

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, May 20, 2019 9:30 AM

Room 161/162
County Government Center
San Luis Obispo, CA 93408

*Materials for the meeting may be found at
<http://www.slocounty.ca.gov/Departments/Pension-Trust/Board-of-Trustees>*

A) 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.

B) CONSENT

2. Minutes of the Regular Meeting of April 22, 2019 (Approve Without Correction).
3. Report of Deposits and Contributions for the month of April 2019 (Receive and File).
4. Report of Service Retirements, Disability Retirements and DROP Participants for the month of April 2019 (Receive, Approve and File).
5. Applications & Elections to participate in the Deferred Retirement Option Program (DROP) received through May 3, 2019 (Receive, Approve and File).

C) ORGANIZATIONAL

None

D) APPLICATIONS FOR DISABILITY RETIREMENT

None

E) OLD BUSINESS

None

F) NEW BUSINESS

6. Job Description Amendment (Recommend Approval)
7. Administrative Budget for Fiscal Year 2019-2020 - Approval – (Recommend Approval).
8. By-Laws and Plan Technical Amendments – Resolution 2019-03 (Recommend Approval)

G) INVESTMENTS

9. Quarterly Investment Report for the 1st Quarter of 2019 – Verus (Receive and File).
10. Monthly Investment Report for April 2019 (Receive and File)
11. Investment Benchmark Review - Verus (Recommend Approval)
12. Strategic Asset Allocation Policy Review - (Review, Discuss, and Direct Staff as necessary).
13. Investment Policy Peer Comparison (Receive and File)
14. ESG Investing Update – Verus (Receive and File)
15. Asset Allocation - (Review, Discuss, and Direct Staff as necessary)

H) OPERATIONS

16. Staff Reports
17. General Counsel Reports

18. Committee Reports:

- i. Audit Committee No Report
- ii. Personnel Committee No Report
- iii. PAS Replacement Committee Report

19. Upcoming Board Topics (subject to change)

- i. June 24, 2019
 - a. Disability case(s) – TBD
 - b. 2018 Financial Audit Report
 - c. 2018 Comprehensive Annual Financial Report approval
 - d. 2019 Actuarial Valuation and Contribution Rates approval
 - e. Employer Contributions Prefunding – final approval
- ii. July 22, 2019
 - a. Disability case(s) – TBD
 - b. Member Survey TBD
 - c. Investment Policy Statement amendments (if needed)
- iii. August 26, 2019
 - a. Mid-year Financial Statements and Budget Update
 - b. Quarterly Investment Report
 - c. Private Equity / Private Credit program review and 2019 commitment
- iv. September 23, 2019 (Strategic Planning session)
 - a. Actuarial Risk and Sustainability
 - b. Business Continuity Plan

20. Trustee Comments

I) CLOSED SESSION

None

J) ADJOURNMENT

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BOARD OF TRUSTEES**

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MINUTES

April 22, 2019
Regular Meeting of the Pension Trust
Board of Trustees

Board Members Present:	Guy Savage Jim Hamilton Jeff Hamm Matt Janssen Michelle Shoresman Gere Sibbach	Vice President
Board Members Absent:	Will Clemens	President
Pension Trust Staff:	Carl Nelson Amy Burke	Executive Secretary Deputy Executive Secretary
General Counsel:	Chris Waddell, Esq.	
Consultants:	none	
Others:	Larry Batchelder Dan Andoetoe Jennifer Alderete	SLOCREA Retiree Pension Trust staff

Call to Order: 9:31 AM by Vice President Savage, presiding over the meeting.

A) PUBLIC COMMENT

1. None

B) CONSENT

Motion: To approve the consent agenda items -

2. Minutes of the Regular Meeting of March 25, 2019 (Approve Without Correction).
3. Report of Deposits and Contributions for the month of March 2019 (Receive and File).
4. Report of Service Retirements, Disability Retirements and DROP Participants for the month of March 2019 (Receive, Approve and File).
5. Applications & Elections to participate in the Deferred Retirement Option Program (DROP) received through April 5, 2019 (Receive, Approve and File).
6. Indemnification Approval (Recommend Approval).

Public Comment: None

Motion Made: Mr. Hamm

Motion Seconded: Mr. Janssen

Carried: Unanimous

C) ORGANIZATIONAL

None

D) APPLICATIONS FOR DISABILITY RETIREMENT

None

E) OLD BUSINESS

None

F) NEW BUSINESS

7. **Administrative Budget for Fiscal Year 2019-2020 – Proposed** (Review, Discuss and Direct Staff as necessary)

Discussion: Staff presented the proposed SLOCPT administrative budget for FY19-20. The budget included: a) changes to how capital expenditures are to be budgeted following the implementation of the new Pension Administrations System software; b) changes to operating expenses following the transfer of the SLOCPT office building to direct SLOCPT ownership as an operating asset; c) a modification to the compensation ranges for the SLOCPT Financial Accountant position; and, d) various updates to actuarial costs for the 2020 biennial experience study. Trustees asked various questions and had no changes to suggest.

Public Comment: None

No Action Necessary

8. Board Educational Presentation – Fiduciary Responsibilities Refresher Briefing – Chris Waddell, General Counsel

Discussion: Chris Waddell as General Counsel presented an extensive fiduciary refresher briefing. Trustees asked numerous questions and engaged in dialogue over fiduciary issues.

9:57 AM – Trustee Savage departed – Carl Nelson as Secretary presiding

10:54 AM – Trustee Savage returned

Public Comment: None

No Action Necessary

G) INVESTMENTS

9. Monthly Investment Report for March 2019

Discussion: Monthly investment performance report by Staff.

Motion: Receive and File

Public Comment: None

Motion Made: Mr. Janssen

Motion Seconded: Mr. Sibbach

Carried: Unanimous

10. Asset Allocation

Discussion: Staff reviewed routine administrative asset allocation transfers related to liquidity.

No Action Necessary

H) OPERATIONS

11. Staff Reports

- i) 2018 Financial Audit – staff reported that the field work by Brown and Armstrong Accountancy for the 2018 financial audit was completed April 4th. The auditor exit meeting with management noted no audit findings subject to final review. The formal audit exit conference with the Audit Committee is scheduled for May 29, 2019.
- ii) Member contacts – staff reported a much higher than normal volume of SLOCPT retirees submitting tax-withholding changes forms (W-4s) in 1Q19 due to apparent surprises when preparing their 2018 Federal taxes.

12. General Counsel Reports

- i) Mr. Waddell reported on a cybersecurity issue with another of his client – Imperial County – that involved an extensive ransomware compromise of County systems including the Retirement System.

13. Committee Reports:

- i) Audit Committee – No Report
- ii) Personnel Committee - No Report
- iii) PAS Replacement Committee – Amy Burke reported that the PAS Replacement Committee met on April 15th and that the project was proceeding with approval granted to start the final phase of parallel operation in May and June. Trustee Savage complimented Staff and the PAS project managers for a project that is on schedule and under budget with identified issues being well within acceptable norms.

14. Upcoming Board Topics – published on meeting agenda

15. Trustee Comments –

None

I) CLOSED SESSION

None

J) ADJOURNMENT –

There being no further business, the meeting was adjourned at 11:41 AM. The next Regular Meeting was set for May 20, 2019, at 9:30 AM, in the Board of Supervisors chambers, County Government Center, San Luis Obispo, California 93408.

Respectfully submitted,

Carl Nelson
Executive Secretary

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**REPORT OF DEPOSITS AND CONTRIBUTIONS FOR THE MONTH OF
APRIL 2019**

PP 8 4/12/2019	Pensionable Salary	Employer Contributions	Employer Rate	Employee Contributions	Employer for		Employee Rate	Combined Rate	Additional Contributions	Buy Backs	TOTAL Contributions
					Employee Contributions	Employee Rate					
By Employer and Tier:											
County Tier 1	3,506,014.42	820,153.13	23.39%	403,222.98	297,813.38	20.00%	43.39%	1,162.50	11,225.02		1,533,577.01
County Tier 2	950,295.98	227,224.07	23.91%	44,943.34	80,060.75	13.15%	37.07%	52.16	709.70		352,990.02
County Tier 3	2,673,516.83	600,291.53	22.45%	314,213.70	-	11.73%	34.19%	-	1,049.35		915,554.58
Superior Court Tier 1	269,591.30	70,602.56	26.19%	46,745.82	-	17.34%	43.53%	-	-		117,348.38
Superior Court Tier 3	70,230.67	17,526.48	24.96%	8,647.58	-	12.31%	37.27%	-	-		26,174.06
APCD Tier 1	54,586.95	12,692.42	23.25%	7,303.44	3,864.15	20.46%	43.71%	-	-		23,860.01
APCD Tier 3	11,388.80	2,582.39	22.67%	1,582.93	-	13.90%	36.57%	-	-		4,165.32
Pension Trust Staff Tier 1	7,204.40	1,655.57	22.98%	877.50	669.29	21.47%	44.45%	-	-		3,202.36
Pension Trust Staff Tier 2	8,374.40	1,924.43	22.98%	221.92	777.98	11.94%	34.92%	-	-		2,924.33
Pension Trust Staff Tier 3	10,865.72	2,443.71	22.49%	1,353.80	-	12.46%	34.95%	-	-		3,797.51
LAFCO Tier 1	13,227.91	3,882.79	29.35%	716.94	1,228.88	14.71%	44.06%	-	-		5,828.61
	7,575,297.38	1,760,979.08	23.25%	829,829.95	384,414.43	16.03%	39.28%	1,214.66	12,984.07		\$ 2,989,422.19
PP 9 4/26/2019											
By Employer and Tier:											
County Tier 1	3,619,722.95	856,730.65	23.66%	415,104.83	305,723.26	19.91%	43.57%	2,098.00	1,542.66		1,581,199.40
County Tier 2	994,127.42	239,799.19	24.12%	49,181.26	82,966.74	13.29%	37.41%	53.49	709.70		372,710.38
County Tier 3	2,845,642.41	649,774.52	22.83%	336,120.98	-	11.79%	34.63%	-	993.28		986,888.78
Superior Court Tier 1	267,883.94	70,191.19	26.20%	46,307.82	-	17.29%	43.49%	-	-		116,499.01
Superior Court Tier 3	72,589.91	18,080.86	24.91%	8,921.96	-	12.29%	37.20%	-	-		27,002.82
APCD Tier 1	94,447.55	23,479.48	24.86%	14,470.86	6,631.20	22.34%	47.20%	-	-		44,581.54
APCD Tier 3	15,124.41	3,414.31	22.57%	1,962.70	-	12.98%	35.55%	-	-		5,377.01
Pension Trust Staff Tier 1	7,204.40	1,655.57	22.98%	877.50	669.29	21.47%	44.45%	-	-		3,202.36
Pension Trust Staff Tier 2	8,374.40	1,924.43	22.98%	221.92	777.98	11.94%	34.92%	-	-		2,924.33
Pension Trust Staff Tier 3	10,769.04	2,421.96	22.49%	1,341.78	-	12.46%	34.95%	-	-		3,763.74
LAFCO Tier 1	13,227.91	3,882.79	29.35%	716.94	1,228.88	14.71%	44.06%	-	-		5,828.61
	7,949,114.34	1,871,354.95	23.54%	875,228.55	397,997.35	16.02%	39.56%	2,151.49	3,245.64		\$ 3,149,977.98
TOTAL FOR THE MONTH	15,524,411.72	3,632,334.03	23.40%	1,705,058.50	782,411.78	16.02%	39.42%	3,366.15	16,229.71		\$ 6,139,400.17
TOTAL YEAR TO DATE	68,773,322.84	16,010,186.32	23.28%	7,526,834.56	3,526,403.04	16.07%	39.35%	12,035.25	138,679.08		27,214,138.25

REPORT OF RETIREMENTS**April 2019**

RETIREE NAME	DEPARTMENT	BENEFIT TYPE *	EFFECTIVE DATE	MONTHLY BENEFIT	SS TEMP ANNUITY**
Del Rio, Karen	Child Support Services	Service Retirement	04/20/19	3,374.83	False
Del Rio, Karen	Child Support Services	Additional Annuity	04/20/19	9.96	False
Dumouchelle, Janis	Superior Court	Service Retirement	04/06/19	4,727.06	False
Dumouchelle, Janis	Superior Court	Additional Annuity	04/06/19	73.78	False
Farrer, Vicki	Drug & Alcohol / Reserve	Service Retirement	04/01/19	1,276.82	False
Farrer, Vicki	Drug & Alcohol / Reserve	Additional Annuity	04/01/19	2.62	False
Golla, Judith	Sheriff-Coroner	DROP	04/01/19	5,375.93	False
Johnson, Colleen	Public Health	Service Retirement	04/06/19	1,227.18	False
Kowal, Sue	Planning	Service Retirement	04/27/19	3,360.73	False
Meinhold, Timothy	Sheriff-Coroner	Service Retirement	04/13/19	4,512.86	False
Reynolds, George	ITD / Reciprocal	Service Retirement	03/18/19	1,824.97	False
Rose, David	Planning	Service Retirement	04/11/19	3,036.63	False
Wallravin, Ronald	Public Works ISF	DROP	04/01/19	5,838.15	False
Wallravin, Ronald	Public Works ISF	Additional Annuity	04/01/19	208.08	False

* Additional Annuity Benefits are calculated based on the Additional Contribution and associated Interest balance of the Retiree at the point of retirement (per Sections 5.07, 27.12, 28.12, 29.12, 30.12, and 31.12 of the Plan)

** If "True" Retiree has elected an optional Social Security Coordinated Temporary Annuity (per Section 13.06 of the Plan), actual monthly allowance will be increased until age 62 and then actuarially reduced going forward

Board of Trustees

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San Luis Obispo County
Pension Trust
SLOOPT

Date: May 20, 2019
To: Board of Trustees
From: Carl Nelson – Executive Secretary

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

Recommendation:

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:

June 1, 2019	Kristen Peabody – ITD
June 1, 2019	Mary Dutra – Sheriff-Coroner
June 1, 2019	Stewart Bishop – Sheriff-Coroner

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Date: May 20, 2019

To: Board of Trustees

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

Agenda Item 6: Job Description Amendment

Recommendation:

To approve an amended job description and related compensation benchmarks for the SLOCPT Financial Accountant position. The specific recommendation items are –

1. Job Description – Financial Accountant I-IV
2. Compensation Benchmarks to SLO County system –
 - a. Financial Accountant levels I-III: Benchmark = Financial Accountant I-III
 - b. Financial Accountant IV: Benchmark = Auditor-/Analyst III

The Personnel Committee of the Board of Trustees at its April 22, 2019 meeting recommended approval of these change to the full Board.

