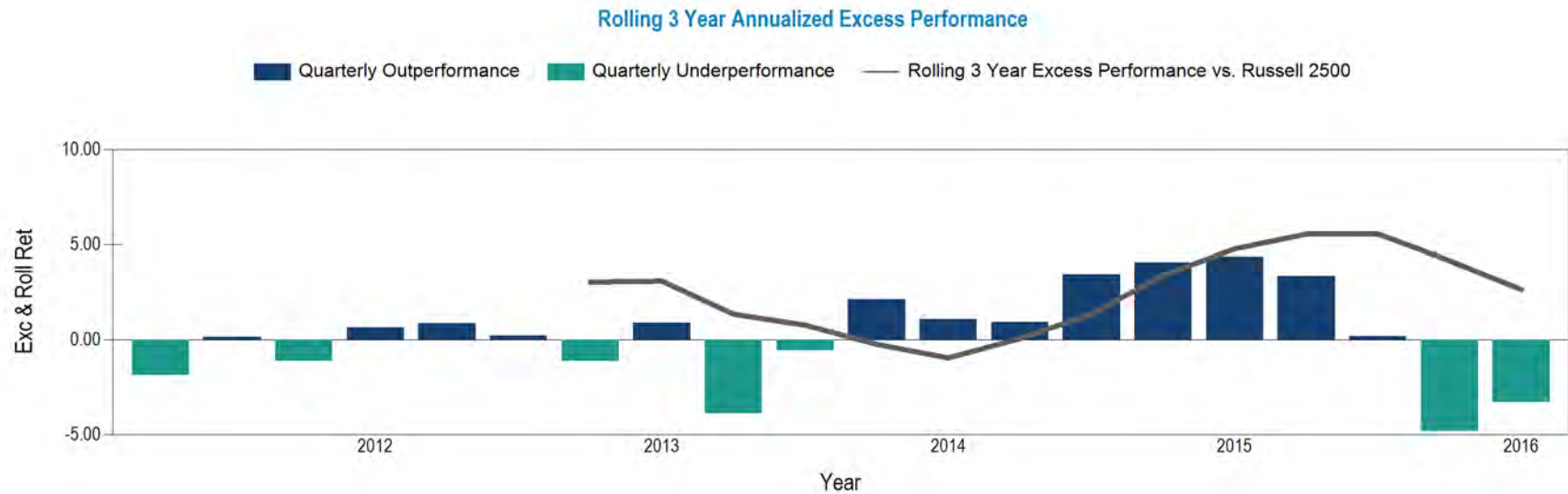


- Atlanta Capital Mgmt
- ◆ Russell 2500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Small-Mid Cap Equity Gross

Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016



- Atlanta Capital Mgmt
- ◆ Russell 2500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Small-Mid Cap Equity Gross



Total International Equity  
Asset Class Overview (Gross of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total International Equity</b>	<b>262,107,462</b>	<b>-2.3</b>	<b>2.2</b>	<b>0.0</b>	<b>7.4</b>	<b>--</b>	<b>2.2</b>	<b>-4.3</b>	<b>2.1</b>	<b>17.9</b>	<b>21.5</b>
MSCI ACWI ex USA Gross		-1.2	5.0	-1.3	5.5	--	5.0	-5.3	-3.4	15.8	17.4
eA EAFE All Cap Equity Gross Rank		56	43	59	63	--	43	90	3	94	37
Dodge & Cox Intl Stock	138,738,443	3.5	9.0	-0.7	8.7	--	9.0	-10.8	0.7	27.1	21.8
MSCI EAFE Gross		-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9
eA All EAFE Equity Gross Rank		3	3	63	41	--	3	99	13	32	37
Vontobel	123,369,019	-8.1	-4.4	0.7	5.9	--	-4.4	3.1	3.6	8.3	20.7
MSCI EAFE Gross		-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9
eA All EAFE Equity Gross Rank		99	93	37	94	--	93	37	5	96	47

EAFE Effective Style Map  
3 Years Ending December 31, 2016



EAFE Effective Style Map  
5 Years Ending December 31, 2016



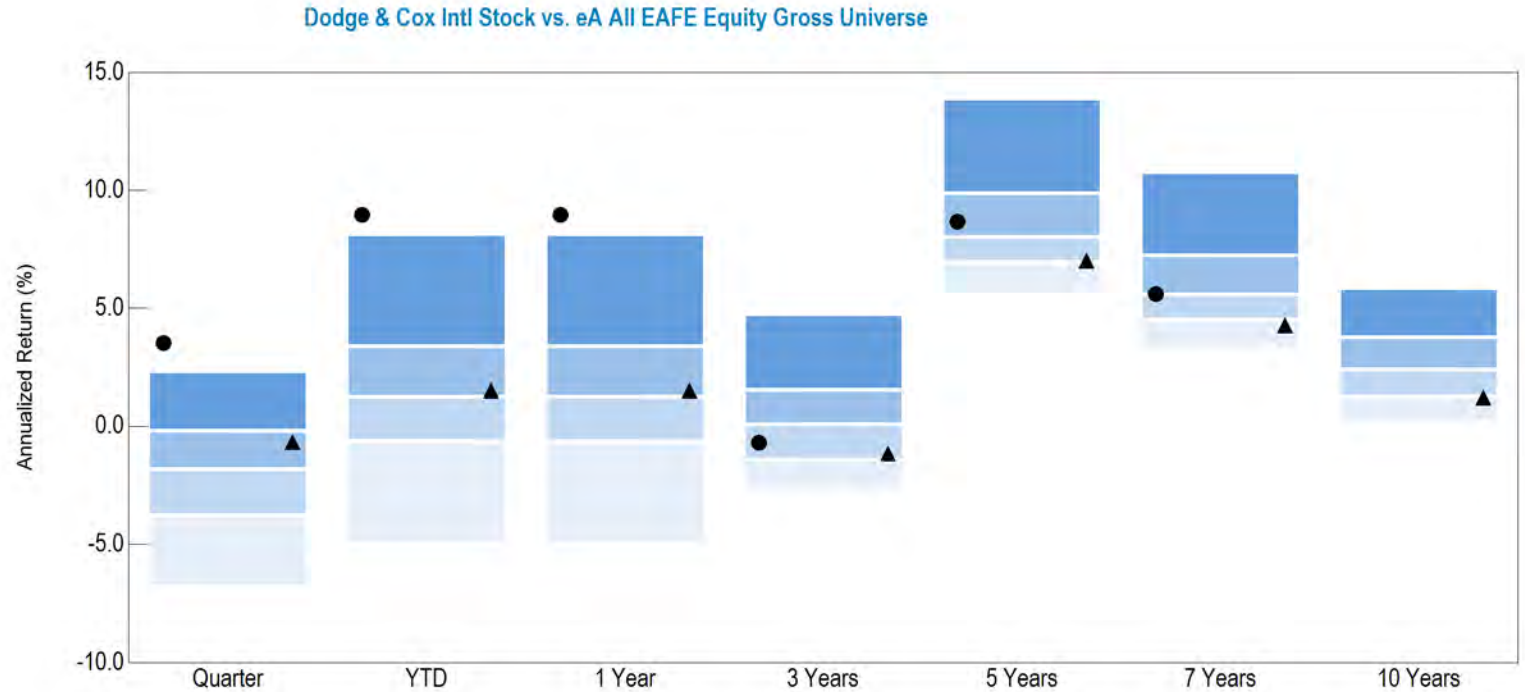
Total International Equity  
Asset Class Overview (Net of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total International Equity</b>	<b>262,107,462</b>	<b>-2.5</b>	<b>1.6</b>	<b>-0.7</b>	<b>6.7</b>	<b>--</b>	<b>1.6</b>	<b>-4.9</b>	<b>1.4</b>	<b>17.0</b>	<b>20.6</b>
<i>MSCI ACWI ex USA Gross</i>		-1.2	5.0	-1.3	5.5	--	5.0	-5.3	-3.4	15.8	17.4
Dodge & Cox Intl Stock	138,738,443	3.4	8.3	-1.3	8.0	--	8.3	-11.4	0.1	26.3	21.0
<i>MSCI EAFE Gross</i>		-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9
Vontobel	123,369,019	-8.3	-5.0	0.1	5.3	--	-5.0	2.4	3.0	7.6	19.9
<i>MSCI EAFE Gross</i>		-0.7	1.5	-1.2	7.0	--	1.5	-0.4	-4.5	23.3	17.9

Dodge & Cox Intl Stock  
 Cumulative Performance Comparison (Gross of Fees)

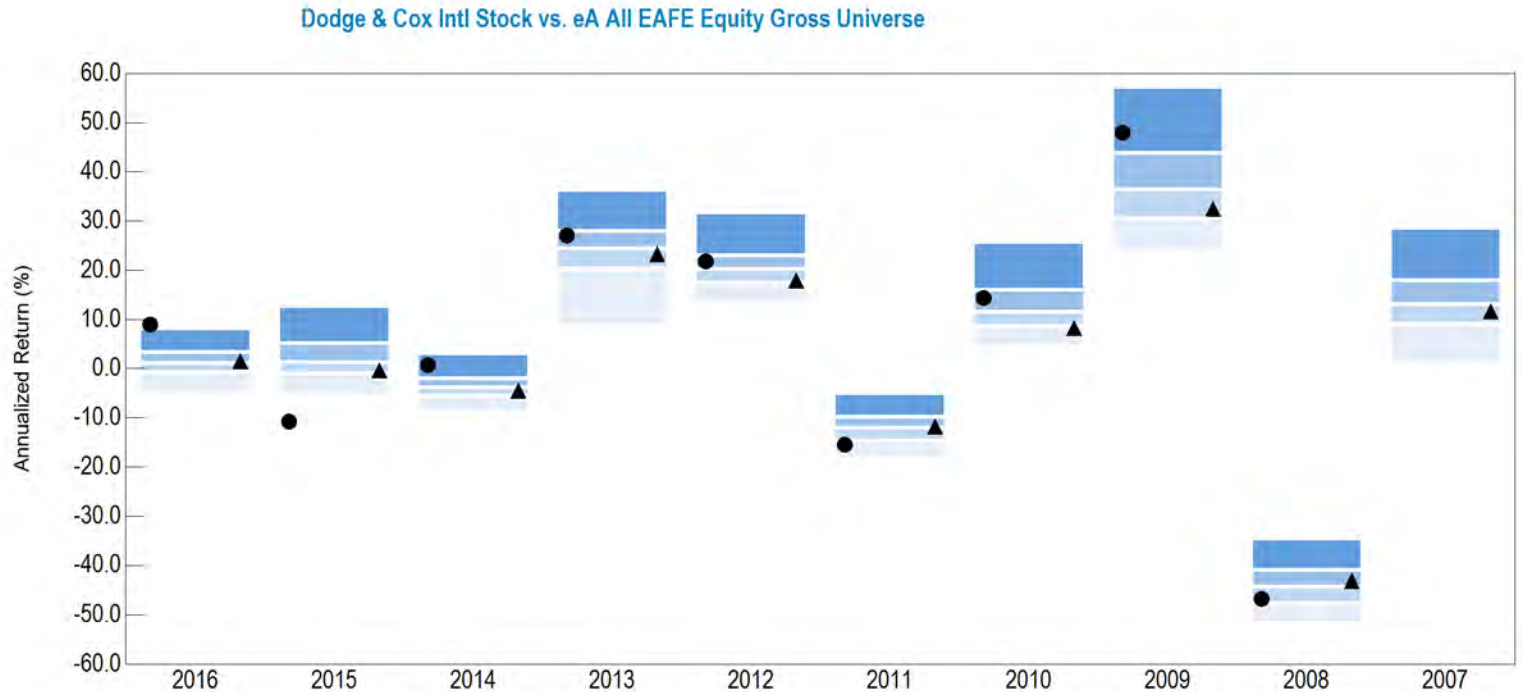
Period Ending: December 31, 2016



	Return (Rank)		Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	2.3		8.1		8.1		4.8		13.9		10.8		5.9			
25th Percentile	-0.2		3.4		3.4		1.6		9.9		7.3		3.8			
Median	-1.8		1.3		1.3		0.1		8.1		5.6		2.4			
75th Percentile	-3.8		-0.6		-0.6		-1.4		7.0		4.6		1.3			
95th Percentile	-6.8		-4.9		-4.9		-2.7		5.7		3.3		0.2			
# of Portfolios	350		350		350		333		303		279		229			
● Dodge & Cox Intl Stock	3.5	(3)	9.0	(3)	9.0	(3)	-0.7	(63)	8.7	(41)	5.6	(51)	--	(--)		
▲ MSCI EAFE Gross	-0.7	(33)	1.5	(47)	1.5	(47)	-1.2	(71)	7.0	(75)	4.3	(82)	1.2	(78)		

Dodge & Cox Intl Stock  
 Consecutive Performance Comparison (Gross of Fees)

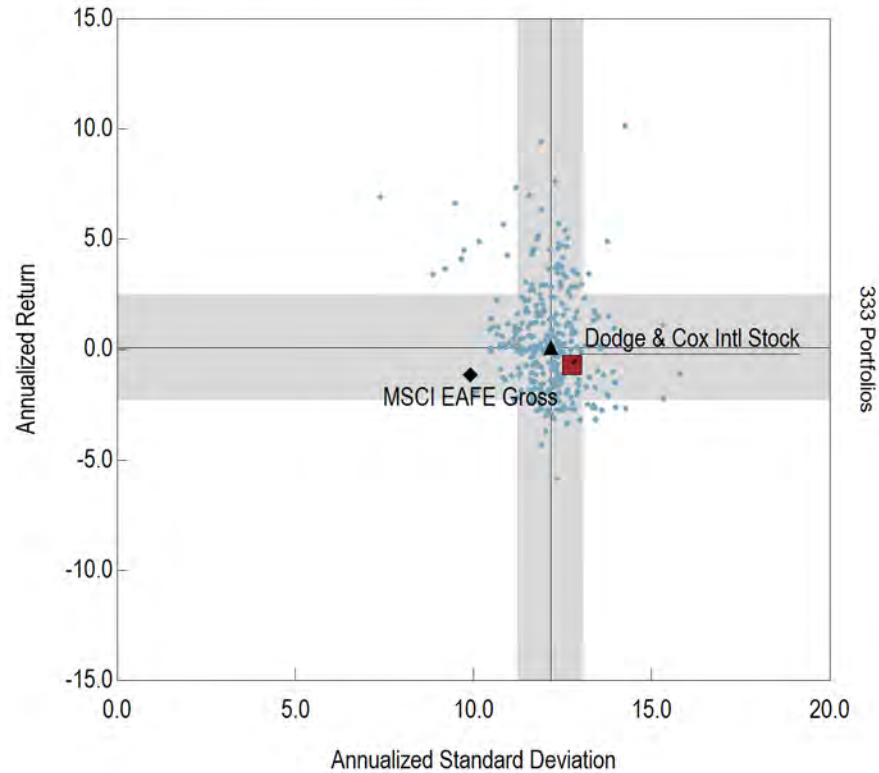
Period Ending: December 31, 2016



	Return (Rank)									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
5th Percentile	8.1	12.6	3.0	36.3	31.7	-5.1	25.7	57.3	-34.5	28.5
25th Percentile	3.4	5.2	-1.9	28.1	23.1	-9.7	16.1	44.0	-40.8	18.0
Median	1.3	1.4	-3.7	24.6	20.4	-12.0	11.7	36.5	-44.1	13.2
75th Percentile	-0.6	-0.9	-5.4	20.5	17.5	-14.5	8.7	30.7	-47.5	9.1
95th Percentile	-4.9	-5.4	-8.6	8.6	13.3	-18.2	4.6	23.7	-51.5	1.2
# of Portfolios	350	325	314	284	263	278	352	455	477	466
● Dodge & Cox Intl Stock	9.0 (3)	-10.8 (99)	0.7 (13)	27.1 (32)	21.8 (37)	-15.5 (82)	14.4 (36)	48.0 (17)	-46.7 (69)	-- (--)
▲ MSCI EAFE Gross	1.5 (47)	-0.4 (66)	-4.5 (60)	23.3 (60)	17.9 (72)	-11.7 (47)	8.2 (78)	32.5 (67)	-43.1 (41)	11.6 (59)

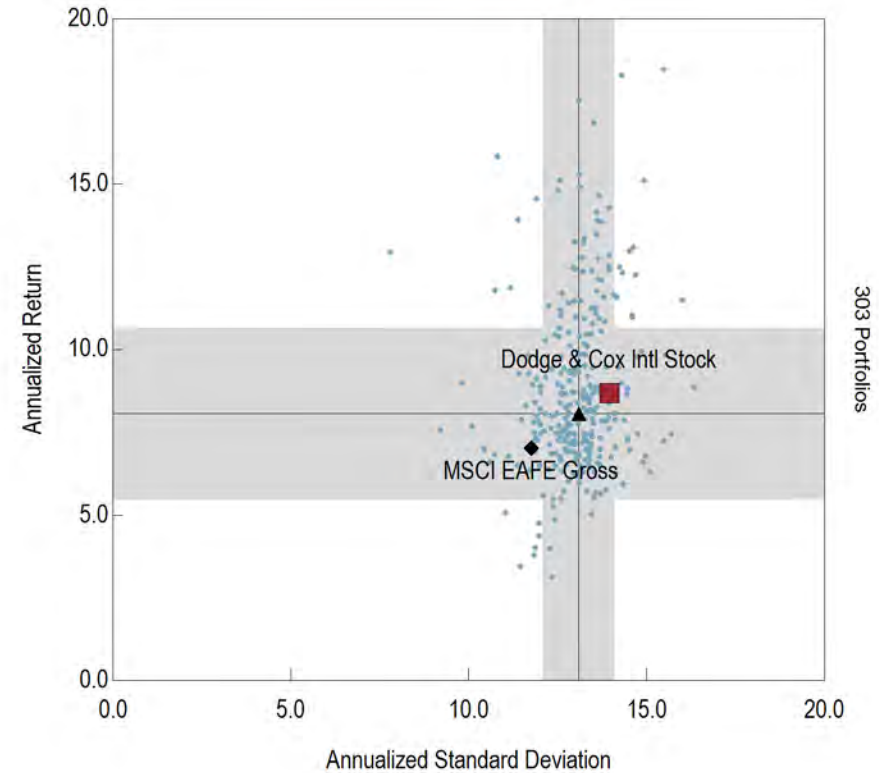


Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016

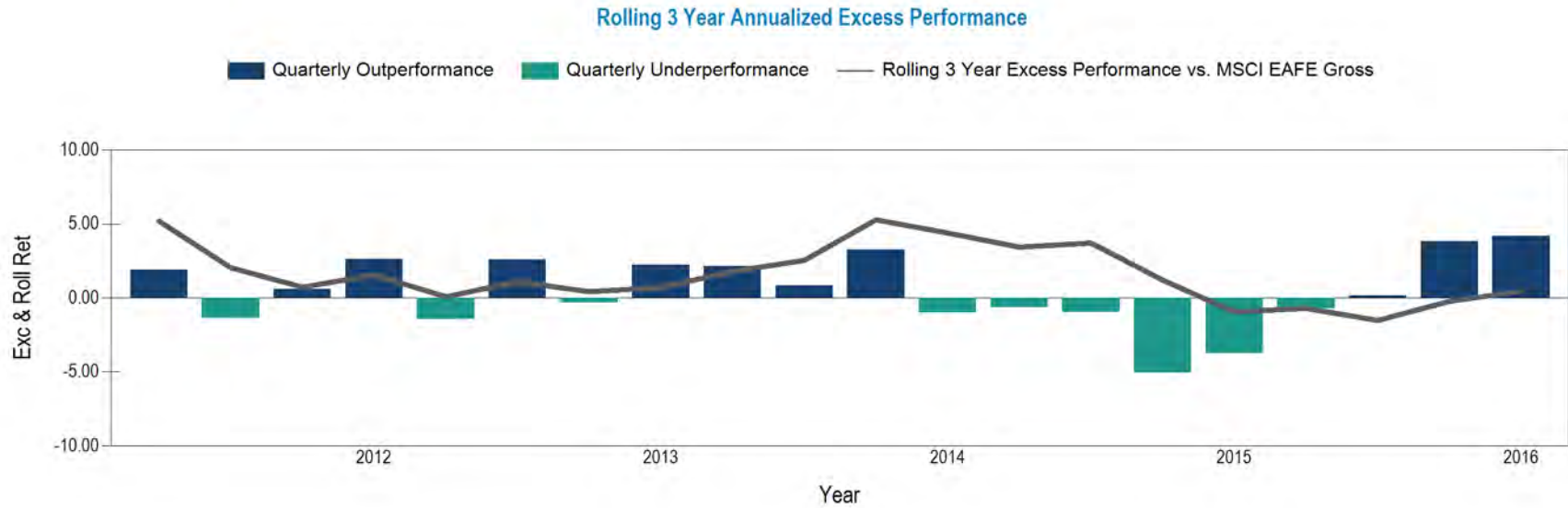


- Dodge & Cox Intl Stock
- ◆ MSCI EAFE Gross
- ▲ Universe Median
- ▭ 68% Confidence Interval
- eA All EAFE Equity Gross

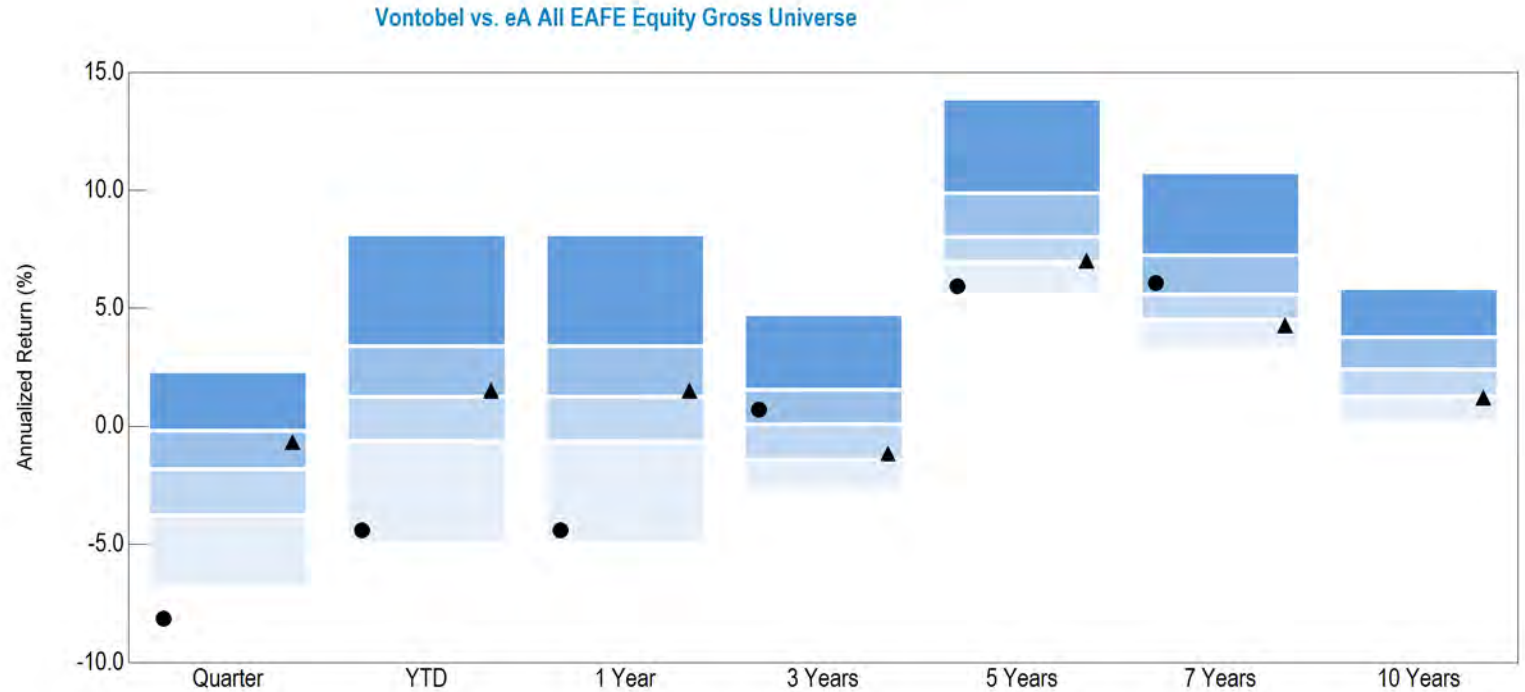
Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016



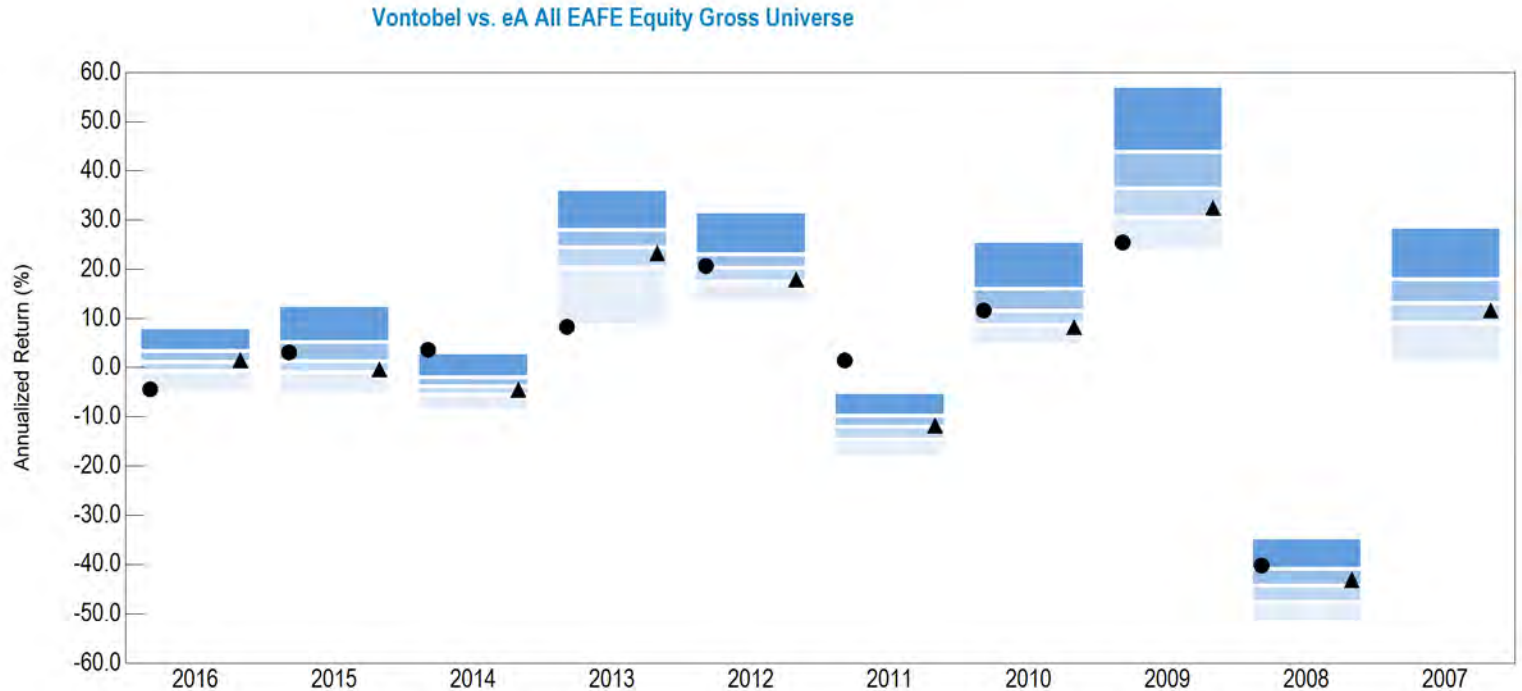
- Dodge & Cox Intl Stock
- ◆ MSCI EAFE Gross
- ▲ Universe Median
- ▭ 68% Confidence Interval
- eA All EAFE Equity Gross





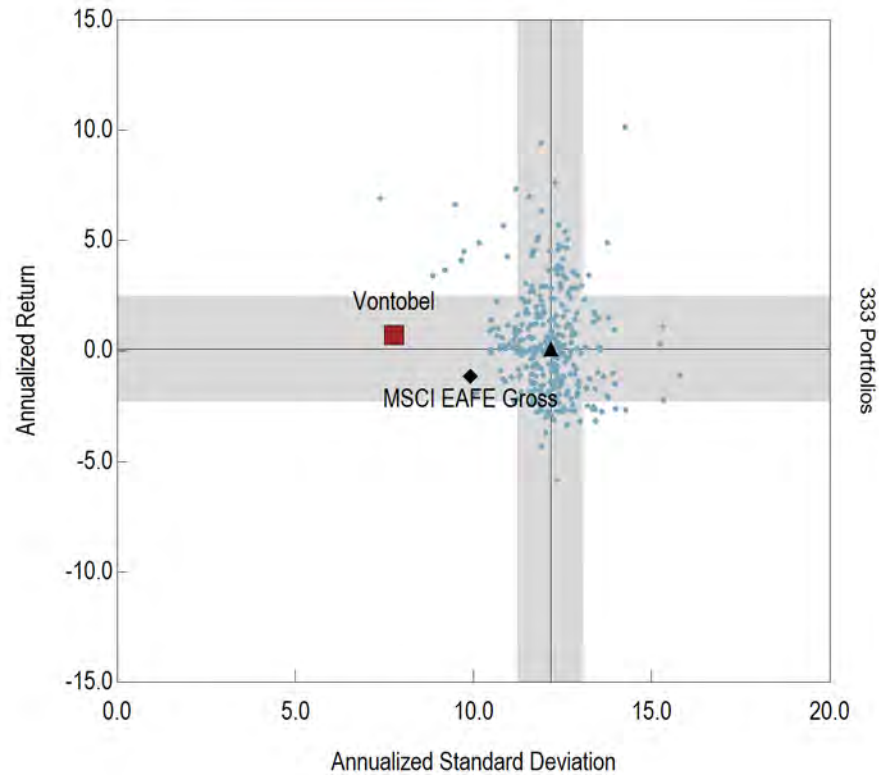


	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>5th Percentile</b>	2.3		8.1		8.1		4.8		13.9		10.8		5.9	
<b>25th Percentile</b>	-0.2		3.4		3.4		1.6		9.9		7.3		3.8	
<b>Median</b>	-1.8		1.3		1.3		0.1		8.1		5.6		2.4	
<b>75th Percentile</b>	-3.8		-0.6		-0.6		-1.4		7.0		4.6		1.3	
<b>95th Percentile</b>	-6.8		-4.9		-4.9		-2.7		5.7		3.3		0.2	
<b># of Portfolios</b>	350		350		350		333		303		279		229	
<b>● Vontobel</b>	-8.1	(99)	-4.4	(93)	-4.4	(93)	0.7	(37)	5.9	(94)	6.1	(41)	--	(--)
<b>▲ MSCI EAFE Gross</b>	-0.7	(33)	1.5	(47)	1.5	(47)	-1.2	(71)	7.0	(75)	4.3	(82)	1.2	(78)



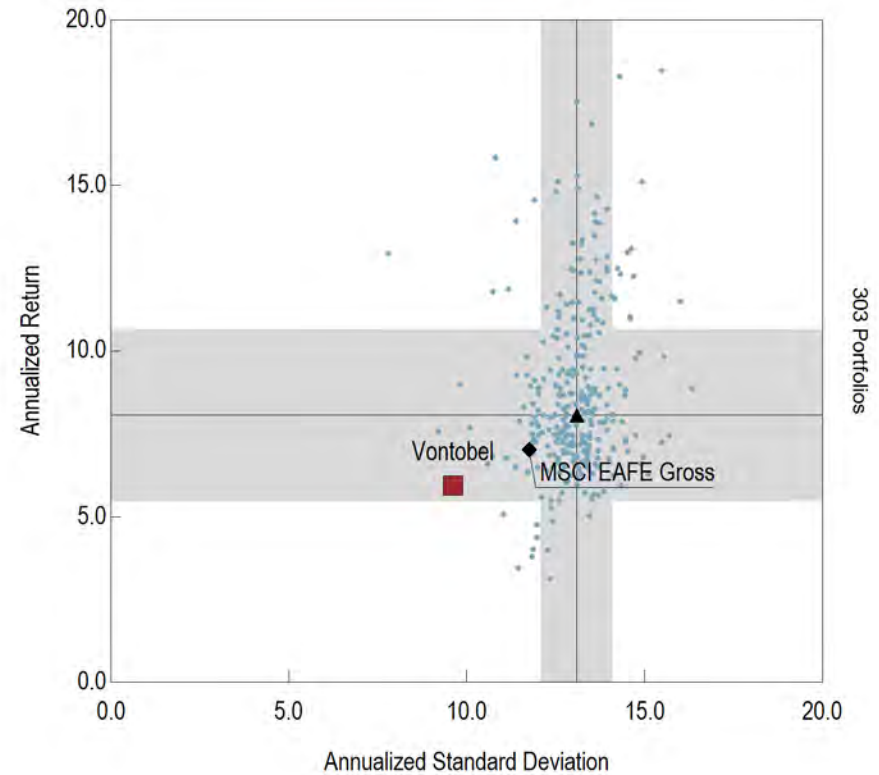
	Return (Rank)									
5th Percentile	8.1	12.6	3.0	36.3	31.7	-5.1	25.7	57.3	-34.5	28.5
25th Percentile	3.4	5.2	-1.9	28.1	23.1	-9.7	16.1	44.0	-40.8	18.0
Median	1.3	1.4	-3.7	24.6	20.4	-12.0	11.7	36.5	-44.1	13.2
75th Percentile	-0.6	-0.9	-5.4	20.5	17.5	-14.5	8.7	30.7	-47.5	9.1
95th Percentile	-4.9	-5.4	-8.6	8.6	13.3	-18.2	4.6	23.7	-51.5	1.2
# of Portfolios	350	325	314	284	263	278	352	455	477	466
● Vontobel	-4.4 (93)	3.1 (37)	3.6 (5)	8.3 (96)	20.7 (47)	1.5 (1)	11.6 (52)	25.4 (92)	-40.2 (22)	-- (--)
▲ MSCI EAFE Gross	1.5 (47)	-0.4 (66)	-4.5 (60)	23.3 (60)	17.9 (72)	-11.7 (47)	8.2 (78)	32.5 (67)	-43.1 (41)	11.6 (59)

Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016

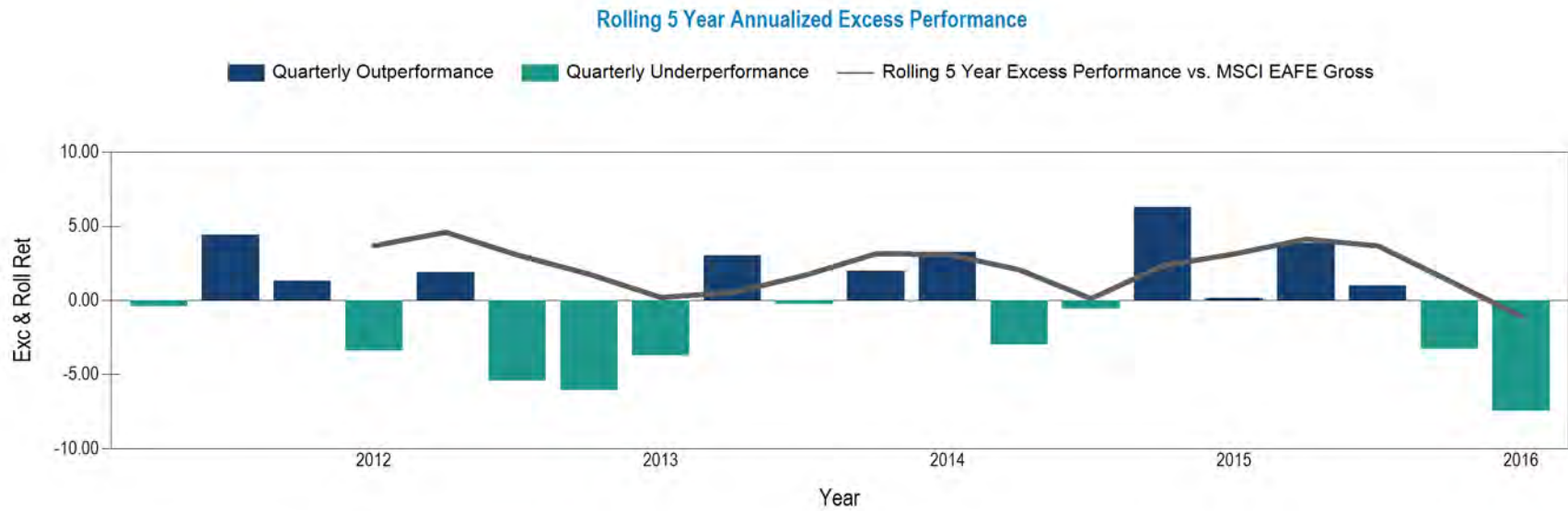
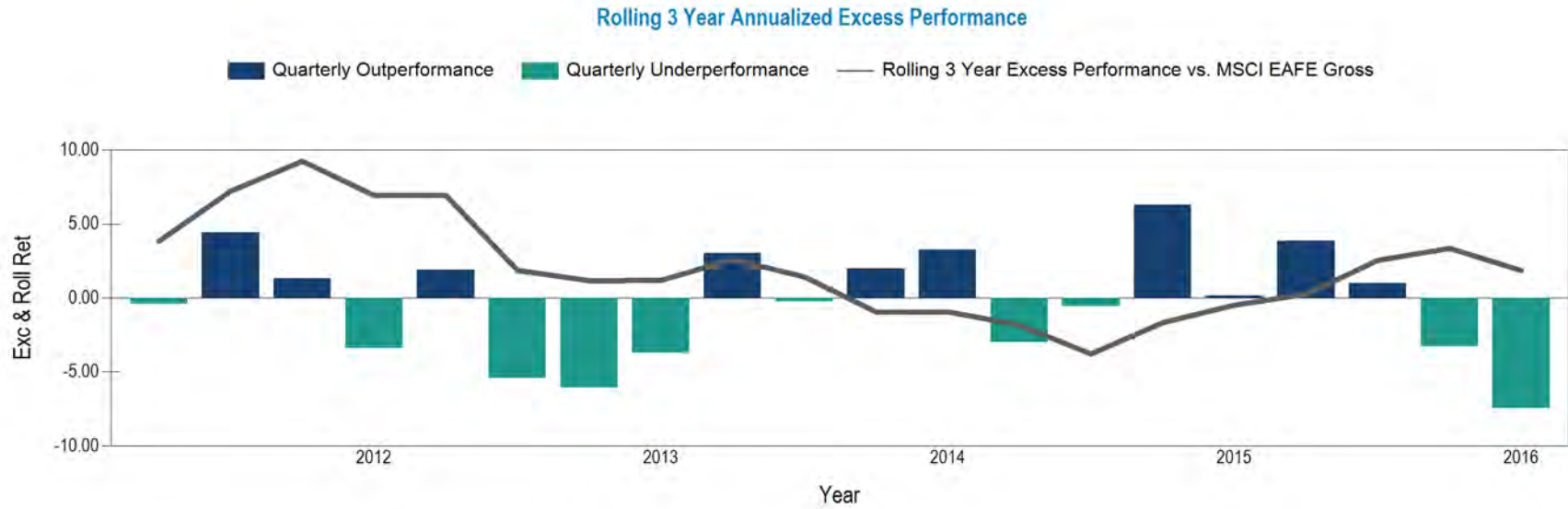


- Vontobel
- ◆ MSCI EAFE Gross
- ▲ Universe Median
- 68% Confidence Interval
- eA All EAFE Equity Gross

Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016



- Vontobel
- ◆ MSCI EAFE Gross
- ▲ Universe Median
- 68% Confidence Interval
- eA All EAFE Equity Gross

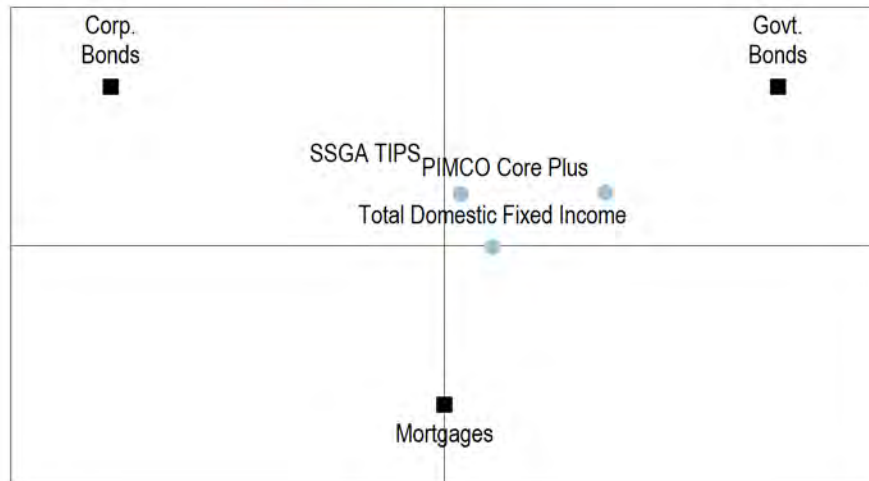


# Total Domestic Fixed Income Asset Class Overview (Gross of Fees)

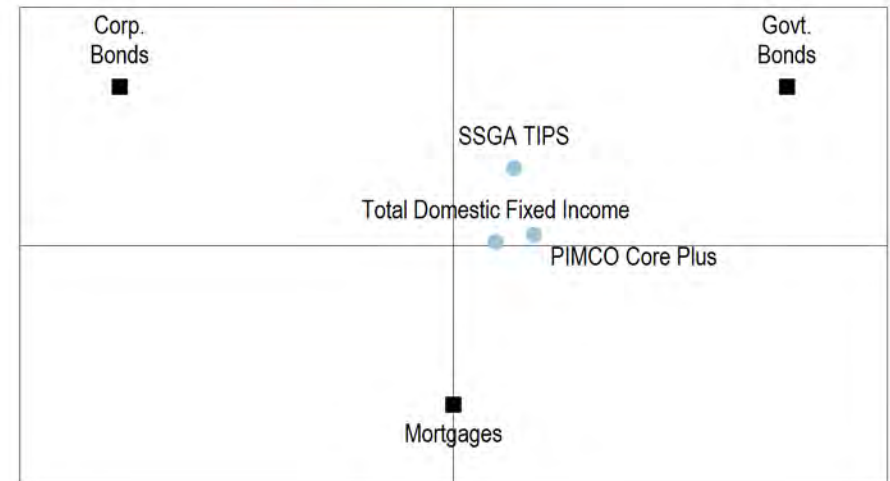
Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Domestic Fixed Income</b>	<b>285,328,663</b>	<b>-1.8</b>	<b>4.5</b>	<b>3.4</b>	<b>3.0</b>	<b>--</b>	<b>4.5</b>	<b>1.1</b>	<b>4.7</b>	<b>-2.7</b>	<b>7.9</b>
<i>BbgBarc US Aggregate TR</i>		-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2
<i>eA All US Fixed Inc Gross Rank</i>		49	40	46	51	--	40	36	46	88	36
<b>PIMCO Core Plus</b>	<b>185,961,946</b>	<b>-2.9</b>	<b>3.0</b>	<b>3.1</b>	<b>2.9</b>	<b>--</b>	<b>3.0</b>	<b>1.2</b>	<b>5.1</b>	<b>-2.1</b>	<b>7.6</b>
<i>BbgBarc US Aggregate TR</i>		-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2
<i>eA All US Fixed Inc Gross Rank</i>		81	55	56	54	--	55	30	43	84	38
<b>Pacific Asset Corporate Loan</b>	<b>65,764,668</b>	<b>2.7</b>	<b>9.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>9.2</b>	<b>2.5</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>S&amp;P/LSTA Leveraged Loan Index</i>		2.3	10.2	--	--	--	10.2	-0.7	--	--	--
<i>eA Float-Rate Bank Loan Gross Rank</i>		8	51	--	--	--	51	9	--	--	--
<b>SSGA TIPS</b>	<b>33,602,048</b>	<b>-2.4</b>	<b>4.7</b>	<b>2.2</b>	<b>0.9</b>	<b>--</b>	<b>4.7</b>	<b>-1.5</b>	<b>3.6</b>	<b>-8.6</b>	<b>6.9</b>
<i>BbgBarc US TIPS TR</i>		-2.4	4.7	2.3	0.9	--	4.7	-1.4	3.6	-8.6	7.0
<i>eA TIPS / Infl Indexed Fixed Inc Gross Rank</i>		71	51	51	72	--	51	64	44	77	67

Fixed Income Effective Style Map  
3 Years Ending December 31, 2016



Fixed Income Effective Style Map  
5 Years Ending December 31, 2016



Total Domestic Fixed Income  
Asset Class Overview (Net of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Domestic Fixed Income</b>	<b>285,328,663</b>	<b>-1.8</b>	<b>4.2</b>	<b>3.2</b>	<b>2.8</b>	<b>--</b>	<b>4.2</b>	<b>0.9</b>	<b>4.4</b>	<b>-3.0</b>	<b>7.6</b>
<i>BBgBarc US Aggregate TR</i>		-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2
PIMCO Core Plus	185,961,946	-3.0	2.7	2.8	2.6	--	2.7	0.9	4.8	-2.4	7.4
<i>BBgBarc US Aggregate TR</i>		-3.0	2.6	3.0	2.2	--	2.6	0.6	6.0	-2.0	4.2
Pacific Asset Corporate Loan	65,764,668	2.7	8.8	--	--	--	8.8	2.1	--	--	--
<i>S&amp;P/LSTA Leveraged Loan Index</i>		2.3	10.2	--	--	--	10.2	-0.7	--	--	--
SSGA TIPS	33,602,048	-2.4	4.6	2.2	0.8	--	4.6	-1.5	3.6	-8.7	6.9
<i>BBgBarc US TIPS TR</i>		-2.4	4.7	2.3	0.9	--	4.7	-1.4	3.6	-8.6	7.0

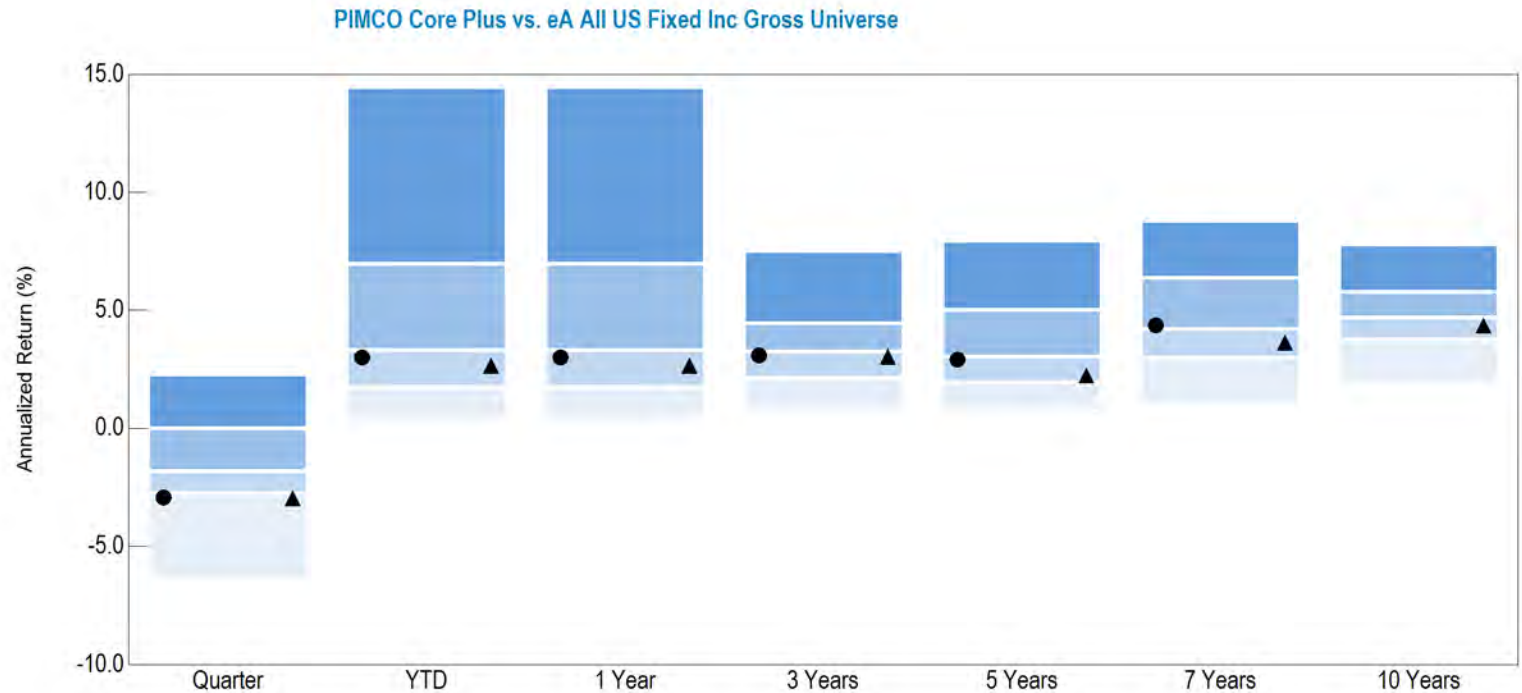
Correlation Matrix  
Last 5 Years

	Total Domestic Fixed Income	PIMCO Core Plus	Pacific Asset Corporate Loan	SSGA TIPS	BBgBarc US Aggregate TR
Total Domestic Fixed Income	1.00	--	--	--	--
PIMCO Core Plus	0.97	1.00	--	--	--
Pacific Asset Corporate Loan	--	--	--	--	--
SSGA TIPS	0.95	0.87	--	1.00	--
BBgBarc US Aggregate TR	0.91	0.94	--	0.82	1.00



PIMCO Core Plus  
 Cumulative Performance Comparison (Gross of Fees)

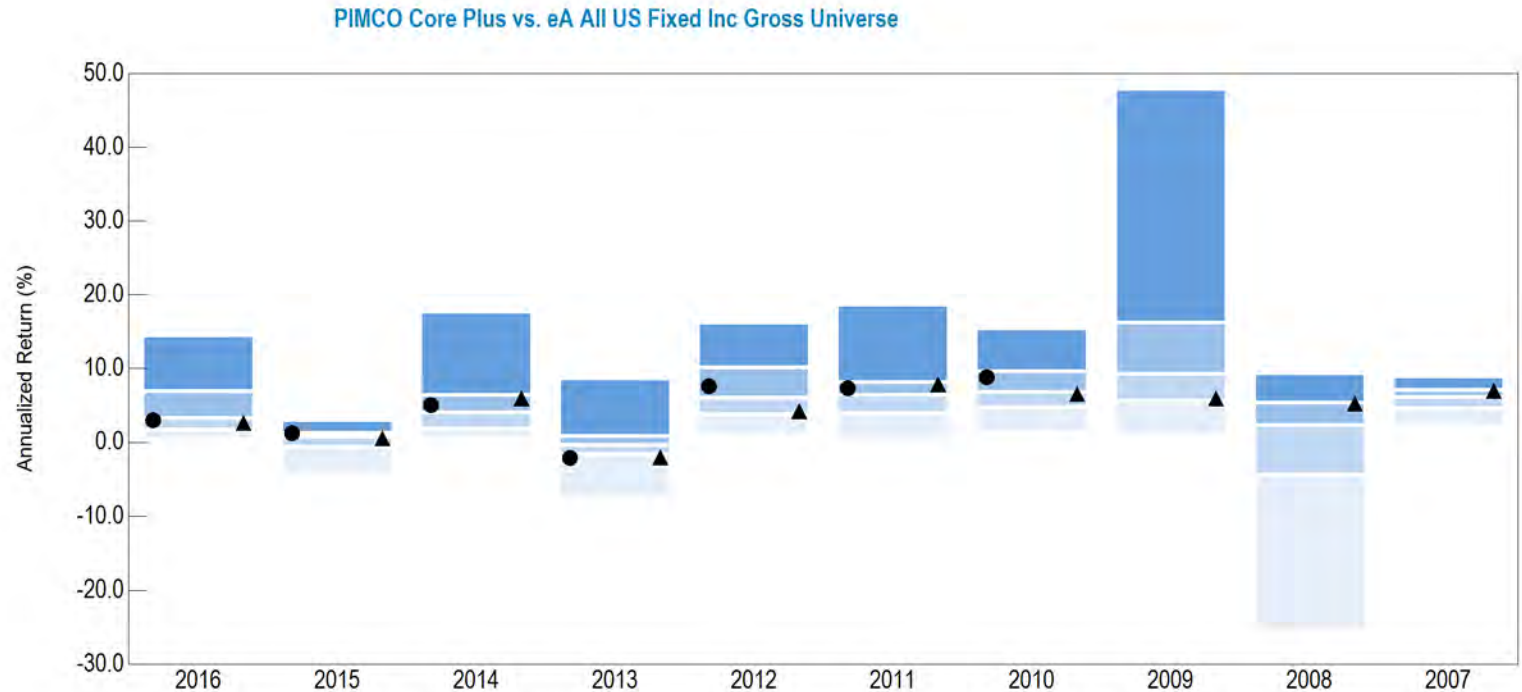
Period Ending: December 31, 2016



	Return (Rank)		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	2.3		14.5		14.5		7.5		7.9		8.8		7.8	
25th Percentile	0.0		7.0		7.0		4.5		5.0		6.4		5.8	
Median	-1.8		3.3		3.3		3.3		3.1		4.2		4.7	
75th Percentile	-2.7		1.8		1.8		2.2		2.0		3.0		3.8	
95th Percentile	-6.4		0.4		0.4		0.8		0.8		1.0		1.9	
# of Portfolios	1,722		1,722		1,722		1,680		1,603		1,465		1,233	
● PIMCO Core Plus	-2.9	(81)	3.0	(55)	3.0	(55)	3.1	(56)	2.9	(54)	4.4	(48)	--	(--)
▲ BBgBarc US Aggregate TR	-3.0	(82)	2.6	(60)	2.6	(60)	3.0	(58)	2.2	(68)	3.6	(62)	4.3	(62)

PIMCO Core Plus  
 Consecutive Performance Comparison (Gross of Fees)

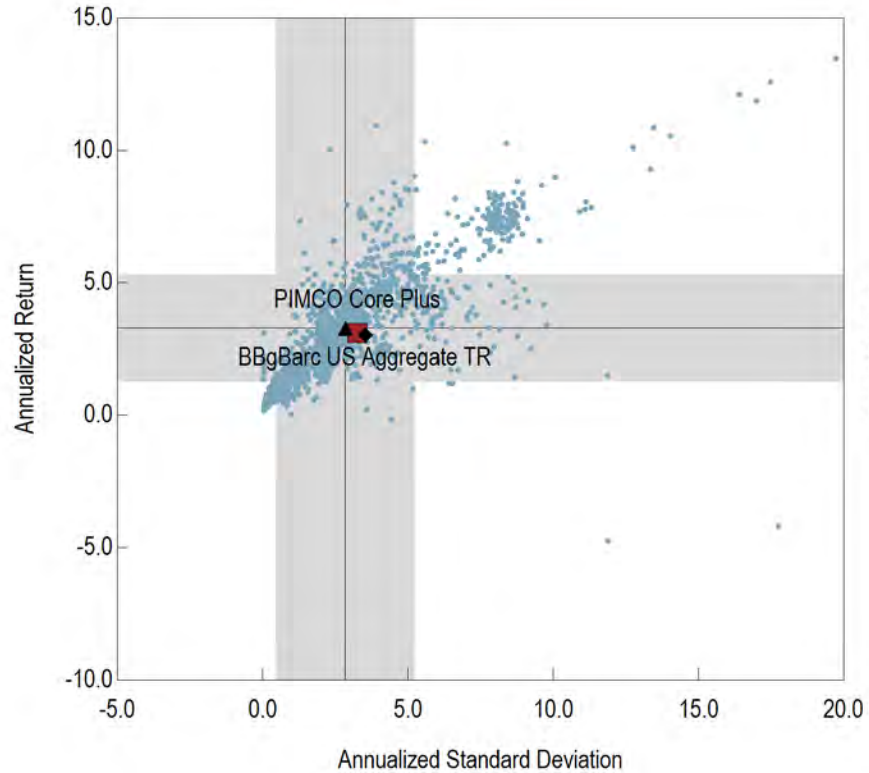
Period Ending: December 31, 2016



	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>Return (Rank)</b>										
5th Percentile	14.5	3.0	17.7	8.7	16.2	18.6	15.5	47.9	9.4	8.9
25th Percentile	7.0	1.4	6.4	0.9	10.2	8.2	9.7	16.3	5.4	7.2
Median	3.3	0.8	4.2	-0.3	6.1	6.5	6.9	9.3	2.4	6.2
75th Percentile	1.8	-0.5	2.0	-1.5	3.8	4.0	4.8	5.7	-4.3	4.7
95th Percentile	0.4	-4.1	0.5	-7.5	1.1	0.4	1.4	1.2	-25.4	2.3
# of Portfolios	1,722	1,394	1,364	1,281	1,241	1,211	1,157	1,287	1,380	1,419
● PIMCO Core Plus	3.0 (55)	1.2 (30)	5.1 (43)	-2.1 (84)	7.6 (38)	7.3 (40)	8.8 (30)	-- (--)	-- (--)	-- (--)
▲ BbgBarc US Aggregate TR	2.6 (60)	0.6 (59)	6.0 (33)	-2.0 (83)	4.2 (70)	7.8 (32)	6.5 (57)	5.9 (73)	5.2 (27)	7.0 (33)

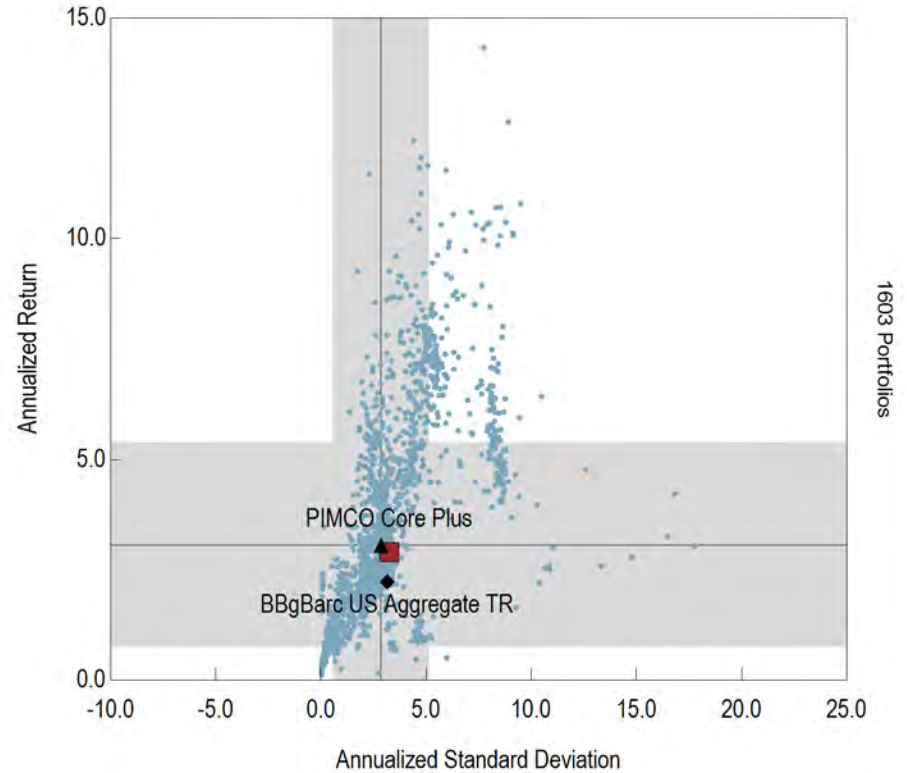


Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016



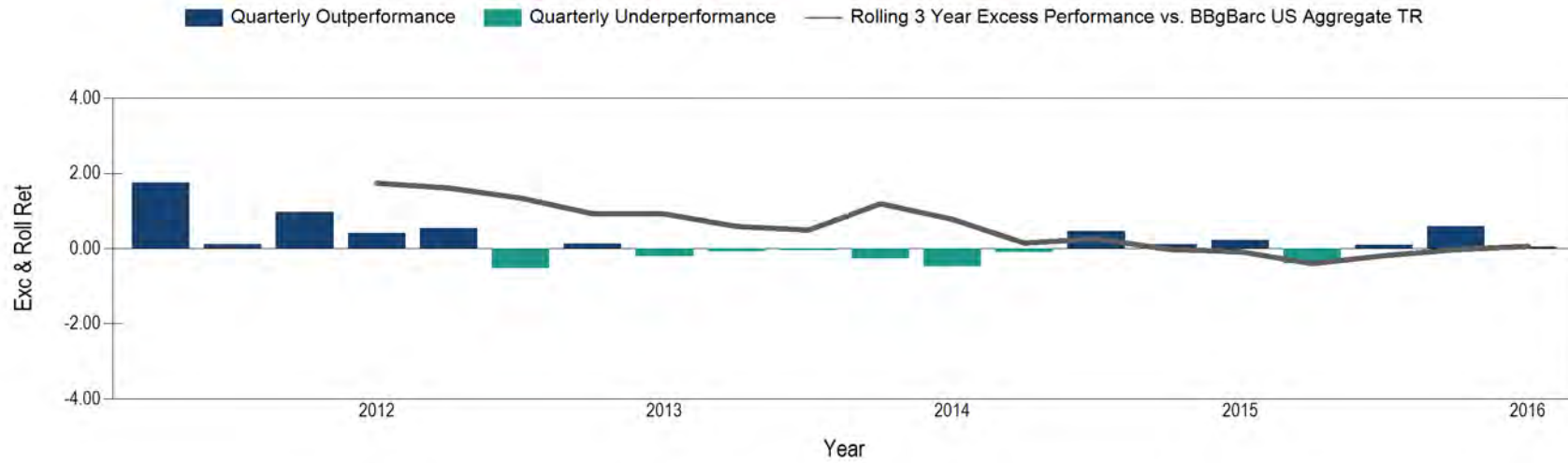
- PIMCO Core Plus
- ◆ BBgBarc US Aggregate TR
- ▲ Universe Median
- 68% Confidence Interval
- eA All US Fixed Inc Gross

Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016

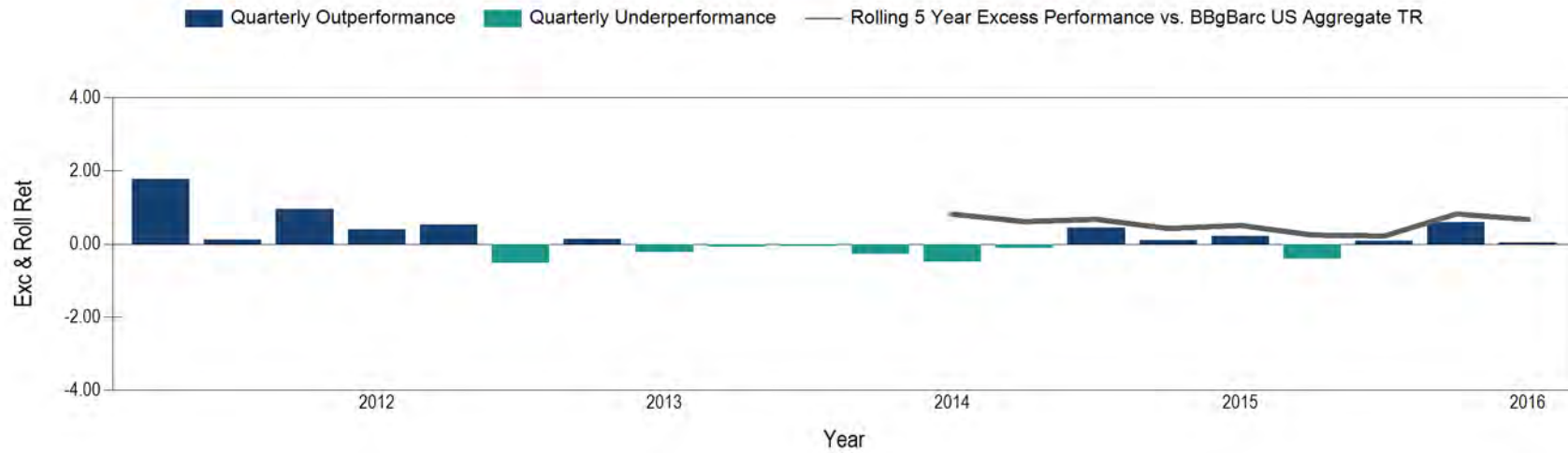


- PIMCO Core Plus
- ◆ BBgBarc US Aggregate TR
- ▲ Universe Median
- 68% Confidence Interval
- eA All US Fixed Inc Gross

Rolling 3 Year Annualized Excess Performance

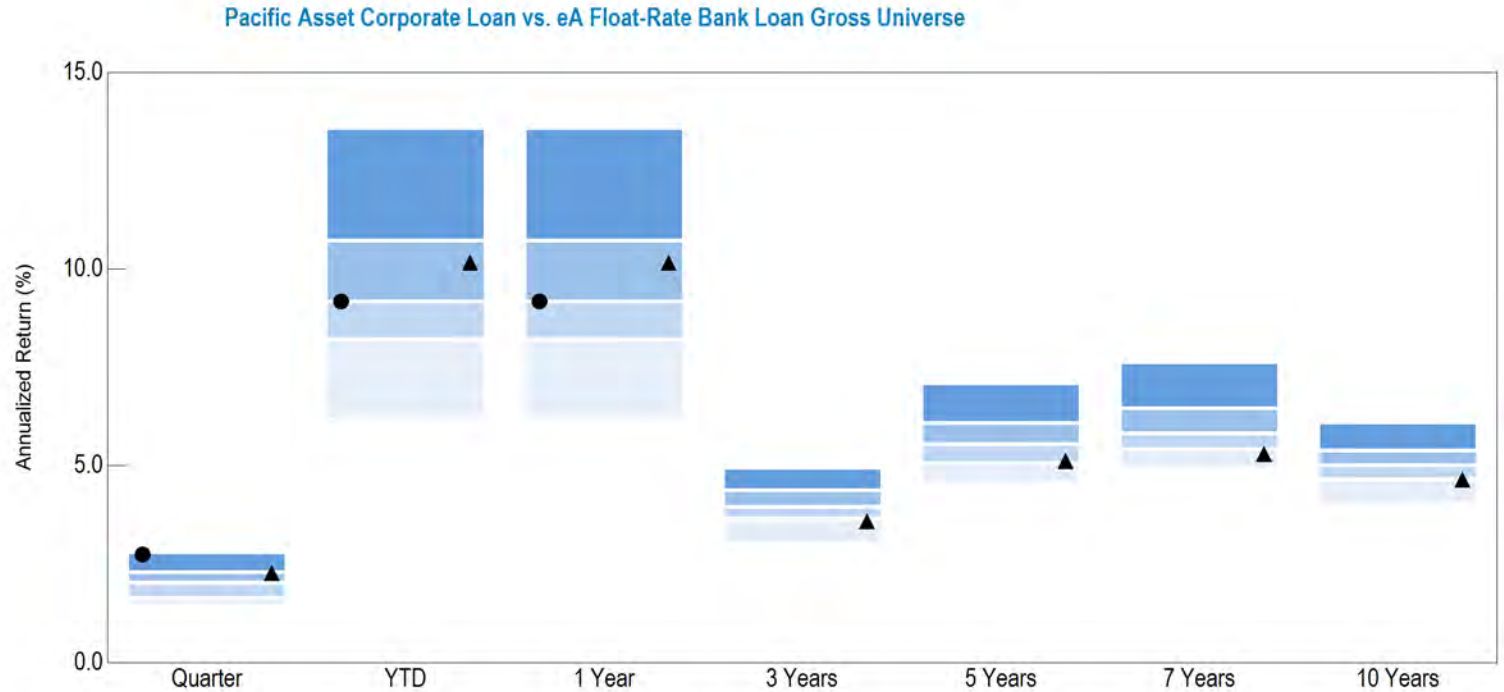


Rolling 5 Year Annualized Excess Performance

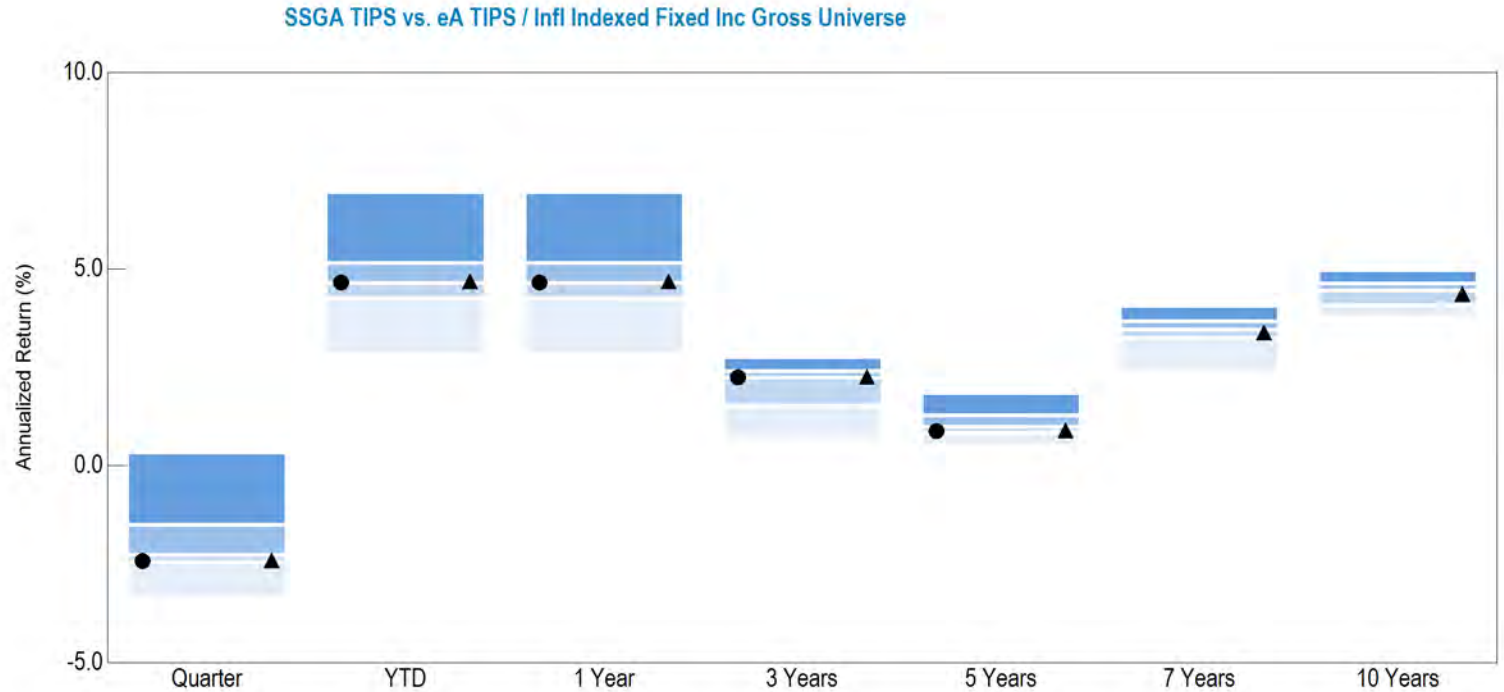


Pacific Asset Corporate Loan  
 Cumulative Performance Comparison (Gross of Fees)