Discussion:

At the February 26, 2018 Board of Trustees meeting revisions to the SLOCPT staffing plan were approved. A pending component of the SLOCPT staffing plan discussed at the February 26, 2018 Board of Trustees was a revision to the job description and compensation benchmarks for the Financial Accountant position.

As a small organization, the Financial Accountant role at SLOCPT covers a wide range of accounting, financial reporting, business administration and internal control. With the advent of the PensionGold Version 3 Pension Administration System (PAS) in 2019, the technology has an enhanced operational auditing capability on retirement transactions. In addition, with the

transition of the SLOCPT offices to direct SLOCPT ownership the most cost-effective management of the property is to perform it in-house (vs. using an outside property management firm with their associated fees).

The proposed revision to the Financial Accountant job anticipated with the February 2018 staffing plan changes has changed in that we are recommending an expansion of the Financial Accountant I-III range to incorporate a Financial Accountant IV level. We recommend the appropriate County position to benchmark the Financial Accountant IV level to be the Auditor/Analyst III level. The level of complexity between the two positions is comparable in our assessment. In addition, this benchmark preserves internal SLOCPT pay-equity between comparably complex positions. The Financial Accountant IV level, benchmarked to the Auditor/Analyst III position, shares the same pay range as the Retirement Program Specialist III level.

The attached revised job description for the SLOCPT Financial Accountant I-IV in redline format shows the changes proposed. The key additions to the position include –

- Operational audit – the additional duty of internal auditing for quantitative calculations and process compliance. At present, retirements are spot-checked by the Deputy Executive Secretary within the limits of the current PAS (RAD). The implementation of the PensionGold Version 3 PAS allows a more robust internal audit process.
- Business Administration – At advanced levels the Financial Accountant position takes on increased administrative functions including managing the insurance and property management functions.
- Investment due-diligence – the primary investment due-diligence effort is through the Executive Secretary/Chief Investment Officer position and the Investment Consultant. Having added staff involvement in the investment monitoring and due diligence process is a prudent practice and succession planning step. The Deputy Executive Secretary is planned to take on more of an investment involvement post-implementation of the new PAS. The financial Accountant is a logical position to also include in investment knowledge and due diligence.

The proposed changes to the Financial Accountant position are already incorporated into the proposed Administrative Budget for FY19-20 addressed in Agenda Item 7 later in this meeting.

Respectfully Submitted,

Pension Trust

County of San Luis Obispo

Job Description

Position: **Accountant I, II, III or IIIIV**

Adopted: ~~April 25~~ May 20, 20169
Updated:

Approved: Carl Nelson, Executive Secretary
Amy Burke, Deputy Executive Secretary

DEFINITION:

Under direction, performs professional accounting, administrative and budgetary work involved in establishing, analyzing, auditing, reconciling and maintaining financial records in support of the Pension Trust; prepares and audits a variety of financial, statistical and budgetary reports, statements and records, audits pension calculations done by other staff; and does other related work as required.

DISTINGUISHING CHARACTERISTICS:

The **Accountant I** classification is the entry-level position in the series. Incumbents work under supervision, perform professional-level accounting duties and provide fiscal administrative support for the Pension Trust.

The **Accountant II** classification is the journey-level position in the series. Incumbents perform complex accounting duties under general supervision and provide fiscal support to the Pension Trust. Designated positions in this classification may supervise specific personnel as assigned.

The **Accountant III** classification is the advanced-level position in the series. Incumbents work independently, provide complex and specialized financial accounting duties – excluding audit, may supervise specific personnel, act as team leader and train or supervise junior staff members as assigned.

The **Accountant IV** classification is the advanced-level position in the series with the addition of auditing responsibilities over other staff's work, investment due diligence, and administrative management functions. Incumbents work independently to perform all of the functions of the Accountant III level in addition to performing operational audit work, and carrying primary responsibility for business administrative functions to support the core-staff of the Pension Trust.

REPRESENTATIVE DUTIES:

(Not in order of importance)

- Performs professional accounting, administrative and budgetary work involved in establishing, analyzing, auditing, reconciling, monitoring and maintaining financial records and reports in support of the Pension Trust; assures financial activity of all

accounts; maintains current knowledge of and complies with applicable laws, codes, rules, regulations, established policies and procedures and generally accepted accounting principles; assures accuracy of input and output data.

- Under direction, prepares, analyzes and monitors the Pension Trust's budget; monitors, evaluates and reconciles accounts;
- Monitors cash flow and performs cash management administration; keeps administrators informed of status of funds.
- Calculates, posts, audits and adjusts journal entries; updates accounts to reflect revenue, expenditures and investment transactions; audits accounts for errors and makes appropriate adjustments; reconciles various financial statements to assure accurate accounting; assures financial statements and cash amounts match Pension Trust records ; initiates account transfers and other transactions as needed; may utilize both manual and computerized recordkeeping systems.
- Provides consultation to Pension Trust management and personnel concerning assigned accounting and budgetary activities and related functions; responds to inquiries, resolves issues and conflicts and provides detailed and technical information concerning related standards, practices, pending legislation, laws, codes, regulations, policies and procedures; attends and participates in various meetings as assigned.
- Takes lead responsibility for business administrative functions including insurance, real estate rent collection and monitoring, real estate facilities capital expenditures and operational management.
- Supports the Chief Investment Officer with investment review and due-diligence efforts consistent with the accounting and auditing role.
- Monitors and assesses accounting and budgetary systems, techniques and procedures for financial effectiveness and operational efficiency; provides recommendations concerning the development and implementation of policies, procedures, techniques and systems to enhance accuracy, operational efficiency, financial effectiveness and Pension Trust compliance with established requirements.
- Audits operational functions and calculations of the core Pension Trust functions including audit of all pension benefit final calculations performed by other professional staff.
- Supervises, trains and evaluates the performance of designated personnel as assigned; recommends hires, transfers, reassignment, termination and disciplinary actions; assigns employee duties and reviews work for accuracy, completeness and compliance with established requirements; may be assigned responsibility for general business activities of the Pension Trust.
- Communicates with Pension Trust and Plan Sponsor personnel, legal counsel, governmental agencies and outside organizations to exchange information, coordinates activities and resolves issues or concerns; assures mandated reports are prepared and submitted within established timelines.

EMPLOYMENT STANDARDS:

Knowledge of:

- Methods, procedures and terminology used in professional accounting work
- Principles and practices of governmental accounting
- Generally Accepted Accounting Principles
- Governmental Fiduciary Fund accounting standards
- Analysis of complex financial statements and reports
- Financial and statistical record-keeping techniques
- Preparation of financial statements and comprehensive accounting reports
- Budgeting practices regarding preparation monitoring and control
- Financial analysis and projection techniques
- Investment, tax and legal concepts relevant to a large institutional investment portfolio
- Research and statistical evaluation techniques
- Applicable laws, codes, regulations, policies and procedures
- Operation of a computer and assigned software
- Effective oral and written communication and interpersonal skills

Ability to:

- Accurately perform professional accounting, administrative and budgetary work involved in preparing, analyzing, auditing, reconciling and maintaining financial records and reports
- Prepare, analyze and monitor budgets
- Provide consultation concerning assigned accounting, administrative and budgetary activities and related functions
- Reconcile various financial statements to assure accurate fund accounting as assigned
- Supervise, train and evaluate the performance of designated personnel as assigned by the position
- Communicate effectively both orally and in writing
- Interpret, apply and explain rules, regulations, policies and procedures
- Establish and maintain cooperative and effective working relationships with others
- Competently handle complex business mathematics
- Analyze financial data and prepare reports, forecasts and recommendations
- Meet schedules and timelines
- Operate standard office equipment including a computer and assigned software

EDUCATION AND EXPERIENCE:

Accountant I: Graduation from an accredited four-year college or university with a bachelor's degree in accounting or a related field, including 12 semester units or 18 quarter units of accounting. (Job-related experience may substitute for the required education, except for the required accounting units, on a year-for-year basis.)

Accountant II: The same as above plus one year of accounting experience at a level equivalent to Accountant I.

Accountant III: The same as above plus two years of accounting experience at a level equivalent to Accountant II.

Accountant IV: The same as above plus two years of accounting experience at a level equivalent to Accountant III plus knowledge of operational auditing of a retirement system, plus investment, tax and legal experience with large institutional investments.

WORKING CONDITIONS:

Environment:

Office environment

Physical Demands:

Hearing and speaking to exchange information

Dexterity of hands and fingers to operate a computer keyboard

Seeing to read a variety of materials

Sitting for extended periods of time

This class specification generally describes the duties and responsibilities characteristic of the position(s) within this class. The duties of a particular position within a multi-position class may vary from the duties of other positions within the class. Accordingly, the essential duties of a particular position (whether it be a multi-position class or a single-position class) may be identified and used by medical examiners and hiring authorities in the selection process. This information will also be made available for review at the time of any recruitment for that position and at such other times as reasonably required.

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Date: May 20, 2019

To: Board of Trustees

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

Agenda Item 7: Administrative and Capital Expenditures Budget for Fiscal Year 2019-2020

Recommendation:

It is recommended that the Board of Trustees (“BoT”) approve the Proposed Administrative Budget and Capital Expenditures Budget for the Fiscal Year 2019-2020 (“FY19/20”) (Attachments A & D).

Discussion:

Minor revisions have been incorporated in the proposed budgets based on updated projections.

The expense categories presented in the attached **Proposed Administrative Budget** for the FY19/20 have been updated based upon varied assumptions, prior year experiences and staff’s best estimates of future events. **Overall staff believes a 3.6% increase in the total budgeted amount when compared to the Fiscal Year 2018-2019 Administrative Budget is appropriate. This represents a \$97,500 increase compared to prior year from \$2.7 million to \$2.8 million.**

Staff’s basis for components of this change are further detailed in the sections bellow. This proposed amount represents 0.22% of the total unaudited Net Position of SLOOPT as of December 31, 2018.

- **Investment Expense (discretionary)** – Expense includes Investment Consultant (Verus – a flat rate contract) and Custodian Bank (JP Morgan – contract and market value dependent) fees (does not include Investment Management fees). This prediction

uses assumptions based on the unaudited market value of investment assets as of 12/31/2018 where appropriate and adds a 6.70% investment return that was taken from Verus' Capital Market Expectations report presented earlier this year.

- **Personnel Services** – (see Attachment B) Includes all expenses related to SLOCPT's staff. Assumes the following: 1) 2% increase in salaries for FY19-20 to accommodate previously Board approved increases, 2) payroll tax rates will stay consistent with 2019 rates currently in place, 3) cafeteria benefit of \$11,700 (employee only) and \$12,500 (employee +1) annually per eligible employee (benchmarked to County positions in Bargain Units 7 & 11), 4) employer pension rate increase of 1.13% effective with the pay period that includes 7/1/19, and 5) applicable salary increases and promotions for staff members determined to be eligible based on annual review cycles. The \$109k decrease is related to SLOCPT's senior Retirement Program Specialist's retirement and estimated reduced need for temporary office assistance.

In addition to these changes, Staff proposes the creation of a Financial Accountant IV to be benchmarked to the County's Auditor-Analyst II position. The proposed job description and reasoning behind this addition will be presented to the Board of Trustees for approval prior to this item. The Personal Committee agrees with Staff's recommendation and proposed job description.

Note: Salary ranges presented in Attachment B do not include the 7/1/2019 2.0% prevailing wage increase previously approved by the Board on November 26, 2018 for clarity of presentation purposes. However, the 2.0% increase is included in the overall Administrative budget presented in Attachment A.

- **Professional Services** –
 - Accounting & Auditing: Based on quoted price from 2018 engagement letter with Brown Armstrong (SLOCPT's annual financial statement audit firm). The 2018 Audit is the first of the current 5-year engagement letter with Brown Armstrong.
 - Actuarial: Based on 2019 engagement letter with Gabriel, Roeder, Smith (SLOCPT's Actuary). Also includes estimate of expected costs relating to additional Actuarial services performed throughout the year. The increase in expense is attributable to the addition of associated biennial Experience Study costs.
 - Legal: Based on General Counsel Retainer and legal consultation relating to investment contracts, taxes and disability hearings. Future unforeseen legal expense will be handled with either a Board approved budget amendment or the use of contingency funds.
 - Medical Evaluations – Disabilities: Assumes costs associated with medical review services to be performed by MMRO and other Independent Medical Examiners (IMEs) as necessary.

- Human Resources Consulting: Based on estimated costs associated with services provided by the County's Human Resources Department.
 - Information Technology Services: Includes expenses relating to Pension Gold software system maintenance (per contract) and County IT's services. The increase in expense is directly tied to Pension Gold's maintenance costs and its anticipated Go-Live date of 7/1/2019. These increased costs were previously approved as part of the overall Pension Administration Software Replacement costs in May of 2016.
 - Banking & Payroll: Includes estimated banking fees for SLOCPT's two banking relationships (Union Bank and Pacific Premier) and fees associated with payroll services provided by Paychex.
 - Other Professional Services: Based on estimated expense for professional services not related to categories listed above.
- **Other Expenses –**
 - Trustee Election Expenses: County Clerk Recorder fees relating to annual Trustee elections. Actual cost will be lower if there is an uncontested candidacy.
 - Property Taxes: New expense this year. Costs associated with property taxes for SLOCPT's office building. These costs are based on last year's costs and are due to the anticipated dissolving of FPI and the transition of SLOCPT's office from an investment asset to an operational asset. Staff is investigating a possible reduction in this expense if the property can be reclassified as exempt with County Assessor assistance following transfer of title from the FPI subsidiary to SLOCPT directly.
 - Insurance: Includes Fiduciary, General, Property and Cyber liability coverages. Estimate is based on current year expense plus 5%.
 - Building & Maintenance: Estimate based on current year expenses. Increase is due to the costs that will now be paid by SLOCPT for its building maintenance that had been previously paid through FPI.
 - Office Expense: Expense includes general office supplies, printing and mailing services provided by ASAP Reprographics, and document destruction services provided by Docuteam.
 - Memberships & Publications: Includes industry specific memberships and publications.
 - Postage: Estimate based on current year expenses.
 - Communications: Includes cost associated with telephone services provided by County IT. Estimate is based on County supplied budget document.

- Training & Travel: (see Attachment C) Based on current year actual costs.
 - Information Technology: Expense includes all purchases relating to tangible IT equipment. Assumes staggered four-year replacement cycle for office computers.
 - Equipment: Includes expenses associated with copier lease and office furniture purchases. Increase due to new furniture for one office.
- **Contingencies** – 5% of total budget to be used for unexpected expenses.
 - **Capital Expenditures** – (see Attachment D) New this year. With the transition to Pension Gold and the reclassification of SLOCPT’s office building from an investment asset to an operational asset anticipated in FY 19/20, Staff has added a proposed Capital Expenditures Budget to plan for and obtain approval for costs that would be capitalized. These costs will be directly related to elective software upgrades or improvements, building improvements and large equipment purchases. Since these costs are typically depreciated over their useful lives on SLOCPT’s income statement, Staff has chosen to present these on a different schedule and account for them using the balance sheet totals rather than the annual depreciation that is expensed. This year Staff is asking for approval to re-paint the interior of the building, re-carpet the second floor (the first floor was re-carpeted in FY17-18), replace the building’s aging security system and an amount for unanticipated upgrades or improvements identified during Pension Gold’s warranty period. A 5% contingency has also been included.

Attachments:

- Attachment A – Proposed Administrative Budget for Fiscal Year 2019-2020
- Attachment B – Proposed Staffing
- Attachment C – Proposed Training & Travel
- Attachment D – Proposed Capital Expenditures

**San Luis Obispo County Pension Trust
PROPOSED ADMINISTRATIVE BUDGET:
Fiscal Year 2019-2020**

	FY17-18 Actual Expenses	FY18-19 Estimated Expenses	FY18-19 Adopted Budget	FY19-20 Proposed Budget	Increase/ Decrease From PY
INVESTMENT EXPENSE:					
Invest. Exp. (Custody, Consultant)	\$ 524,497	\$ 482,000	\$ 481,000	\$ 505,000	\$ 24,000
ADMINISTRATIVE EXPENSE:					
Personnel Services	\$ 1,107,932	\$ 1,223,000	\$ 1,220,400	\$ 1,111,000	\$ (109,400)
Professional Service					
Accounting & Auditing	61,821	65,000	65,000	60,000	(5,000)
Actuarial	205,657	98,000	100,000	136,000	36,000
Legal	211,917	206,000	220,500	220,500	-
Medical Evaluations - Disabilities	23,275	23,000	21,500	21,500	-
Human Resources Consulting	5,000	5,000	5,000	5,000	-
Information Technology Services	156,178	165,000	166,000	271,500	105,500
Banking and Payroll	19,448	20,000	22,500	21,000	(1,500)
Other Professional Services	1,516	2,000	2,500	2,500	-
Total Professional Services	\$ 684,812	\$ 584,000	\$ 603,000	\$ 738,000	\$ 135,000
Other Expenses					
Trustee Election Expenses	-	6,000	6,000	6,000	-
Property Taxes	-	-	-	22,000	22,000
Insurance	116,954	117,000	126,000	126,000	-
Building Maintenance	25,483	27,000	31,500	58,000	26,500
Office Expense	18,324	27,000	28,500	28,500	-
Memberships & Publications	5,028	5,000	5,100	5,000	(100)
Postage	22,570	31,000	27,000	32,000	5,000
Communications	4,434	2,000	5,000	3,000	(2,000)
Training & Travel	21,287	40,000	53,500	43,000	(10,500)
Information Technology	3,881	5,000	4,500	4,500	-
Equipment	12,155	4,000	8,000	10,000	2,000
Total Other Expenses	\$ 230,116	\$ 264,000	\$ 295,100	\$ 338,000	\$ 42,900
Contingencies	\$ -	\$ -	\$ 130,000	\$ 135,000	\$ 5,000
TOTAL ADMINISTRATIVE	\$ 2,022,860	\$ 2,071,000	\$ 2,248,500	\$ 2,322,000	\$ 73,500
ADMIN. + INVESTMENT	\$ 2,547,357	\$ 2,553,000	\$ 2,729,500	\$ 2,827,000	\$ 97,500

Increase from Prior Year Budget

3.6%

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San Luis Obispo County Pension Trust PROPOSED STAFFING:	FY17-18	FY18-19	FY18-19	FY19-20	Increase /	Projected	Projected	Projected	Projected
	Actual	Amended Budget	Actual	Proposed Budget	(Decrease) From PY	FY20-21	FY21-22	FY22-23	FY23-24
Positions (FTEs):									
Executive Secretary	1.00	1.00	1.00	1.00	-	1.00	1.00	1.00	1.00
Deputy Executive Secretary	1.00	1.00	1.00	1.00	-	1.00	1.00	1.00	1.00
System Coordinator	-	-	-	-	-	-	-	-	-
Retirement Programs Spec. III	1.00	1.00	-	2.00	1.00	2.00	2.00	2.00	2.00
Retirement Programs Spec. II	2.00	2.00	2.00	-	(2.00)	-	-	-	-
Retirement Programs Spec. I	-	-	-	-	-	-	-	-	-
Retirement Analyst Aide	-	-	-	-	-	1.00	1.00	1.00	1.00
Retirement Technician	1.75	1.75	1.75	1.75	-	2.00	2.00	2.00	2.00
Financial Accountant IV	-	-	-	0.80	0.80	0.80	0.80	0.80	0.80
Financial Accountant III	0.80	0.80	0.80	-	(0.80)	-	-	-	-
Financial Accountant II	-	-	-	-	-	-	-	-	-
Financial Accountant I	-	-	-	-	-	-	-	-	-
Administrative Asst. III	1.00	1.00	1.00	1.00	-	1.00	1.00	1.00	1.00
Administrative Asst. II	-	-	-	-	-	-	-	-	-
Part-Time Temporary Office Asst.	-	1.00	-	0.75	(0.25)	0.75	0.75	0.75	0.75
TOTAL POSITIONS	8.55	9.55	7.55	8.30	(1.25)	9.55	9.55	9.55	9.55

PROPOSED SALARY & BENEFIT BENCHMARKS:

****Note: SLOCPT compensation benchmarks would be updated in concurrence with any County enacted wage adjustments (i.e. prevailing wage etc.).**

FY 19-20	Step 1	Step 2	Step 3	Step 4	Step 5	Benefits: (health, pension, other)
Executive Secretary <i>Subject to change per Contract Approval</i>	67.81	71.17	74.74	78.49	82.40	Benchmarked to County BU 7 + \$450/month auto allowance (not pensionable)
Deputy Executive Secretary <i>80% of Executive Secretary</i>	54.25	56.94	59.79	62.79	65.92	Benchmarked to County BU 7
Retirement Programs Spec. III <i>#9663 Risk Mgmt. Analyst III</i>	41.12	43.18	45.34	47.61	49.99	Benchmarked to County BU 7

PROPOSED SALARY & BENEFIT BENCHMARKS: (continued)

FY 19-20	Step 1	Step 2	Step 3	Step 4	Step 5	Benefits: (health, pension, other)
Retirement Programs Spec. II <i>#9658 Risk Mgmt. Analyst II</i>	35.15	36.91	38.76	40.70	42.74	Benchmarked to County BU 7
Retirement Programs Spec. I <i>#9657 Risk Mgmt. Analyst I</i>	30.32	31.84	33.43	35.10	36.86	Benchmarked to County BU 7
Financial Accountant IV <i>#2055 Auditor-Analyst III</i>	41.12	43.18	45.34	47.67	49.99	Benchmarked to County BU 7
Financial Accountant III <i>#907 Accountant III</i>	34.57	36.30	38.12	40.03	42.03	Benchmarked to County BU 7
Financial Accountant II <i>#906 Accountant II</i>	29.85	31.34	32.91	34.56	36.29	Benchmarked to County BU 7
Financial Accountant I <i>#905 Accountant I</i>	25.48	26.75	28.09	29.49	30.96	Benchmarked to County BU 7
Retirement Technician <i>#913 Accounting Technician - Conf.</i>	21.92	23.02	24.17	25.38	26.65	Benchmarked to County BU 11
Administrative Asst. III <i>#2203 Administrative Asst. III - Conf.</i>	18.94	19.89	20.88	21.92	23.02	Benchmarked to County BU 11
Administrative Asst. II <i>#2222 Administrative Asst. II - Conf.</i>	17.22	18.08	18.98	19.93	20.93	Benchmarked to County BU 11
Administrative Asst. I <i>#2221 Administrative Asst. I - Conf.</i>	15.62	16.40	17.22	18.08	18.98	Benchmarked to County BU 11
Part-Time Temporary Office Assistant <i>#911 Account Clerk</i>	17.21	18.07	18.97	19.92	20.92	N/A

**San Luis Obispo County Pension Trust
PROPOSED TRAINING & TRAVEL:**

	FY17-18 Actual	Current FY18-19 YTD	FY18-19 Amended Budget	FY19-20 Proposed Budget	Increase / (Decrease) From PY Budget
<i>CALAPRS General Assembly</i>					
Attendees - Board	2	5	3	3	-
Attendees - Staff	2	2	2	2	-
Total Expense	5,502	6,361	6,000	6,500	500
<i>CALAPRS Advanced Trustee Institute (UCLA)</i>					
Attendees - Board	2	-	-	1	1
Attendees - Staff	-	-	-	-	-
Total Expense	6,824	-	-	3,450	3,450
<i>CALAPRS Trustees Training-Pepperdine</i>					
Attendees - Board	-	-	1	1	-
Attendees - Staff	-	-	-	-	-
Total Expense	-	-	2,800	3,300	500
<i>Wharton West / IFEBP or similar seminar</i>					
Attendees - Board	-	-	1	-	(1)
Attendees - Staff	-	-	1	-	(1)
Total Expense	-	-	9,150	-	(9,150)
<i>SACRS Trustees Training- Berkeley (new)</i>					
Attendees - Board	1	-	1	1	-
Attendees - Staff	-	-	1	-	(1)
Total Expense	1,096	-	8,300	3,750	(4,550)
<i>SACRS Semi-Annual Conferences</i>					
Attendees - Board	-	1	1	1	-
Attendees - Staff	-	1	-	-	-
Total Expense	-	488	1,650	1,370	(280)
<i>Nossaman Fiduciaries Forum</i>					
Attendees - Board	1	-	1	-	(1)
Attendees - Staff	-	-	-	-	-
Total Expense	887	-	1,125	-	(1,125)
<i>CALAPRS Administrators Institute</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	1	1	1	1	-
Total Expense	1,406	1,422	1,950	1,600	(350)

**San Luis Obispo County Pension Trust
PROPOSED TRAINING & TRAVEL:**

	FY17-18 Actual	Current FY18-19 YTD	FY18-19 Amended Budget	FY19-20 Proposed Budget	Increase / (Decrease) From PY Budget
<i>CALAPRS Trustees Roundtables (2/yr)</i>					
Attendees - Board	-	-	2	2	-
Attendees - Staff	-	-	-	-	-
Total Expense	-	-	1,200	1,200	-
<i>CALAPRS Administrators Roundtables (2/yr)</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	-	1	2	2	-
Total Expense	-	425	1,200	1,200	-
<i>CALAPRS Investment Officers Roundtables (2/yr)</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	-	-	1	2	1
Total Expense	-	-	625	1,250	625
<i>CALAPRS Attorneys Roundtables (3/yr)</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	2	3	2	3	1
Total Expense	250	375	250	375	125
<i>CALAPRS Operations Roundtables (4/yr)</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	5	3	8	4	(4)
Total Expense	1,216	1,261	5,000	2,500	(2,500)
<i>CALAPRS Disability training</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	-	-	1	1	-
Total Expense	-	-	625	625	-
<i>CALAPRS Overview Course (3 class series)</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	2	1	2	3	1
Total Expense	2,222	1,024	2,500	3,750	1,250
<i>CALAPRS - Board, Faculty, and related travel</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	3	3	4	4	-
Total Expense	1,105	691	1,900	1,900	-

**San Luis Obispo County Pension Trust
PROPOSED TRAINING & TRAVEL:**

	FY17-18 Actual	Current FY18-19 YTD	FY18-19 Amended Budget	FY19-20 Proposed Budget	Increase / (Decrease) From PY Budget
<i>Investment Seminars</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	-	-	2	2	-
Total Expense	-	-	3,200	3,200	-
<i>Investment Due Diligence On-site visits (combined w/other travel if possible)</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	-	-	-	1	1
Total Expense	-	-	-	2,450	2,450
<i>Software Training</i>					
Attendees - Board	-	-	-	-	-
Attendees - Staff	-	2	2	2	-
Total Expense	-	2,431	4,400	3,000	(1,400)
<i>Misc. Board and Staff Training</i>					
Total Expense	779	225	1,625	1,580	(45)
Total Training and Travel	21,287	14,702	53,500	43,000	(10,500)

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San Luis Obispo County Pension Trust
PROPOSED CAPITAL EXPENDITURES BUDGET:
Fiscal Year 2019-2020

	FY17-18 Actual Expenditures	FY18-19 Estimated Expenditures	FY18-19 Adopted Budget	FY19-20 Proposed Budget	Increase/ Decrease From PY
BUILDING EXPENDITURES:					
Exterior					
Roof	-	-	-	-	-
Windows	-	-	-	-	-
Paint	-	-	-	-	-
Parking Lot	-	-	-	-	-
Landscape	-	-	-	-	-
Total Exterior	\$ -	\$ -	\$ -	\$ -	\$ -
Interior					
HVAC	-	-	-	-	-
Paint	-	-	-	7,500	7,500
Flooring	-	-	-	5,000	5,000
Plumbing	-	-	-	-	-
Elevator	-	-	-	-	-
Security System	-	-	-	10,000	10,000
Total Interior	\$ -	\$ -	\$ -	\$ 22,500	\$ 22,500
SOFTWARE EXPEDITURES:					
Software Purchases ***	\$ 2,991,993	\$ 2,800,000	\$ 3,225,000	\$ -	\$ (3,225,000)
Software Upgrades and Improvements	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000
EQUIPMENT EXPEDITURES:					
Capitalized Equipment Purchases	\$ -	\$ -	\$ -	\$ -	\$ -
CONTINGENCIES	\$ -	\$ -	\$ -	\$ 2,125	\$ 2,125
TOTAL CAPITAL EXPENDITURES	\$ 2,991,993	\$ 2,800,000	\$ 3,225,000	\$ 44,625	\$ (3,180,375)

***Note: costs associated with 3 year Pension Gold software implementation, budget approved May 23, 2016

Board of Trustees

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



Date: May 20, 2019

To: Board of Trustees

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

Agenda Item 8: By-Laws and Plan Technical Amendments – Resolution 2019-03

Recommendation:

To approve Resolution 2019-03 recommending to the Board of Supervisors amendments to the By-Laws of the San Luis Obispo County Pension Trust and technical corrections and amendments to the San Luis Obispo County Employees Retirement Plan.