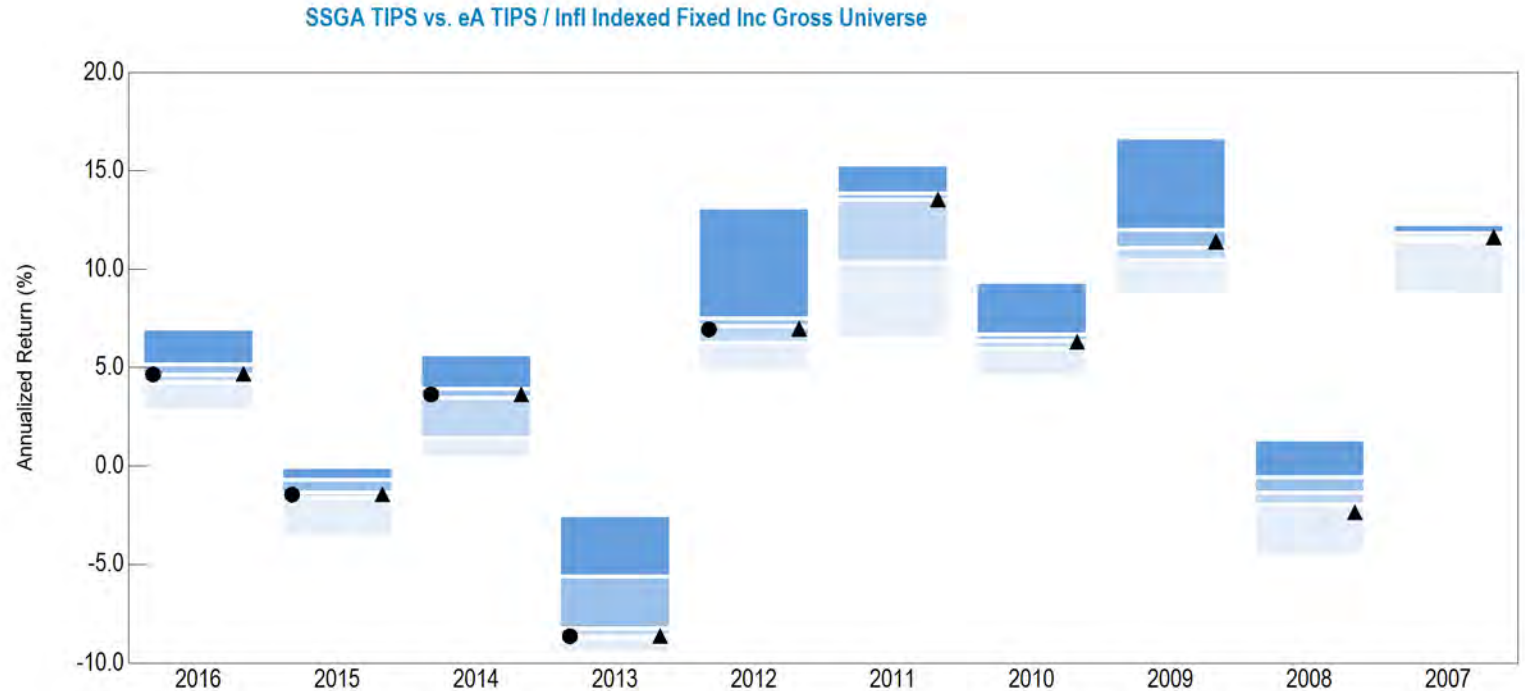
Period Ending: December 31, 2016



	Return (Rank)													
5th Percentile	2.8		13.6		13.6		4.9		7.1		7.6		6.1	
25th Percentile	2.3		10.7		10.7		4.4		6.1		6.5		5.4	
Median	2.0		9.2		9.2		4.0		5.6		5.8		5.0	
75th Percentile	1.7		8.2		8.2		3.7		5.1		5.4		4.7	
95th Percentile	1.4		6.2		6.2		3.0		4.6		4.9		4.0	
# of Portfolios	69		69		69		69		59		47		30	
● Pacific Asset Corporate Loan	2.7	(8)	9.2	(51)	9.2	(51)	--	(--)	--	(--)	--	(--)	--	(--)
▲ S&P/LSTA Leveraged Loan Index	2.3	(33)	10.2	(35)	10.2	(35)	3.6	(80)	5.1	(73)	5.3	(83)	4.6	(76)



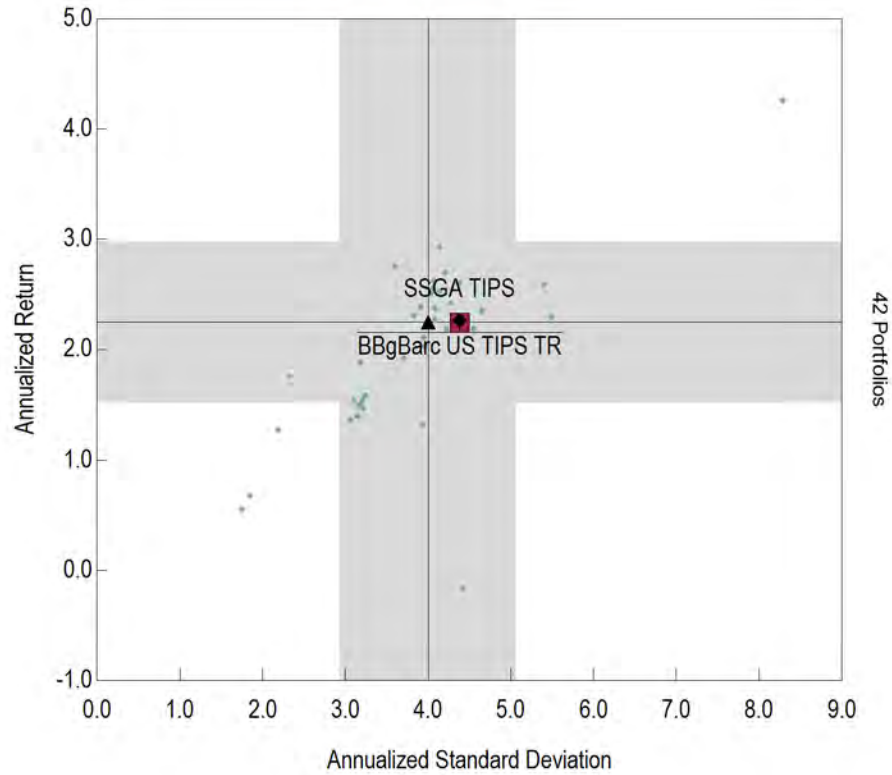
	Return (Rank)													
	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	0.3		7.0		7.0		2.7		1.8		4.0		5.0	
25th Percentile	-1.5		5.2		5.2		2.4		1.3		3.7		4.6	
Median	-2.3		4.7		4.7		2.2		1.0		3.5		4.5	
75th Percentile	-2.4		4.3		4.3		1.5		0.9		3.3		4.1	
95th Percentile	-3.3		2.8		2.8		0.7		0.5		2.4		3.8	
# of Portfolios	42		42		42		42		40		34		28	
● SSGA TIPS	-2.4	(71)	4.7	(51)	4.7	(51)	2.2	(51)	0.9	(72)	--	(--)	--	(--)
▲ BBgBarc US TIPS TR	-2.4	(65)	4.7	(47)	4.7	(47)	2.3	(50)	0.9	(69)	3.4	(63)	4.4	(66)



	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>5th Percentile</b>	7.0	-0.1	5.7	-2.5	13.1	15.3	9.4	16.7	1.3	12.3
<b>25th Percentile</b>	5.2	-0.7	4.0	-5.6	7.5	13.9	6.7	12.0	-0.5	11.8
<b>Median</b>	4.7	-1.3	3.5	-8.2	7.1	13.5	6.4	11.1	-1.4	11.6
<b>75th Percentile</b>	4.3	-1.6	1.4	-8.6	6.3	10.4	6.0	10.5	-1.9	11.5
<b>95th Percentile</b>	2.8	-3.6	0.4	-9.4	4.9	6.6	4.6	8.7	-4.6	8.8
<b># of Portfolios</b>	42	44	50	43	43	47	39	37	40	37
<b>● SSGA TIPS</b>	4.7 (51)	-1.5 (64)	3.6 (44)	-8.6 (77)	6.9 (67)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)
<b>▲ BBgBarc US TIPS TR</b>	4.7 (47)	-1.4 (59)	3.6 (44)	-8.6 (76)	7.0 (66)	13.6 (49)	6.3 (57)	11.4 (35)	-2.4 (85)	11.6 (49)

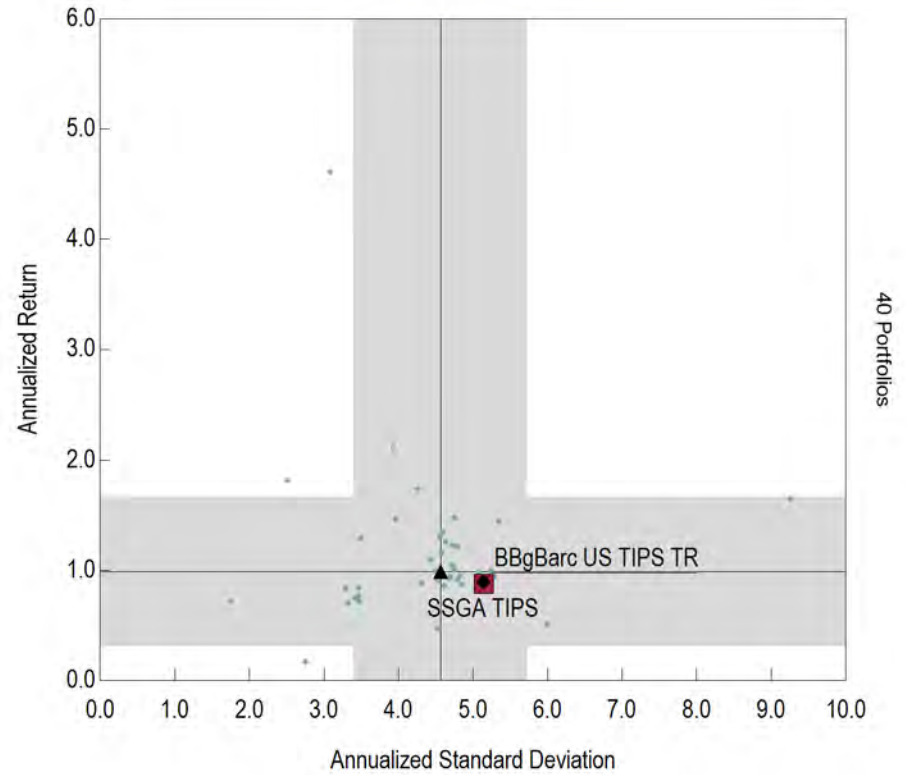


Annualized Return vs. Annualized Standard Deviation  
3 Years Ending December 31, 2016



- SSGA TIPS
- ◆ BBgBarc US TIPS TR
- ▲ Universe Median
- 68% Confidence Interval
- eA TIPS / Infl Indexed Fixed Inc Gross

Annualized Return vs. Annualized Standard Deviation  
5 Years Ending December 31, 2016



- SSGA TIPS
- ◆ BBgBarc US TIPS TR
- ▲ Universe Median
- 68% Confidence Interval
- eA TIPS / Infl Indexed Fixed Inc Gross

Total Global Fixed  
Asset Class Overview (Gross of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Global Fixed</b>	<b>112,984,798</b>	<b>-6.6</b>	<b>5.8</b>	<b>-3.0</b>	<b>0.0</b>	<b>--</b>	<b>5.8</b>	<b>-11.8</b>	<b>-2.2</b>	<b>-3.8</b>	<b>13.8</b>
<i>Citi World Govt Bond Index</i>		-8.5	1.6	-0.8	-1.0	--	1.6	-3.6	-0.5	-4.0	1.6
<i>eA Global Fixed Inc Unhedged Gross Rank</i>		72	30	96	82	--	30	99	94	82	30
Brandywine Global Fixed Income	57,734,375	-7.0	2.2	-1.6	1.3	--	2.2	-9.3	2.9	-1.6	13.8
<i>JPM GBI Global TR USD</i>		-8.3	1.6	-0.1	-0.7	--	1.6	-2.6	0.7	-4.5	1.3
<i>eA Global Fixed Inc Unhedged Gross Rank</i>		78	71	93	60	--	71	96	43	59	30
Stone Harbor Local Markets Ins	55,250,423	-6.2	9.9	-4.6	--	--	9.9	-14.4	-7.7	--	--
<i>JPM GBI-EM Global Diversified TR USD</i>		-6.1	9.9	-4.1	--	--	9.9	-14.9	-5.7	--	--
<i>eA All Emg Mkts Fixed Inc Gross Rank</i>		93	67	96	--	--	67	79	98	--	--



Total Global Fixed  
Asset Class Overview (Net of Fees)

Period Ending: December 31, 2016

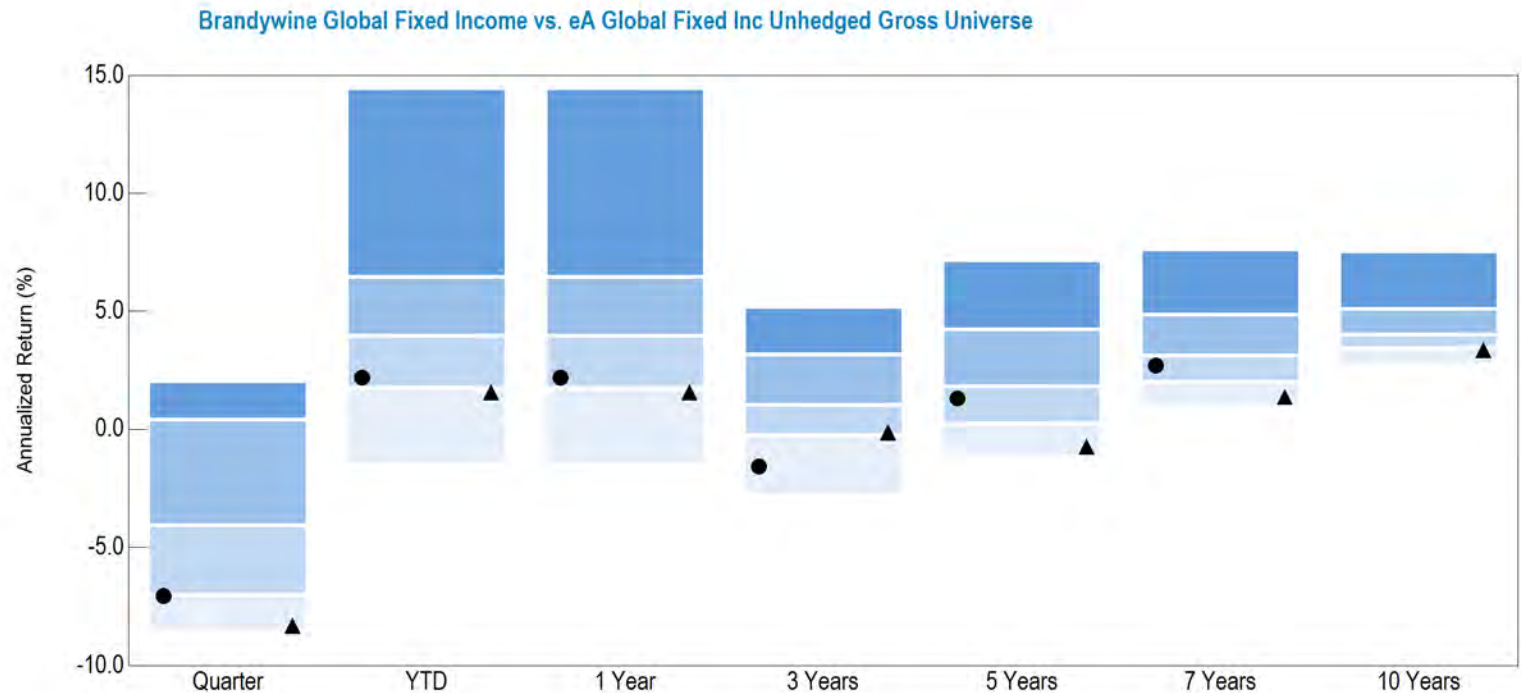
	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Global Fixed</b>	<b>112,984,798</b>	<b>-6.8</b>	<b>5.1</b>	<b>-3.6</b>	<b>-0.6</b>	<b>--</b>	<b>5.1</b>	<b>-12.4</b>	<b>-2.8</b>	<b>-4.4</b>	<b>13.1</b>
<i>Citi World Govt Bond Index</i>		-8.5	1.6	-0.8	-1.0	--	1.6	-3.6	-0.5	-4.0	1.6
Brandywine Global Fixed Income	57,734,375	-7.1	1.7	-2.0	0.8	--	1.7	-9.7	2.4	-2.3	13.1
<i>JPM GBI Global TR USD</i>		-8.3	1.6	-0.1	-0.7	--	1.6	-2.6	0.7	-4.5	1.3
Stone Harbor Local Markets Ins	55,250,423	-6.4	9.0	-5.4	--	--	9.0	-15.1	-8.6	--	--
<i>JPM GBI-EM Global Diversified TR USD</i>		-6.1	9.9	-4.1	--	--	9.9	-14.9	-5.7	--	--

Correlation Matrix  
Last 5 Years

	Total Global Fixed	Brandywine Global Fixed Income	Stone Harbor Local Markets Ins	Citi World Govt Bond Index
Total Global Fixed	1.00	--	--	--
Brandywine Global Fixed Income	0.96	1.00	--	--
Stone Harbor Local Markets Ins	--	--	--	--
Citi World Govt Bond Index	0.70	0.77	--	1.00

Brandywine Global Fixed Income  
 Cumulative Performance Comparison (Gross of Fees)

Period Ending: December 31, 2016

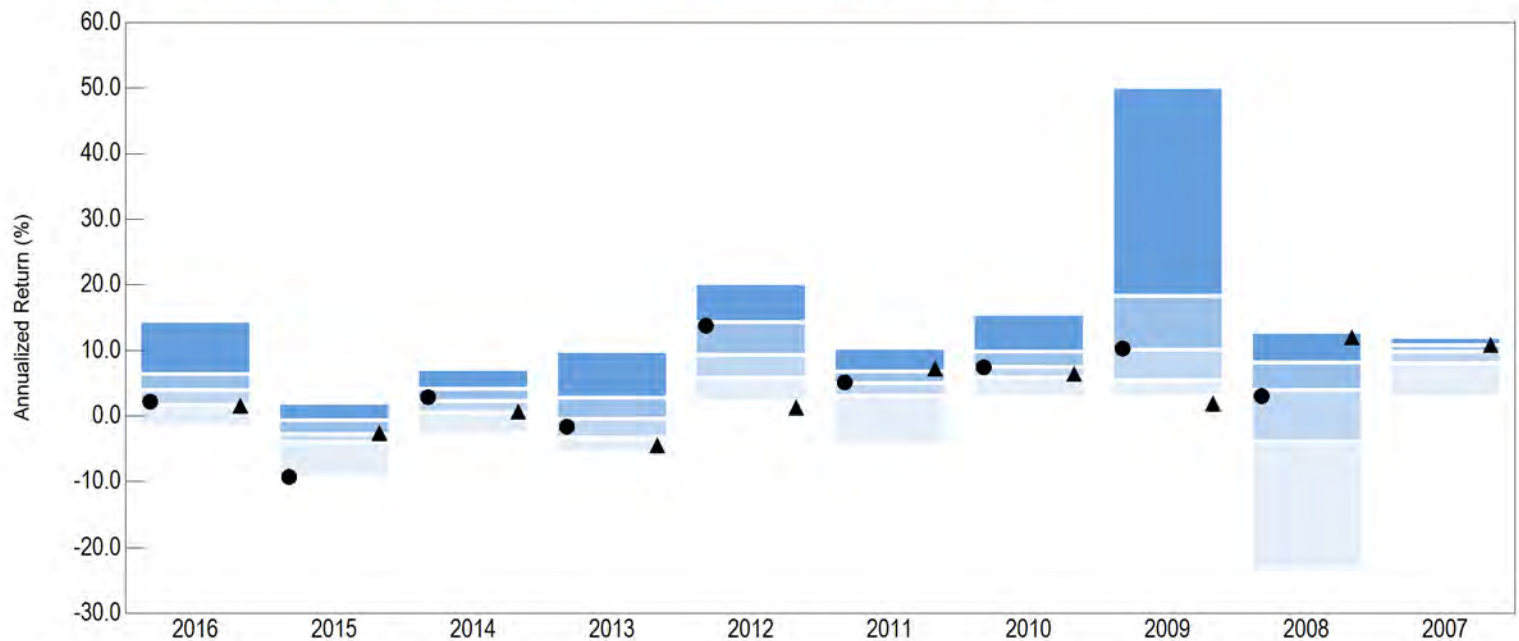


	Return (Rank)													
5th Percentile	2.0	14.5	14.5	5.2	7.1	7.6	7.5							
25th Percentile	0.4	6.5	6.5	3.2	4.3	4.9	5.1							
Median	-4.1	4.0	4.0	1.0	1.8	3.1	4.0							
75th Percentile	-7.0	1.8	1.8	-0.2	0.3	2.0	3.5							
95th Percentile	-8.5	-1.5	-1.5	-2.8	-1.2	1.0	2.8							
# of Portfolios	221	221	221	210	169	136	99							
● Brandywine Global Fixed Income	-7.0 (78)	2.2 (71)	2.2 (71)	-1.6 (93)	1.3 (60)	2.7 (57)	-- (--)							
▲ JPM GBI Global TR USD	-8.3 (93)	1.6 (79)	1.6 (79)	-0.1 (74)	-0.7 (91)	1.4 (91)	3.3 (81)							

Brandywine Global Fixed Income  
 Consecutive Performance Comparison (Gross of Fees)

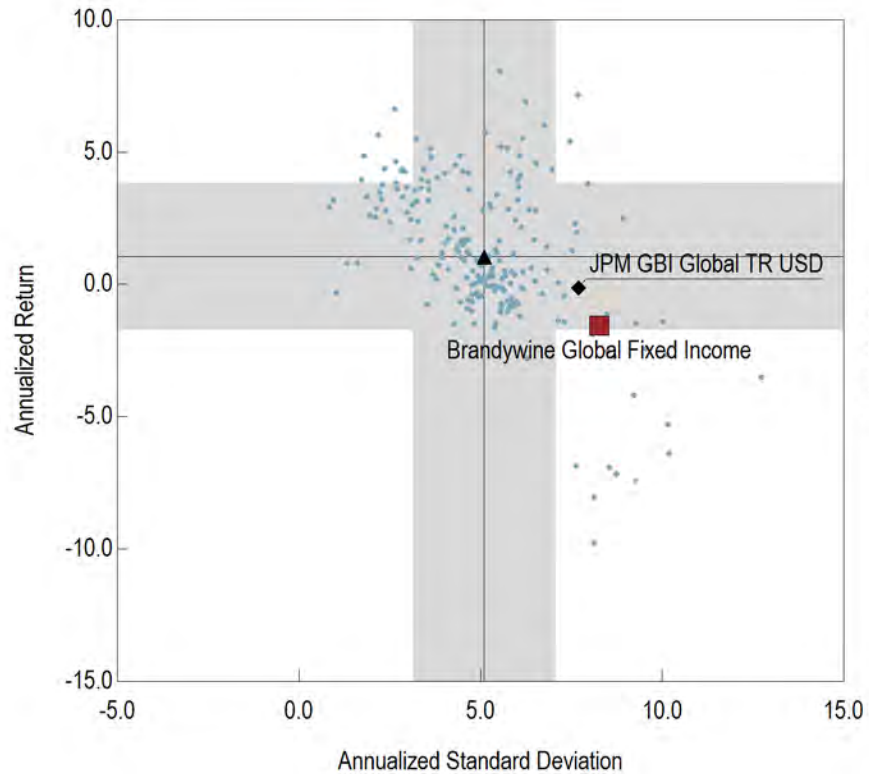
Period Ending: December 31, 2016

Brandywine Global Fixed Income vs. eA Global Fixed Inc Unhedged Gross Universe



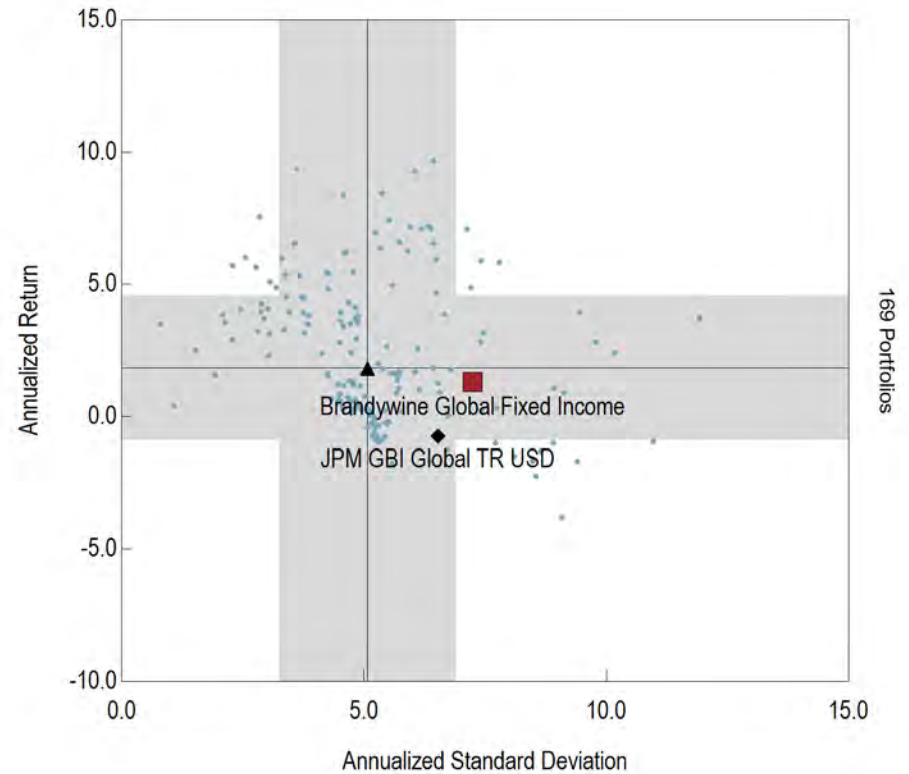
	Return (Rank)									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
5th Percentile	14.5	2.0	7.1	9.8	20.2	10.4	15.5	50.1	12.8	12.0
25th Percentile	6.5	-0.6	4.2	2.8	14.3	6.9	9.9	18.4	8.2	10.9
Median	4.0	-2.7	2.3	-0.4	9.4	5.0	7.5	10.1	4.0	9.9
75th Percentile	1.8	-4.0	0.6	-3.2	5.9	3.2	6.0	5.4	-3.8	8.1
95th Percentile	-1.5	-9.2	-2.7	-5.6	2.2	-4.2	3.0	3.2	-23.0	3.0
# of Portfolios	221	189	159	142	118	108	76	72	73	73
● Brandywine Global Fixed Income	2.2 (71)	-9.3 (96)	2.9 (43)	-1.6 (59)	13.8 (30)	5.1 (49)	7.4 (52)	10.3 (49)	3.0 (53)	-- (-)
▲ JPM GBI Global TR USD	1.6 (79)	-2.6 (48)	0.7 (75)	-4.5 (89)	1.3 (98)	7.2 (19)	6.4 (72)	1.9 (99)	12.0 (7)	10.8 (29)

Annualized Return vs. Annualized Standard Deviation  
 3 Years Ending December 31, 2016



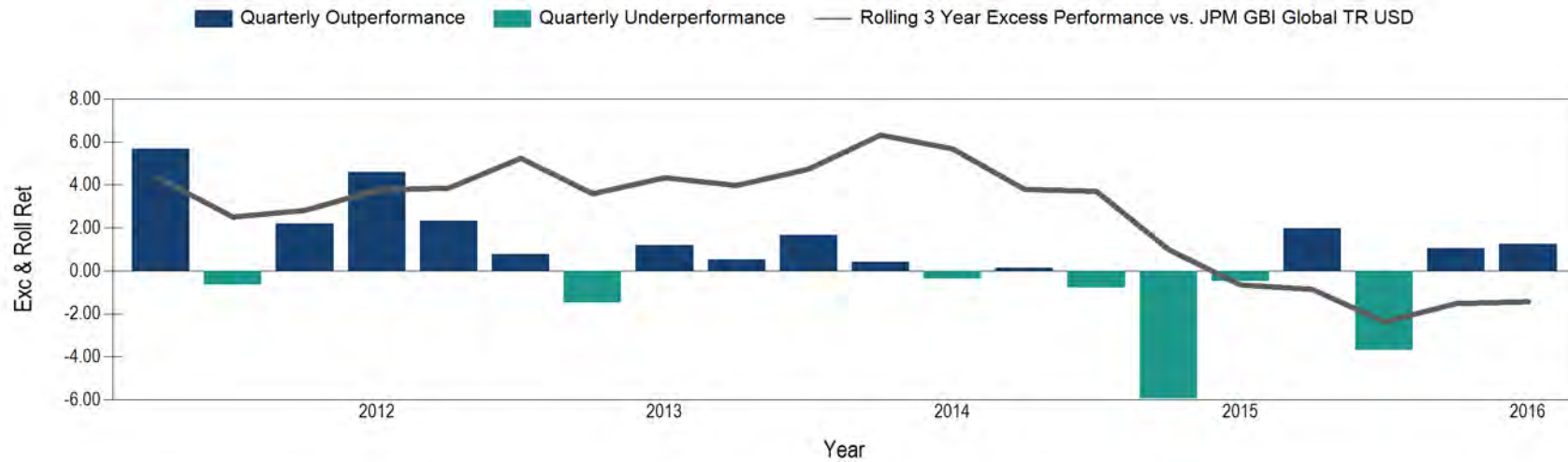
- Brandywine Global Fixed Income
- ◆ JPM GBI Global TR USD
- ▲ Universe Median
- ▣ 68% Confidence Interval
- eA Global Fixed Inc Unhedged Gross

Annualized Return vs. Annualized Standard Deviation  
 5 Years Ending December 31, 2016

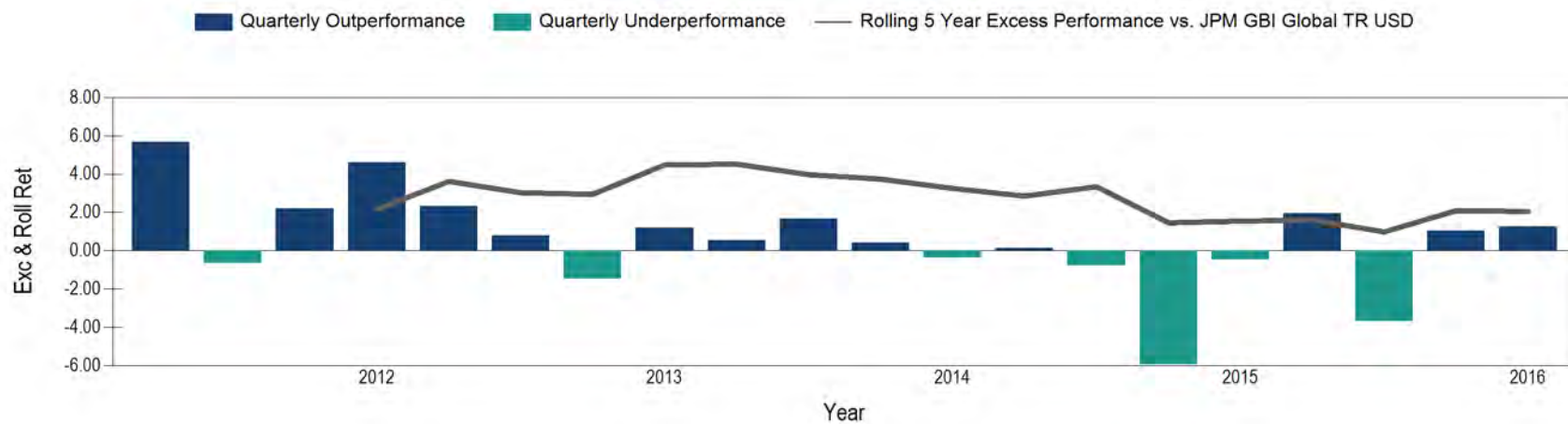


- Brandywine Global Fixed Income
- ◆ JPM GBI Global TR USD
- ▲ Universe Median
- ▣ 68% Confidence Interval
- eA Global Fixed Inc Unhedged Gross

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance





Stone Harbor Local Markets Ins  
 Cumulative Performance Comparison (Gross of Fees)

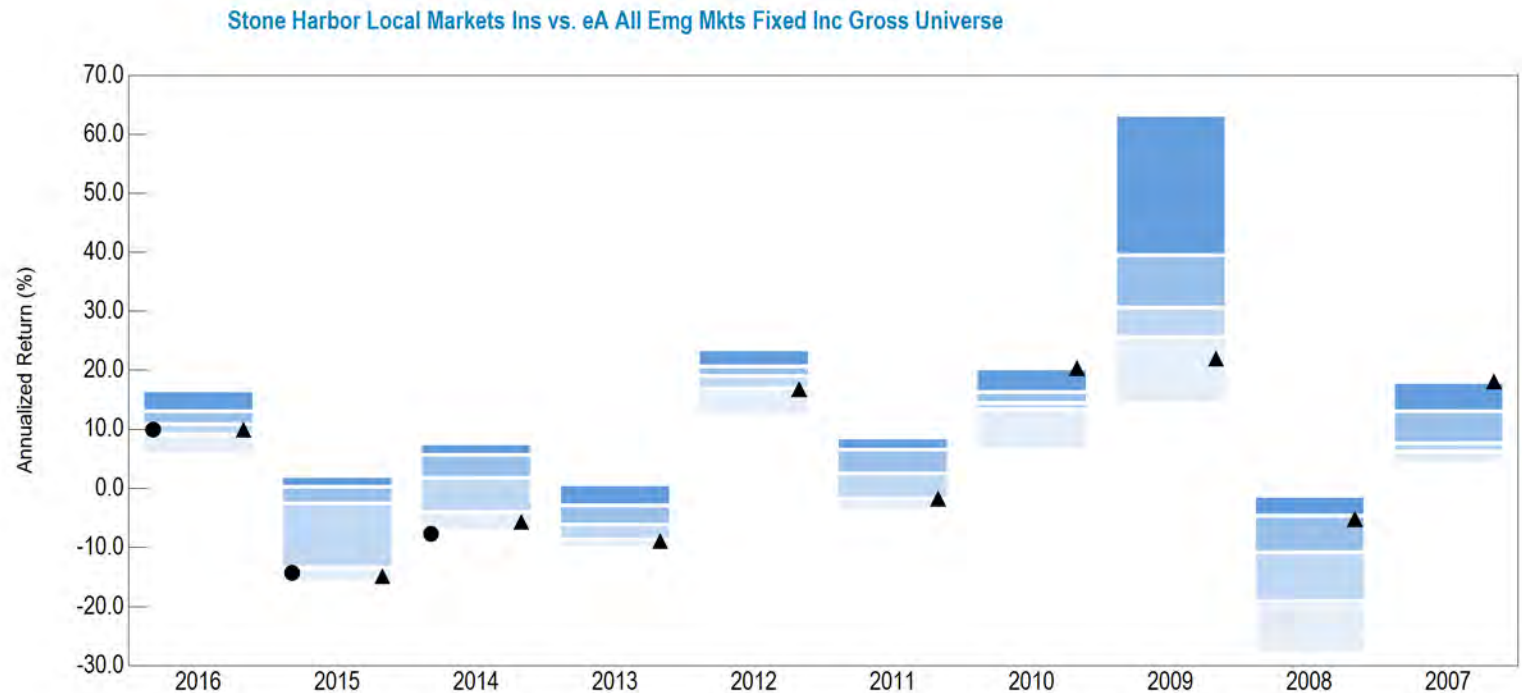
Period Ending: December 31, 2016



	Return (Rank)													
5th Percentile	1.0	16.6	16.6	6.9	7.5	8.6	8.6							
25th Percentile	-1.5	13.1	13.1	5.6	6.4	7.4	7.5							
Median	-3.6	10.9	10.9	4.2	4.9	6.1	6.8							
75th Percentile	-4.8	9.2	9.2	-1.9	0.4	1.5	4.6							
95th Percentile	-6.3	5.9	5.9	-4.6	-1.5	0.5	2.8							
# of Portfolios	248	247	247	227	178	115	82							
● Stone Harbor Local Markets Ins	-6.2	(93)	9.9	(67)	9.9	(67)	-4.6	(96)	--	(--)	--	(--)	--	(--)
▲ JPM GBI-EM Global Diversified TR USD	-6.1	(92)	9.9	(67)	9.9	(67)	-4.1	(91)	-1.3	(90)	1.5	(77)	4.2	(82)