Authority:

At the March 25, 2019 Board of Trustees meeting revisions to the By-Laws of the San Luis Obispo County Pension Trust (SLOCPT) were discussed and direction given to Staff to prepare appropriate amendments.

The Board of Trustees may, by resolution or other action, recommend to the Board of Supervisors amendments to the By-Laws of the San Luis Obispo County Pension Trust which incorporates the San Luis Obispo County Employees Retirement Plan (the “Plan”).

By-Laws Amendments:

The recommended amendments shown in the attached red-lined draft to the By-Laws are administrative in nature and do not alter the basic benefit provisions of the Plan. The By-Laws amendments are summarized as:

1. **Executive Secretary title change** – In order to conform the practice of the SLOCPT to other similar retirement systems and facilitate future recruitments of a chief administrator for the Pension Trust, it is recommended to change the title of the Executive Secretary to “Executive Director”. This change runs throughout the By-Laws (see Section 4.01) and the Plan with 67 occurrences in the document so modified. While not included in the By-Laws or the Plan, the title of the Deputy Executive Secretary is planned to change to “Deputy Director” as well.
2. **Board of Trustees meetings** – The existing By-Laws (Section 5.01) require monthly meetings of the Board of Trustees without exception. The proposed amendments allow for regular meetings of the Board of Trustees to be held at least six times per year and at least one meeting in each calendar quarter to provide greater efficiency and flexibility to the conduct of Trustee business. Conforming adjustments to this change are included in Sections 3.05, 3.06 on the election of officers.
3. **Reporting** - Requirements in the By-Laws (Section 5.08) for monthly reporting to the Board of Trustees on Retirements, Pension Contributions and Pension Trust investments have been adjusted consistent with the change in Board meetings and available data for reporting. Regular reports to the Board on months where meetings are held will be submitted and published for public access as normal. For months where no Board of Trustees meeting is held, the necessary reports will be transmitted to the Board and published for public access. As a result, there will be no diminishment of transparency of Pension Trust reporting.
4. **Other By-Laws changes** – Minor changes to the Board of Trustees Order of Business (Section 5.04) done to conform to a more logical flow of Board meetings. Section 4.07 was archaically worded and is updated to reflect that the Pension Trust staff provide counseling to Plan under the direction of the Executive Secretary.

Plan Technical Amendments:

The recommended amendments shown in the attached red-lined draft to the Plan are administrative in nature and do not alter the basic benefit provisions of the Plan. The Plan was last amended for technical corrections in 2016. The Plan technical amendments are summarized as:

1. **Section 2.05.01- Temporary Layoff...:** Correction of earlier inadvertent omission of BU02 (SLOCEA Trades and Crafts) to this section defining that a temporary layoff and subsequent rehire of a Member within 24 months would not constitute a break in continuous County employment under the Plan.
2. **Section 19.01 – Cost of Living Adjustment...:** Updates the Plan language to conform to more general definitions of the Los Angeles and San Francisco metropolitan areas reported by the Bureau of Labor Statistics for CPI inflation data. Periodically the BLS has changed the names of the metropolitan areas in their database and this amendment

allows for use of the broadest BLS measure of LA and SF inflation – regardless of technical name changes made by BLS statisticians.

3. **Section 24.04(b)- Alternate Payee in divorce cases:** Corrects wording in marital dissolutions relative to pensions that the community property period ends at the earlier of date of separation or actual marriage dissolution.
4. **Section 24.04(d)- Alternate Payee in divorce cases – final compensation:** Corrects wording in marital dissolutions relative to pensions that the Alternate Payee’s benefit be based on a measure of Final Compensation consistent with that applicable to the Member – i.e., the highest consecutive 12 month period for a Tier 1 Member or highest consecutive 36 month period for a Tier 2 or Tier 3 Member.
5. **Section 26.09(e)- DROP Accounts and DROP Benefits:** Revises the timing of the approval of DROP applications. As originally drafted, the DROP provisions of the Plan required the Board of Trustees to approve new DROP applications at monthly meetings. With the proposed amendment to the By-Laws Section 5.01 allowing for Board of Trustees meetings on an at-least-six-times-a-year basis this would lead to inappropriate delays in the approval of new DROP applications. This amendment provides for DROP applications to be approved by the Pension Trust staff. This is consistent with the normal approval of Service Retirements which is an administrative function based on the rules of the Plan. In other words, a member doing a Service Retirement or a DROP application is treated the same and evaluated only on eligibility under the terms of the Plan.

All of the proposed By-Laws amendments and Technical Plan amendments are administrative in nature and do not alter the basic benefit provisions of the Plan.

Respectfully Submitted,

**SAN LUIS OBISPO COUNTY
PENSION TRUST**

PRESENT:

ABSENT:

RESOLUTION NO. 2019- 03

A Resolution Recommending to the Board of Supervisors Amendments to the By-Laws of the Pension Trust and to the Retirement Plan for Certain Technical Corrections

Whereas, the Board of Trustees and Staff have identified a number of advantageous amendments to the By-Laws and certain technical correction amendments that are necessary to be made to the By-Laws of the San Luis Obispo County Pension Trust (“By-Laws”) and the San Luis Obispo County Employees Retirement Plan (“Plan”); and

Whereas, by this Resolution, the Board of Trustees recommends to the Board of Supervisors that the following amendments be made to the By-Laws and the Plan.

Now Therefore Be It Resolved and Ordered as follows:

1. It is recommended by the Board of Trustees of the San Luis Obispo County Pension Trust that the By-Laws of the San Luis Obispo County Pension Trust and the San Luis Obispo County Employees Retirement Plan be amended as shown on Attachment A to this resolution.

Adopted: May 20, 2019

Approved as to Form and Legal Effect

Christopher W. Waddell
General Counsel

SIGNED: _____
Will Clemens
President, Board of Trustees
San Luis Obispo County Pension Trust

ATTEST: _____
Carl Nelson, Executive Secretary

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**SAN LUIS OBISPO COUNTY
PENSION TRUST**

**BY-LAWS OF THE SAN LUIS OBISPO COUNTY
PENSION TRUST**

And

**SAN LUIS OBISPO COUNTY EMPLOYEES
RETIREMENT PLAN**



~~Includes Revisions Through~~ DRAFT - Reflects Proposed amendments for January 1, 2019 ~~June 2019~~

PART ONE:

BY-LAWS OF THE SAN LUIS OBISPO COUNTY PENSION TRUST

ARTICLE 1: AUTHORITY

Section 1.01: Authority for this Trust. This Trust is established pursuant to Section 17 of Article XVI of the California Constitution and Government Code Sections 53215 et seq.

Section 1.02: Authority for By-Laws. These By-Laws are adopted pursuant to Government Code Section 53219 and San Luis Obispo County Code Chapter 2.56. The San Luis Obispo County Employees Retirement Plan is a part of these By-Laws.

ARTICLE 2: NAME

Section 2.01: Name of Trust. The name of this Trust shall be "The San Luis Obispo County Pension Trust," and is hereinafter sometimes referred to as "Pension Trust."

ARTICLE 3: BOARD OF TRUSTEES

Section 3.01: Board of Trustees. The Pension Trust shall be managed and administered by a Board of Trustees in accordance with the provisions of these By-Laws, the Retirement Plan, the County Code, and the laws of the United States and the State of California.

Section 3.02: Officers. The officers of the Board of Trustees shall be the President, the Vice-President and the Secretary.

Section 3.03: Duties and Powers of President. The President shall preside at all meetings of the Board of Trustees and shall preserve order and decorum, shall decide questions of order, subject to appeal to the Board of Trustees, and perform all acts, duties and functions generally appertaining to such office.

Section 3.04: Duties and Powers of Vice-President. The Vice-President shall act as President of the Board of Trustees in the absence of the President.

Section 3.05: President - Election and Term. The President shall be elected at the first regular meeting each year by the Board of Trustees ~~at the first regular meeting of the Board of Trustees in January~~. The term of office of the President shall be for a period of one calendar year or until his or her successor is duly elected and qualified.

Section 3.06: Vice-President - Election and Term. The Vice-President shall be elected at the first regular meeting each year by the Board of Trustees ~~at the first regular meeting of the Board of Trustees in January~~. The term of office of the Vice-President shall be for a period of one calendar year or until his or her successor is duly elected and qualified.

Section 3.06: Secretary. The Secretary of the Board of Trustees shall be the ~~Executive Secretary~~Executive Director of the Pension Trust.

ARTICLE 4: ~~EXECUTIVE SECRETARY~~EXECUTIVE DIRECTOR

Section 4.01: Executive ~~Director~~Secretary. The Executive ~~Director~~Secretary is the administrator of the Pension Trust under the Board of Trustees and is responsible to the Board of Trustees for the efficient and lawful administration of the affairs of the Pension Trust. (6/xx/19)

(a) The title of Executive Secretary was used prior to July 2019 to denote the chief administrator of the Pension Trust. The titles of Executive Secretary and Executive Director are synonymous wherever used throughout these By-Laws, the San Luis Obispo County Employees Retirement Plan and all other administrative documents of the Pension Trust. (6/xx/19)

Section 4.02: Appointment and Tenure. The ~~Executive Secretary~~Executive Director is appointed by the Board of Trustees and serves at the pleasure of the Board of Trustees.

Section 4.03: Directed by Board of Trustees. The ~~Executive Secretary~~Executive Director shall perform his or her duties under the direction of the Board of Trustees.

Section 4.04: Source of Duties and Authority. The ~~Executive Secretary~~Executive Director shall perform those duties set forth for the ~~Executive Secretary~~Executive Director in these By-Laws, the Retirement Plan, and as are from time-to-time assigned by the Board of Trustees.

Section 4.05: Duties. Among the duties of the ~~Executive Secretary~~Executive Director are:

- (a) Serving as Secretary to the Board of Trustees.
- (b) Maintaining a written record of all official actions taken by the Board of Trustees at all meetings.
- (c) Keeping a complete record of all correspondence and documents of said Board of Trustees and of the Pension Trust.
- (d) Developing and recommending to the Board of Trustees all practices and procedures necessary for the efficient and lawful functioning of the Pension Trust and of the Pension Trust offices.
- (e) Organizing and directing the operation of the office maintained by the Pension Trust and of the employees of the Pension Trust.
- (f) Overseeing the functioning of all of the agents and advisors of the Pension Trust.
- (g) Maintaining the accounts of the Pension Trust in accordance with the law and with generally accepted accounting standards.
- (h) Maintaining the records of all Pension Trust participants, members, retired members and beneficiaries.

Section 4.06: Vacancies in the Office of ~~Executive Secretary~~Executive Director. During such times as there is a vacancy in the office of ~~Executive Secretary~~Executive Director or if the ~~Executive Secretary~~Executive Director, by reason of his or her illness has been determined by the Board of Trustees to be unable to act, the Board of Trustees shall appoint an Interim ~~Executive Secretary~~Executive Director until such time as the ~~Executive Secretary~~Executive Director is either determined by the Board of Trustees to be able to act or a new ~~Executive Secretary~~Executive Director is appointed.

Section 4.07: Counseling. The ~~Executive Secretary~~Executive Director or employees of the Pension Trust appointed by the Executive Director shall counsel with and advise all County officers and County Employees, whether participants in the Pension Trust or not, with respect to their rights and/or obligations to and under the Pension Trust.

ARTICLE 5: MEETINGS OF THE BOARD OF TRUSTEES

Section 5.01: Regular Meetings. Regular meetings of the Board of Trustees shall be held ~~at least monthly~~ at such times and places as the Board of Trustees shall from time-to-time determine. ~~Regular meetings of the Board of Trustees shall be held a minimum of six times per calendar year with at least one regular meeting held during each calendar quarter. The Board of Trustees shall establish its schedule of regular meetings for each calendar year in advance and the Executive Director shall cause such schedule to be published for public availability. Regular meetings of the Board of Trustees may be cancelled or rescheduled by the President of the Board of Trustees with proper notice. (6/xx/19)~~

Section 5.02: Special Meetings. Special meetings of the Board of Trustees may be held as provided for in the Ralph M. Brown Act (Government Code Sections 54950 et seq.).

Section 5.03: Quorum. Four Trustees shall constitute a quorum for any meeting of the Board of Trustees. No motion may be passed or business transacted at a meeting of the Board of Trustees without the affirmative votes of four Trustees.

Section 5.04: Order of Business. The regular order of business of the regular meetings of the Board of Trustees shall normally be as follows:

- (a) Roll call ~~or attendance noted~~.
- (b) Public Comment.
- (c) Approval of Minutes.
- (d) Consent Agenda and Reports.
- (e) Old Business.
- (f) New Business.
- (g) ~~Staff Reports on Operations~~Investments.
- (h) ~~Staff Reports on Operations~~.
- (i) General Counsel reports.
- (j) Trustee Comments.
- (k) Closed Sessions as necessary.
- (l) Adjournment.

Section 5.05: Minutes. The Secretary of the Board of Trustees shall cause to be recorded in the minutes of the meetings of the Board of Trustees, and of any committees of the Board of Trustees, the following:

- (a) The time and place of each meeting;
- (b) The names of persons present at each meeting;
- (c) All motions, orders, resolutions and other acts;
- (d) The vote of each Trustee except where the action is unanimous and in that event that fact shall be recorded;
- (e) When requested, a Trustee's dissent or approval with the Trustee's reasons therefore.

Section 5.06: Rules of Order. Unless otherwise provided by these By-Laws or by the Retirement Plan or by an order or resolution of the Board of Trustees, the proceedings of the Board of Trustees is committed to the sound discretion of the Board President using Robert's Rules of Order as a procedural reference.

Section 5.07: Agenda. The ~~Executive Secretary~~ Executive Director shall prepare in advance an agenda for each regular meeting of the Board of Trustees which agenda shall be posted in a public place at least 72 hours prior to a regular meeting. The agenda shall be mailed or otherwise delivered to each Trustee on or before the second Friday immediately preceding the date of the regular meeting. In order for an item to appear on the agenda of a regular meeting, the item must be received in the office of the Pension Trust on or before 5:00 p.m. of the third Friday immediately preceding the date of the regular meeting.

Section 5.08: Reports. At ~~the first~~ each regular meeting of the Board of Trustees ~~each month~~ the ~~Executive Secretary~~ Executive Director shall cause the following Reports to be made and published for public availability:

- (a) **Retirements.** A report of retirements for the period preceding the meeting. ~~A report of retirements for the month preceding the meeting and of retirements anticipated for the month in which the meeting is occurring and for the next month.~~
- (b) **Appropriations and Contributions.** A report of the appropriations and contributions received by the Pension Trust for the period preceding the meeting for the previous month. ~~A report of the appropriations and contributions received by the Pension Trust and~~ for the year-to-date.
- (c) **Pension Trust Assets.** A report of the status of all assets of the Pension Trust.

During months where a regular meeting of the Board of Trustees is not held, the preceding reports shall be transmitted to the Board of Trustees and published for public availability. (6/xx/19)

ARTICLE 6: COMMUNICATIONS AND REQUESTS

Section 6.01: Communications to the Pension Trust. Communications and requests directed to the Board of Trustees shall be made in writing, and the ~~Executive Secretary~~ Executive Director shall report the substance of each such communication and/or request to the Board of Trustees.

ARTICLE 7: BUDGET

Section 7.01: Preparation of the Annual Budget. The ~~Executive Secretary~~Executive Director shall annually examine the financial requirements of the Pension Trust and shall prepare and present a budget for the coming fiscal year to the Board of Trustees. The Board of Trustees shall review said proposed budget and shall adopt a budget for the coming fiscal year. The ~~Executive Secretary~~Executive Director shall send a copy of the annual budget to the County Administrative Officer.

ARTICLE 8. AMENDMENT OF THE BY-LAWS

Section 8.01: Amendment of the By-Laws. These By-Laws and the Retirement Plan may be amended, subject to the approval of the Board of Supervisors, by the Board of Trustees at any regular or special meeting of the Board of Trustees. No amendment shall become effective until approved by the Board of Supervisors of the County of San Luis Obispo.

DRAFT

Section 2.05.1: Temporary Layoff by the County of San Luis Obispo. Notwithstanding the provisions of Section 2.05: Temporary Layoff, layoffs requested by the County of San Luis Obispo shall not be deemed a break in continuous County Employment, for Bargaining Unit 1, 2, 5, 7, 8, 9, 10, 11, 13 or 17 pursuant to the following provisions:

1. A layoff shall not be deemed a break in continuous County employment if the Member returns to active County Employment within 10 days after the end of the layoff period (as defined below) and if the layoff period does not exceed 24 consecutive months. If the layoff period does exceed 24 consecutive months, the Member's County Employment shall be deemed to have been terminated as of the day before the first day of the layoff.
2. Layoff periods shall be determined by the length of the Re-employment Eligibility List approved by the Human Resources Director pursuant to Civil Service Commission Rule 9.04; however, in no event shall the layoff period exceed 24 months.

This Section shall not apply to any local agency within the County of San Luis Obispo with whom the County has a contract pursuant to Article 25 of the Retirement Plan unless and until the local agency elects to be subject to this Section by amendment to its contract. (3/22/11)

Section 2.06: Leave of Absence. Any Member who,

- (a) while a County Employee, is on a leave of absence approved in writing by the County Employer, or
- (b) during periods when the Member, while a County Employee, is receiving or entitled to receive benefits under the California Worker's Compensation Act, shall receive Pension Trust service credit for such authorized period of absence provided the Member authorizes and does make Normal Contributions to the Pension Trust for such period.

Section 2.07: Break in Service. If a Member of this Pension Trust ceases to be a Member and a County Employee and withdraws his or her Accumulated Contributions, and later resumes County Employment and Membership in the Pension Trust, that Member's previous Pension Trust service credit shall not be recognized for purpose of this Retirement Plan. At such time as such person becomes reemployed as a County Employee and again becomes a Member of the Pension Trust, said Member's rate of contribution shall be based on his or her age to his or her nearest birthday at the time of resuming membership in this Pension Trust.

Section 2.08: Redeposit Before Retirement. Notwithstanding the provisions of Section 2.07 above, if the Member described in Section 2.07 redeposits into the Pension Trust, prior to filing an application for retirement under this Retirement Plan, by lump-sum payment or by installment payments over a period of one year (or over such longer period of time, not to exceed 96 months, as may be approved, in writing, by the ~~Executive Secretary~~Executive Director) an amount equal to all of his or her previously withdrawn Accumulated Normal Contributions, plus regular interest thereon to the date of the redeposit, his or her previous Pension Trust service credit shall be recognized for purposes of this Retirement Plan. An election to redeposit under the provisions of this Section shall not affect the rate of contribution established in Section 2.07 above. For a Member who elects to redeposit by installment payments, the said Member's previous Pension Trust Service Credit shall be restored on a pro rata basis as each installment payment is received

Commented [CN1]: Correction of inadvertent omission in earlier versions. BU02 (SLOCEA Trades & Crafts) prior MOUs included 24 month layoff window for no break in service for pension purposes.

ARTICLE 19: COST OF LIVING

Section 19.01: Cost of Living Adjustment - 1972 to 1974. Commencing with calendar year 1972, the Board Trustees shall before April 1 of each year determine whether there has been an increase or decrease in the cost of living as provided in this section. Every retirement allowance, optional settlement allowance, or monthly death allowance payable to or on account of any Member or Participant, who retires or dies or who has retired or died as of or prior to the previous January 1 shall, as of April 1st of each year, be increased or decreased by a percentage of the total allowance then being received found by the Board of Trustees to approximate, to the nearest one-tenth percent, the percentage of annual increase or decrease in the cost of living as of January 1st of each year as shown by the then current Bureau of Labor Statistics Consumers Price index using an average of the Los Angeles—~~Long Beach metropolitan area~~ and San Francisco—~~Oakland area metropolitan area~~ cost of living indices - all items - annual average, but such change shall not exceed 2 percent per year; however, the amount of any cost-of-living increase or decrease in any year which is not met by the maximum annual change of 2 percent in allowances shall be accumulated to be met by increases or decreases in allowances in future years; except that no decrease shall reduce the allowance below the amount being received by the Member or Participant or his or her beneficiary on the effective date of the allowance or January 1, 1972, whichever is later.(10-1-71)

Section 19.02: Cost of Living Adjustment - 1974 and thereafter. Commencing with the determination to be made by the Board of Trustees effective April 1, 1974, and for each such determination thereafter, the maximum annual change set forth above in Section 19.01 shall be 3 percent per year, instead of 2 percent per year. In all other respects, the provisions of Section 19.01 shall remain unchanged.(9-22-73)

Section 19.03: Funding of Increases in Allowances. Such increases in monthly retirement allowances and in monthly survivorship allowances as shall become payable under and pursuant to the provisions of this Article 19, shall be funded as follows:

- (a) Special Fund. A new special fund within the Pension Trust is hereby created, such special fund to be known and designated as the "Cost of Living Reserve Fund". All monies transferred, paid into, earned by and credited to said fund shall be used to pay such increases in the above mentioned allowances as shall become payable under the pursuant to the provisions of this Article 19.
- (b) County Employer Contributions. For each month, respectively, from the first day of October, 1971, the County Employer shall contribute to the above mentioned Cost of Living Reserve Fund at the percentage of total members' salaries that is recommended by the actuary.(10-1-71) (01-08-2002)

Section 19.04: Investment of Funds. The Board of Trustees is hereby authorized to invest any or all monies in the Cost-of-Living Fund, subject to the same conditions as are applicable to its investment of other monies of this Pension Trust and Retirement Plan. Earnings or losses from said investments shall be credited or debited to the Cost-of-Living Fund. (10-1-71)

Section 19.05: 1987 Ad Hoc Cost-of-Living Adjustment. In addition to the increase in allowance authorized by and granted pursuant to Sections 19.01 and 19.02 of this Retirement Plan, and notwithstanding the limitation on such increases imposed by said Sections 19.01 and 19.02, the monthly allowance payable to a Retired Participant who retired or died prior to January 2, 1985,

Commented [CN2]: Conforms to a more general definition of the LA and SF metropolitan areas reported by the BLS for CPI inflation data. Periodically the BLS has changed the names of the metropolitan areas in their database and this amendment allows for use of the broadest BLS measure of LA and SF inflation – regardless of technical name changes made by BLS statisticians.

the court has determined to be the community property interest of the Alternate Payee in the Accumulated Contributions.

- (b) If the Alternate Payee elects to redeposit, he or she shall repay the Accumulated Contributions, with interest, which were previously refunded to the Member or the Reserve Participant.
- (c) An election to redeposit shall be considered an election to repay all Accumulated Contributions and interest previously refunded to the Member or Reserve Participant and which Alternate Payee is entitled to redeposit.
- (d) The right of the Alternate Payee to redeposit under this Section is subject to the regulations, policies and procedures established and adopted by the Board of Trustees.
- (e) The Member or Reserve Participant has no right to any court-determined Alternate Payee share of any previously refunded Accumulated Contributions and interest, whether or not the Alternate Payee elects to redeposit, until the effective date of any refund requested by the Alternate Payee pursuant to Section 24.02, or the Alternate Payee dies before redeposit is completed. However, the right to redeposit any previously refunded Accumulated Contributions and Interest not explicitly awarded to the Alternate Payee by the judgment or court order shall be deemed to be the exclusive property of the Member or Reserve Participant.
- (f) Any redeposit by the Alternate Payee shall be made by lump sum before retirement.

Section 24.04: Alternate Payee Application for Retirement. An Alternate Payee for whom a separate account has been established under section 24.01 shall be entitled to a Service Retirement allowance under Article 6: Service Retirement Allowance of the Retirement Plan, upon his or her written Application provided all of the following conditions are met:

- (a) The Alternate Payee has attained the minimum age for Service Retirement Allowance prescribed by the service retirement formula which would have applied to the Alternate Payee's former spouse.
- (b) On the earlier date of marriage dissolution or legal separation, the Member or Reserve Participant had accrued sufficient Pension Trust Service Credit to qualify for Service Retirement.
- (c) The Alternate Payee's Service Retirement allowance shall be calculated based on the service retirement formula applicable to the Pension Trust Service credited to the Alternate Payee.
- (d) For purposes of this Section, the "Final Compensation" attributable to the Alternate Payee shall mean the average monthly Compensation Earnable by the Member or Reserve Participant during the three consecutive years period applicable to the Member or Reserve Participant as specified in Sections 1.16, 27.03, 28.05, 29.05, 30.05, or 31.05 prior to the date of separation of the Alternate Payee and the Member or Reserve Participant. ~~The Alternate Payee may elect an earlier three consecutive year period to be used where the time period of the Alternate Payee's marriage to the Member or Reserve Participant and participation in the Retirement Plan by the Member or Reserve Participant correspond.~~
- (e) As of the Effective Date of Retirement of the Alternate Payee, the Member or Reserve Participant has attained the minimum retirement age to receive a Service Retirement allowance.

Commented [CN3]: Correction for community property period such that Alt Payee and Member dividing < 5 PTSCs makes the Alt Payee ineligible to draw a Service Retirement based on the date of separation regardless of how much time elapsed until actual dissolution.

Commented [CN4]: Corrects inadvertent omission of an Alt Payee's benefit being based on the Final Compensation period (12 months or 36 months depending on tier) of the Member. Generally in favor of Alternate Payees of Tier 1 members (12 month final compensation period instead of 36 months).

Section 24.05: Division of Community Property of a Retired Participant. If a court of competent jurisdiction, upon the legal separation or dissolution of marriage of a Retired Participant and his or her spouse (the "Alternate Payee"), and after joining the Pension Trust as a party to the

Allowance at the beginning of the Member's participation in DROP (plus any Cost of Living Adjustments after such date);

- (d) the Member shall not be eligible to receive a refund of Accumulated Contributions upon termination of the Member's employment with the County Employer.
- (e) the Member shall have DROP allowances credited to a DROP account pursuant to Section 26.09 of this Article 26;
- (f) the Member waives the right to disability retirement allowance based on an injury or illness that occurred prior to participation in DROP and/or during the Member's participation in DROP except as provided in Section 26.09(g) below.
- (g) the Member's employment status during participation in DROP shall not be affected by the Member's election to participate in DROP.

Section 26.08: Spousal Consent: If the Member is married or if the Member has a registered domestic partner, the Member's spouse or registered domestic partner shall execute a statement, on a form prescribed by the Pension Trust, acknowledging the spouse's or domestic partner's understanding of, and agreement with, the Member's election to participate in DROP.