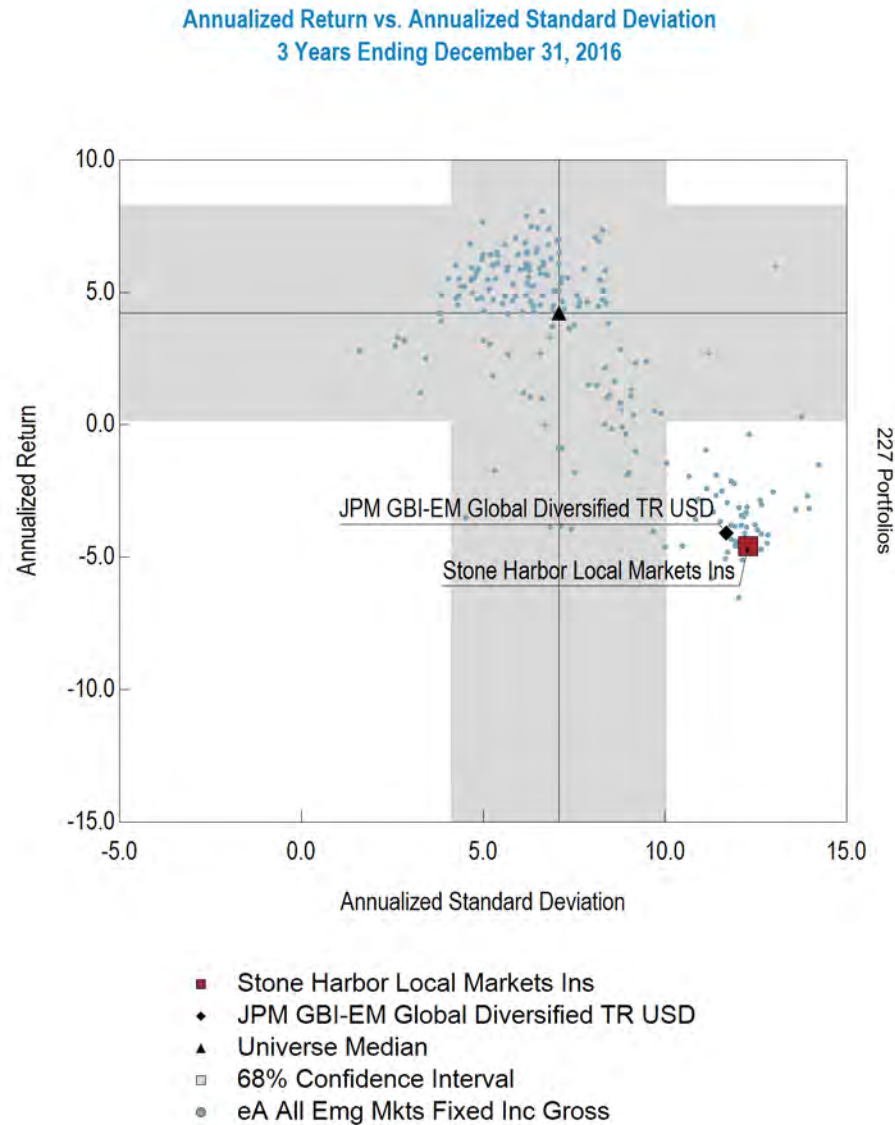
Stone Harbor Local Markets Ins  
 Consecutive Performance Comparison (Gross of Fees)

Period Ending: December 31, 2016

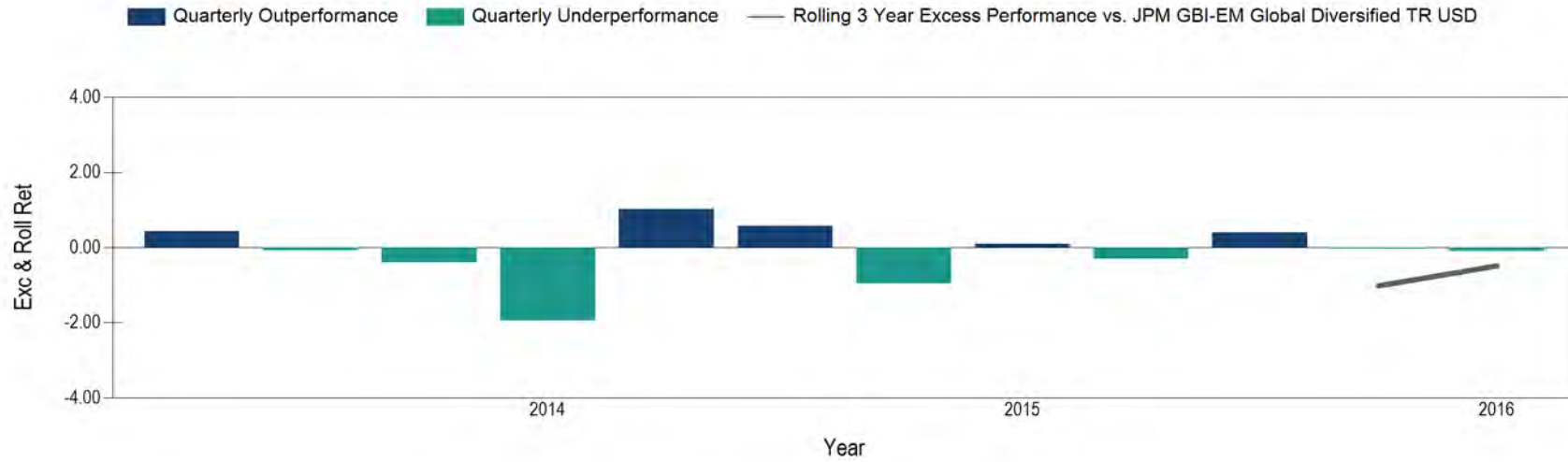


	Return (Rank)															
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007						
5th Percentile	16.6	2.1	7.6	0.7	23.6	8.6	20.3	63.2	-1.3	18.0						
25th Percentile	13.1	0.3	5.7	-2.9	20.7	6.6	16.3	39.6	-4.6	13.1						
Median	10.9	-2.6	1.8	-6.1	19.1	2.6	14.5	30.7	-10.8	7.7						
75th Percentile	9.2	-13.4	-4.0	-8.6	17.0	-1.6	13.4	25.6	-18.9	6.2						
95th Percentile	5.9	-15.9	-7.2	-10.2	12.5	-3.6	6.6	14.4	-27.7	4.2						
# of Portfolios	247	159	148	129	108	75	55	27	30	25						
● Stone Harbor Local Markets Ins	9.9 (67)	-14.4 (79)	-7.7 (98)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)						
▲ JPM GBI-EM Global Diversified TR USD	9.9 (67)	-14.9 (84)	-5.7 (91)	-9.0 (82)	16.8 (80)	-1.8 (77)	20.4 (5)	22.0 (85)	-5.2 (28)	18.1 (5)						

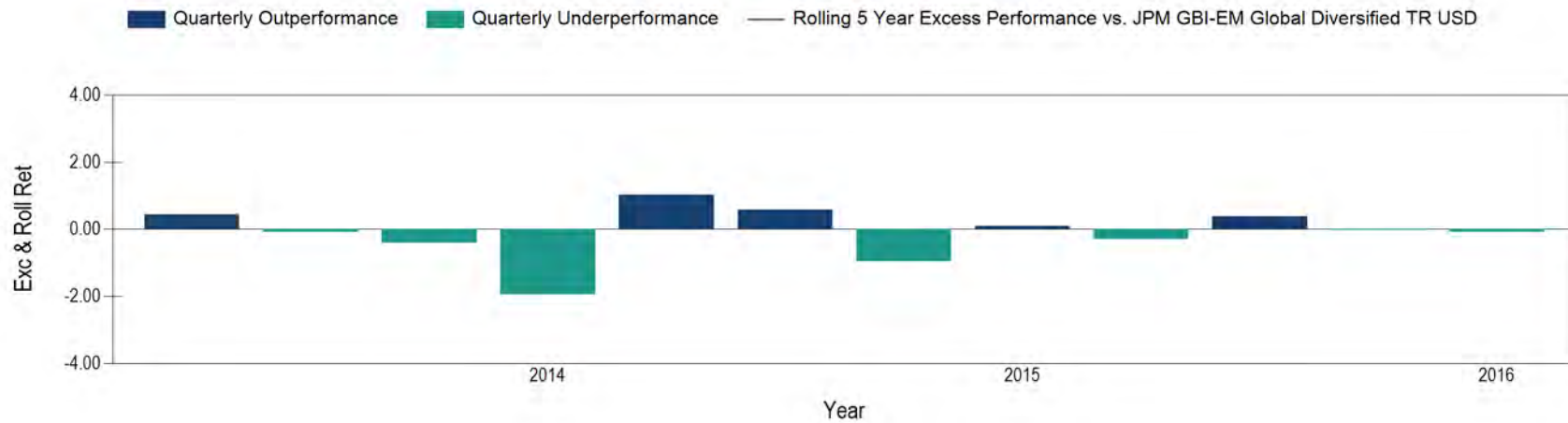




Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



Total Real Estate  
Asset Class Overview (Gross of Fees)

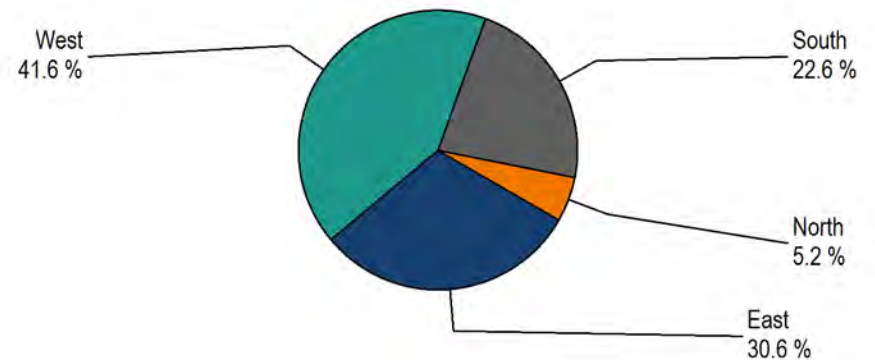
Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Real Estate</b>	<b>174,005,923</b>	<b>1.7</b>	<b>7.8</b>	<b>12.0</b>	<b>11.7</b>	<b>--</b>	<b>7.8</b>	<b>18.0</b>	<b>10.4</b>	<b>12.9</b>	<b>9.8</b>
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
ARA American Strategic Value Realty	10,851,862	3.2	--	--	--	--	--	--	--	--	--
<i>NCREIF-ODCE</i>		2.1	--	--	--	--	--	--	--	--	--
<i>NCREIF Property Index</i>		1.7	--	--	--	--	--	--	--	--	--
Direct Real Estate	21,403,241	0.0	5.5	11.2	9.6	5.5	5.5	22.9	6.1	5.2	9.2
<i>NCREIF-ODCE</i>		2.1	8.8	12.1	12.2	5.8	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	6.9	8.0	13.3	11.8	11.0	10.5
JP Morgan Core Real Estate	140,951,102	2.2	8.4	11.6	12.5	--	8.4	15.2	11.2	15.9	12.1
<i>NCREIF-ODCE</i>		2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
Fidelity Real Estate Growth III	799,717	-3.3	1.3	20.8	19.1	--	1.3	35.8	28.2	20.9	12.1
<i>NCREIF-ODCE</i>		2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5

Property Type Allocation  
Allocation as of December 31, 2016



Geographic Diversification  
Allocation as of December 31, 2016



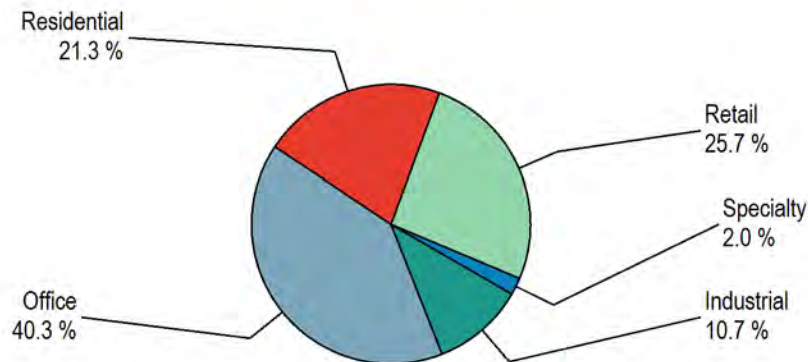
ARA American Strategic Value Realty funded 6/22/2016. Property Allocation and Geographic Diversification analytics exclude Direct Real Estate and ARA American. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.

Total Real Estate  
Asset Class Overview (Net of Fees)

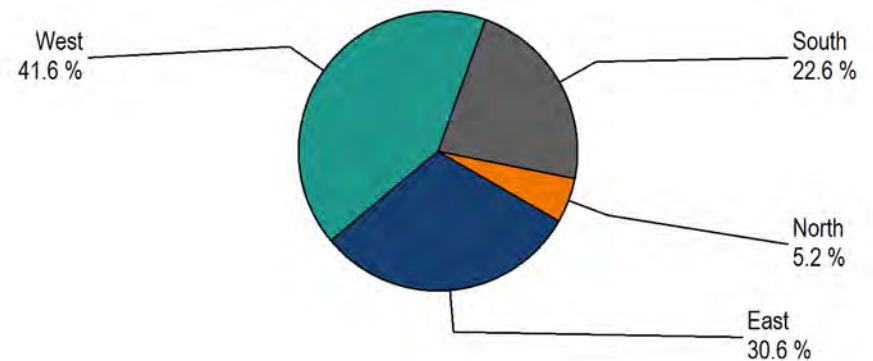
Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Real Estate</b>	<b>174,005,923</b>	<b>1.5</b>	<b>6.8</b>	<b>11.0</b>	<b>10.9</b>	<b>--</b>	<b>6.8</b>	<b>16.9</b>	<b>9.6</b>	<b>12.1</b>	<b>9.2</b>
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
ARA American Strategic Value Realty	10,851,862	2.9	--	--	--	--	--	--	--	--	--
<i>NCREIF-ODCE</i>		2.1	--	--	--	--	--	--	--	--	--
<i>NCREIF Property Index</i>		1.7	--	--	--	--	--	--	--	--	--
Direct Real Estate	21,403,241	0.0	4.9	10.8	9.3	5.4	4.9	22.2	6.1	5.2	9.2
<i>NCREIF-ODCE</i>		2.1	8.8	12.1	12.2	5.8	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	6.9	8.0	13.3	11.8	11.0	10.5
JP Morgan Core Real Estate	140,951,102	1.9	7.3	10.4	11.4	--	7.3	14.1	10.0	14.8	11.0
<i>NCREIF-ODCE</i>		2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5
Fidelity Real Estate Growth III	799,717	-3.6	-0.1	19.3	17.5	--	-0.1	34.0	26.7	19.3	10.6
<i>NCREIF-ODCE</i>		2.1	8.8	12.1	12.2	--	8.8	15.0	12.5	13.9	10.9
<i>NCREIF Property Index</i>		1.7	8.0	11.0	10.9	--	8.0	13.3	11.8	11.0	10.5

Property Type Allocation  
Allocation as of December 31, 2016



Geographic Diversification  
Allocation as of December 31, 2016



ARA American Strategic Value Realty funded 6/22/2016. Property Allocation and Geographic Diversification analytics exclude Direct Real Estate and ARA American. Direct Real Estate market value as of 9/30/2016 +/- calls and distributions.

Total Commodities  
 Asset Class Summary (Gross of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Commodities</b>	<b>36,514,186</b>	<b>4.1</b>	<b>12.6</b>	<b>-10.9</b>	<b>-8.6</b>	<b>--</b>	<b>12.6</b>	<b>-25.2</b>	<b>-16.0</b>	<b>-9.1</b>	<b>-0.9</b>
<i>Bloomberg Commodity Index TR USD</i>		2.7	11.8	-11.3	-9.0	--	11.8	-24.7	-17.0	-9.5	-1.1
Gresham MTAP Commodity Builder	36,514,186	4.1	12.6	-10.9	--	--	12.6	-25.2	-16.0	--	--
<i>Bloomberg Commodity Index TR USD</i>		2.7	11.8	-11.3	--	--	11.8	-24.7	-17.0	--	--

Total Commodities  
 Asset Class Summary (Net of Fees)

Period Ending: December 31, 2016

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2016	2015	2014	2013	2012
<b>Total Commodities</b>	<b>36,514,186</b>	<b>3.9</b>	<b>11.8</b>	<b>-11.6</b>	<b>-9.2</b>	<b>--</b>	<b>11.8</b>	<b>-25.8</b>	<b>-16.6</b>	<b>-9.5</b>	<b>-1.2</b>
<i>Bloomberg Commodity Index TR USD</i>		2.7	11.8	-11.3	-9.0	--	11.8	-24.7	-17.0	-9.5	-1.1
Gresham MTAP Commodity Builder	36,514,186	3.9	11.8	-11.6	--	--	11.8	-25.8	-16.6	--	--
<i>Bloomberg Commodity Index TR USD</i>		2.7	11.8	-11.3	--	--	11.8	-24.7	-17.0	--	--



**Performance Return Calculations**

Returns calculated in the performance summary tables are time-weighted rates of return (TWRR). TWRR are calculated from changes in monthly market values, adjusted for weighted cash flows between months. Returns are linked geometrically and annualized for periods longer than one year.

**Data Source**

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

**Illiquid Alternatives**

Closed end funds including but not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit may lag performance and market value data due to delayed reporting. Verus will show market values for closed end funds as of the most recent reported performance adjusted for capital calls and distributions. Closed end fund managers report performance using an internal rate of return (IRR), which differs from the TWRR calculation done by Verus. It is inappropriate to compare IRR and TWRR to each other. IRR figures reported in the illiquid alternative pages are provided by the respective managers, and Verus has not made any attempts to verify these returns. Until a partnership is liquidated (typically over 10-12 years), the IRR is only an interim estimated return. The actual IRR performance of any LP is not known until the final liquidation.

**Manager Line Up**

Manager	Inception Date	Data Source	Manager	Inception Date	Data Source
SSGA S&P 500 Flagship	02/25/2011	State Street	Direct Real Estate	-	American Realty Adv.
PIMCO RAE Fundamental PLUS	11/30/2007	J.P. Morgan	JP Morgan Core Real Estate	03/06/2008	J.P. Morgan
Loomis Sayles Large Cap Growth	12/31/2016	J.P. Morgan	Fidelity Real Estate Growth III	07/31/2007	J.P. Morgan
Atlanta Capital Management	08/31/2010	J.P. Morgan	Gresham MTAP Commodity	08/31/2013	BNY Mellon
Dodge & Cox Intl Stock	12/06/2007	J.P. Morgan	Cash Account	-	SLOCPT
Vontobel	12/05/2007	J.P. Morgan	HarbourVest Partners IX-Buyout	2011 <sup>1</sup>	HarbourVest
PIMCO Core Plus	10/31/2009	J.P. Morgan	KKR Mezzanine Partners	2010 <sup>1</sup>	KKR
Pacific Asset Corporate Loan	09/01/2014	Deutsche Bank	PIMCO Distressed Credit Fund	2010 <sup>1</sup>	Brown Brothers Harriman
SSGA TIPS	07/12/2011	State Street	ARA American Strategic Value	4/22/2016	American Realty Adv.
Brandywine Global Fixed	11/30/2007	J.P. Morgan	TPG Diversified Credit Program	2016 <sup>1</sup>	TPG
Stone Harbor Local Markets Ins	07/09/2013	Stone Harbor			

<sup>1</sup>Represents fund vintage year.

**Policy & Custom Index Composition**

Policy Index (10/1/2016-Current)	20% Russell 3000, 20% MSCI ACWI ex-US (Gross), 30% BBgBarc U.S. Aggregate, 15% NCREIF Property Index, 5% Bloomberg Commodity Index, 10% Russell 3000+ 300 bps.
Policy Index (7/1/2014-9/30/2016)	23% Russell 3000, 22% MSCI ACWI ex-US (Gross), 35% BBgBarc U.S. Aggregate, 10% NCREIF Property Index, 5% Bloomberg Commodity Index, 5% Russell 3000+ 300 bps.
Policy Index (7/1/2013-6/30/2014)	27% Russell 3000, 23% MSCI ACWI ex-US (Gross), 30% BBgBarc U.S. Aggregate, 10% NCREIF Property Index, 5% Bloomberg Commodity Index, 5% Russell 3000+ 300 bps.
Policy Index (4/1/2011-6/30/2013)	27% Russell 3000, 23% MSCI ACWI ex-US (Gross), 20% BBgBarc U.S. Aggregate, 5% Citi World Gov't Bond, 5% Barclays US TIPS, 10% NCREIF Property Index, 5% Bloomberg Commodity Index, 5% Russell 3000+ 300 bps.



# Glossary

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**Allocation Effect:** An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

**Alpha:** The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as:  $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$ .

**Benchmark R-squared:** Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

**Beta:** A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Book-to-Market:** The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

**Capture Ratio:** A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

**Correlation:** A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

**Excess Return:** A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

**Information Ratio:** A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as:  $\text{excess return} / \text{tracking error}$ .

**Interaction Effect:** An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

**Portfolio Turnover:** The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

**Price-to-Earnings Ratio (P/E):** Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

**R-Squared:** Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

**Selection Effect:** An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

**Sharpe Ratio:** A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as:  $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$ .

**Sortino Ratio:** Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

**Style Analysis:** A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

**Style Map:** A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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Verus receives universe data from InvestorForce, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.

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## Board of Trustees

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## San Luis Obispo County Pension Trust *SLOOPT*

Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item 14: Investment Report for January 2017**

	January	Year to Date 2017	2016	2015	2014	2013
Total Trust Investments (\$ 000s)	\$1,230,931		\$1,196,775 year end	\$1,148,315 year end	\$1,190,316 year end	\$1,131,022 year end
<b>Total Fund Return</b>	<b>1.8%</b> Gross	<b>1.8%</b> Gross	6.6 % Gross	-1.1 % Gross	5.1 % Gross	13.8% Gross
Policy Index Return (r)	1.4%	1.4%	7.7 %	-0.8 %	5.2 %	13.4%

(r) Policy index as of Aug. 2016 revision to Strategic Asset Allocation Policy: 20% domestic equity, 20% international equity, 15% core bonds, 5% bank loans, 5% global bonds, 5% emerging market debt, 15% real estate, 5% commodities, 5% private equity, 5% private credit.

### **The Economy:**

The main factors in the global economy for January and into mid-February have been –

- **Fed Policy** – After the Fed’s increase in the Fed Funds target rate in December, the tone of communication from the central bank continued to support additional increases in 2017. The Associate Press reporting on Janet Yellen’s congressional testimony summarized the Fed’s position well –

“Federal Reserve Chair Janet Yellen said Tuesday that the central bank still expects to raise interest rates gradually this year. But she said the Fed also recognizes the dangers of waiting too long to tighten credit.

Testifying to Congress for the first time since President Donald Trump took office, Yellen referred implicitly to the ambitious economic program Trump has promised. She said the Fed recognizes that sharp changes in tax policy and government spending could influence the central bank's decisions.

But she says "it's too early to know what policy changes will be put in place or how their economic effects will unfold."

In her testimony, Yellen delivered a message that reflected essentially what the Fed said in its most recent policy statement on Feb. 1: The economy and job markets have strengthened, and inflation is edging up, closer to the Fed's 2 percent target.

Though the central bank still thinks rate hikes can occur slowly, Yellen added a note of caution Tuesday: "Waiting too long to remove accommodation would be unwise, potentially requiring the (Fed) to eventually raise rates rapidly, which could risk disrupting financial markets and pushing the economy into recession."

- **Economic Growth – Domestic** – U.S. economic growth slowed more than expected in 4Q16, with GDP rising at a 1.9% rate, below the 2.2% rise expected by economists and the 3.5% growth rate in the third quarter. Consumer spending show signs of continued strength with a 0.5% December increase to give full year 2016 increase in consumer spending of 3.8%.
- **Employment** - The US unemployment rate remained in full-employment range in January at a 4.8% rate. The labor force participation rate increased slightly which contributed to the small uptick in unemployment. A slowing rate of productivity improvements at a 0.2% rate for all of 2016 combined with the return of wage increase pressures carries some negative implications for corporate profitability going into 2017.

### **Investment Markets:**

The attached report from Verus covers the investment returns of the SLOCPT portfolio and general market conditions through the end of January.

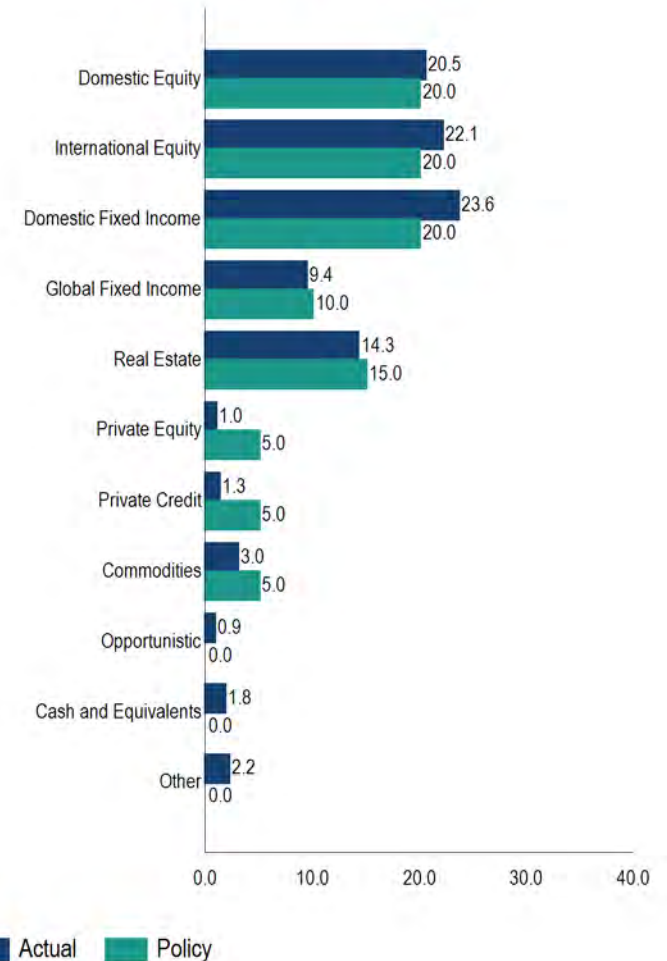
# San Luis Obispo County Pension Trust

## Executive Summary - Preliminary (Gross of Fees)

Period Ending: January 31, 2017

	Market Value	% of Portfolio	1 Mo	YTD
<b>Total Fund</b>	<b>1,230,931,162</b>	<b>100.0</b>	<b>1.8</b>	<b>1.8</b>
Total Fund ex Clifton	1,204,295,173	97.8	1.8	1.8
Policy Index			1.4	1.4
<b>Total Domestic Equity</b>	<b>252,460,784</b>	<b>20.5</b>	<b>1.7</b>	<b>1.7</b>
Russell 3000			1.9	1.9
SSGA S&P 500 Flag.	10,439,392	0.8	1.9	1.9
S&P 500			1.9	1.9
PIMCO RAE Fundamental PLUS Instl	50,517,236	4.1	1.0	1.0
S&P 500			1.9	1.9
Loomis Sayles Large Cap Growth	72,200,393	5.9	3.1	3.1
Russell 1000 Growth			3.4	3.4
Boston Partners Large Cap Value	70,000,000	5.7	--	--
Russell 1000 Value			--	--
Atlanta Capital Mgmt	49,303,763	4.0	0.1	0.1
Russell 2500			1.4	1.4
<b>Total International Equity</b>	<b>272,389,413</b>	<b>22.1</b>	<b>4.0</b>	<b>4.0</b>
MSCI ACWI ex USA Gross			3.6	3.6
Dodge & Cox Intl Stock	144,710,387	11.8	4.4	4.4
MSCI EAFE Gross			2.9	2.9
Vontobel	127,679,026	10.4	3.6	3.6
MSCI EAFE Gross			2.9	2.9
<b>Total Domestic Fixed Income</b>	<b>290,610,720</b>	<b>23.6</b>	<b>0.4</b>	<b>0.4</b>
BBgBarc US Aggregate TR			0.2	0.2
BlackRock Core Bond	91,198,833	7.4	--	--
BBgBarc US Aggregate TR			--	--
Dodge & Cox Income Fund	93,162,250	7.6	--	--
BBgBarc US Aggregate TR			--	--
PIMCO Core Plus	18,698,769	1.5		
BBgBarc US Aggregate TR				
Pacific Asset Corporate Loan	66,299,435	5.4	0.8	0.8
S&P/LSTA Leveraged Loan Index			0.6	0.6
SSGA TIPS	18,891,829	1.5	0.9	0.9
BBgBarc US TIPS TR			0.8	0.8

Actual vs Target Allocation (%)



\*Other balance represents Clifton Group.

Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 10% Russell 3000 + 300 bp. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. ARA American funded 6/22/2016. ARA American and Direct Real Estate MVs as of 12/31/2016 +/- calls and distributions. Fidelity Real Estate Growth II liquidated 12/31/2015. TPG funded 11/21/16. Loomis Sayles LC Growth funded 12/31/16. PIMCO Core Plus liquidated 1/6/2017. Vertas Transition funded 1/6/2017. BlackRock Core Bond funded 1/19/2017. Dodge & Cox Income Fund funded 1/19/2017. Boston Partners funded 2/1/2017. All data is preliminary.

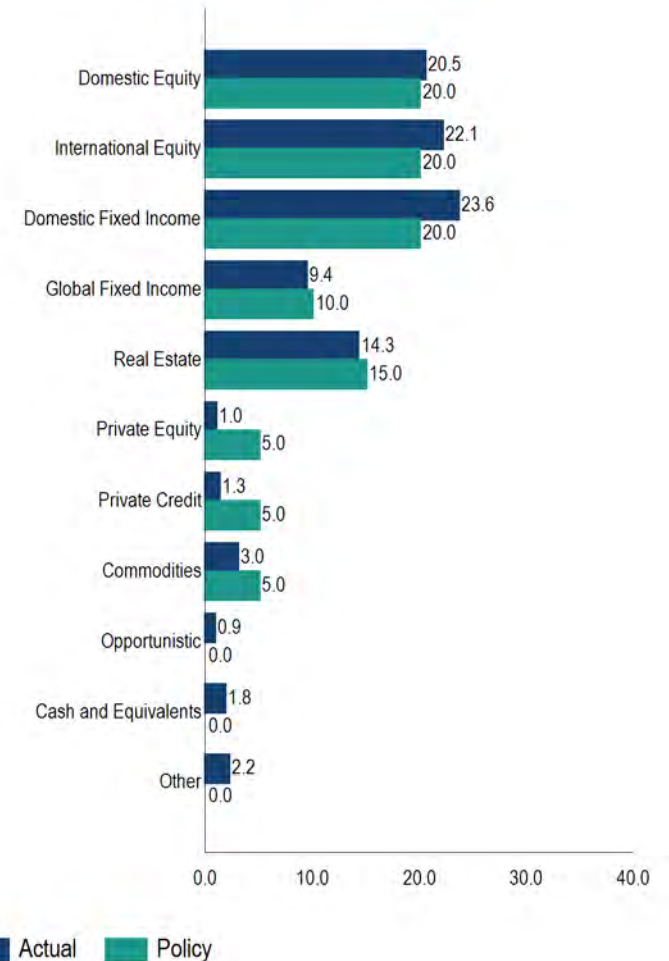
# San Luis Obispo County Pension Trust

## Executive Summary - Preliminary (Gross of Fees)

Period Ending: January 31, 2017

	Market Value	% of Portfolio	1 Mo	YTD
Veritas Transition Account	2,359,604	0.2	--	--
<b>Total Global Fixed</b>	<b>115,944,102</b>	<b>9.4</b>	<b>2.7</b>	<b>2.7</b>
<i>Citi World Govt Bond Index</i>			1.0	1.0
Brandywine Global Fixed Income	59,226,854	4.8	2.6	2.6
<i>JPM GBI Global TR USD</i>			0.9	0.9
Stone Harbor Local Markets Ins	56,717,248	4.6	2.7	2.7
<i>JPM GBI-EM Global Diversified TR USD</i>			2.3	2.3
<b>Total Real Estate</b>	<b>175,489,238</b>	<b>14.3</b>	<b>0.9</b>	<b>0.9</b>
<i>NCREIF Property Index</i>				
ARA American Strategic Value Realty	10,851,862	0.9	0.0	0.0
<i>NCREIF-ODCE</i>				
<i>NCREIF Property Index</i>				
Direct Real Estate	22,520,453	1.8	5.5	5.5
<i>NCREIF-ODCE</i>				
<i>NCREIF Property Index</i>				
JP Morgan Core Real Estate	141,313,729	11.5	0.3	0.3
<i>NCREIF-ODCE</i>				
<i>NCREIF Property Index</i>				
Fidelity Real Estate Growth III	803,194	0.1	0.4	0.4
<i>NCREIF-ODCE</i>				
<i>NCREIF Property Index</i>				
<b>Total Commodities</b>	<b>36,968,036</b>	<b>3.0</b>	<b>1.3</b>	<b>1.3</b>
<i>Bloomberg Commodity Index TR USD</i>			0.1	0.1
Gresham MTAP Commodity Builder	36,968,036	3.0	1.3	1.3
<i>Bloomberg Commodity Index TR USD</i>			0.1	0.1
<b>Total Private Equity</b>	<b>11,949,936</b>	<b>1.0</b>		
Harbourvest Partners IX Buyout Fund L.P.	11,949,936	1.0		
<i>Russell 3000 + 3%</i>				
<b>Total Private Credit</b>	<b>15,682,095</b>	<b>1.3</b>		
TPG Diversified Credit Program	15,682,095	1.3		
<i>Russell 3000 + 3%</i>				

Actual vs Target Allocation (%)



\*Other balance represents Clifton Group.

Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 10% Russell 3000 + 300 bp. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. ARA American funded 6/22/2016. ARA American and Direct Real Estate MVs as of 12/31/2016 +/- calls and distributions. Fidelity Real Estate Growth II liquidated 12/31/2015. TPG funded 11/21/16. Loomis Sayles LC Growth funded 12/31/16. PIMCO Core Plus liquidated 1/6/2017. Veritas Transition funded 1/6/2017. BlackRock Core Bond funded 1/19/2017. Dodge & Cox Income Fund funded 1/19/2017. Boston Partners funded 2/1/2017. All data is preliminary.

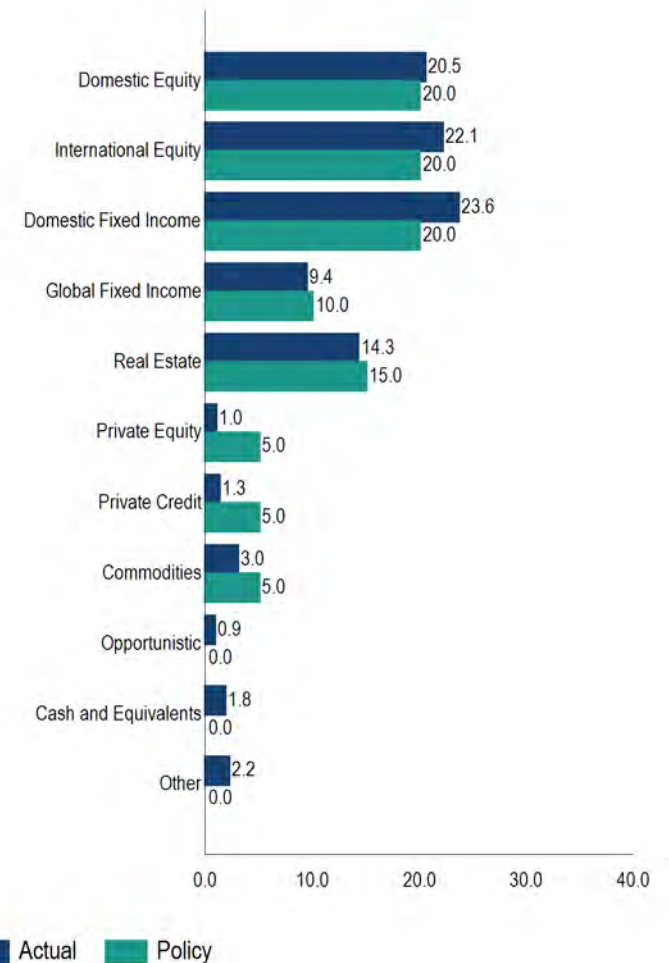


San Luis Obispo County Pension Trust  
 Executive Summary - Preliminary (Gross of Fees)

Period Ending: January 31, 2017

	Market Value	% of Portfolio	1 Mo	YTD
<b>Total Cash</b>	<b>22,241,385</b>	<b>1.8</b>	<b>0.2</b>	<b>0.2</b>
91 Day T-Bills			0.0	0.0
Cash Account	22,241,385	1.8	0.2	0.2
91 Day T-Bills			0.0	0.0
<b>Total Opportunistic</b>	<b>10,559,464</b>	<b>0.9</b>		
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	8,318,972	0.7		
PIMCO Distressed Credit Fund	2,240,492	0.2		
CPI + 5%				

Actual vs Target Allocation (%)



\*Other balance represents Clifton Group.

Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 10% Russell 3000 + 300 bp. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. ARA American funded 6/22/2016. ARA American and Direct Real Estate MVs as of 12/31/2016 +/- calls and distributions. Fidelity Real Estate Growth II liquidated 12/31/2015. TPG funded 11/21/16. Loomis Sayles LC Growth funded 12/31/16. PIMCO Core Plus liquidated 1/6/2017. Vertas Transition funded 1/6/2017. BlackRock Core Bond funded 1/19/2017. Dodge & Cox Income Fund funded 1/19/2017. Boston Partners funded 2/1/2017. All data is preliminary.

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**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

**JANUARY 2017  
Capital Markets Update**



# Market commentary

## ECONOMIC CLIMATE

- Real GDP grew at a 1.9% annualized rate in the fourth quarter (1.9% year-over-year). The lower real GDP growth rate relative to the third quarter (3.5% annualized) was partially attributed to a downturn in exports and an acceleration in imports.
- The U.S. dollar changed course in January after three months of consecutive gains and fell 2.7% against a trade weighted basket of major currencies.
- Headline CPI increased by 2.1% year-over-year in December, up 40 bps from the prior month. Core CPI increased by 2.2% over the previous year, up 8 bps from the prior month.
- The University of Michigan's consumer sentiment index increased modestly from 98.2 to 98.5 in January. Respondents cited optimistic outlooks on the economy and job growth.
- Nonfarm payrolls added 227,000 jobs in January, above the consensus estimate of 175,000. The unemployment rate rose from 4.7% to 4.8%, partially influenced by an increase in the participation rate from 62.7% to 62.9%.

## DOMESTIC EQUITIES

- On January 26<sup>th</sup> the Dow Jones Industrial Average (DJIA) and S&P 500 indices reached all-time highs. The DJIA and S&P 500 returned 0.6% and 1.9% in the month, respectively.
- According to FactSet, 71% of S&P 500 companies had reported Q4 earnings as of February 10<sup>th</sup>, and the blended year-over-year earnings growth rate was 5.0%. The index benefited from higher than expected growth rates in 8 of 11 sectors.

## DOMESTIC FIXED INCOME

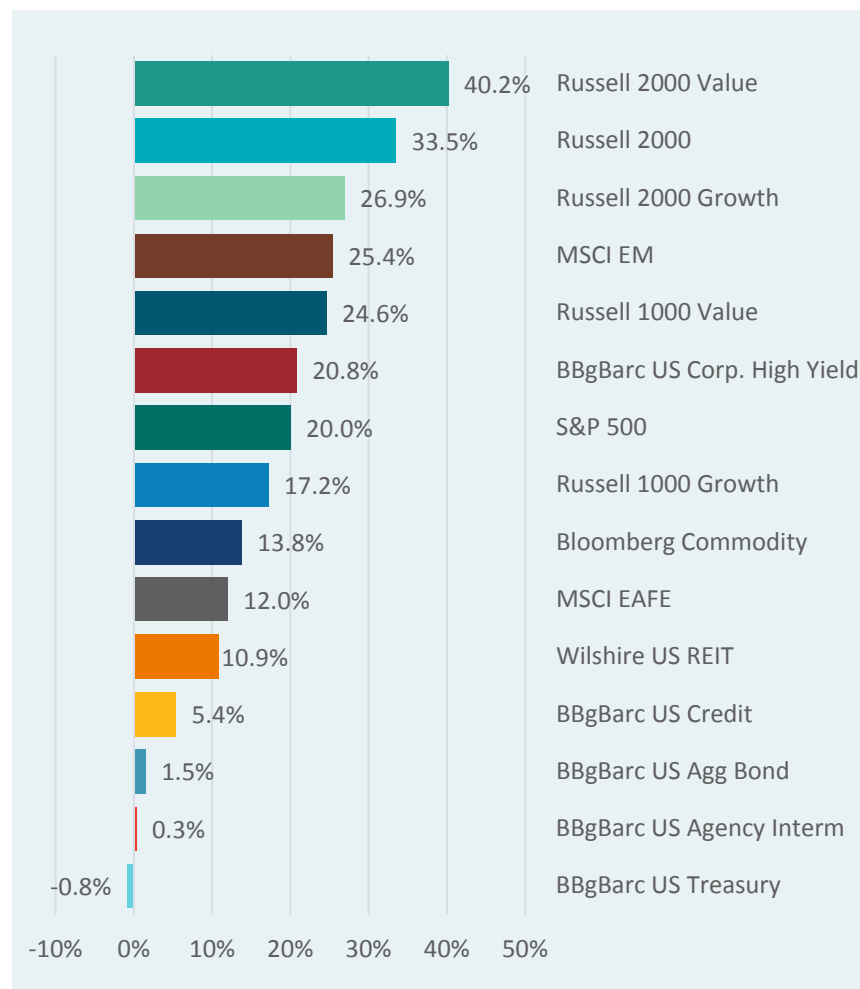
- Domestic fixed income returns were positive, as the Bloomberg Barclays U.S. Aggregate returned 0.2% in January.
- U.S. interest rates held steady, as the 10-year Treasury yield remained at 2.45%.
- U.S. high yield option-adjusted spreads continued a year long downward trend, as they decreased by 22 bps and ended the month at 4.0%.

## INTERNATIONAL MARKETS

- International equities outperformed domestic markets in January (S&P 500, 1.9%), as the MSCI ACWI ex US returned 3.5%.
- On January 23<sup>rd</sup>, U.S. President Trump signed an executive order to withdraw the country from the Trans-Pacific Partnership (TPP), a proposed 12-nation trade agreement.
- International inflation picked up in December. U.K. headline CPI rose 1.6% year-over-year, up from 1.2% in November. Inflation also rose in the Eurozone in December, as headline CPI rose 1.1% year-over-year, up from 0.6% in the prior month.
- On January 31<sup>st</sup>, the Bank of Japan agreed to maintain the current 10-year government bond yield target of 0.0% and asset purchase program of approximately 80 trillion yen annually.
- China's GDP grew at 6.8% annualized in the fourth quarter (6.7% year-over-year), above the consensus estimate of 6.7%. Growth was influenced by increased government spending, financial sector lending and consumer spending.

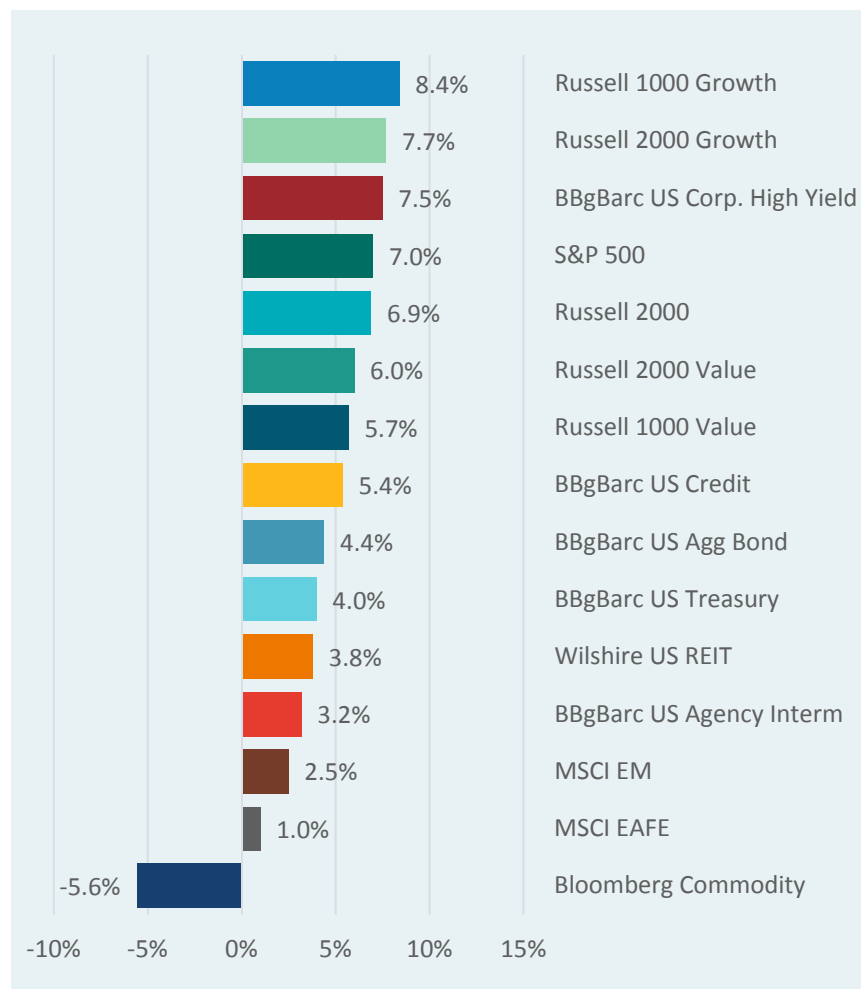
# Major asset class returns

ONE YEAR ENDING JANUARY



Source: Morningstar, as of 1/31/17

TEN YEARS ENDING JANUARY

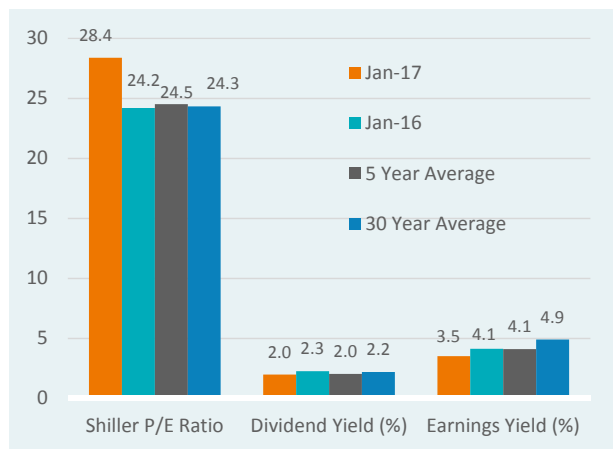


Source: Morningstar, as of 1/31/17

# U.S. large cap equities

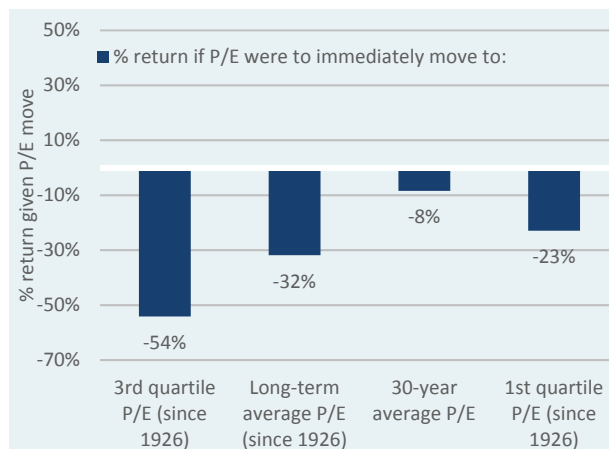
- The S&P 500 returned 1.9% in January and reached a new intra-day high on January 26<sup>th</sup> of 2,301.
- Realized volatility of U.S. equities remained low, as the annualized standard deviation of the S&P 500 in January was 6.5%, down from 8.0% in the prior month and well below the 10-year average of 15.3%.
- The 1-year trailing P/E ratio of the S&P 500 fell to 23.2 in January, due to an increase in earnings.
- The Materials sector outperformed the S&P 500 index (1.9%) in January, as the sub-index returned 4.6%. The trailing 1-year earnings for the sector was \$13.49 per share, up 59% from prior year.
- The two worst performing sectors in the S&P 500 were Energy and Telecom, returning -3.6% and -2.5%, respectively.

## US LARGE CAP (S&P 500) VALUATION SNAPSHOT



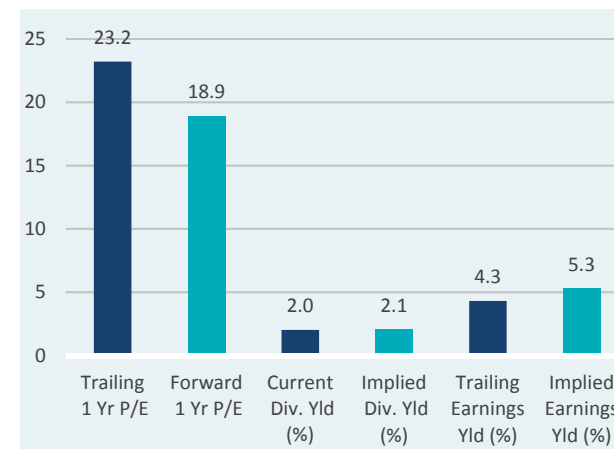
Source: Yale/Shiller, as of 1/31/17

## RETURNS IF P/E MOVED TO HISTORIC LEVEL



Source: Yale/Shiller, Verus, as of 1/31/17

## S&P 500 VALUATION SNAPSHOT

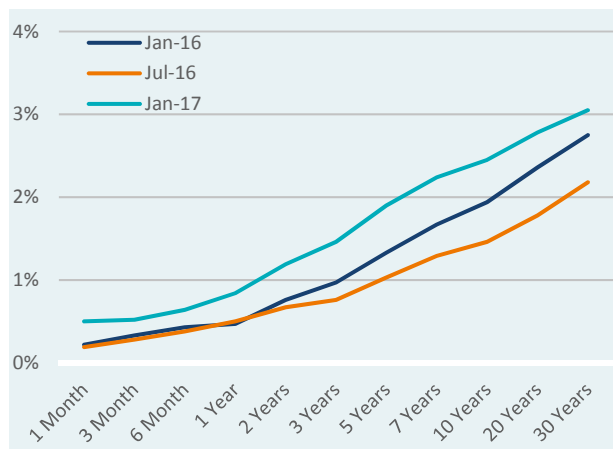


Source: Standard & Poor's, as of 1/31/17

# Fixed income

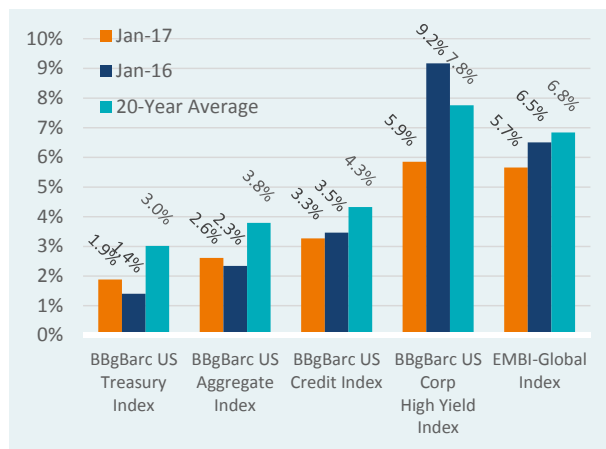
- U.S. interest rates were flat in January, as the 10-year Treasury yield remained unchanged at 2.45%. The short-term 1-month Treasury yield showed the largest increase among listed maturities of 6 bps and ended at the month at 0.50%.
- U.S. high yield option-adjusted spreads continued a downward trend, as they decreased by 22 bps and ended the month at 4.0%.
- Market-based implied inflation rose slightly during the month. The 10-year TIPS breakeven rate increased to 2.1% from 2.0% in the prior month. Despite the recent rise in breakeven rates, the market is pricing in no further increases in inflation over the next 10 years.

## U.S. TREASURY YIELD CURVE



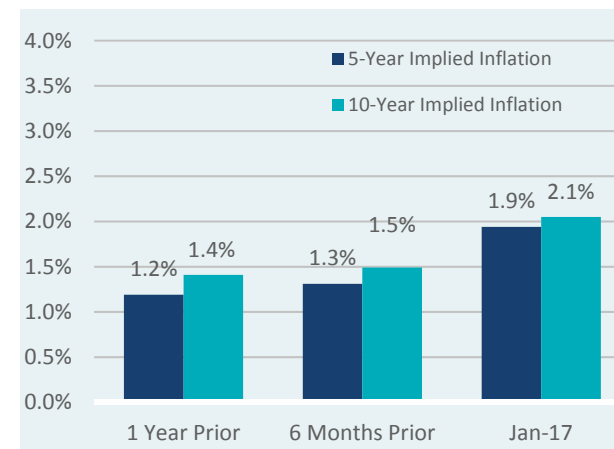
Source: Federal Reserve, as of 1/31/17

## NOMINAL FIXED INCOME YIELDS



Source: Morningstar, as of 1/31/17

## IMPLIED INFLATION (TIPS BREAKEVEN)



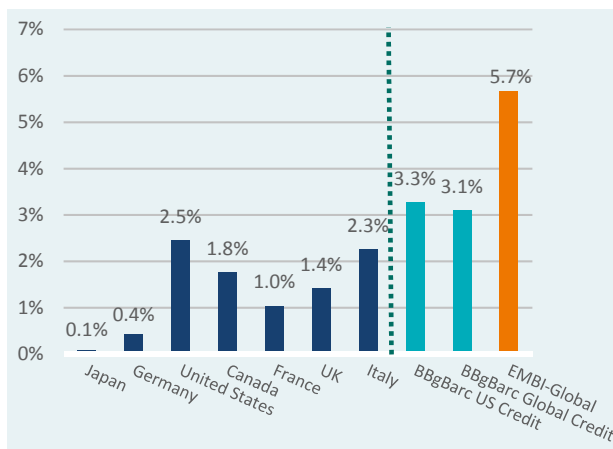
Source: Federal Reserve, as of 1/31/17



# Global markets

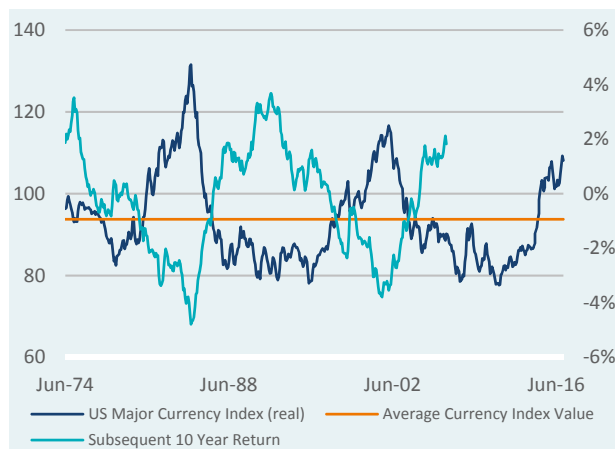
- Sovereign yields generally increased in the month of January. Notable increases were seen in the French and Italian sovereign 10-year bond yields, which increased by 35 and 45 bps, respectively.
- International inflation picked up in December. Headline CPI rose in the Eurozone by 1.6% year-over-year, up from 1.2% in November. U.K. inflation increased by 1.1% year-over-year, up from 0.6% in November.
- Emerging market equities outperformed developed international equities on an unhedged basis in January as the MSCI EM and MSCI EAFE indices returned 5.5% and 2.9%, respectively. This was partially influenced by the appreciation of emerging market currencies – the MSCI EM Currency index returned 2.1% during the month.

**GLOBAL SOVEREIGN 10 YEAR INDEX YIELDS**



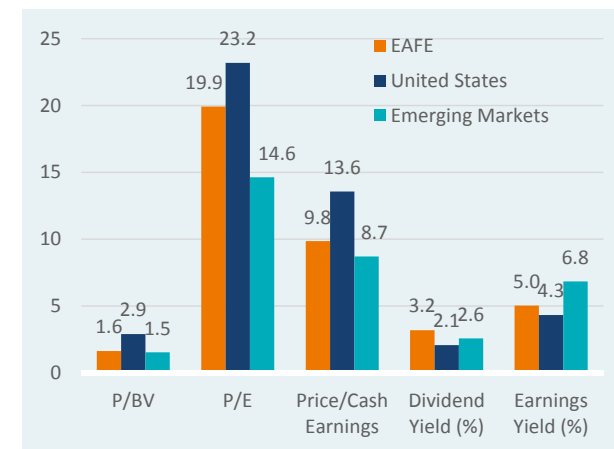
Source: Morningstar, as of 1/31/17

**U.S. DOLLAR MAJOR CURRENCY INDEX**



Source: Federal Reserve, as of 1/31/17

**MSCI VALUATION METRICS (3 MONTH AVERAGE)**

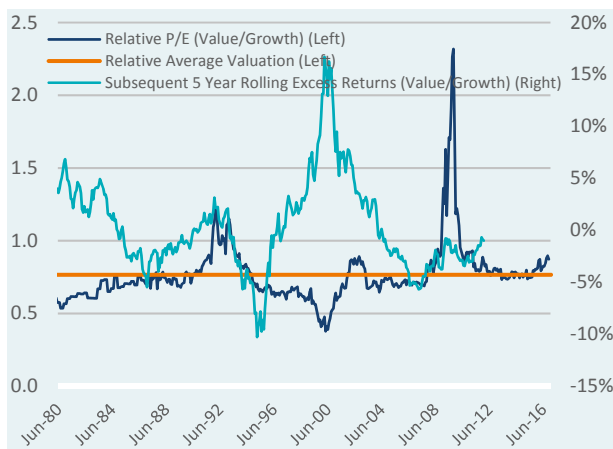


Source: MSCI, as of 1/31/17

# Style tilts: U.S. large value vs. growth

- Growth equities outperformed value equities for the first time since September 2016, as the Russell 1000 Growth index and Russell 1000 Value index returned 3.4% and 0.7%, respectively.
- Recently the relative P/E ratio of value to growth stocks has shown little deviation and ended the month down from 0.90 to 0.87. This metric remained slightly above its long-term average of 0.77.
- The outperformance of growth equities in January was attributable to the higher concentration of Technology and Consumer Discretionary companies in the Russell 1000 Growth relative to the Russell 1000 Value.

**RELATIVE PE RATIO OF U.S. VALUE VS. GROWTH**



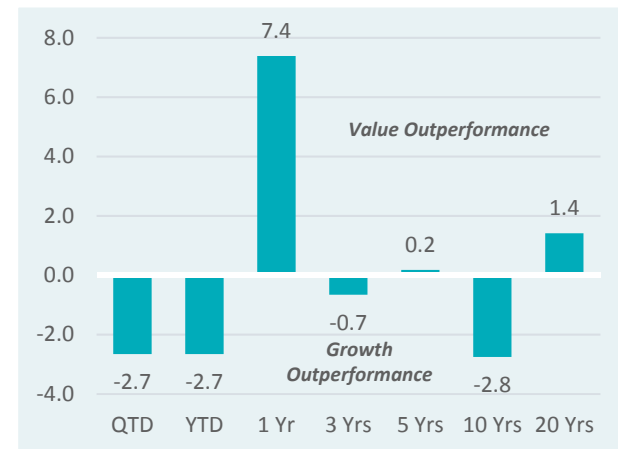
Source: Russell, Bloomberg, as of 1/31/17

**U.S. VALUE VS. GROWTH ABSOLUTE PERFORMANCE**

	RUSSELL 1000 GROWTH ANNUALIZED RETURN TO DATE %	RUSSELL 1000 VALUE ANNUALIZED RETURN TO DATE %
QTD	3.4	0.7
YTD	3.4	0.7
1 YEAR	17.2	24.6
3 YEARS	10.8	10.2
5 YEARS	13.9	14.1
10 YEARS	8.4	5.7
20 YEARS	6.7	8.1
	SHARPE RATIO	SHARPE RATIO
3 YEARS	0.96	0.95
5 YEARS	1.26	1.30
10 YEARS	0.56	0.38
20 YEARS	0.34	0.45

Source: Morningstar, as of 1/31/17

**U.S. VALUE VS. GROWTH RELATIVE PERFORMANCE**

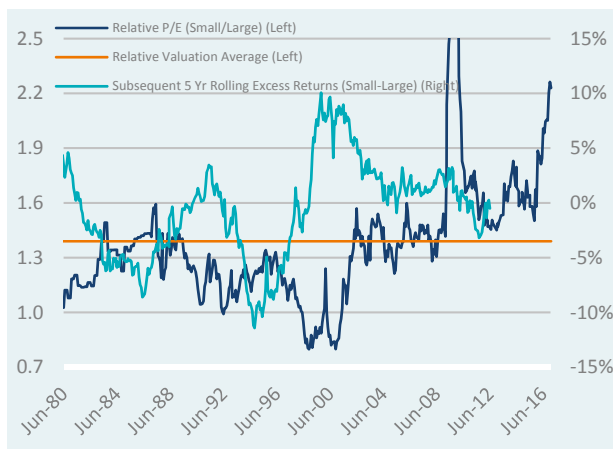


Source: Morningstar, as of 1/31/17

# Style tilts: U.S. large vs. small

- U.S. large cap equities outperformed small cap equities in January, as the Russell 1000 index and Russell 2000 index returned 2.0% and 0.4%, respectively.
- As a product of the ongoing domestic equity bull market, the trailing P/E ratio of small cap equities (48.0) extended well above its 20-year average of 31.7. The P/E of large cap equities (21.5) was also above its 20-year average of 20.9.
- As measured by the Sharpe ratio, large cap stocks provided superior risk adjusted returns over all the time periods examined below.
- The relative P/E ratio of small to large cap equities was 2.23, well above the long term average of 1.39.

**RELATIVE PE RATIO OF U.S. SMALL VS. LARGE**



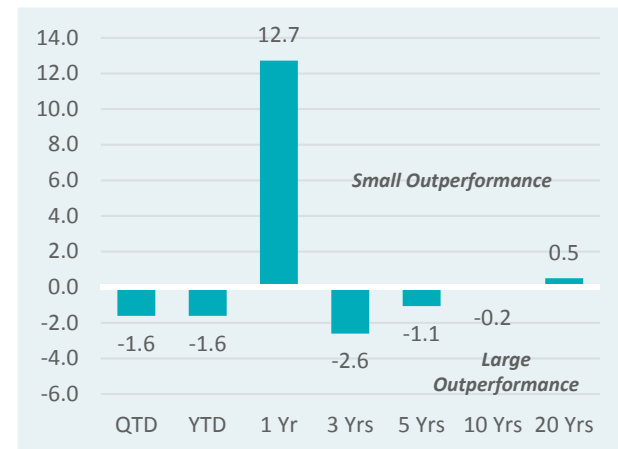
Source: Russell, Bloomberg, as of 1/31/17

**U.S. LARGE VS. SMALL ABSOLUTE PERFORMANCE**

	RUSSELL 1000 INDEX	RUSSELL 2000 INDEX
	ANNUALIZED RETURN TO DATE %	ANNUALIZED RETURN TO DATE %
QTD	2.0	0.4
YTD	2.0	0.4
1 YEAR	20.8	33.5
3 YEARS	10.5	7.9
5 YEARS	14.1	13.0
10 YEARS	7.1	6.9
20 YEARS	7.7	8.2
	SHARPE RATIO	SHARPE RATIO
3 YEARS	0.98	0.55
5 YEARS	1.32	0.92
10 YEARS	0.48	0.40
20 YEARS	0.42	0.38

Source: Morningstar, as of 1/31/17

**U.S. SMALL VS. LARGE RELATIVE PERFORMANCE**



Source: Morningstar, as of 1/31/17

# Commodities

- The Industrial Metals and Softs Bloomberg sub-indices outperformed in January, returning 7.5% and 6.5%, respectively. The overall Bloomberg Commodity Index returned 0.1%.
- The Bloomberg Energy sub-index returned -7.6% in January, underperforming the rest of the index. The fall in natural gas prices was the largest detractor.

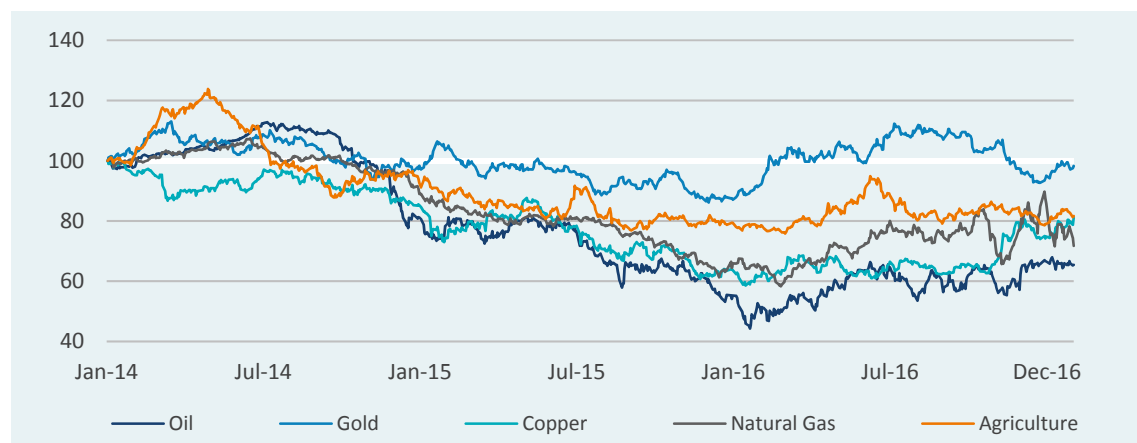
- WTI crude oil fell by -1.7% and ended the month at \$52.81 per barrel. Spot prices remained within a narrow \$4.00 band in January.
- Gold Bullion increased for the first time in three months, as it rose 3.4% in January and ended the month at \$1,199 per ounce.

## INDEX AND SECTOR PERFORMANCE

	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	0.1	0.1	13.8	(11.3)	(9.4)	(5.6)
Bloomberg Agriculture	3.3	3.3	6.4	(6.7)	(6.2)	(0.8)
Bloomberg Energy	(7.6)	(7.6)	15.9	(27.2)	(17.0)	(16.3)
Bloomberg Grains	2.3	2.3	(6.2)	(10.7)	(7.1)	(2.4)
Bloomberg Industrial Metals	7.5	7.5	30.7	(2.6)	(7.2)	(5.2)
Bloomberg Livestock	(1.3)	(1.3)	(8.1)	(6.8)	(5.2)	(7.7)
Bloomberg Petroleum	(4.6)	(4.6)	23.6	(26.6)	(16.9)	(9.2)
Bloomberg Precious Metals	6.3	6.3	11.1	(1.9)	(8.9)	4.8
Bloomberg Softs	6.5	6.5	33.3	(1.2)	(8.7)	(0.8)

Source: Morningstar, as of 1/31/17

## COMMODITY PERFORMANCE



Source: Bloomberg, as of 1/31/17

# Appendix

# Periodic table of returns

BEST

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD	5-Year	10-Year
Emerging Markets Equity	16.6	38.4	23.2	35.2	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	5.5	14.1	8.4
Large Cap Growth	8.1	37.8	23.1	32.9	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	3.4	14.1	7.7
International Equity	6.4	37.2	22.4	31.8	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	2.9	13.9	7.1
60/40 Global Portfolio	4.4	31.0	21.6	30.5	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	2.1	13.4	6.9
Large Cap Equity	3.2	28.5	21.4	22.4	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	2.0	13.0	6.9
Small Cap Growth	2.6	25.7	16.5	16.2	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	1.6	12.5	6.0
Large Cap Value	0.4	19.6	14.4	13.9	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	0.7	10.9	5.7
Hedge Funds of Funds	-1.5	18.5	11.3	12.9	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	0.7	6.0	4.4
Small Cap Equity	-1.8	15.2	10.3	10.6	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	0.4	5.3	4.0
US Bonds	-2.0	11.6	9.9	9.7	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	0.2	3.2	2.5
Commodities	-2.4	11.1	6.4	5.2	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	0.1	2.1	1.3
Cash	-2.9	7.5	6.0	2.1	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	0.0	0.2	1.0
Small Cap Value	-3.5	5.7	5.1	-3.4	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	-0.7	0.1	0.6
Real Estate	-7.3	-5.2	3.6	-11.6	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	N/A	-9.4	-5.6

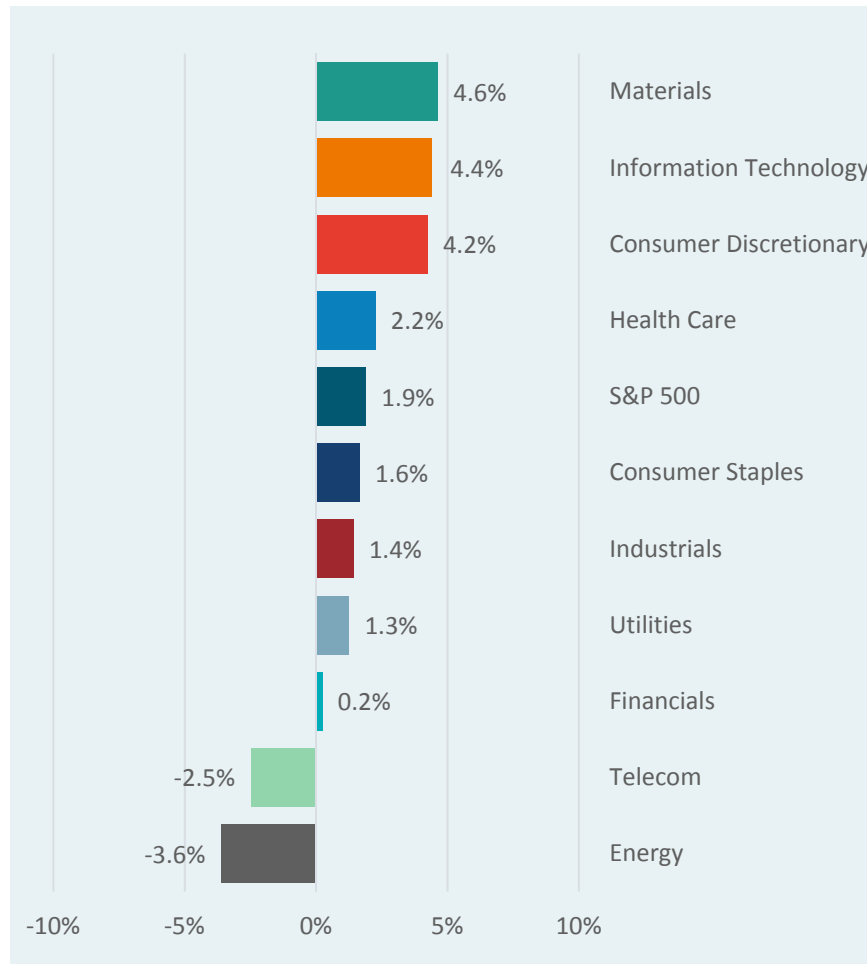
WORST

- Large Cap Equity
- Small Cap Growth
- Commodities
- Large Cap Value
- International Equity
- Real Estate
- Small Cap Value
- Emerging Markets Equity
- US Bonds
- Hedge Funds of Funds
- 60% MSCI ACWI/40% BBgBarc Global Bond
- Cash

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 12/31/16.