Section 26.09: DROP Accounts and DROP Benefits:

- (a) A DROP Account is an account established by the Pension Trust for each participant in DROP.
- (b) A Member's DROP Account shall be credited with an amount equal to the service Retirement Allowance and the annual cost-of-living adjustment the Member would have received if the Member had retired for service under Article 6 of the Retirement Plan on the date the Member commences participation in DROP. In addition, a Member's Additional Contribution Account, which may be an accumulation of pre-tax and post-tax contributions, shall be deposited into the Member's DROP Account. The DROP Account shall accept said pre and post-tax contributions for deposit. If the Member elects to have his or her Additional Contribution Account paid in the form of an annuity, the annuity that is payable based on the contributions reposed in the said Additional Contribution Account shall be deposited into the Member's DROP Account. Contributions reposed in the Additional Contribution Account which are deposited into the Member's DROP Account shall be identified by the Pension Trust and by the third party administrator retained by the Board of Trustees for administration of the DROP accounts as to their status as either pre-tax or post-tax contributions. Amounts credited to a Member's DROP account shall be vested in the Member, except to the extent deemed necessary by the Board in its sole discretion to maintain the Pension Trust's tax-qualified status under the Internal Revenue Code.
- (c) A Member may direct the investment and reinvestment of the monies in his/her individual DROP Account and any earnings or losses shall be reflected in the Member's DROP account. The Board of Trustees may select and approve a third party administrator to administer investment selections.
- (d) The monthly amounts credited to a Member's DROP account, shall from time to time, include any cost-of-living adjustment otherwise applicable to Retired Participants as determined by the Board of Trustees.
- (e) The date of a Member's participation in DROP shall be the first of the month following the date the ~~Board of Trustees~~Pension Trust considers and approves the Member's fully completed DROP application.
- (f) Upon the date of a Member's participation in DROP, the Member shall cease to make Normal Contributions to the Pension Trust.

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Board of Trustees

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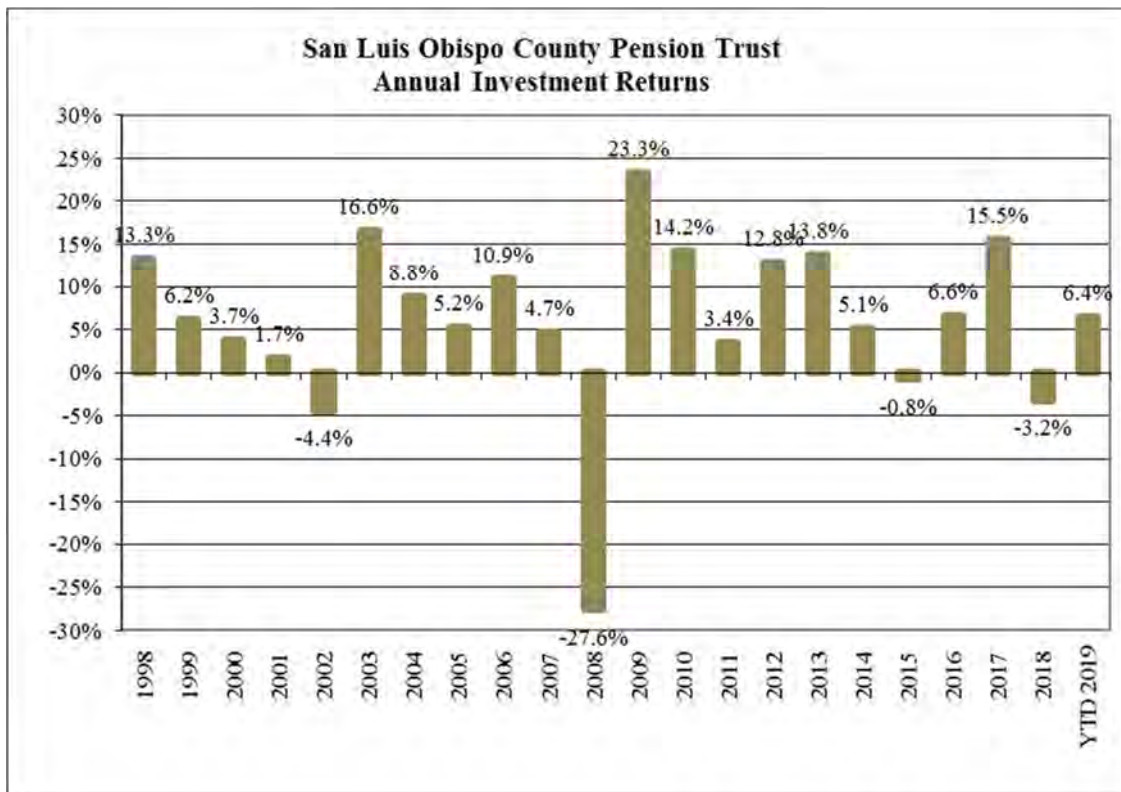
Date: May 20, 2019

To: Board of Trustees

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

Agenda Item 9: Quarterly Investment Report for the 1st Quarter of 2019

Attached to this memo is the 1Q19 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.



Respectfully submitted,

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**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: MARCH 31, 2019

Investment Performance Review for

San Luis Obispo County Pension Trust

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

SEATTLE 206-622-3700

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SAN FRANCISCO 415-362-3484

Investment Landscape

TAB I

Investment Performance
Review

TAB II



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

2ND QUARTER 2019
Investment Landscape

Recent Verus research

Visit: <https://www.verusinvestments.com/insights/>

Sound thinking

FOUR RULES OF OUTSOURCING

The choice to use the services of an Outsourced Chief Investment Officer (OCIO) provider is one of the most significant decisions that a board is likely to make. This piece is focused on the four most important rules that Verus believes investors should understand, and OCIO providers should deliver upon.

Annual outlooks

CAPITAL MARKET ASSUMPTIONS

Verus held the first Capital Market Assumptions Webinar. On the call, we discussed:

- How market shifts of 2018 have affected our long-term outlook
- Why the current environment continues to indicate modest long-term performance across most asset classes
- The important differences between shorter-term and longer-term forecasting exercises

ACTIVE MANAGEMENT ENVIRONMENT

Our work on active management addresses some shortfalls of the traditional analysis, which uses the median product to describe the active management universe as a whole. These improvements and insights have allowed us to better understand product behavior and may allow for more informed selection in the future.

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1st quarter summary

THE ECONOMIC CLIMATE

- Real GDP growth continued at 3.0% YoY - on pace with the third quarter (2.2% quarterly annualized rate). Forecasts for 2019 U.S. growth have weakened. The U.S. economy is expected to grow at a 2.4% pace in 2019, according to the Survey of Professional Forecasters, while the Federal Reserve expects 2.1% growth this year. [p. 8](#)
- In March, negotiations resumed between U.S. and Chinese trade delegations. The dialogue was viewed as constructive, and optimism picked up for a trade resolution being reached in the near-to-intermediate future. The two sides have yet to agree on a formal timeline. [p. 16](#)

PORTFOLIO IMPACTS

- The Federal Open Market Committee reiterated its “patient” approach to policy, leaving rates unchanged, helping to push asset prices upward. Chairman Powell announced that starting in May the balance sheet runoff would slow from \$50 to \$30 billion a month, and would end in September. [p. 19](#)
- Risk assets exhibited strong performance over the quarter. U.S. equities delivered the greatest gains (S&P 500 +13.6%, MSCI ACWI +12.2%), reversing U.S. underperformance in Q4 2018 (S&P 500 -13.5%, MSCI ACWI -12.8%). This was followed by riskier credit with high single-digit returns, and safer credit and government bonds with low single-digit returns. [p. 46](#)

THE INVESTMENT CLIMATE

- The first quarter was nearly a mirror image of 2018 Q4, as many assets retraced losses of the prior quarter. [p. 38](#)
- Declining long-term Treasury yields following the Fed meeting in March briefly caused the yield curve to invert, meaning that short-term yields (3-month) were higher than long-term yields (10-year). Investors have expressed concerns that this may signal a near term recession. We believe these concerns are overblown. [p. 21](#)
- The House of Commons in the British Parliament briefly took control of their government’s legislative agenda, but failed to reach a majority vote on a path forward. On April 10th, British Prime Minister Theresa May and the European Council agreed to extend the Brexit deadline from April 12th to October 31st. [p. 17](#)

ASSET ALLOCATION ISSUES

- All major asset classes delivered positive performance in Q1, a refreshing change of pace from broad-based losses experienced in 2018. [p. 46](#)
- Economic conditions around the world have exhibited a weakening trend, leading to the question of whether a turn in the economic cycle is near. The first quarter was more mixed with strength in places, easing some concern. We remain watchful of this weakening trend, but believe the economy and market may have more room to run. [p. 17](#)

A neutral risk stance may be appropriate in today’s environment

What drove the market in Q1?

“Central banks take to stage as dovish outlooks spread”

MARKET EXPECTATIONS FOR 1-YEAR CHANGE IN FED FUNDS RATE (BPS)

Oct	Nov	Dec	Jan	Feb	Mar
62	48	10	-10	-5	-31

Article Source: Bloomberg, February 16th, 2019

“Slowing earnings growth, gloomy forecasts add to stock market’s woes”

S&P 500 INDEX 12-MONTH FORWARD EPS ESTIMATE (\$)

Oct	Nov	Dec	Jan	Feb	Mar
175	175	174	171	171	172

Article Source: Wall Street Journal, January 13th, 2019

“Part of the yield curve inverts as 3-month yield tops 10-year rate”

10-YEAR MINUS 3-MONTH TREASURY YIELD SPREAD (BPS)

Oct	Nov	Dec	Jan	Feb	Mar
82	65	33	25	28	2

Article Source: CNBC, March 22nd, 2019

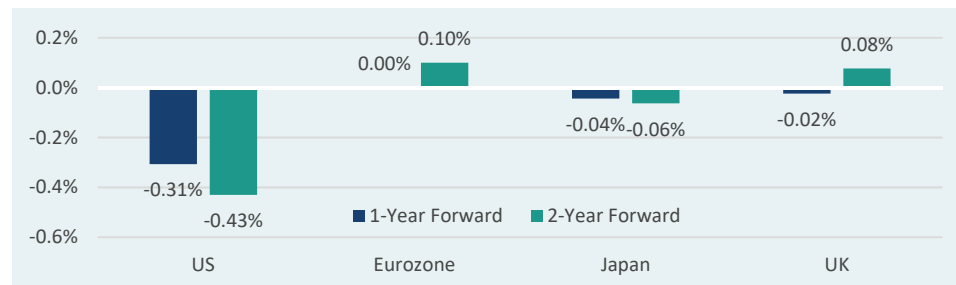
“World markets hit 2019 high amid trade war optimism”

NUMBER OF GOOGLE NEWS ARTICLES WITH ‘TRADE OPTIMISM’ IN TITLE

Oct	Nov	Dec	Jan	Feb	Mar
5	24	31	92	116	96

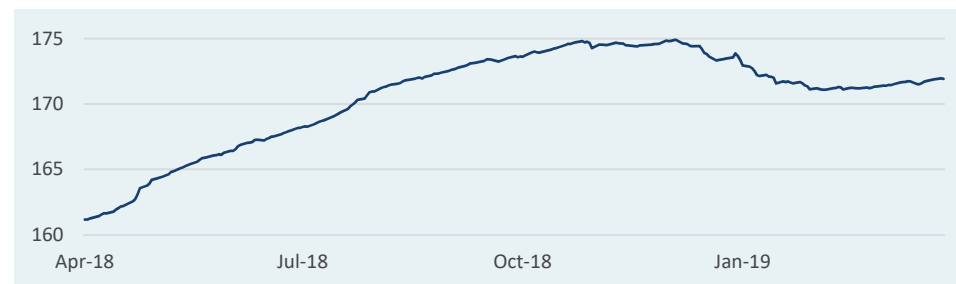
Article Source: The Guardian, February 18th, 2019

MARKET EXPECTATIONS FOR CHANGES IN SHORT-TERM RATES



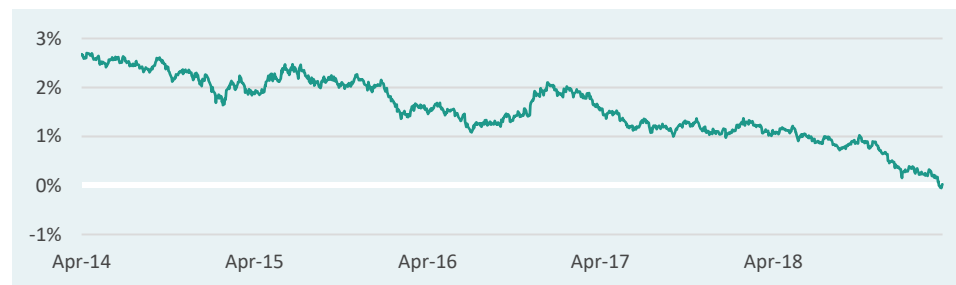
Source: Bloomberg, as of 4/2/19

S&P 500 INDEX 12-MONTH FORWARD EPS ESTIMATE



Source: Bloomberg, as of 3/31/19

10-YEAR MINUS 3-MONTH TREASURY YIELD SPREAD



Source: Bloomberg, as of 3/31/19

Economic environment

U.S. economics summary

- Real GDP growth continued at 3.0% YoY, on pace with the third quarter (2.2% on a quarterly annualized rate).
- Forecasts for 2019 U.S. growth have weakened. The U.S. economy is expected to grow at a 2.4% pace in 2019, according to the Survey of Professional Forecasters, while the Federal Reserve expects 2.1% growth this year.
- In March, negotiations resumed between U.S. and Chinese trade delegations. The dialogue was viewed as constructive, and optimism picked up for a formal trade resolution being reached in the near future.
- U.S. inflation remained near the 2.0% Fed target. After dipping to 1.5% YoY in February, headline inflation recovered to 1.9% in March, resulting in no change over the quarter.
- Average hourly earnings grew 3.2% YoY in March, missing expectations of 3.3%. A slight tick up in the average non-farm private workweek from 34.4 to 34.5 hours likely contributed to the cooler wage data.
- The labor market remained strong in Q1. U-3 unemployment fell to 3.8% from 3.9% in December, though the labor force participation rate weakened from 63.1% to 63.0% during the period.
- The Federal Open Market Committee reiterated its “patient” approach to policy, leaving rates unchanged. Expectations for 2019 GDP growth and rate hikes were cut, and markets rallied. Chairman Powell announced that starting in May the balance sheet runoff would slow from \$50 billion per month to \$30 billion, and would end in September.