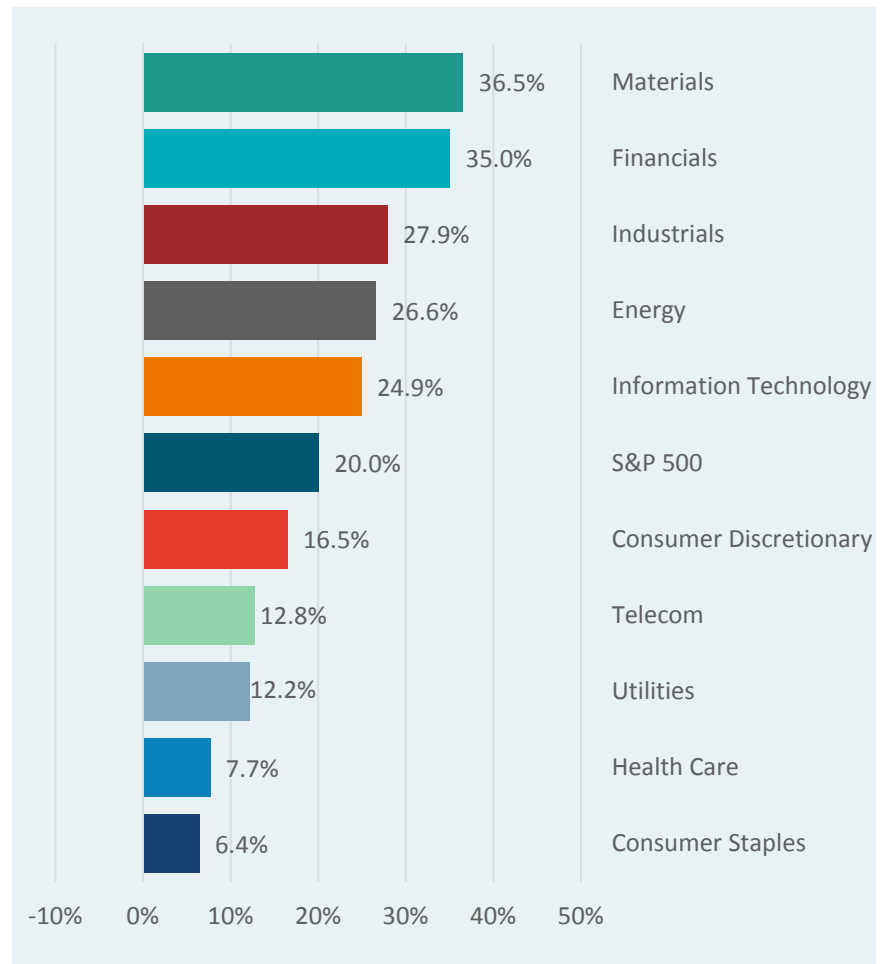
# S&P 500 and S&P 500 sector returns

QTD



Source: Morningstar, as of 1/31/17

ONE YEAR ENDING DECEMBER



Source: Morningstar, as of 1/31/17



# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	1.9	1.9	1.9	20.0	10.8	14.1	7.0
S&P 500 Equal Weighted	2.1	2.1	2.1	24.2	10.6	14.8	8.4
DJ Industrial Average	0.6	0.6	0.6	23.9	10.9	12.3	7.4
Russell Top 200	1.8	1.8	1.8	19.2	10.9	14.1	6.8
Russell 1000	2.0	2.0	2.0	20.8	10.5	14.1	7.1
Russell 2000	0.4	0.4	0.4	33.5	7.9	13.0	6.9
Russell 3000	1.9	1.9	1.9	21.7	10.3	14.0	7.1
Russell Mid Cap	2.4	2.4	2.4	24.7	9.5	13.9	7.8
<b>Style Index</b>							
Russell 1000 Growth	3.4	3.4	3.4	17.2	10.8	13.9	8.4
Russell 1000 Value	0.7	0.7	0.7	24.6	10.2	14.1	5.7
Russell 2000 Growth	1.6	1.6	1.6	26.9	6.2	12.5	7.7
Russell 2000 Value	(0.7)	(0.7)	(0.7)	40.2	9.5	13.4	6.0

## INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
MSCI ACWI	2.7	2.7	2.7	17.9	5.5	8.7	3.7
MSCI ACWI ex US	3.5	3.5	3.5	16.1	0.9	4.4	1.3
MSCI EAFE	2.9	2.9	2.9	12.0	0.7	6.0	1.0
MSCI EM	5.5	5.5	5.5	25.4	1.4	0.2	2.5
MSCI EAFE Small Cap	3.5	3.5	3.5	14.8	3.8	9.6	3.1
<b>Style Index</b>							
MSCI EAFE Growth	3.4	3.4	3.4	7.0	1.4	6.2	1.9
MSCI EAFE Value	2.5	2.5	2.5	17.1	(0.1)	5.7	(0.0)
<b>Regional Index</b>							
MSCI UK	1.3	1.3	1.3	7.7	(2.6)	3.5	0.5
MSCI Japan	3.7	3.7	3.7	15.7	5.1	8.0	0.8
MSCI Euro	1.2	1.2	1.2	9.9	(1.4)	6.1	(0.6)
MSCI EM Asia	5.9	5.9	5.9	21.2	3.7	3.4	4.2
MSCI EM Latin American	7.6	7.6	7.6	47.8	(2.0)	(6.5)	0.8

Source: Morningstar, as of 1/31/17

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
BBgBarc US Treasury USTIPS	0.8	0.8	0.8	4.0	1.9	0.6	4.4
BBgBarc US Treasury Bills	0.1	0.1	0.1	0.4	0.2	0.2	0.8
BBgBarc US Agg Bond	0.2	0.2	0.2	1.5	2.6	2.1	4.4
<b>Duration</b>							
BBgBarc US Treasury 1-3 Yr	0.1	0.1	0.1	0.4	0.7	0.6	2.1
BBgBarc US Treasury Long	0.4	0.4	0.4	(3.1)	6.0	2.6	6.8
BBgBarc US Treasury	0.2	0.2	0.2	(0.8)	1.9	1.2	4.0
<b>Issuer</b>							
BBgBarc US MBS	(0.0)	(0.0)	(0.0)	0.3	2.5	2.0	4.3
BBgBarc US Corp. High Yield	1.5	1.5	1.5	20.8	4.9	7.0	7.5
BBgBarc US Agency Interm	0.3	0.3	0.3	0.3	1.4	1.1	3.2
BBgBarc US Credit	0.3	0.3	0.3	5.4	3.6	3.5	5.4

## OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Index</b>							
Bloomberg Commodity	0.1	0.1	0.1	13.8	(11.3)	(9.4)	(5.6)
Wilshire US REIT	(0.7)	(0.7)	(0.7)	10.9	12.1	10.5	3.8
<b>Regional Index</b>							
JPM EMBI Global Div	1.4	1.4	1.4	11.9	6.9	5.9	7.1
JPM GBI-EM Global Div	2.3	2.3	2.3	12.0	(1.8)	(2.3)	4.1
<b>Hedge Funds</b>							
HFRI Composite	1.2	1.2	1.2	9.6	3.0	4.2	3.4
HFRI FOF Composite	0.7	0.7	0.7	4.0	1.6	3.2	1.3
<b>Currency (Spot)</b>							
Euro	2.5	2.5	2.5	(0.1)	(7.1)	(3.8)	(1.8)
Pound	1.8	1.8	1.8	(11.3)	(8.5)	(4.4)	(4.3)
Yen	3.6	3.6	3.6	7.5	(3.2)	(7.5)	0.7

# Notices & disclosures

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## Board of Trustees

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Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item Number 15: Asset Allocation Review, Capital Market Expectations**

#### **Recommendation:**

Staff recommends that the Board of Trustees review and discuss the presentation to be given by Scott Whalen of Verus, the Pension Trust's investment consultant.

#### **Background:**

It is the practice of the Pension Trust to include in the February Board of Trustees meeting an annual review of asset allocation and capital market expectations. With this presentation, Verus is providing an updated look at capital market expectations and the Trust's current asset allocation. Verus' capital market expectations are on a 10-year basis and are heavily influenced by current market valuation levels and interest rates. The estimate of an appropriate earnings assumption to use for funding the Plan is based on a much longer time frame so will differ from these 10-year capital market expectations.

Changes to the actuarial Earnings Assumption (currently 7.125% and below the majority of other public retirement systems) are recommended to normally take place in conjunction with the biennial experience study that considers all other key actuarial assumption in an integrated manner. The next biennial actuarial experience study is planned for 2018.

Respectfully Submitted

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SUCCESS**



**FEBRUARY 2017**

Strategic Asset Allocation Review

**San Luis Obispo County Pension Trust**

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Strategic asset allocation review **TAB 1**

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Appendix: 2017 Capital Market Assumptions **TAB 2**

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***Past performance is no guarantee of future results.** This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. and Verus Investors, LLC (“Verus”) file a single form ADV under the United States Investment Advisors Act of 1940, as amended.*

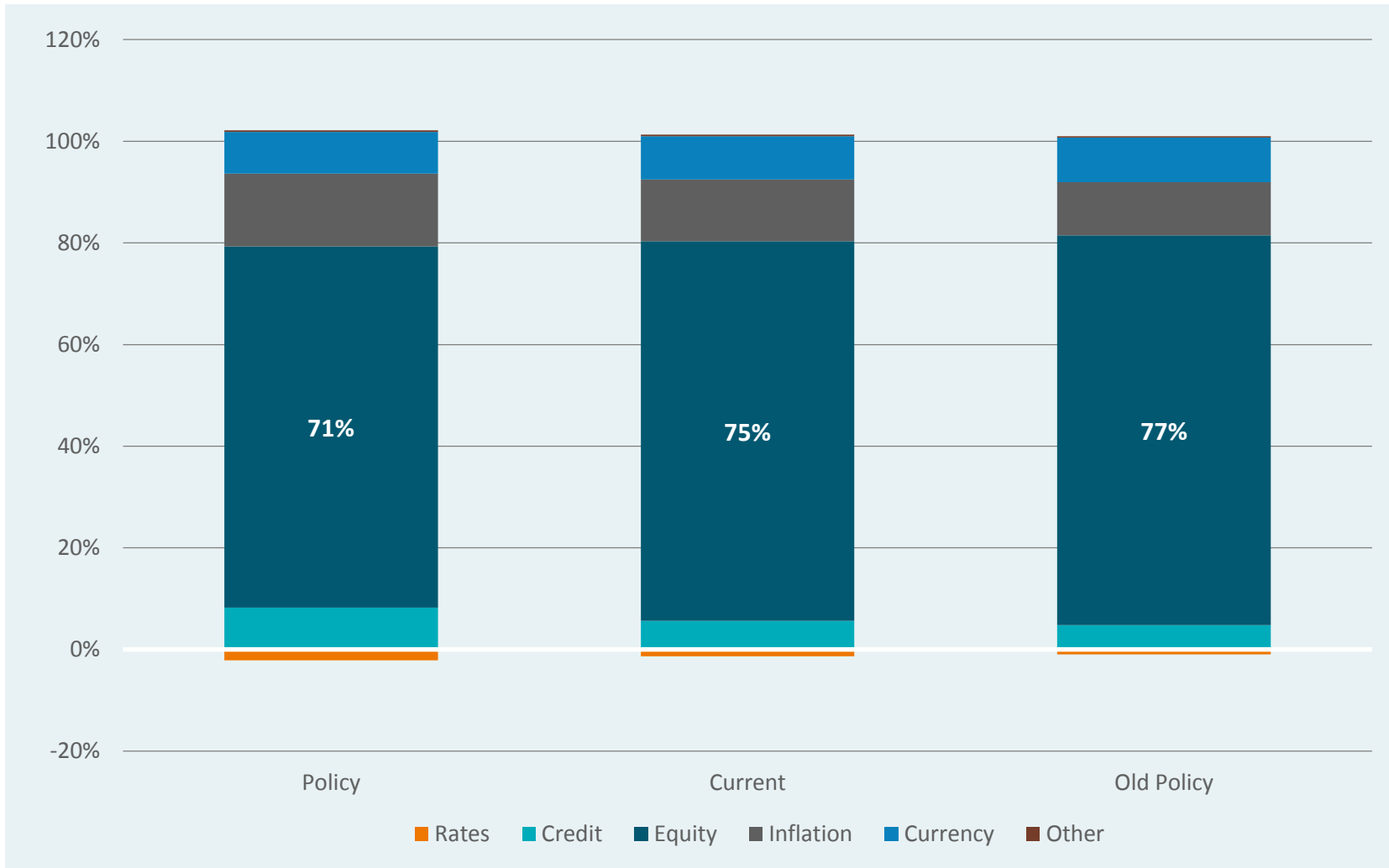
# Mean variance analysis

	Policy	Current	Old Policy	CMA's (10 Yr)	
				Return	Standard Deviation
US Large	16.0	16.6	19.0	4.7	15.8
US Small	4.0	4.1	4.0	4.8	21.8
<b>Total Domestic Equity</b>	<b>20.0</b>	<b>20.7</b>	<b>23.0</b>		
International Developed	13.0	17.5	14.0	9.7	18.9
Emerging Markets	7.0	4.4	8.0	8.6	27.2
<b>Total Int'l Equity</b>	<b>20.0</b>	<b>21.9</b>	<b>22.0</b>		
<b>Total Equity</b>	<b>40.0</b>	<b>42.6</b>	<b>45.0</b>		
Core Fixed Income	15.0	15.5	15.0	3.3	6.5
Bank Loans	5.0	5.5	5.0	4.5	10.8
Global Credit	5.0	4.8	5.0	2.0	7.8
Emerging Market Debt (Local)	5.0	4.6	5.0	6.5	13.4
US TIPS	0.0	2.8	5.0	2.6	5.7
<b>Total Fixed Income</b>	<b>30.0</b>	<b>33.2</b>	<b>35.0</b>		
Commodities	5.0	3.1	5.0	4.3	16.1
Core Real Estate	10.0	14.5	6.0	4.6	9.9
Value Add Real Estate	5.0	0.0	4.0	6.6	17.9
<b>Total Real Assets</b>	<b>20.0</b>	<b>17.6</b>	<b>15.0</b>		
Private Equity	5.0	2.0	5.0	7.8	26.2
Private Credit	5.0	1.0	0.0	6.5	11.8
<b>Total Non-Public Investments</b>	<b>10.0</b>	<b>3.0</b>	<b>5.0</b>		
Cash	0.0	3.6	0.0	2.2	1.2
<b>Total Allocation</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		

	Policy	Current	Old Policy
<b>Mean Variance Analysis</b>			
<b>Forecast 10 Year Return</b>	<b>6.27</b>	<b>5.88</b>	<b>6.15</b>
Standard Deviation	11.06	10.14	11.33
Return/Std. Deviation	0.57	0.58	0.54
1st percentile ret. 1 year	-23.35	-21.51	-23.45
Sharpe Ratio	0.42	0.41	0.40

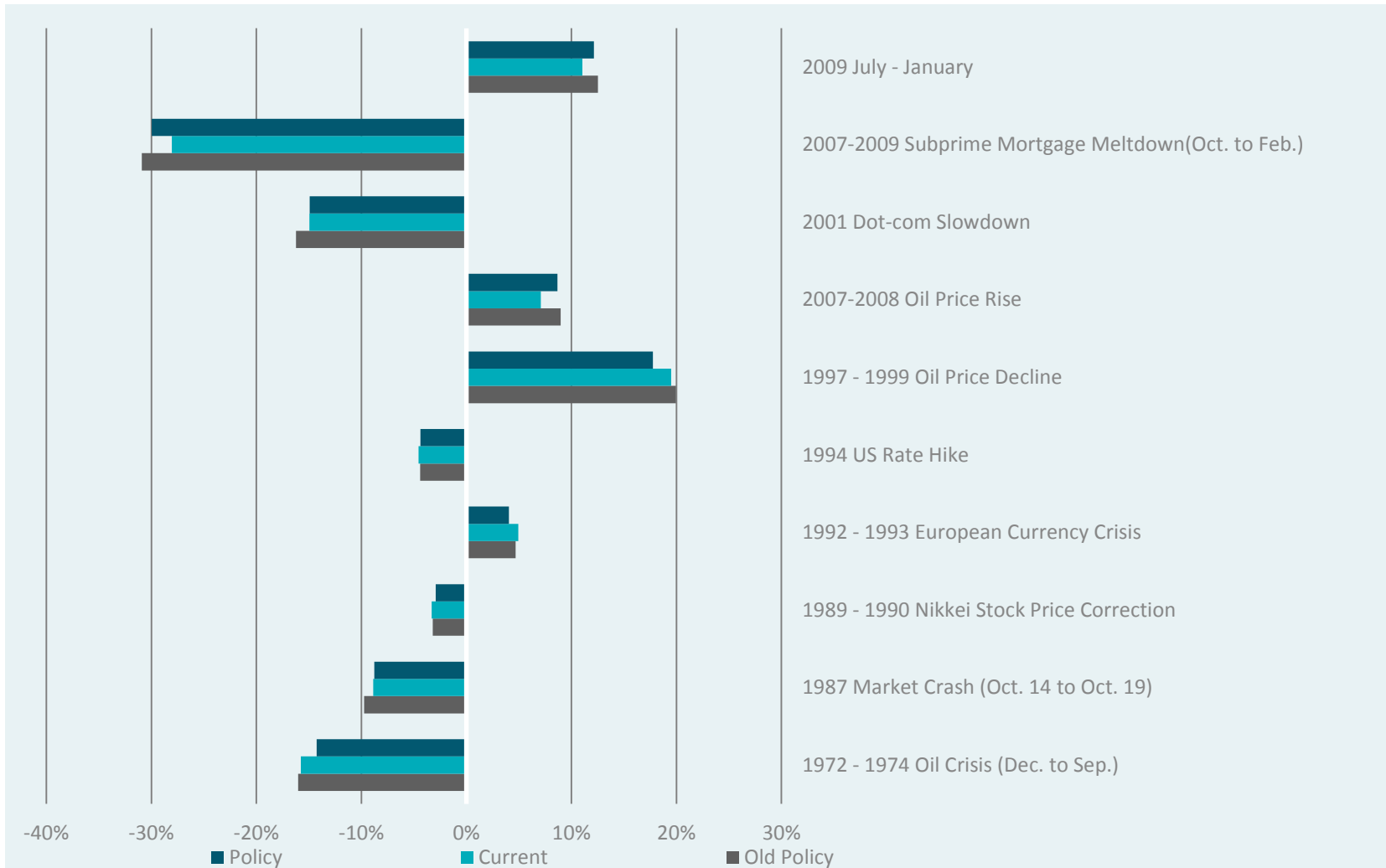


# Risk decomposition



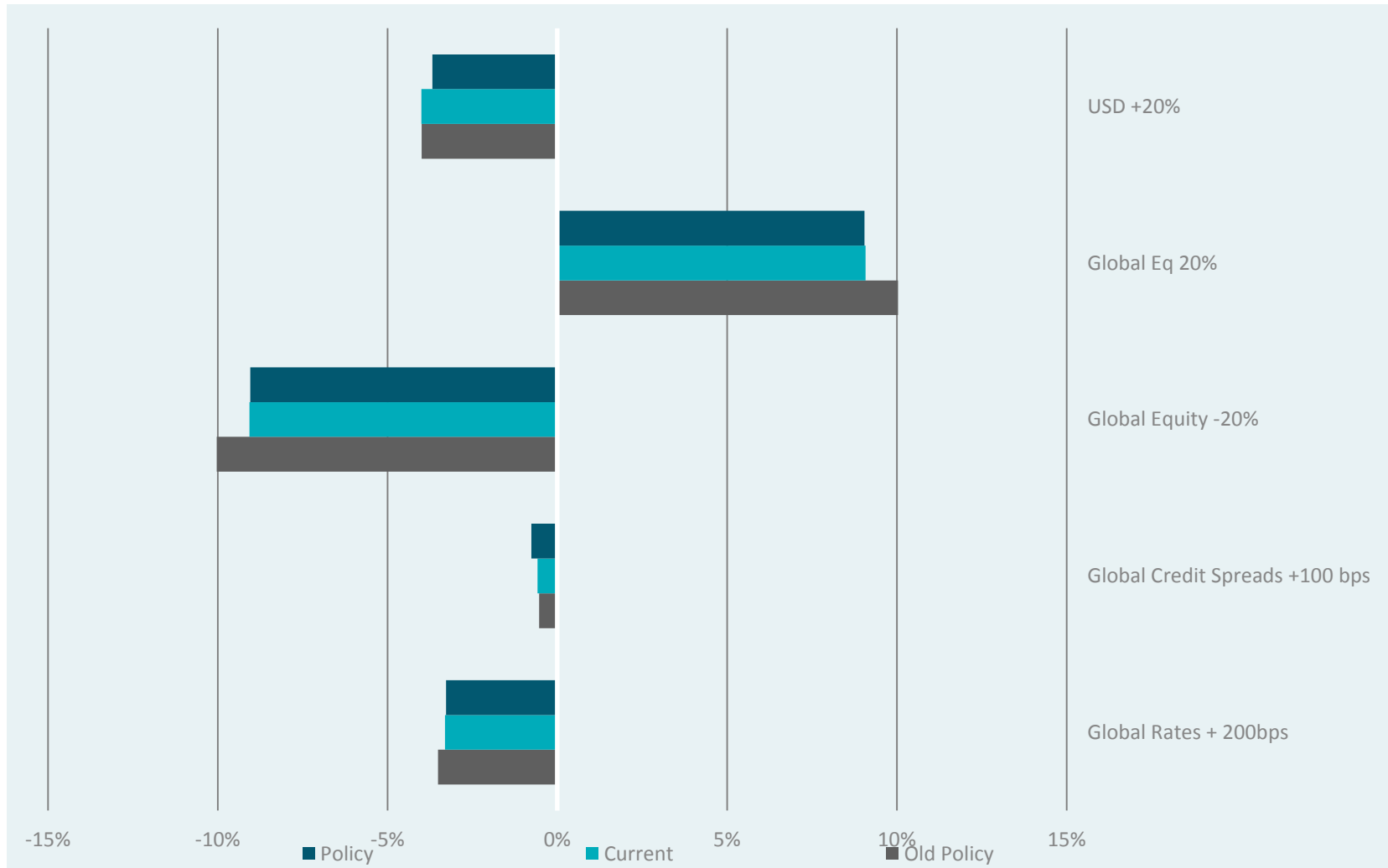
Source: Barra

# Scenario analysis




Source: Barra

# Stress tests



Source: Barra





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**JANUARY 2017**  
**Capital Market Assumptions**



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# Summary

# Methodology

## CORE INPUTS

- We use a fundamental building block approach based on several inputs, including historical data and academic research to create asset class return forecasts.
- For most asset classes, we use the long-term historical volatility after adjusting for autocorrelation.
- Correlations between asset classes are calculated based on the last 10 years. For illiquid assets, such as private equity and private real estate, we use BarraOne correlation estimates.

Asset	Return Methodology	Volatility Methodology*
Inflation	25% weight to the University of Michigan Survey 5-10 year ahead inflation expectation and the Survey of Professional Forecasters (Fed Survey), and the remaining 50% to the market's expectation for inflation as observed through the TIPS breakeven rate	-
Cash	Real yield estimate + inflation forecast	Long-term volatility
Bonds	Nominal bonds: current annualized yield Real bonds: real yield + inflation forecast	Long-term volatility
International Bonds**	Current yield + implied currency effect	Long-term volatility
Credit	Current option-adjusted-spread + U.S. 10-year Treasury – default rate	Long-term volatility
International Credit**	Current option-adjusted-spread + foreign 10-year Treasury – default rate + implied currency effect	Long-term volatility
Private Credit	High yield forecast + 2% illiquidity premium	Long-term volatility
Equity	Dividends (current yield) + real earnings growth (historical average) + inflation on earnings (inflation forecast) + expected P/E change	Long-term volatility
International Developed Equity**	Dividends (current yield) + real earnings growth (historical average) + inflation on earnings (international inflation forecast) + expected P/E change + implied currency effect	Long-term volatility
Private Equity	Small-cap domestic equity forecast + 3% illiquidity premium	1.2 * Long-term volatility of U.S. small cap
Commodities	Cash + inflation forecast	Long-term volatility
Hedge Funds	Return coming from traditional betas + 3% (alternative beta and alpha)	1.65 * Long-term volatility
Hedge Funds (FoF)	Return coming from traditional betas + 3% (alternative beta and alpha) – 1% expected fund of funds management fee	1.65 * Long-term volatility
Core Real Estate	Cap rate – capex + Inflation forecast	50% of REIT volatility
REITs	Core real estate	Long-term volatility
Value-Add Real Estate	Core real estate + 2%	Volatility to produce Sharpe Ratio (g) equal to core real estate
Opportunistic Real Estate	Core real estate + 4%	Volatility to produce Sharpe Ratio (g) equal to core real estate
Risk Parity	Expected Sharpe Ratio * target volatility + cash rate	Target volatility

\*Long-term historical volatility data is adjusted for autocorrelation (See Appendix)

\*\*We use local inflation for international developed equity and fixed income markets. When using local inflation rates, expected returns are adjusted for the implied currency effect based on currency forward contract rates (See Appendix)



# Correlation assumptions

	Cash	US Large	US Small	Developed Large	Developed Small	EM	Global Equity	PE	US TIPS	US Treasury	Global Sovereign ex US	US Core	US Core Plus	Short – Term Govt/Credit	Short-Term Credit	Long-Term Credit	US HY	Bank Loans	Global Credit	EMD USD	EMD Local	Commodities	Hedge Funds	Real Estate	REITs	Risk Parity	Inflation	
Cash	1.0																											
US Large	-0.2	1.0																										
US Small	-0.2	0.9	1.0																									
Developed Large	-0.1	0.9	0.8	1.0																								
Developed Small	-0.2	0.8	0.8	1.0	1.0																							
EM	-0.1	0.8	0.7	0.9	0.9	1.0																						
Global Equity	-0.1	1.0	0.9	1.0	0.9	0.9	1.0																					
PE	-0.2	0.7	0.7	0.6	0.5	0.5	0.7	1.0																				
US TIPS	0.1	0.2	0.1	0.3	0.3	0.4	0.3	0.0	1.0																			
US Treasury	0.1	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.2	0.6	1.0																		
Global Sovereign ex US	0.1	0.2	0.1	0.4	0.4	0.4	0.3	-0.1	0.6	0.5	1.0																	
US Core	0.1	0.0	-0.1	0.1	0.1	0.2	0.1	-0.1	0.8	0.9	0.6	1.0																
US Core Plus	-0.1	0.3	0.3	0.5	0.5	0.5	0.5	0.0	0.7	0.5	0.5	0.8	1.0															
Short – Term Govt/Credit	0.4	-0.1	-0.1	0.1	0.1	0.1	0.0	-0.2	0.6	0.6	0.6	0.7	0.5	1.0														
Short-Term Credit	0.1	0.3	0.2	0.5	0.5	0.5	0.4	-0.2	0.5	0.2	0.5	0.5	0.8	0.6	1.0													
Long-Term Credit	-0.1	0.3	0.2	0.4	0.4	0.4	0.4	-0.1	0.6	0.5	0.5	0.8	1.0	0.4	0.6	1.0												
US HY	-0.2	0.7	0.7	0.8	0.8	0.8	0.8	0.4	0.4	-0.2	0.3	0.2	0.6	0.1	0.6	0.5	1.0											
Bank Loans	-0.2	0.6	0.6	0.6	0.6	0.6	0.6	0.2	0.2	-0.4	0.0	0.0	0.4	-0.2	0.5	0.3	0.8	1.0										
Global Credit	-0.1	0.6	0.5	0.8	0.8	0.8	0.7	0.2	0.6	0.2	0.7	0.6	0.8	0.5	0.7	0.8	0.8	0.5	1.0									
EMD USD	-0.1	0.6	0.5	0.7	0.7	0.7	0.7	0.3	0.7	0.3	0.5	0.6	0.8	0.4	0.6	0.7	0.8	0.5	0.9	1.0								
EMD Local	0.1	0.6	0.6	0.8	0.7	0.8	0.7	0.3	0.5	0.1	0.7	0.4	0.6	0.4	0.5	0.5	0.7	0.4	0.8	0.8	1.0							
Commodities	0.0	0.5	0.4	0.6	0.6	0.7	0.6	0.2	0.3	-0.2	0.4	0.1	0.3	0.2	0.4	0.2	0.5	0.4	0.6	0.5	0.6	1.0						
Hedge Funds	-0.1	0.7	0.6	0.8	0.8	0.8	0.8	0.6	0.2	-0.3	0.1	0.0	0.4	0.0	0.4	0.3	0.7	0.6	0.6	0.5	0.5	0.6	1.0					
Real Estate	-0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.2	0.2	0.2	0.0	0.2	1.0				
REITs	-0.1	0.7	0.8	0.7	0.6	0.6	0.7	0.5	0.3	0.0	0.3	0.3	0.5	0.1	0.3	0.4	0.7	0.5	0.6	0.6	0.6	0.3	0.4	0.4	1.0			
Risk Parity	0.1	0.5	0.4	0.6	0.6	0.6	0.6	0.0	0.7	0.4	0.6	0.6	0.7	0.5	0.6	0.6	0.5	0.3	0.8	0.7	0.7	0.6	0.5	-0.1	0.4	1.0		
Inflation	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	-0.2	0.0	-0.1	-0.1	0.0	-0.1	-0.2	0.2	0.3	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.0	1.0	

Note: Correlation assumptions are based on the last ten years. Private Equity and Real Estate correlations are especially difficult to model – we have therefore used BarraOne correlation data to strengthen these correlation estimates.

# 10 year return & risk assumptions

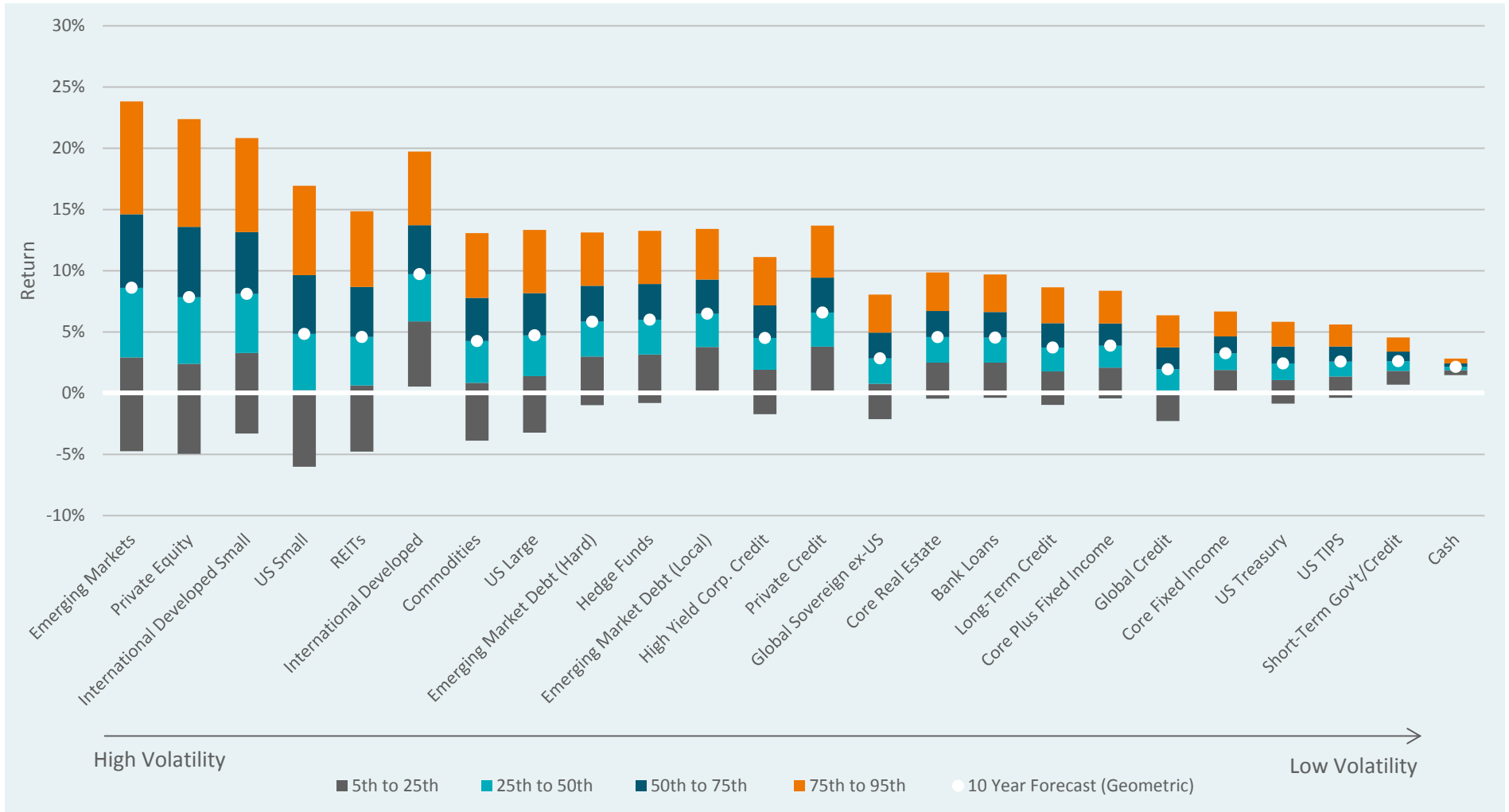
Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio (g) Forecast	Sharpe Ratio (a) Forecast	Ten Year Historical Sharpe Ratio (g)	Ten Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
<b>Equities</b>								
US Large	S&P 500	4.7%	5.9%	15.8%	0.16	0.24	0.39	0.45
US Small	Russell 2000	4.8%	7.0%	21.8%	0.12	0.22	0.30	0.39
International Developed	MSCI EAFE	9.7%	11.3%	18.9%	0.40	0.48	-0.02	0.07
International Small	MSCI EAFE Small Cap	8.1%	10.5%	23.3%	0.26	0.36	0.09	0.19
Emerging Markets	MSCI EM	8.6%	11.8%	27.2%	0.24	0.35	0.04	0.16
Global Equity	MSCI ACWI	7.0%	8.4%	17.9%	0.27	0.35	0.15	0.23
Private Equity	Cambridge Private Equity	7.8%	10.8%	26.2%	0.22	0.33	0.88	0.89
<b>Fixed Income</b>								
Cash	30 Day T-Bills	2.2%	2.2%	1.2%	-	-	-	-
US TIPS	Barclays US TIPS 5 - 10	2.6%	2.7%	5.7%	0.08	0.10	0.57	0.59
US Treasury	Barclays Treasury 7 - 10 year	2.4%	2.7%	6.9%	0.04	0.08	0.70	0.72
Global Sovereign ex US	Barclays Global Treasury ex US	2.8%	3.3%	10.0%	0.07	0.12	0.23	0.27
Core Fixed Income	Barclays US Aggregate Bond	3.3%	3.5%	6.5%	0.17	0.20	1.07	1.06
Core Plus Fixed Income	Barclays US Corporate IG	3.9%	4.2%	8.5%	0.20	0.24	0.75	0.76
Short-Term Gov't/Credit	Barclays US Gov't/Credit 1 - 3 year	2.6%	2.7%	3.7%	0.13	0.14	1.45	1.44
Short-Term Credit	Barclays Credit 1 - 3 year	2.8%	2.9%	3.5%	0.17	0.20	1.08	1.07
Long-Term Credit	Barclays Long US Corporate	3.7%	4.2%	9.6%	0.17	0.21	0.56	0.59
High Yield Corp. Credit	Barclays High Yield	4.5%	5.2%	11.8%	0.20	0.26	0.60	0.63
Bank Loans	S&P/LSTA	4.5%	5.1%	10.8%	0.22	0.27	0.45	0.48
Global Credit	Barclays Global Credit	2.0%	2.3%	7.8%	-0.03	0.01	0.50	0.53
Emerging Markets Debt (Hard)	JPM EMBI Global Diversified	5.8%	6.6%	13.0%	0.28	0.34	0.66	0.69
Emerging Markets Debt (Local)	JPM GBI EM Global Diversified	6.5%	7.2%	13.4%	0.35	0.41	0.22	0.28
Private Credit	High Yield + 200 bps	6.5%	7.2%	11.8%	0.37	0.43	-	-
<b>Other</b>								
Commodities	Bloomberg Commodity	4.3%	5.5%	16.1%	0.13	0.21	-0.37	-0.35
Hedge Funds	HFRI Fund of Funds	6.0%	6.8%	13.2%	0.29	0.35	0.08	0.10
Hedge Funds (Fund of Funds)	HFRI Fund of Funds	5.0%	5.8%	13.2%	0.22	0.28	-	-
Core Real Estate	NCREIF Property	4.6%	5.1%	9.9%	0.25	0.29	1.03	1.03
Value-Add Real Estate	NCREIF Property + 200bps	6.6%	8.1%	17.9%	0.25	0.33	-	-
Opportunistic Real Estate	NCREIF Property + 400bps	8.6%	11.5%	26.0%	0.25	0.46	-	-
REITs	Wilshire REIT	4.6%	6.4%	19.7%	0.1	0.21	0.15	0.28
Risk Parity		7.2%	7.7%	10.0%	0.50	0.55	-	-
Inflation		2.1%	-	1.4%*	-	-	-	-

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

\*Historical volatility of inflation. This is not a forecast.