	Most Recent	12 Months Prior
GDP (YoY)	3.0% <i>12/31/18</i>	2.5% <i>12/31/17</i>
Inflation (CPI YoY, Core)	2.0% <i>3/31/19</i>	2.1% <i>3/31/18</i>
Expected Inflation (5yr-5yr forward)	2.0% <i>3/31/19</i>	2.2% <i>3/31/18</i>
Fed Funds Target Range	2.25 – 2.50% <i>3/31/19</i>	1.50 – 1.75% <i>3/31/18</i>
10 Year Rate	2.4% <i>3/31/19</i>	2.7% <i>3/31/18</i>
U-3 Unemployment	3.8% <i>3/31/19</i>	4.0% <i>3/31/18</i>
U-6 Unemployment	7.3% <i>3/31/19</i>	7.9% <i>3/31/18</i>

GDP growth

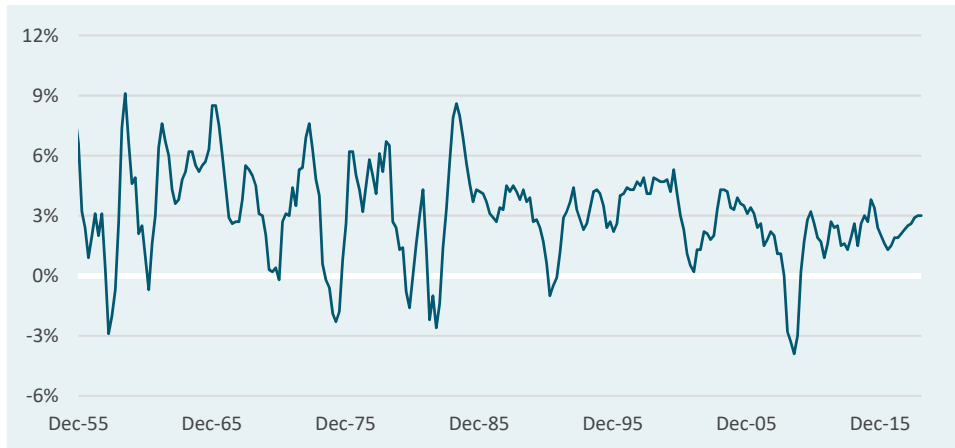
Real GDP growth continued at 3.0% YoY, on pace with growth in the third quarter (2.2% on a quarterly annualized rate). Consumption was the greatest contributor to real GDP growth.

The U.S. economy faces multiple headwinds, including the broad impacts of slowing global growth, fading of 2018 fiscal stimulus, and a tight labor market which constrains further upside from employment gains. While the U.S. is in a strong position relative to other developed nations, the economy is expected to grow at a 2.4% pace in 2019 according to a

survey of professional forecasters. The Federal Reserve expects 2.1% growth this year.

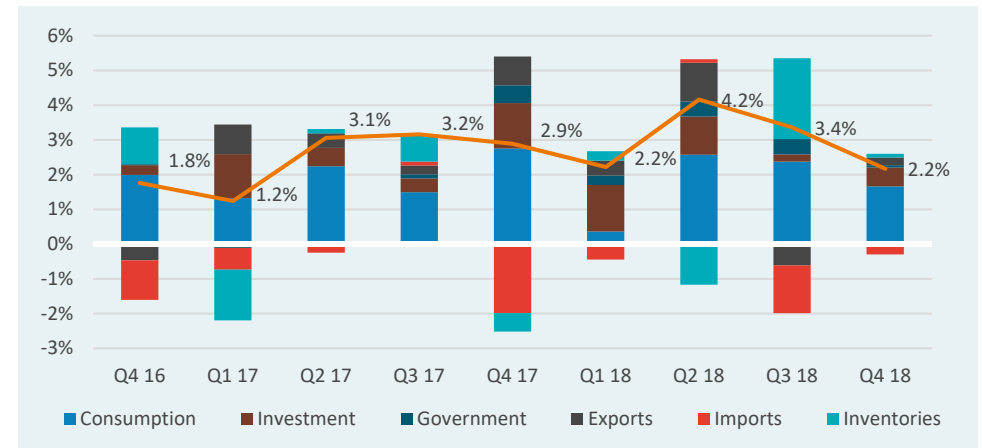
The Trump administration appears to have succeeded in reaching its 3% U.S. growth target during 2018. The Tax Cuts & Jobs Act helped stimulate the economy in the form of reduced taxes for individuals, which increased after-tax incomes and greatly reduced corporate tax burdens. These changes likely had positive impacts on worker wages and spurred recent capital investment.

U.S. REAL GDP GROWTH (YOY)



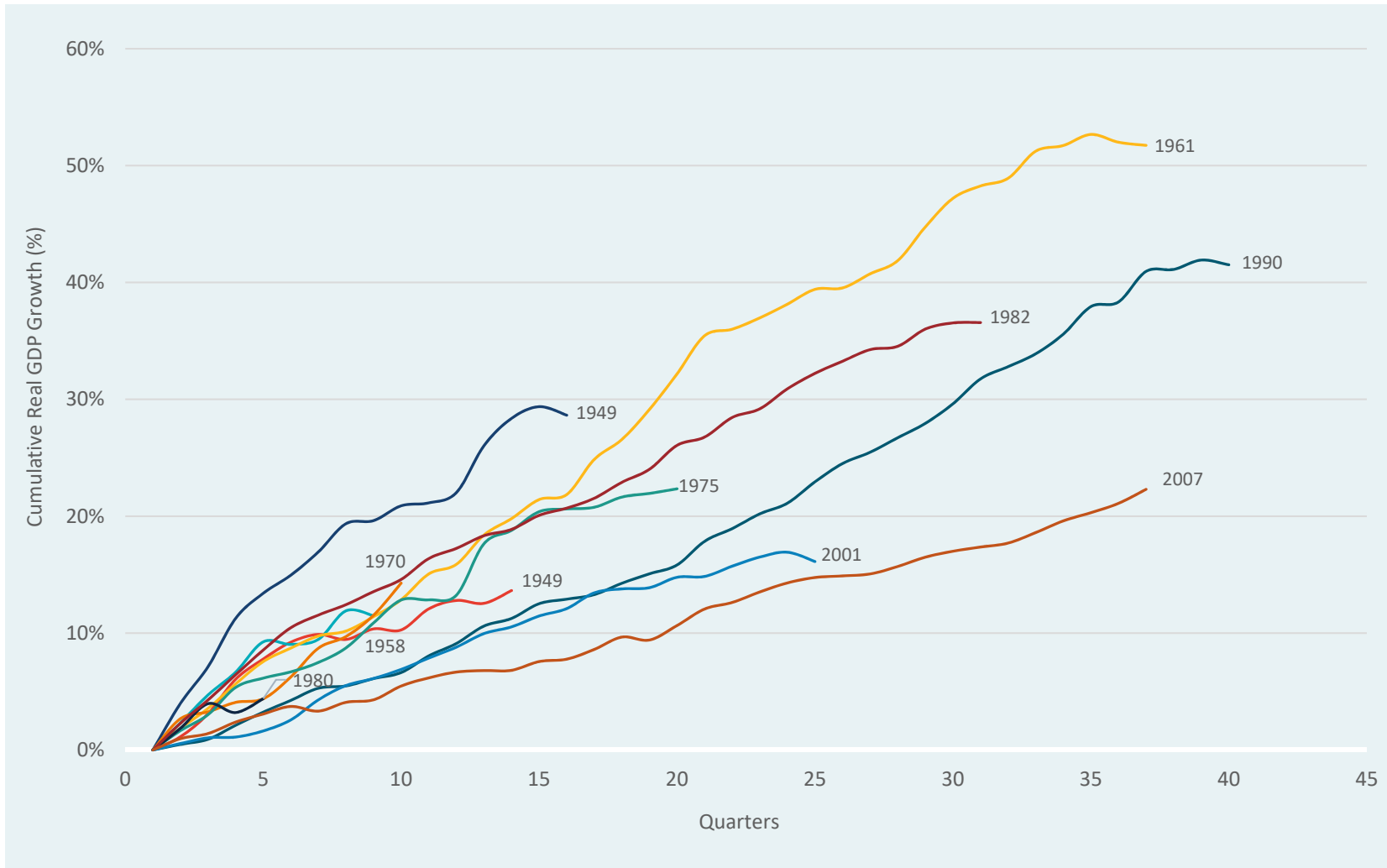
Source: Bloomberg, as of 12/31/18

U.S. GDP GROWTH ATTRIBUTION



Source: BEA, annualized quarterly rate, as of 12/31/18

A long but moderate expansion



The current economic cycle is just three quarters shy of matching the longest expansion on record

Source: FRED, Verus, as of 12/31/18 – each expansion is labeled with the starting year of expansion

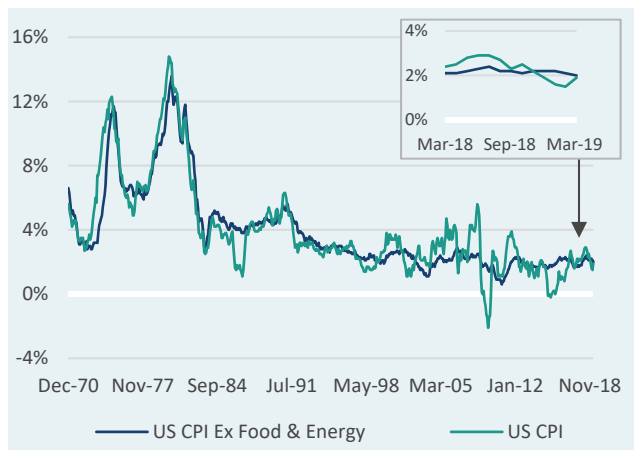
Inflation

U.S. inflation remained near the Federal Reserve’s 2.0% target. After dipping to 1.5% YoY in February, headline CPI recovered to 1.9% in March, unchanged over the quarter. Core CPI, which removes the impact of energy and food prices, continued to ease, falling to 2.0% YoY at quarter-end. Moderate inflation around 2% has helped justify the Fed’s recent pause in monetary tightening and has allowed for a patient approach. A material shift in either direction might place Fed officials in a difficult position, and should be watched closely.

Inflation in services was the sole contributor to the year-over-year growth in CPI as goods prices were unchanged during the period. Within services, shelter prices (+3.4% YoY) continued to be the main driver of inflation.

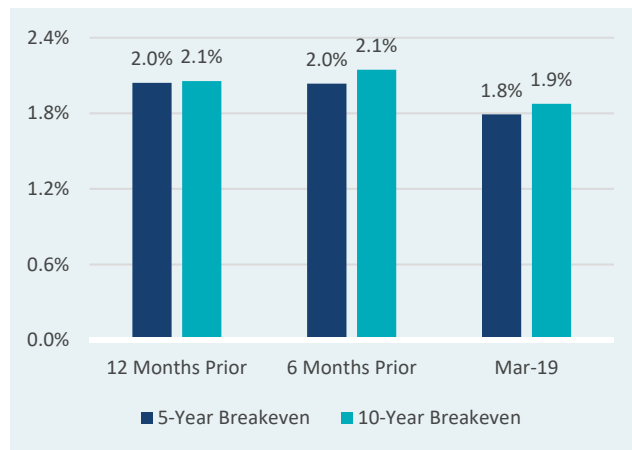
Market participants’ expectations for future inflation recovered from depressed levels after falling sharply last quarter. The 10-year TIPS breakeven inflation rate rose 22 bps to 1.93%. Meanwhile, consumers’ view of future inflation moderated from 2.7% to 2.5% as indicated by the University of Michigan survey.