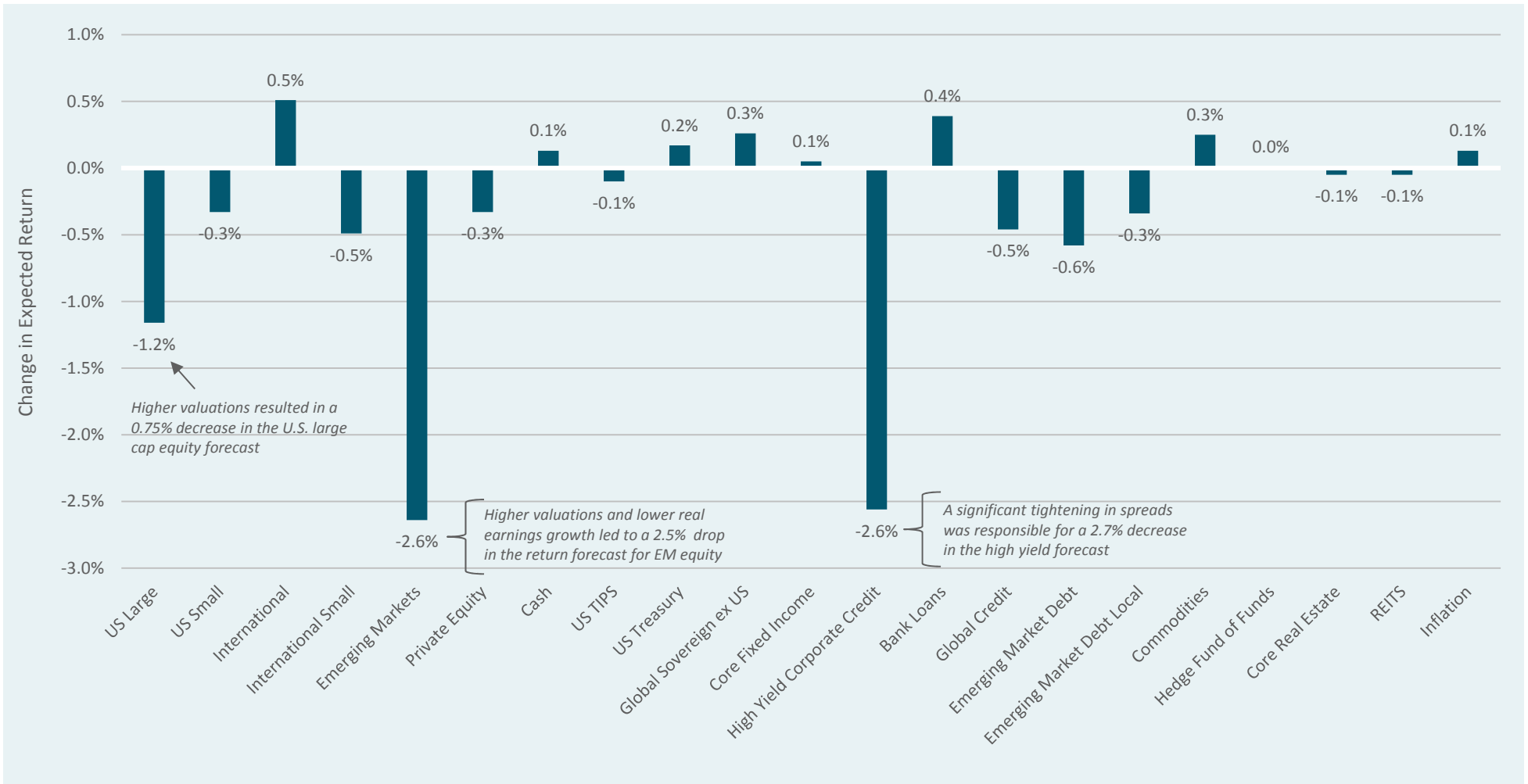
# Range of likely 10 year outcomes

10 YEAR RETURN 90% CONFIDENCE INTERVAL



# 2017 vs. 2016 return forecast

## 2017 VS. 2016 RETURN FORECAST



# Relevant forecast changes

- Valuations for U.S. large cap equities continued to move higher during the year as increases in prices outpaced modest gains in earnings. At year-end, the Shiller P/E ratio was 28.0 and the trailing 12-month P/E ratio was 20.9. The rise in these valuation metrics resulted in a repricing assumption of -1.25% per year, compared to only -0.50% in last year's forecast. Additionally, we changed our methodology for calculating an average real earnings growth rate to only include data from 1972 to allow for better comparisons between asset classes. This change resulted in a 0.5% lower forecast than last year.
- Our forecast for international developed large cap equities rose 0.5%, mainly driven by a higher currency effect forecast. Our methodology includes an adjustment based on implied currency movements, as indicated by the forward curve. A steeper forward curve resulted in a 0.7% higher forecast than then previous year. Please see the next page for more detail on our currency adjustment methodology.
- For international developed small cap equities, the higher currency effect was more than offset by rising valuations. The trailing 12-month P/E ratio rose to 34.8 from 23.5, and resulted in a 1.0% decrease in the return forecast.
- Emerging markets equities performed well over the year, and valuation metrics rose off of historic lows. The Shiller P/E ratio rose to 8.7 from 8.1 and the trailing 12-month P/E ratio rose to 15.4 from 12.2. The upward move in valuations resulted in a change in the repricing assumption from 2.0% per year to only 0.5% per year. Falling average 10-year real earnings growth detracted an additional 1.0% from the return forecast.
- Modest rises in Treasury yields and inflation premiums helped move U.S. fixed income nominal return forecasts slightly higher than the previous year.
- Tightening spreads in high yield corporate fixed income led to significantly lower return forecasts. High yield spreads to Treasuries fell 274 bps over the course of the year.
- Spreads also compressed in global credit relative to global sovereign bonds, which resulted in a 0.5% decrease in return forecast.
- The return forecast for emerging market U.S. dollar denominated debt fell 0.6%, mainly driven by a 75 bps compression in spreads.
- Yields in emerging market local debt fell from 7.1% to 6.8%, leading to a 0.3% decline in expected return from the prior year.

# The currency effect

- This last year has re-emphasized the important effect that currency returns can have on unhedged international portfolios. Verus has traditionally taken the view that we do not attempt to forecast currency market movement.
- When forecasting currencies, the “no opinion” position is reflected in the currency forward markets. This market prices currencies at a range of forward dates based on interest rate differentials - they represent the **SPOT** currency price for **FORWARD** delivery. Divergence from these rates is described as currency surprise.
- Investors with no active opinion regarding which direction exchange rates are headed would expect to earn the local currency return of foreign assets after correcting for the forward exchange rate (as priced by the currency forward market). We describe these returns as “hedged”.
- An investor with no active view regarding which direction exchange rates are headed would expect the unhedged and hedged returns from a foreign asset exposure to be identical.
- We therefore forecast foreign assets in local currency terms, then correct for expected currency movement based on currency forward market prices. We do this using 10-year forward rates. Because Verus has not historically expressed a view on currency, this is directly comparable to our previous forecasts.
- The forward curve is priced based on interest rate differentials between countries. A currency with a higher interest rate is expected to depreciate relative to a currency with a lower interest rate. Given the relatively higher yields in the U.S., the dollar is expected to depreciate against most currencies over the next 10 years. This positive currency effect added 0.6% to our global credit return forecast and 2.2% to our international equity forecasts.

# Inflation



# Inflation

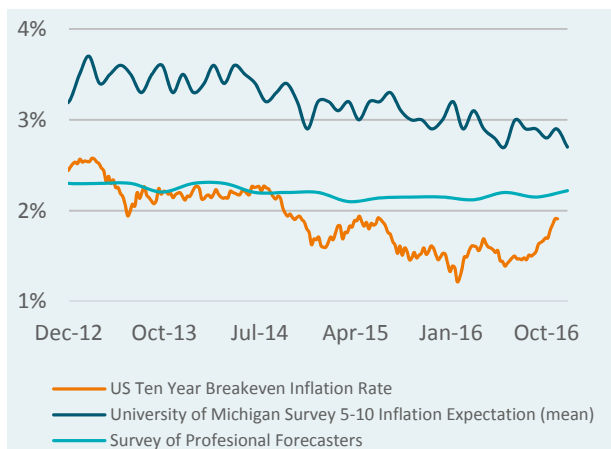
The market's expectations for 10-year inflation can be inferred by taking the difference between the U.S. 10-year Treasury yield and the U.S. 10-year Treasury Inflation-Protected (TIPS) yield (referred to as the breakeven inflation rate).

Breakevens reached very low levels during 2016 but rebounded in the fourth quarter following U.S. elections, which raised the probability of fiscal stimulus and buoyed consumer and business sentiment. Inflation expectations remain relatively low through the downward trend appears to have reversed.

The latest University of Michigan Survey 5-10 year forward inflation expectation, a survey of about 500 households around the nation, is 2.3%, slightly weaker than a year ago. Historically, this survey of inflation tends to be higher than actual future inflation.

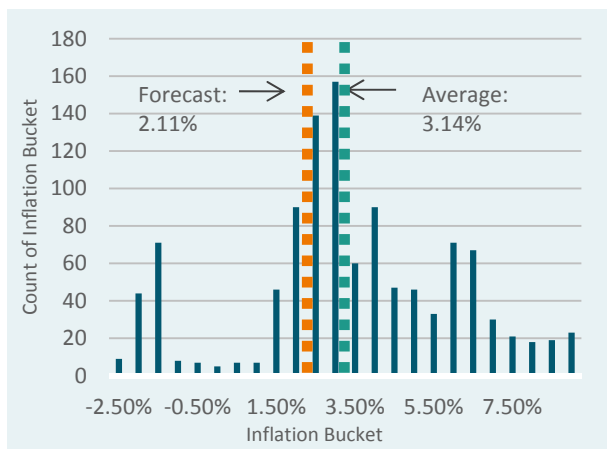
A more stable indicator over time has been the Survey of Professional Forecasters (conducted quarterly). The most recent expectation for long-term inflation is 2.11%.

## INFLATION EXPECTATIONS



Source: U. of Michigan, Philly Fed, as of 12/31/16

## US 10YR ROLLING AVERAGE INFLATION SINCE 1923



Source: Bloomberg, as of 10/31/16

## FORECAST

	10-Year Forecast
University of Michigan Survey (25% weight)	2.30%
Survey of Professional Forecasters (25% weight)	2.22%
US 10-Year TIPS Breakeven Rate (50% weight)	1.95%
<b>Inflation Forecast</b>	<b>2.11%</b>

Source: Verus

# Fixed income

# Cash

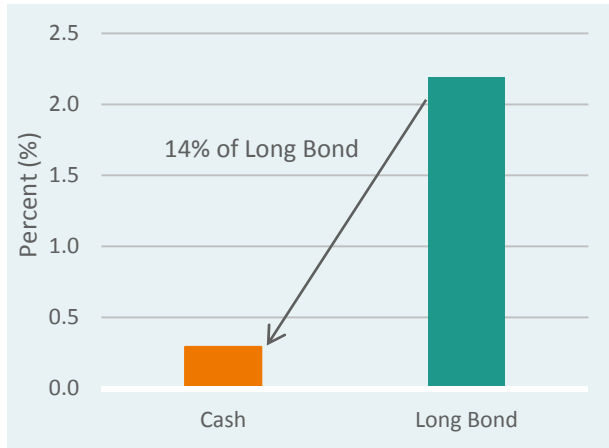
In 2016 the yield curve fell lower and flatter, but returned to previous levels and shape in the fourth quarter as inflation expectations rose. Future actions by the Fed and changing inflation expectations will likely guide curve shape and steepness over the coming year.

Over rolling ten year time periods, the average historical real return to cash has been 14% of the real return to long bonds.

By applying this historical real return relationship, we arrive at a 4 bps expected real return to cash (14% of our 34 bps long bond real return forecast).

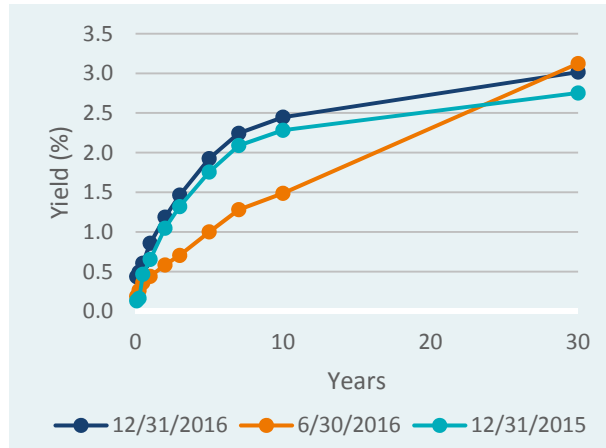
Adding our inflation forecast of 2.11% results in a nominal return to cash of 2.15%.

## U.S. TREASURY ACTIVES CURVE



Source: Bloomberg

## AVERAGE REAL RETURN



Source: Bloomberg, as of 12/31/16

## FORECAST

	10-Year Forecast
Cash	2.15%
Inflation Forecast	2.11%
Real Return	0.04%

Source: Verus

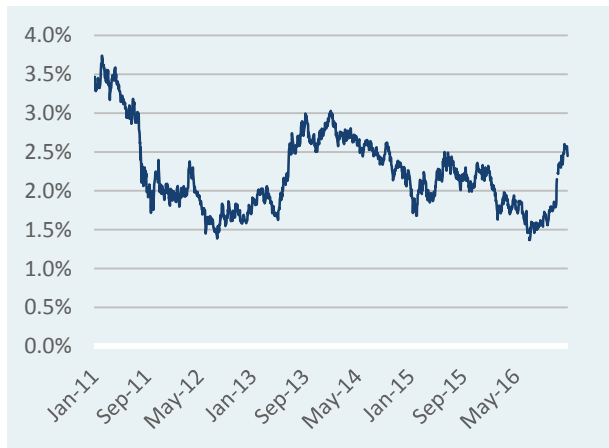
# Rates

U.S. Treasury yields remain high relative to other developed nations. Yields rose sharply following U.S. elections and upon rising inflation expectations.

Central banks across the developed world continue to diverge with regard to monetary policies. While the U.S. tightens very moderately, the European Union continues stimulus but at a slowing pace, and Japan maintains unprecedented stimulus with the goal of higher spending and inflation.

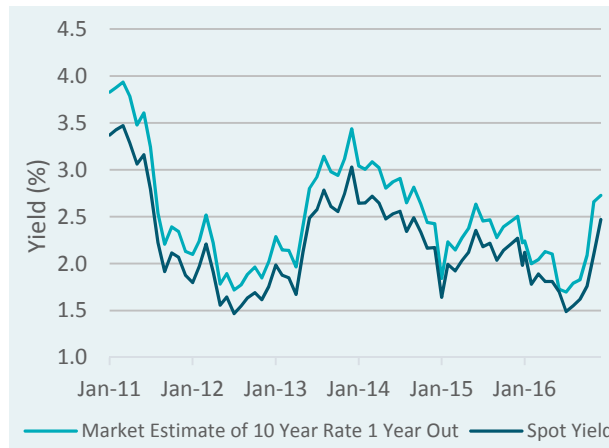
Our forecast of rates is based upon the current yield, with all cash flows reinvested at the current yield.

**U.S. 10-YR TREASURY RATE**



Source: Bloomberg, as of 12/31/16

**MARKET ESTIMATE OF 10 YEAR RATE 1 YEAR OUT**



Source: Bloomberg, as of 12/31/16

**FORECAST**

	10-Year Forecast
US 10-Year Treasury	2.44%
Inflation Forecast	-2.11%
Real Return	0.34%

Source: Verus

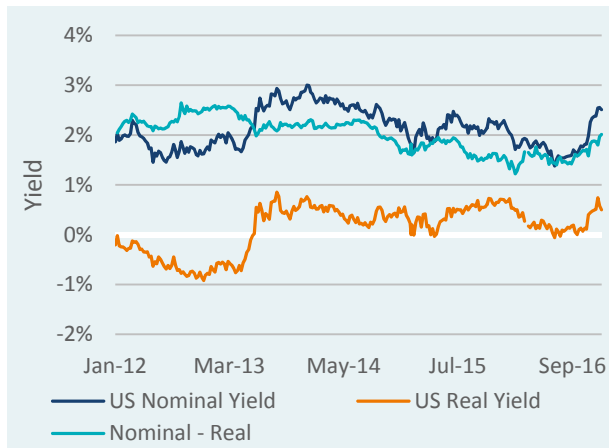
# Real rates

TIPS provide high sensitivity to duration (interest rate risk) over short periods and track inflation (CPI) fairly well over longer periods. Changing inflation expectations, demand for inflation protection, and rate movements contribute to price volatility of TIPS.

The U.S. 10-yr real yield dipped to around zero following the start of the year with declining Treasury yields, then rose in the fourth quarter along with expectations for higher inflation.

To arrive at a nominal 10-year forecast, we add the current real TIPS yield to our 10-year inflation forecast.

**NOMINAL YIELD VS. REAL**



Source: Bloomberg, as of 12/31/16

**INFLATION EXPECTATIONS**



Source: Bloomberg, as of 12/31/16

**FORECAST**

	10-Year Forecast
US 10-Year TIPS Yield	0.47%
Inflation Forecast	+2.11%
Nominal Return	2.58%

Source: Verus

# Core fixed

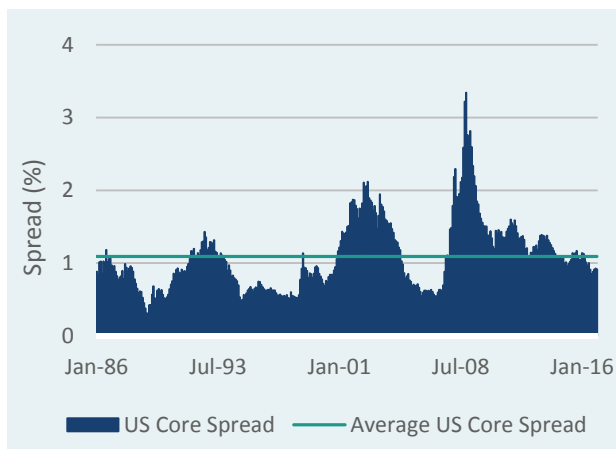
Credit fixed income return is composed of a bond term premium (duration) and credit spread.

We use appropriate default rates and credit spreads for each fixed income category to provide our 10-year return forecast. Our default rate assumption is derived from a variety of sources, including historical data and academic research. The effective default that is subtracted from the return forecast is based on our assumed default and recovery rates.

Spreads remain slightly below the 30-year average, but exhibit behavior consistent with later stages of the economic cycle.

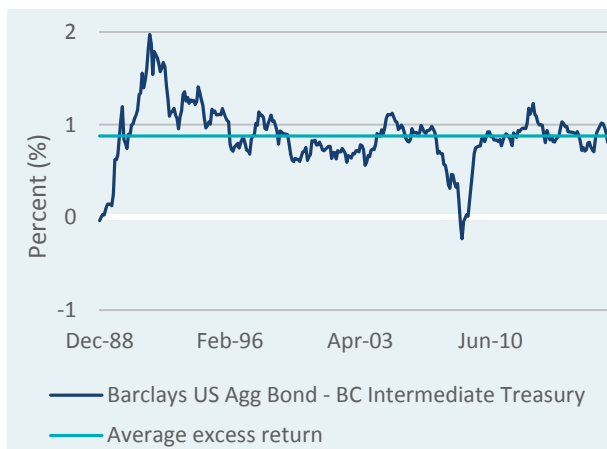
Conditions in the credit markets do not appear stretched, and credit expansion may continue for some time along with the broader economy. Corporate defaults have subsided somewhat as much of the recent spike was a result of isolated difficulties in the energy sector.

## US CORE CREDIT SPREAD



Source: Barclays, as of 12/31/16

## ROLLING EXCESS RETURN (10YR)



Source: Barclays, as of 11/30/16

## FORECAST

	10-Year Forecast
Barclays US Option-Adjusted Spread	+0.92%
Effective Default	-0.10%
US 10-Year Treasury	+2.44%
Nominal Return	3.26%
Inflation Forecast	-2.11%
Real Return	1.16%

Source: Verus

# Credit summary

	Core	Long-Term Credit	Global Credit	High Yield	Bank Loans	EM Debt (USD)	EM Debt (Local)	Private Credit
<b>Index</b>	BC US Aggregate	BC Long US Corporate	BC Global Credit	BC US High Yield	S&P LSTA	JPM EMBI	JPM GBI	BC US High Yield + 2%
<b>Method</b>	OAS + US 10-Year	OAS + US 10-Year	OAS + Global 10-Year Treasuries	OAS + US 10-Year	LIBOR + Spread	OAS + US 10-Year	Current Yield	High Yield + 2% illiquidity premium
<b>Spread to</b>	Intermediate US Treasury	Long-Term US Treasury	Global Long-Term Treasuries	Intermediate US Treasury	LIBOR	Intermediate US Treasury	-	-
<b>Default Assumption</b>	-0.5%	-4.5%	-3.0%	-3.8%	-3.5%	-0.5%	-0.5%	-
<b>Recovery Assumption</b>	80%	95%	40%	40%	90%	60%	40%	-
<b>Spread</b>	0.9%	1.5%	1.2%	4.4%	3.9%	3.6%	-	-
<b>Yield</b>	-	-	-	-	-	-	6.8%	-
<b>Risk Free Yield</b>	2.4%	2.4%	1.9%	2.4%	1.0%	2.4%	-	-
<b>Effective Default</b>	-0.1%	-0.2%	-1.8%	-2.3%	-0.4%	-0.2%	-0.3%	-
<b>Expected Currency Effect</b>	-	-	0.6%	-	-	-	-	-
<b>Nominal Return</b>	3.3%	3.7%	2.0%	4.5%	4.5%	5.8%	6.5%	6.5%
<b>Inflation Forecast</b>	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
<b>Real Return</b>	1.2%	2.2%	-0.2%	2.4%	2.4%	3.7%	4.4%	4.4%

\*We use local inflation for international developed equity and fixed income markets. When using local inflation rates, expected returns are adjusted for the implied currency effect based on currency forward contract rates (See Appendix)



# Equities

# Equities

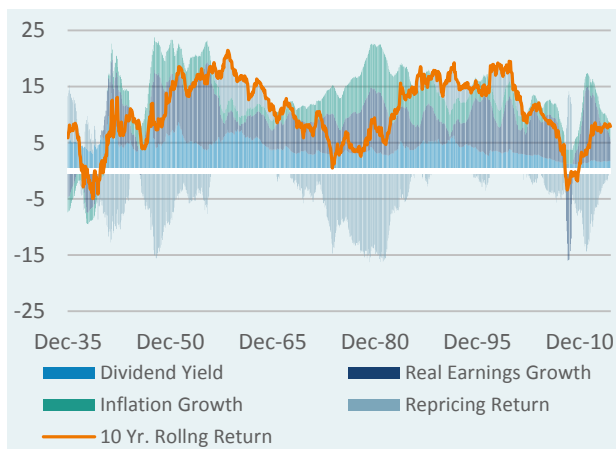
Investment returns in the equity space can be broken down into earnings growth, dividend yield, inflation, and repricing. Over the very long-term, repricing represents a small portion of return to equity investors, but over shorter time frames, the effect on return can vary considerably.

If investors are willing to pay more for earnings, it could signal that investors are more confident in positive earnings growth going forward, while the opposite is true if investors pay less for earnings. It is somewhat surprising that investor confidence varies so much given that the long-term earnings growth is relatively stable.

Investor confidence in earnings growth can be measured using both the Shiller P/E ratio and the trailing 12-month P/E ratio. We take an average of these two valuations metrics when determining our repricing assumption. In short, if the P/E ratio is too high (low) relative to history, we expect future returns to be lower (higher) than the long-term average. Implicit in this analysis is the assumption that P/E's will exhibit mean reversion over 10 years.

We make a conservative repricing estimate given how widely repricing can vary over time. We then skew the repricing adjustment because the percentage change in index price is larger with each incremental rise in P/E when P/E's are low, compared to when they are high.

## TRAILING 10-YR S&P 500 RETURN COMPOSITION



Source: Shiller, Standard & Poor's, as of 9/30/16

## U.S. LARGE SHILLER P/E



Source: Shiller, as of 7/31/16

## P/E REPRICING ASSUMPTION

Average P/E Percentile Bucket	Lower P/E	Upper P/E	Repricing Assumption
Lower 10%	-	10	2.00%
10% - 20%	10	13	1.50%
20% - 30%	13	15	0.75%
30% - 45%	15	18	0.50%
45% - 55%	18	19	0.0%
55% - 70%	19	21	-0.25%
70% - 80%	21	22	-0.50%
80% - 90%	22	24	-1.25%
Top 10%	24	-	-1.50%

Source: Verus

# Global equity

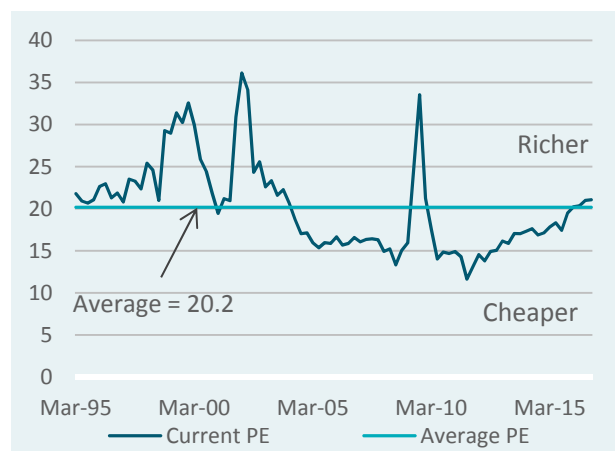
Global Equity is a combination of U.S. large, international developed, Canada, and emerging market equities. We can therefore combine our existing return forecasts for each of these asset classes, along with a Canada equity forecast, to arrive at our global equity return forecast.

We use the MSCI ACWI Index as our benchmark for global equity and apply the country weights of this index to determine the weightings for our global equity return calculation. As with other equity asset classes, we use the historical standard deviation of the benchmark (MSCI ACWI Index) for our volatility forecast.

The valuation of global equities are driven by the richness/cheapness of the underlying markets, as indicated by the current price/earnings ratio.

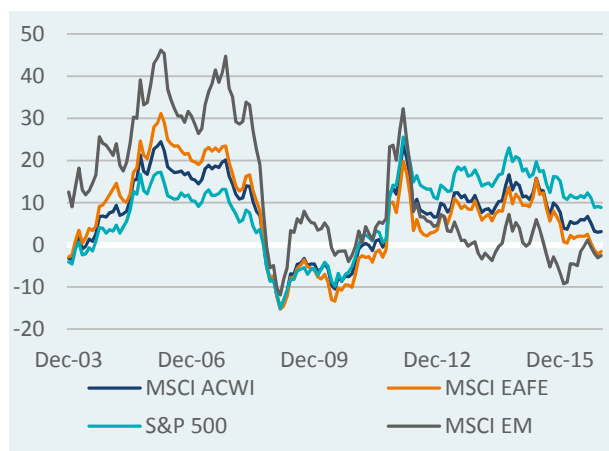
We believe the global equity market (MSCI ACWI) is the proper starting point for building an equity portfolio, and that deviating from a global allocation is a form of active management, and may effect long-term risk-adjusted returns.

## GLOBAL EQUITY P/E RATIO HISTORY



Source: MSCI, as of 12/31/16

## MARKET PERFORMANCE (3YR ROLLING)



Source: MSCI, Standard & Poor's, as of 12/31/16

## FORECAST

Market	Weight	CMA return	Weighted return
US Large	53.8%	4.73%	2.54%
Developed Large	32.5%	9.72%	3.16%
Emerging Markets	10.5%	8.61%	0.90%
Canada	3.3%	7.07%	0.23%
Global equity forecast			7.00%

Source: Verus

# Equity summary

	U.S. Large	U.S. Small	EAFE	EAFE Small	EM
Index	S&P 500	Russell 2000	MSCI EAFE Large	MSCI EAFE Small	MSCI EM
<b>Method</b>	Building Block Approach: current dividend yield + historical average real earnings growth + inflation on earnings + repricing + expected currency effect				
<b>Current Shiller P/E Ratio</b>	28.0	43.8	14.5	-	8.7
<b>Regular P/E Ratio</b>	20.9	48.7	22.9	34.8**	15.4
<b>2016 Shiller P/E Expansion</b>	14.8%	19.0%	2.1%	-	6.8%
<b>2016 Regular P/E Expansion</b>	14.2%	45.4%	20.5%	48.0%	26.0%
<b>Current Shiller P/E Percentile Rank</b>	85%	100%	17%	-	7%
<b>Current Regular P/E Percentile Rank</b>	81%	98%	68%	78%**	62%
<b>Average of P/E Methods' Percentile Rank</b>	83%	99%	43%	78%**	35%
<b>2016 Total Return</b>	12.0%	21.3%	1.0%	2.2%	11.2%
<b>Shiller PE History</b>	1982	1988	1982	Not Enough History	2005
<b>Long-Term Average Shiller P/E</b>	22.4	29.5	23.0	-	16.2
<b>Current Dividend Yield</b>	2.1%	1.5%	3.2%	2.4%	2.9%
<b>Long-Term Average Real Earnings Growth</b>	1.8%	2.8%	2.2%	2.4%	3.5%
<b>Inflation on Earnings</b>	2.1%	2.1%	1.5%*	1.5%*	2.1%
<b>Repricing Effect (Estimate)</b>	-1.3%	-1.5%	0.5%	-0.5%	0.5%
<b>Implied Currency Effect*</b>	-	-	2.2%*	2.2%*	-
<b>Nominal Return</b>	4.7%	4.8%	9.7%	8.1%	8.6%
<b>Inflation Forecast</b>	2.1%	2.1%	2.1%	2.1%	2.1%
<b>Real Return</b>	2.6%	2.7%	7.6%	6.0%	6.5%

\*We use local inflation for international developed equity and fixed income markets. When using local inflation rates, expected returns are adjusted for the implied currency effect based on currency forward contract rates (See Appendix)

\*\*Average trailing P/E from previous 12 months is used

NOTE: For all equities, we exclude data prior to 1972, which allows for a more appropriate comparison between data sets.

# Alternatives

# Private equity

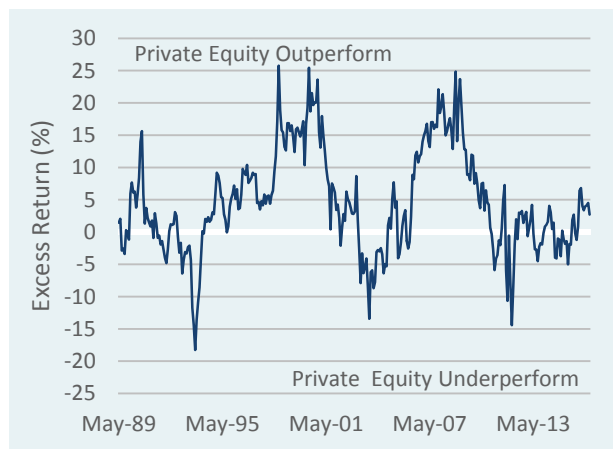
Private equity and public equity returns are historically correlated because the underlying economic forces driving these asset class returns are quite similar.

The return relationship between the two can vary in the short-term, but over the long-term investors have traditionally believed the return from private equity should carry a premium, based on the illiquidity investors experience. However, we believe this variation may be attributable more to active management than to a natural illiquidity

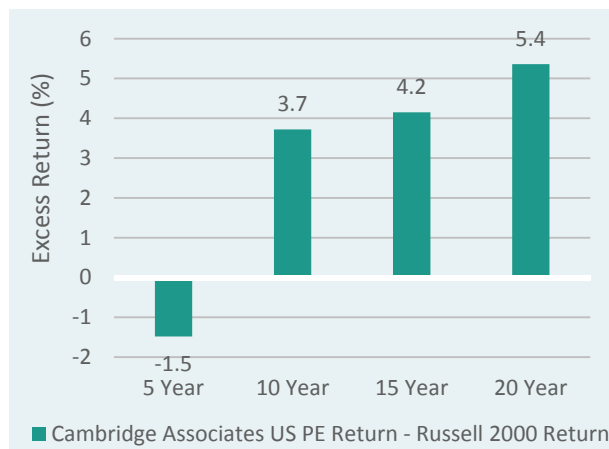
premium. We plan to investigate these effects further in 2017 and will adjust assumptions as appropriate, depending on the conclusions.

Our approach is to estimate an active management (alpha) and illiquidity premium of 3.0% on top of our U.S. small cap forecast of 4.8%.

## ROLLING 3YR PRIVATE EQUITY EXCESS RETURN (PE – U.S. SMALL CAP)



## PRIVATE EQUITY EXCESS RETURN



## FORECAST

	10-Year Forecast
Small Cap Forecast	+4.84%
Active Management & Illiquidity Premium Estimate	+3.00%
Nominal Return	7.84%
Inflation	-2.11%
Real Return	5.74%

Source: Cambridge, Russell, as of 8/31/16

Source: Cambridge, Russell, as of 8/31/16

Source: Verus

# Hedge funds

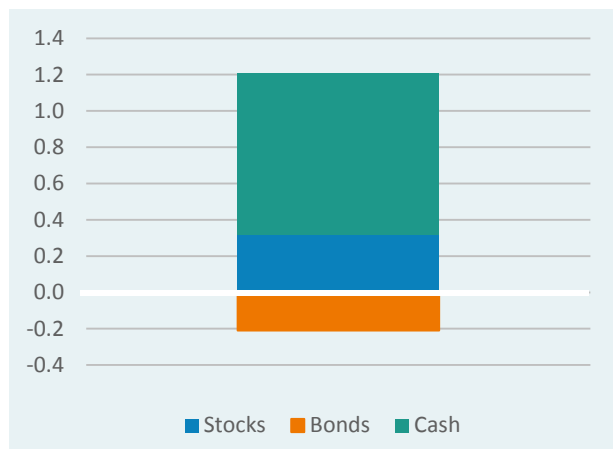
Traditional betas explain perhaps half of the variation in broad hedge fund net of fee returns, depending on the regression used. The remaining unexplained portion can be attributed to alternative betas, skill, luck, or biases in the index. We develop the systematic component of return by applying the historical weights of each traditional beta to our capital market assumptions.

As estimated by Ibbotson-Chen-Zhu 2010, the annualized unexplained portion of net of fee return is approximately 3.0%, which is statistically significant. This estimate is added to our estimate of return coming

from traditional betas to get a total net of fee return. Additionally, we produce a return forecast for hedge fund of funds, which subtracts 1% for the extra layer of fees.

Our research team is working towards better identifying the underlying return drivers of broad hedge fund index returns, and also of specific hedge fund style indices. Additional information is provided in the Appendix of this document regarding hedge fund return behavior.

## HISTORICAL BREAKDOWN OF BETAS



Source: Ibbotson-Chen-Zhu 2010

## Returns Explained by Systematic Factors

Equity market betas
Other traditional betas (bond, credit)
Alternative betas (value, carry, momentum, volatility)

## Returns NOT Explained by Systematic Factors

Skill
Luck
Biases

Source: Ilmanen, Antti. Expected Returns

Traditional Betas	Weight	2016 CMA (asset class average)	10-Year Forecast (weight*2016 CMA)
Equity	32%	5.96%	1.91%
Bonds	-21%	3.87%	-0.81%
Cash	89%	2.15%	1.92%
Traditional Beta Nominal Return			3.01%
Alternative Beta, Skill			3.00%
Nominal Return			6.01%
Inflation			-2.11%
Real Return			3.90%

Source: Verus



# Private core real estate/REITS

Performance of the NCREIF property index can be decomposed into an income return (cap rate) and capital return. The return coming from income has historically been more stable than the return derived from capital changes.

The cap rate is the ratio earnings less expenses to price, and does not include extraordinary expenses.

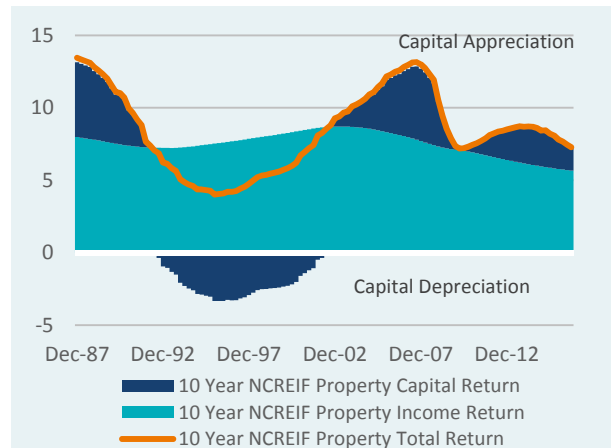
A more accurate measure of the yield investors receive should include non-recurring capital expenditures; we assume a 2.0% capex expenditure.

We also assume income growth will track inflation as inflation is passed through to rents.

Over the last ten years performance between private real estate and REITs is similar. Investors should be careful when comparing risk-adjusted returns of publicly traded assets to returns of appraisal priced assets. Private real estate and REITs provide an example of different volatility characteristics of public and private assets.

We assume the effects of leverage and liquidity offset each other, therefore our forecast for private real estate becomes our forecast for REITs.

## TRAILING 10YR NCREIF RETURN COMPOSITION



Source: NCREIF, as of 9/30/16

## PRIVATE REAL ESTATE

	Private Real Estate 10-Year Forecast
Current Cap Rate	+4.49%
Capex assumption	-2.00%
Income Growth (Inflation)	+2.11%
Nominal Return	4.60%
Inflation	-2.11%
Real Return	2.49%

Source: Verus

## REITS

	REITs 10-Year Forecast
Nominal Return Forecast	4.60%
Inflation	-2.11%
Real Return	2.49%

Source: Verus

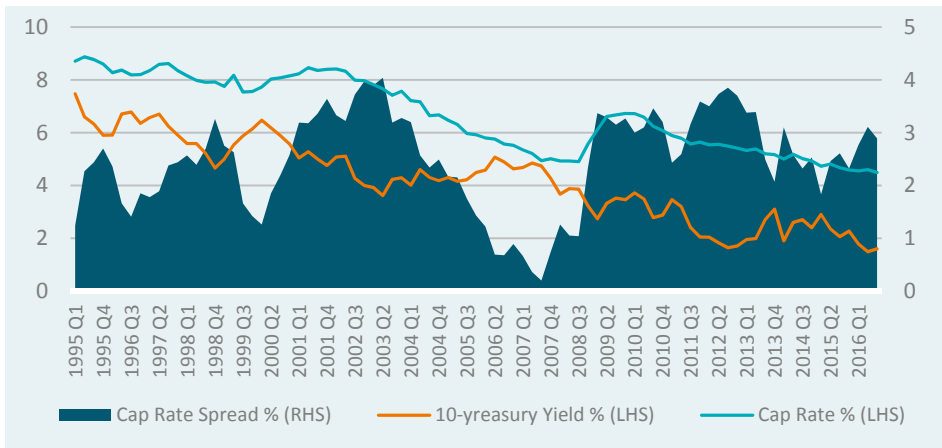
# Value-add & opportunistic real estate

Value-add real estate includes properties which are in need of renovation, repositioning, and/or lease-up. Properties may also be classified as value-add due to their lower quality and/or location. Opportunistic real estate can also include development and distressed or very complex transactions. Greater amounts of leverage are usually employed within these strategies. Leverage increases beta (risk) by expanding the purchasing power of property managers via a greater debt load, which magnifies gains or losses. Increased debt also results in greater interest rate sensitivity. An increase/decrease in interest rates may result in a write-up/write-down of fixed rate debt, since debt holdings are typically marked-to-market.

Performance of value-add real estate is composed of the underlying private real estate market returns, plus a premium for additional associated risk, which is modeled here as 200 bps above our core real estate return forecast. Performance of opportunistic real estate strategies rest further out on the risk spectrum, and are modeled as 400 bps above the core real estate return forecast.

Additional expected returns above core real estate are justified by the higher inherent risk of properties which need improvement (operational or physical), price discounts built into properties located in non-core markets, illiquidity, and the ability of real estate managers to potentially source attractive deals in this less-than-efficient marketplace.

## CAP RATE SPREADS



Source: NCREIF, as of 9/30/16

	Value-Add 10-Year Forecast	Opportunistic 10-Year Forecast
Premium above core	+2.00%	+4.00%
Current Cap Rate	+4.49%	+4.49%
Capex assumption	-2.00%	-2.00%
Income Growth (inflation)	+2.11%	+2.11%
Nominal Return	6.60%	8.60%
Inflation	-2.11%	-2.11%
Real Return	4.49%	6.49%

Source: Verus

# Commodities

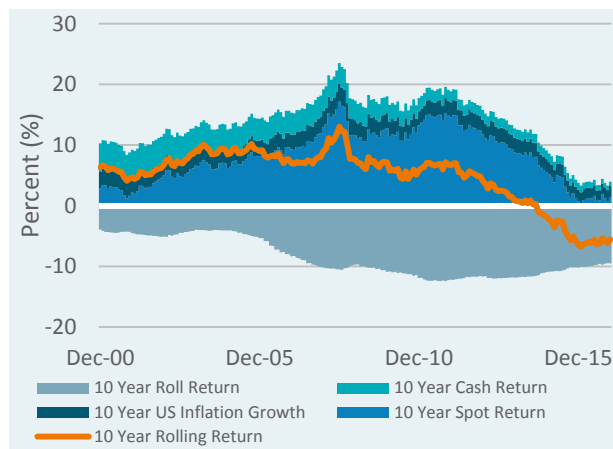
Commodity returns can be decomposed into four sources: collateral return (cash), inflation, spot changes, and roll yield.

Roll return represents either the backwardation or contango present in futures markets. Backwardation occurs when the futures price is below the spot price, which results in an additional profit. Contango occurs when the futures price is above the spot price, and this results in a loss to commodity investors. Historically, futures markets have fluctuated between backwardation and contango but with a zero net effect over the very long-term (since 1877). Therefore, roll return is assumed to be

zero in our forecast. Over the most recent 10-year period, roll return has been negative, though this is likely the result of multiple commodity crises and a difficult market environment.

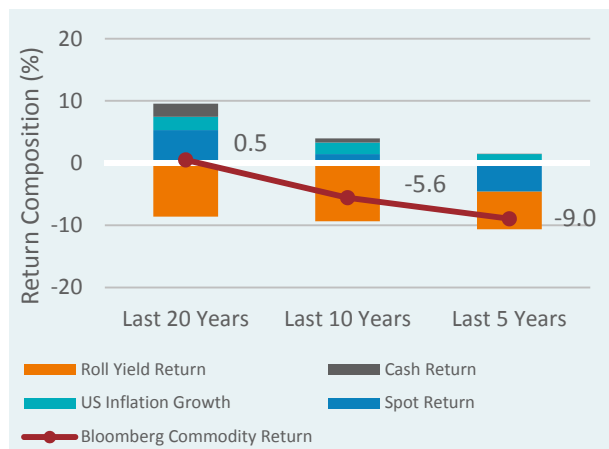
Our 10-year commodity forecast combines collateral (cash) return with inflation to arrive at the nominal return, and subtracts out inflation to arrive at the real return.

**TRAILING 10YR BLOOMBERG COMMODITY RETURN COMPOSITION (%)**



Source: MPI, Bloomberg, as of 12/31/16

**BLOOMBERG COMMODITY RETURN COMPOSITION (%)**



Source: MPI, Bloomberg, as of 12/31/16

**FORECAST**

	10-Year Forecast
Collateral Return (Cash)	+2.15%
Roll Return	+0.00%
Inflation	+2.11%
Nominal Return	4.26%
Inflation	-2.11%
Real Return	2.15%

Source: Verus

NOTE: For more information on how Verus views commodities, please visit our website ([www.verusinvestments.com/category/insights/toi/](http://www.verusinvestments.com/category/insights/toi/)) to read our most recent Topic of Interest paper.

# Risk parity

Risk parity is built upon the philosophy of allocating to risk premia rather than to asset classes. Because risk parity by definition aims to diversify risk, the actual asset allocation can appear very different from traditional asset class allocation.

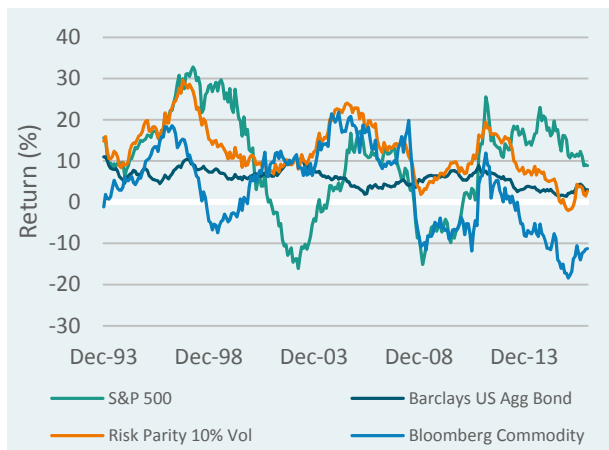
We model risk parity using an assumed Sharpe Ratio of 0.5, which considers the historical performance of risk parity. This assumed Sharpe Ratio is higher than other asset class forecasts, but is consistent with these forecasts because *portfolios* of assets tend to deliver materially higher Sharpe Ratios than individual assets.

The expected return of Risk Parity is determined by this Sharpe Ratio forecast, along with a 10% volatility assumption.

We used a 10-year historical return stream from a market-leading product to represent risk parity correlations relative to the behaviors of each asset class. Risk parity funds are suggested to be better able to withstand various difficult economic environments - reducing volatility without sacrificing return, over longer periods.

It is difficult to arrive at a single model for risk parity, since strategies can differ significantly across firms/strategies. Risk parity almost always requires explicit leverage. The amount of leverage will depend on the specific strategy implementation style, as well as expected correlations and volatility.

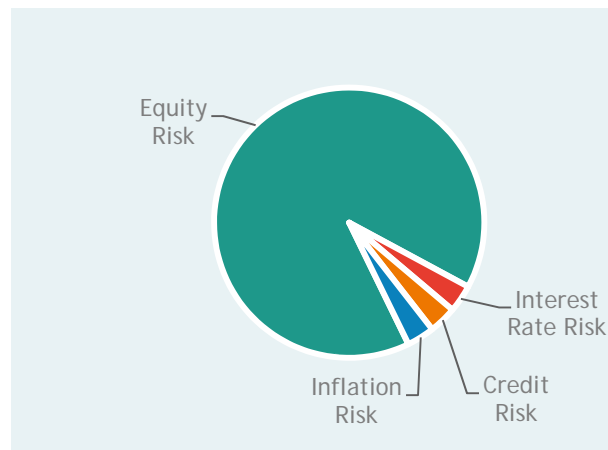
## VS. TRADITIONAL ASSET CLASSES



Source: MPI, as of 12/31/16

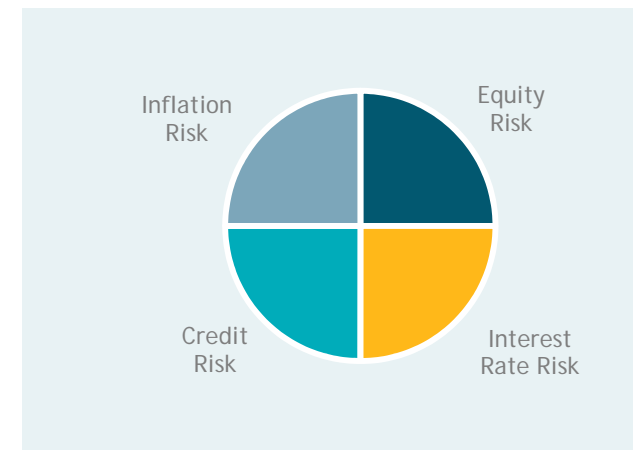
Note: Risk parity is modeled here using the AQR GRP-EL 10% Volatility fund. Performance is back tested prior to February 2015

## TRADITIONAL ASSET ALLOCATION



Source: Verus

## RISK PARITY



Source: Verus

# Appendix

# Variability of 10-year rolling returns

CMA Asset Class	Starting Period	Average Yearly Absolute Change	Average Yearly Change	Standard Deviation of Yearly Change
U.S. Large	1981	1.9%	0.0%	2.5%
U.S. Small	1990	2.1%	-0.4%	2.7%
International Developed	1981	2.3%	-0.2%	3.0%
International Developed Small	2011	3.5%	0.7%	4.6%
Emerging Markets	2009	3.2%	-0.9%	3.7%
Global Equity	2009	1.8%	0.7%	2.2%
Private Equity	1997	1.9%	-0.1%	2.2%
U.S. TIPS	2008	0.7%	0.5%	2.4%
U.S. Treasury	2003	0.6%	-0.1%	0.7%
Global Sovereign ex-U.S.	1998	1.1%	-0.3%	1.3%
Core Fixed Income	1986	0.6%	-0.2%	0.8%
Core Plus Fixed Income	1984	0.9%	0.0%	1.1%
Short-Term Gov/Credit	1987	0.4%	-0.3%	0.4%
Long-Term Credit	2001	1.0%	-0.1%	1.3%
High Yield Corp. Credit	1994	1.2%	-0.3%	1.5%
Bank Loans	2007	0.8%	-0.1%	1.3%
Global Credit	2012	0.7%	-0.5%	0.7%
Emerging Markets Debt (Hard)	2005	1.2%	-0.5%	1.5%
Emerging Markets Debt (Local)	2014	2.3%	-2.2%	1.5%
Hedge Fund	2001	0.8%	-0.7%	0.7%
Core Real Estate	1989	0.9%	-0.2%	1.2%
REITs	1989	2.1%	-0.5%	2.7%
Commodities	2002	2.1%	-0.8%	2.3%

Data as of 9/30/16

Note: The period of analysis was determined by the available return history of each respective asset class benchmark.

# Autocorrelation adjustment

- In this year's capital market assumptions, we adjusted all volatility forecasts that use the long-term historical volatility for autocorrelation.
- Autocorrelation occurs when the future returns of a time series are described (positively correlated) by past returns.
- Time series with positive autocorrelation exhibit artificially low volatility, while time series with negative autocorrelation exhibit artificially high volatility.
- Many asset classes that we tested showed positive autocorrelation, meaning the volatility forecasts that we use in the forecasting process are too low for those asset classes.
- The result of this process was that several asset classes have higher volatility forecasts than if we had made no adjustment for autocorrelation.

Russell 2000 autocorrelation, among many asset classes, is statistically significant



# Hedge fund return behavior

Regression using US Treasuries, High Yield, Commodities, and S&P 500	% returns explained by regression	Expected return using this regression	Actual 10yr return	Difference
HFRI Asset Weighted Composite Index	36.07%	2.49%	4.62%	2.13%
HFRI Fund of Funds Composite Index	21.93%	1.87%	1.77%	-0.10%
HFRI ED: Distressed/Restructuring Index	31.13%	3.34%	3.81%	0.47%
HFRI ED: Merger Arbitrage Index	21.15%	1.34%	3.71%	2.37%
HFRI EH: Equity Market Neutral Index	8.74%	0.69%	2.04%	1.36%
HFRI Macro: Systematic Diversified Index	45.90%	0.77%	4.53%	3.76%
HFRI RV: Yield Alternatives Index	57.16%	4.56%	4.47%	-0.08%
HFRI RV: Fixed Income-Convertible Arbitrage Index	50.18%	3.75%	4.73%	0.98%
HFRI Emerging Markets (Total) Index	67.24%	4.73%	3.28%	-1.45%

Public market returns do a poor job of explaining most hedge fund categories

A public market return building blocks approach would result in inappropriately low hedge fund return expectations

Using 10 years of performance data, MPI

# Notices & disclosures

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## Board of Trustees

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Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item 16: Retirement Plan Peer Comparisons**

This item is informational for the Board of Trustees and no action is required.

**Investment Comparisons** - We have updated a summary of the investment allocations of a group of comparable peer retirement systems (16 systems, two of which have two funds each for a total of 18 comparable funds). The group of peer retirement systems are California public sector defined benefit retirement systems with assets from \$500 million to \$5 billion to provide reasonable similar comparisons of investment policies applicable to this size range. The attached tables show the asset allocation of these peers.

A peer comparison of investment policies is of interest as general information, but does not provide direct guidance on investment policy. Each retirement system creates their own investment policy in conjunction with their investment consultant(s) to suit the needs of that particular retirement plan and the judgement of their own trustees.

**Actuarial Earnings Assumptions, Funded Ratios, Contribution Rates** - We have added to this peer comparison an update on actuarial data. Note that due to differing fiscal year ends and the timing of when actuarial reports and CAFRs are published, this data spans a range of dates. The source of the data quoted is listed for clarification.

Of particular interest are the actuarial discount rates or Earnings Assumptions (EAs) of the various peer retirement systems. They are recapped in the following table with the addition of other retirement systems as well. When looking at the other actuarial data on funding ratios and contribution rates it is important to not ascribe direct comparability between that data and the SLOCPT. The reasons why one system may have a higher funded ratio or a lower contribution rate are rooted in many factors as they evolved historically. The timing of benefit formula increases, the collectively bargained sharing of costs, POB funding, differing investment

policies, and differing actuarial assumptions (including the highly significant EA) all contribute to substantial variability between retirement systems. The information presented here is intended to be illustrative, but it is by no means an exhaustive analysis.

**Earnings Assumptions** - The table shown here included most of the SLOCPT Peer systems with recent data on EAs as well as other, larger '37 Act County retirement systems. The large State systems are shown as well for comparison. As such, this table is a broader sample than the SLOCPT Peer systems used for asset allocation comparisons in the attached tables.

<b>Retirement System</b>	<b>Earnings Assumption</b>	<b>As of</b>	<b>Changed?</b>
Alameda ('37 Act)	7.600%	Dec 2015	
Contra Costa ('37 Act)	7.000%	Dec 2015	2015 Val.
Fresno County ('37 Act)	7.000%	Jun 2016	
Fresno City (Misc.)	7.250%	Jun 2016	2016 Val.
Imperial ('37 Act)	7.500%	Jun 2016	
Kern ('37 Act)	7.500%	Jun 2016	
Los Angeles ('37 Act)	7.250%	Jun 2016	2016 Val.
Marin ('37 Act)	7.250%	Jun 2015	
Mendocino ('37 Act)	7.250%	Jun 2016	
Merced ('37 Act)	7.750%	Jun 2015	
Orange ('37 Act)	7.250%	Dec 2015	
Sacramento ('37 Act)	7.500%	Jun 2016	
San Bernardino ('37 Act)	7.500%	Jun 2016	
San Diego ('37 Act)	7.250%	Jun 2016	2016 Val.
San Francisco (Independent)	7.500%	Dec 2015	
San Joaquin ('37 Act)	7.400%	Jun 2016	2016 Val.
<b>San Luis Obispo (Independent)</b>	7.125%	Jan 2016	2016 Val.
San Mateo ('37 Act)	7.000%	Jun 2016	2016 Val.
San Jose City Federated (Misc.)	7.000%	Jun 2016	2016 Val.
Santa Barbara ('37 Act)	7.000%	Jun 2016	2016 Val.
Sonoma ('37 Act)	7.250%	Jun 2016	2016 Val.
Stanislaus ('37 Act)	7.250%	Jun 2016	2016 Val.
Tulare ('37 Act)	7.600%	Jun 2016	2016 Val.
Ventura ('37 Act)	7.500%	Jun 2016	2016 Val.
CalPERS	7.500%	2016	
	7.375%	2017	
	7.250%	2018	
	7.000%	2019	
CalSTRS	7.500%	2016	
	7.250%	2017	
	7.000%	2018	
UC Regents	7.250%	2016	

From the above table – excluding the large State systems that are initiating phased EA reductions – the range of Earnings Assumptions used at present can be summarized as –

7.750%	1 system
7.600%	2 systems
7.500%	6 systems
7.400%	1 system
7.250%	8 systems
7.125%	1 system (San Luis Obispo)
7.000%	5 systems

It is also noteworthy that of the 24 retirement systems (excluding the large State systems) in the above table that 13 systems have reduced their Earnings Assumptions in their most recent actuarial valuations. After these reductions, the SLOCPT Earnings Assumption is 6<sup>th</sup> lowest out of 24 systems – or in the lower ¼ of other California retirement systems.

Respectfully Submitted

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SLOCPT - Peer Comparison - 2016	San Luis Obispo County Pension Trust	1 AC Transit	2 East Bay Muni. Utility District	3 Fresno County ERA
	SLOCPT	ACTRS	EBMUD	FCERA
<b>Investment Policy</b>				
SAA - as of:	12/31/16	12/31/13	12/31/15	9/30/16
Source	IPS	CALAPRS	IPS 2014	3Q16 Verus
Fund Size (millions)	\$ 1,196	\$ 563	\$ 1,371	\$ 4,104
<b>Equity</b>				
Domestic	20%	31%	10%	17%
International	20%	19%	15%	19%
Emerging Markets				
Global Equities				
Covered Calls			20%	
Total Equity	40%	50%	45%	36%
<b>Fixed Income</b>				
Domestic - core	15%	32%	16%	
Domestic - non core				
International	5%			
Emerging Markets	5%	5%		
Global				31%
Bank Loans	5%		2%	
Direct Lending				
TIPS	0%			
High Yield			2%	
Absolute Return				
Total Fixed Income	30%	37%	20%	31%
<b>Real Estate</b>				
Domestic	15%	4%	5%	5%
REITS				
International				
Total Real Estate	15%	4%	5%	5%
<b>Real Assets</b>				
Infrastructure				3%
Natural Resources				
Commodities	5%			3%
Total Real Assets	5%	0%	0%	6%



SLOCPT - Peer Comparison - 2016	4a	4b	5	6
	Fresno City ERS	Fresno City Fire & Police RS	Imperial County ERS	Kern County ERS
	CFRS	CFRS	ICERS	KCERA
<b>Investment Policy</b>				
<b>SAA - as of:</b>	12/31/16	12/31/16	12/31/16	6/30/16
Source	IPS 2016	IPS 2016	4Q16 Verus	IPS 2016
Fund Size (millions)	\$ 1,308	\$ 1,546	\$ 716	\$ 3,572
<b>Equity</b>				
Domestic	30%	30%	29%	19%
International	22%	22%	24%	18%
Emerging Markets	8%	8%		
Global Equities				
Covered Calls				
Total Equity	60%	60%	53%	37%
<b>Fixed Income</b>				
Domestic - core	11%	11%	27%	29%
Domestic - non core				
International				
Emerging Markets				
Global				
Bank Loans				
Direct Lending	4%	4%		
TIPS				
High Yield	6%	6%		
Absolute Return	4%	4%		
Total Fixed Income	25%	25%	27%	29%
<b>Real Estate</b>				
Domestic	12%	12%	10%	10%
REITS	3%	3%		
International				
Total Real Estate	15%	15%	10%	10%
<b>Real Assets</b>				
Infrastructure				
Natural Resources				
Commodities				4%
Total Real Assets	0%	0%	0%	4%

SLOCPT - Peer Comparison - 2016	7	8	9	10
	Marin County EA	Merced CCERA	San Mateo CERA	Santa Barbara County ERS
	MCERA	MerERA	SAMCERA	SBCERS
<b>Investment Policy</b>				
<b>SAA - as of:</b>	6/30/15	9/30/16	9/30/16	12/31/16
Source	3Q16 Callan	3Q16 Verus	3Q16 Verus	IPS 2016
Fund Size (millions)	\$ 2,142	\$ 691	\$ 3,541	\$ 2,533
<b>Equity</b>				
Domestic	32%	28%	28%	19%
International	22%	24%	20%	11%
Emerging Markets				7%
Global Equities				
Covered Calls				
Total Equity	54%	52%	48%	37%
<b>Fixed Income</b>				
Domestic - core	23%	23%	18%	17%
Domestic - non core				11%
International				
Emerging Markets				
Global				
Bank Loans				
Direct Lending				
TIPS			2%	
High Yield				
Absolute Return				
Total Fixed Income	23%	23%	20%	28%
<b>Real Estate</b>				
Domestic	15%	8%	7%	10%
REITS				
International				
Total Real Estate	15%	8%	7%	10%
<b>Real Assets</b>			2%	15%
Infrastructure		3%		
Natural Resources		3%		
Commodities			3%	
Total Real Assets	0%	6%	5%	15%

SLOCPT - Peer Comparison - 2016	11	12	13a	13b
	Sonoma County ERA	San Joaquin County ERA	San Jose Federated ERS (1975)	San Jose Fire & Police
	SCERA	SJCERA	SJFERS	SJP&F
<b>Investment Policy</b>				
<b>SAA - as of:</b>	12/31/16	6/30/16	6/30/16	6/30/16
Source	4Q16 Report	2Q16 Report	2016 CAFR	2016 CAFR
Fund Size (millions)	\$ 2,471	\$ 2,500	\$ 1,917	\$ 3,167
<b>Equity</b>				
Domestic	30%	16%		
International	17%	16%		
Emerging Markets				
Global Equities	10%	2%	28%	31%
Covered Calls				
Total Equity	57%	34%	28%	31%
<b>Fixed Income</b>				
Domestic - core	14%	24%		
Domestic - non core				
International				
Emerging Markets				
Global			19%	16%
Bank Loans	3%			
Direct Lending				
TIPS				
High Yield				
Absolute Return	3%		11%	6%
Total Fixed Income	20%	24%	30%	22%
<b>Real Estate</b>				
Domestic	15%	8%	7%	7%
REITS		3%		
International				
Total Real Estate	15%	10%	7%	7%
<b>Real Assets</b>		7%		3%
Infrastructure			5%	
Natural Resources			5%	
Commodities			6%	7%
Total Real Assets	0%	7%	16%	10%

SLOCPT - Peer Comparison - 2016	14	15	16
	Stanislaus County ERA	Tulare County ERA	Ventura County ERA
	STANCERA	TCERA	VCERA
<b>Investment Policy</b>			
<b>SAA - as of:</b>	6/30/16	6/30/16	6/30/16
Source	2016 CAFR	2016 CAFR	2016 CAFR
Fund Size (millions)	\$ 1,773	\$ 1,165	\$ 4,387
<b>Equity</b>			
Domestic	15%	20%	28%
International	20%	20%	15%
Emerging Markets			
Global Equities		3%	10%
Covered Calls			
Total Equity	35%	43%	53%
<b>Fixed Income</b>			
Domestic - core	21%	22%	20%
Domestic - non core			
International			
Emerging Markets			
Global		5%	
Bank Loans			
Direct Lending			
TIPS			
High Yield			
Absolute Return			
Total Fixed Income	21%	27%	20%
<b>Real Estate</b>			
Domestic	5%	10%	7%
REITS	5%		
International			
Total Real Estate	10%	10%	7%
<b>Real Assets</b>			
Infrastructure			
Natural Resources			
Commodities		5%	
Total Real Assets	0%	5%	0%

SLOCPT - Peer Comparison - 2016	San Luis Obispo County Pension Trust	1 AC Transit	2 East Bay Muni. Utility District	3 Fresno County ERA
	SLOCPT	ACTRS	EBMUD	FCERA
<b>Alternatives</b>				
Hedge Funds	0%			8%
Private Equity	5%			6%
Private Credit	5%			8%
Crisis Risk Offset				
Opportunistic				
Total Alternatives	10%	0%	0%	22%
<b>Asset Allocation</b>				
Global Asset Alloc.		9%		
Risk Parity				
Broad Mandate				
Total Asset Allocation	0%	9%	0%	0%
<b>Liquidity</b>	0%	0%	1%	0%
<b>TOTAL ASSETS</b>	100%	100%	72%	100%
Notes:				

SLOCPT - Peer Comparison - 2016	4a		4b		5	6
	Fresno City ERS	Fresno City Fire & Police RS	Imperial County ERS	Kern County ERS		
	CFRS	CFRS	ICERS	KCERA		
<b>Alternatives</b>						
Hedge Funds						10%
Private Equity			5%			5%
Private Credit			5%			5%
Crisis Risk Offset						
Opportunistic						
<b>Total Alternatives</b>	0%	0%	10%			20%
<b>Asset Allocation</b>						
Global Asset Alloc.						
Risk Parity						
Broad Mandate						
<b>Total Asset Allocation</b>	0%	0%	0%			0%
<b>Liquidity</b>	0%	0%	0%			0%
<b>TOTAL ASSETS</b>	100%	100%	100%			100%
Notes:						

SLOCPT - Peer Comparison - 2016	7	8	9	10
	Marin County EA	Merced CCERA	San Mateo CERA	Santa Barbara County ERS
	MCERA	MerERA	SAMCERA	SBCERS
<b>Alternatives</b>				
Hedge Funds		5%	5%	
Private Equity	8%	7%	7%	10%
Private Credit				
Crisis Risk Offset				
Opportunistic				
<b>Total Alternatives</b>	8%	12%	12%	10%
<b>Asset Allocation</b>				
Global Asset Alloc.				
Risk Parity			8%	
Broad Mandate				
<b>Total Asset Allocation</b>	0%	0%	8%	0%
<b>Liquidity</b>	0%	0%	0%	0%
<b>TOTAL ASSETS</b>	100%	100%	100%	100%
Notes:				



SLOCPT - Peer Comparison - 2016	11	12	13a	13b
	Sonoma County ERA	San Joaquin County ERA	San Jose Federated ERS (1975)	San Jose Fire & Police
	SCERA	SJCERA	SJFERS	SJP&F
<b>Alternatives</b>				
Hedge Funds				
Private Equity			9%	8%
Private Credit			5%	11%
Crisis Risk Offset				
Opportunistic		15%		
<b>Total Alternatives</b>	0%	15%	14%	19%
<b>Asset Allocation</b>				
Global Asset Alloc.	8%		5%	10%
Risk Parity		10%		
Broad Mandate				
<b>Total Asset Allocation</b>	8%	10%	5%	10%
<b>Liquidity</b>	0%	0%	0%	1%
<b>TOTAL ASSETS</b>	100%	100%	100%	100%
Notes:				

SLOCPT - Peer Comparison - 2016	14	15	16
	Stanislaus County ERA	Tulare County ERA	Ventura County ERA
	STANCERA	TCERA	VCERA
<b>Alternatives</b>			
Hedge Funds		5%	10%
Private Equity	5%	5%	10%
Private Credit	14%	5%	
Crisis Risk Offset			
Opportunistic			
<b>Total Alternatives</b>	19%	15%	20%
<b>Asset Allocation</b>			
Global Asset Alloc.			
Risk Parity	14%		
Broad Mandate			
<b>Total Asset Allocation</b>	14%	0%	0%
<b>Liquidity</b>	1%	0%	0%
<b>TOTAL ASSETS</b>	100%	100%	100%
Notes:			

SLOCPT - Peer Comparison - 2016	San Luis Obispo County Pension Trust	AC Transit <sup>1</sup>	East Bay Muni. Utility District <sup>2</sup>	Fresno County ERA <sup>3</sup>
	SLOCPT	ACTRS	EBMUD	FCERA
Actuary	GRS	Cheiron	Segal	Segal
Actuarial Info. source	2016 Val.	2015 Fin. Stmt.	2015 CAFR	2016 Val 12/15 data
Earnings Assumption	7.125%	7.500%	7.500%	7.000%
Inflation Assumption	3.625%			3.000%
Funded Ratio- AVA	71.4%			78.2%
Funded Ratio- MVA	64.9%			73.3%
ARC-combined	38.900%			47.120%
EE rate avg.	13.880%			9.620%

SLOCPT - Peer Comparison - 2016	4a Fresno City ERS		4b Fresno City Fire & Police RS		5 Imperial County ERS	6 Kern County ERS
	CFRS		CFRS		ICERS	KCERA
	Actuary	Segal	Segal	Segal	Segal	Segal
Actuarial Info. source	2016 Val 12/15 data	2016 Val 12/15 data	2016 Val 12/15 data	2016 Val 12/15 data	2016 Val 12/15 data	2016 Val 12/15 data
Earnings Assumption	7.250%	7.250%	7.250%	7.500%	7.500%	7.500%
Inflation Assumption	3.000%	3.000%	3.000%	3.250%	3.250%	3.250%
Funded Ratio- AVA	111.3%	119.6%	119.6%	90.3%	90.3%	63.4%
Funded Ratio- MVA	106.3%	114.2%	114.2%	85.6%	85.6%	59.4%
ARC-combined	19.630%	27.890%	27.890%	30.490%	30.490%	51.000%
EE rate avg.	8.240%	8.970%	8.970%	11.850%	11.850%	6.220%

SLOCPT - Peer Comparison - 2016	7	8	9	10
	Marin County EA	Merced CCERA	San Mateo CERA	Santa Barbara County ERS
	MCERA	MerERA	SAMCERA	SBCERS
Actuary	Cheiron	Cheiron	Milliman	Cheiron
Actuarial Info. source	2015 Val	2015 CAFR	2016 Val	2016 Val
Earnings Assumption	7.250%	7.750%	7.000%	7.000%
Inflation Assumption			3.250%	
Funded Ratio- AVA	83.7%		83.1%	71.5%
Funded Ratio- MVA	86.4%			
ARC-combined	42.770%		45.830%	44.480%
EE rate avg.	10.570%		12.060%	5.770%

SLOCPT - Peer Comparison - 2016	11	12	13a	13b
	Sonoma County ERA	San Joaquin County ERA	San Jose Federated ERS (1975)	San Jose Fire & Police
	SCERA	SJCERA	SJFERS	SJP&F
Actuary	Segal	Cheiron	Cheiron	Cheiron
Actuarial Info. source	2016 Val 12/15 data	2016 Val 12/15 data	2016 CAFR	2015 Val
Earnings Assumption	7.250%	7.400%	7.000%	7.000%
Inflation Assumption	3.000%	2.900%	2.500%	3.000%
Funded Ratio- AVA	84.9%	65.0%	59.1%	79.2%
Funded Ratio- MVA	84.7%	60.1%	53.9%	76.6%
ARC-combined	32.100%	49.920%	58.670%	83.140%
EE rate avg.	11.720%	6.930%	6.190%	10.810%

SLOCPT - Peer Comparison - 2016	14	15	16
	Stanislaus County ERA	Tulare County ERA	Ventura County ERA
	STANCERA	TCERA	VCERA
Actuary	Cheiron	Cheiron	Segal
Actuarial Info. source	2015 Val	2016 Val 12/15 data	2016 Val 12/15 data
Earnings Assumption	7.250%	7.600%	7.500%
Inflation Assumption	3.000%	3.000%	3.000%
Funded Ratio- AVA	73.7%	83.3%	84.9%
Funded Ratio- MVA	75.8%	73.7%	81.3%
ARC-combined	40.780%	25.400%	37.620%
EE rate avg.	9.920%	6.680%	10.100%



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## Board of Trustees

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Date: February 27, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary  
Amy Burke – Deputy Executive Secretary

### **Agenda Item 17: Asset Allocation February 2017**

This item on the agenda provides a properly noticed opportunity for the Board of Trustees to discuss and take action if necessary regarding asset allocation and related investment matters.

Previously approved investment manager changes in process are summarized below –

Vontobel replacement (~\$127 million at year end) – international equity

- Status - to WCM (approx. ~\$127 million) completed at special open date for the WCM fund of 3/16/17 – by custom arrangement with WCM
- Portfolio overlay – existing investment manager -Parametric provided a derivatives based overlay to maintain international equity exposure for this account (~10% of the total fund) for the period from 2/1/17 to 2/16/17 while the cashflows of the manager transition were completed.

Pathway Fund 9 new hire (\$65 million commitment) – private equity

- Status: Documents completed and executed.

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