U.S. CPI (YOY)



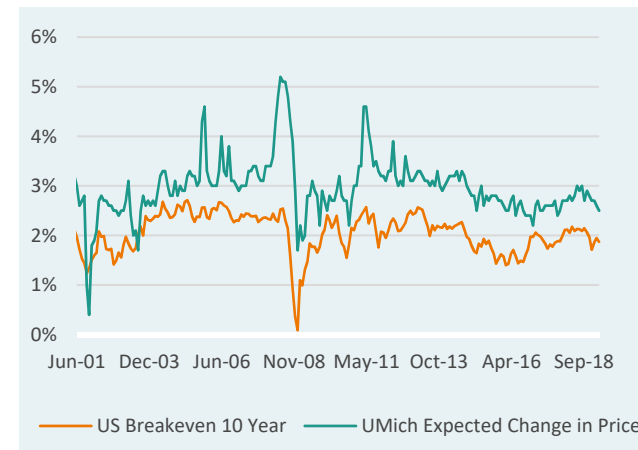
Source: Bloomberg, as of 3/31/19

BREAKEVEN INFLATION RATES



Source: FRED, as of 3/31/19

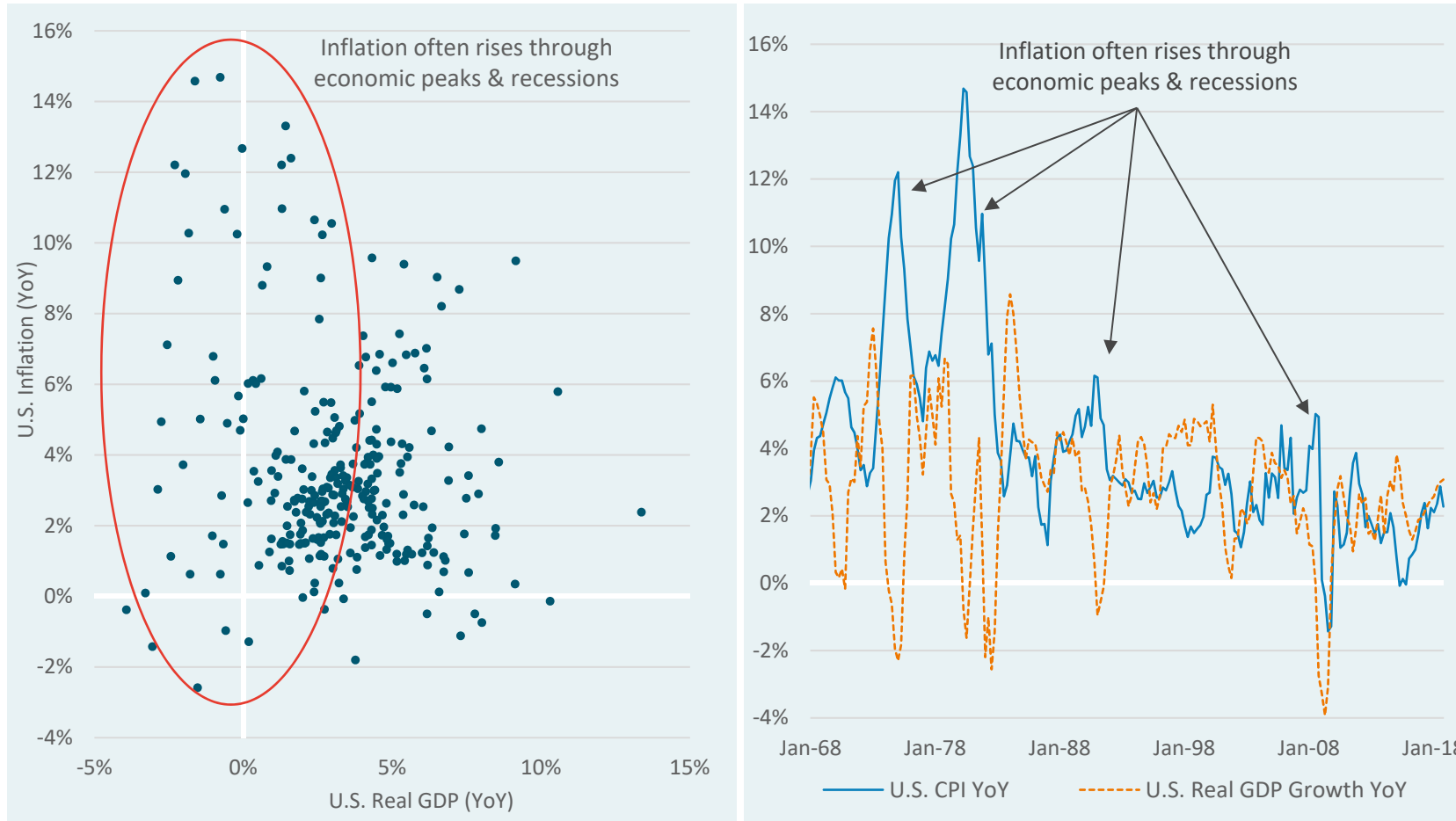
INFLATION EXPECTATIONS



Source: Bloomberg, as of 3/31/19

Relationship – inflation & growth

Inflation risk has been more acute during late cycle & recession



History suggests inflation risks are still present at the later stage of the economic cycle

Source: FRED, Verus

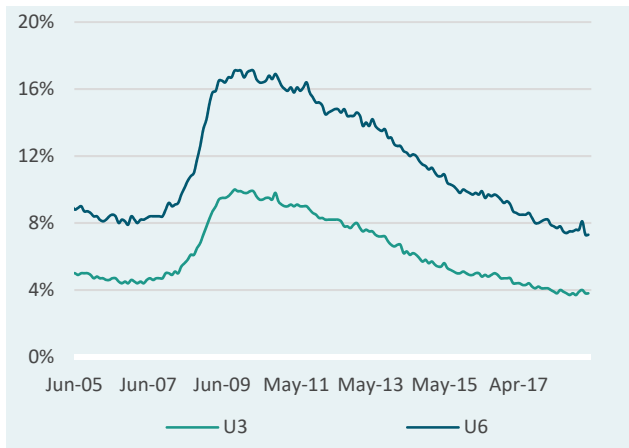
Labor market

Although there was some month-to-month volatility in job growth during the quarter, net additions to non-farm payrolls averaged 180,000 per month. Meanwhile, the U-3 unemployment rate fell slightly from 3.9% to 3.8%, just above the cycle low of 3.7%. The U-6 unemployment rate, which includes underemployed and discouraged workers, fell to a cycle low of 7.3%. The spread between the U-6 and U-3 unemployment rates compressed from 3.7% to 3.5%, the smallest difference since 2006. The decline in underemployed and discouraged workers indicates a further tightening of the labor market.

Wages continued to grow at a modest pace, but not fast enough to warrant concern over corporate margin deterioration or a flow through to general price inflation. In March, average hourly earnings rose 3.2% from 12 months ago.

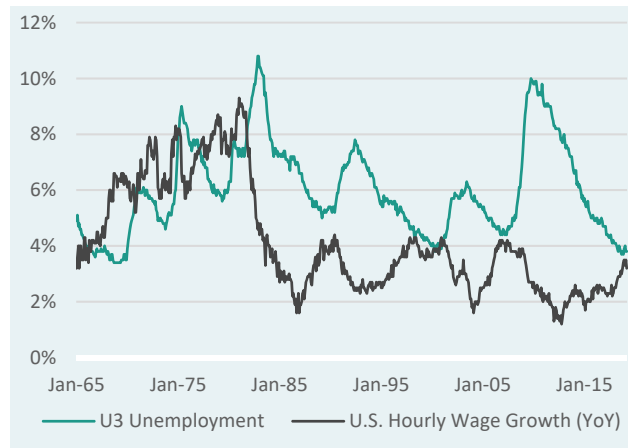
Given the relatively few number of unemployed persons and high percentage of companies reporting that jobs are hard to fill, we believe it may be difficult for job growth to continue at its recent strong rate.

UNEMPLOYMENT RATE



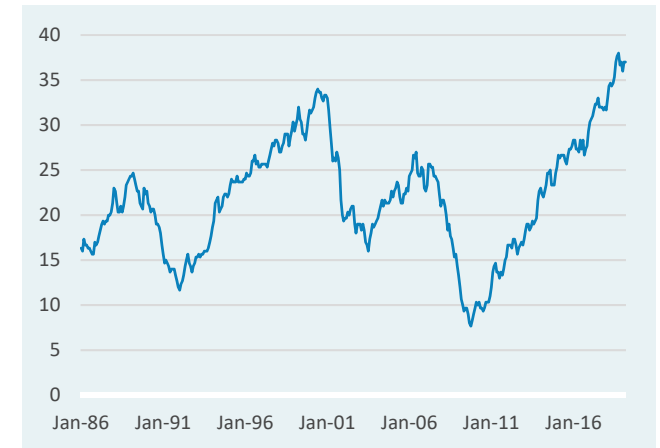
Source: FRED, as of 3/31/19

LONG-TERM EMPLOYMENT & WAGE GROWTH



Source: Bloomberg, as 3/31/19

NFIB: JOBS HARD TO FILL (3-MONTH AVG)



Source: NFIB, as of 3/31/19, net % of small businesses reporting that open positions are hard to fill

The consumer

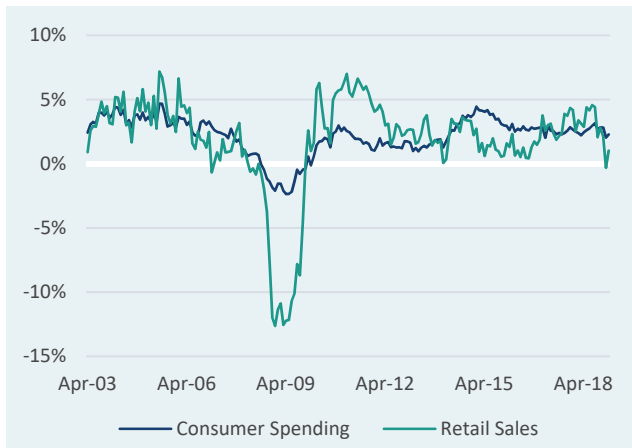
February retail sales grew 2.2% year-over-year, rebounding from a sharp slowdown in the fourth quarter. Real consumer spending continued along at a modest 1.8% pace from the previous year.

Further labor market strength, wage gains, and low interest rates would likely provide support for spending. Consumer behavior remains conservative relative to past cycles, as indicated by broad spending and borrowing patterns. While consumer credit growth has been fairly muted, other specific spending areas such as auto sales were very strong in recent

years – perhaps as consumers played catch-up from restrained purchases during the global financial crisis.

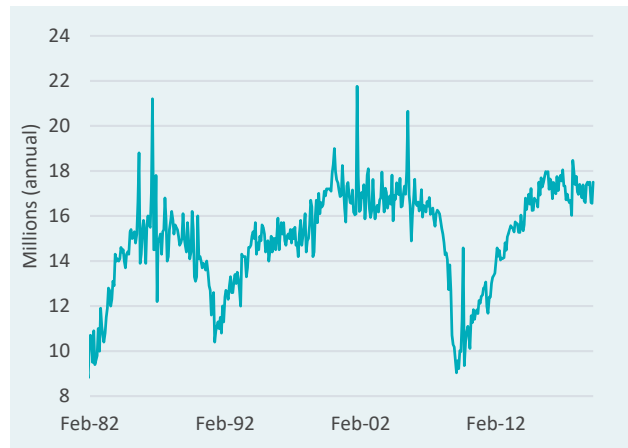
In 2018, there were rising concerns that higher interest rates would squeeze budgets and lead to a slowdown in spending and business activity. These fears have subsided as interest rates have fallen back to previous levels and the Federal Reserve is not expected to raise rates in the near future.

REAL CONSUMER SPENDING & RETAIL SALES GROWTH (YOY)



Source: Bloomberg, as of 1/31/19

AUTO SALES



Source: FRED, as of 3/31/19

CONSUMER CREDIT OUTSTANDING (YOY)



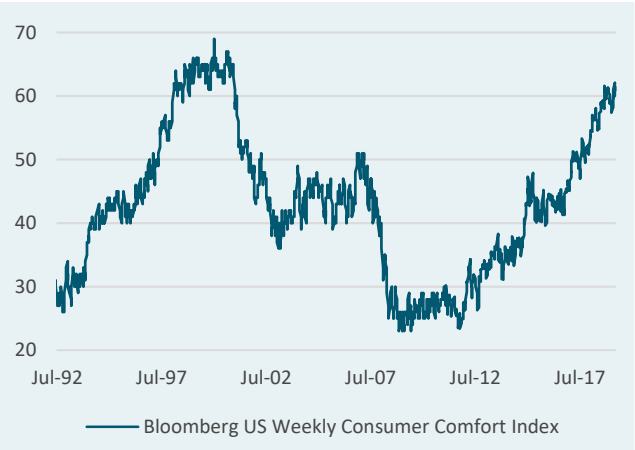
Source: Federal Reserve, as of 2/28/19

Sentiment

Consumer sentiment indicators fell sharply in January before rebounding in February and March. The fall in sentiment early in the year was driven by more muted consumer expectations of future growth, influenced by the sell-off in global equity markets and the extended U.S. government shutdown. However, the University of Michigan Consumer Sentiment Index finished the quarter at 98.4, slightly above its December reading and the Bloomberg Consumer Comfort Index was at a cycle high.

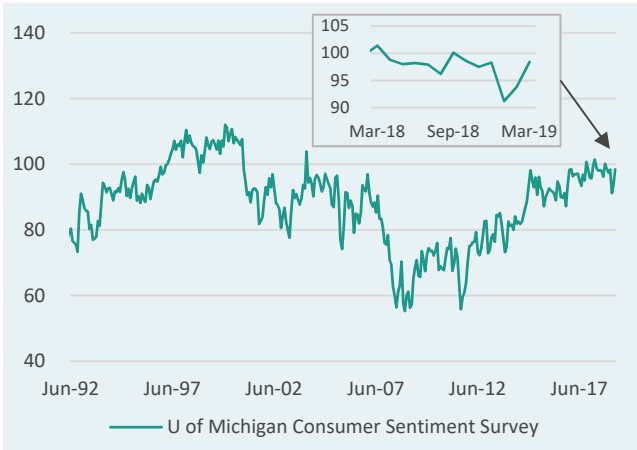
Small business sentiment continued to trend lower from historically strong levels. The NFIB Small Business Optimism Index dipped from 104.4 in December to 101.8 in March. The March reading of 101.8 ranked in the 79th percentile based on 45 years of history. Small business owners' expectations of future economic conditions moderated further in the first quarter. A net 11% of small businesses expected the economy to improve, down from 16% at the end of last year and 50% at the end of 2016.

CONSUMER COMFORT INDEX



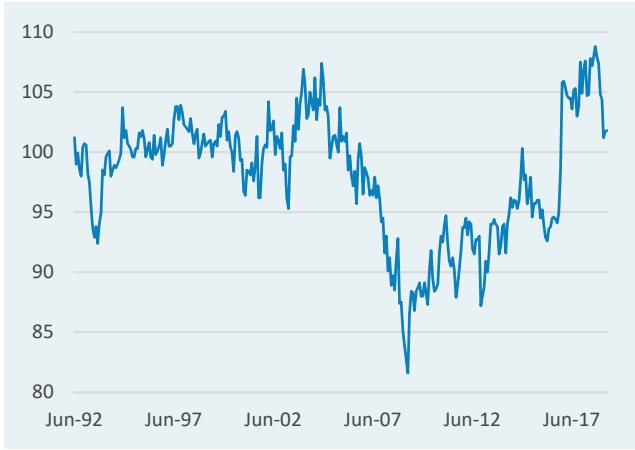
Source: Bloomberg, as of 3/24/19 (see Appendix)

CONSUMER SENTIMENT



Source: University of Michigan, as of 3/31/19 (see Appendix)

NFIB SMALL BUSINESS OPTIMISM INDEX



Source: NFIB, as of 3/31/19 (see Appendix)

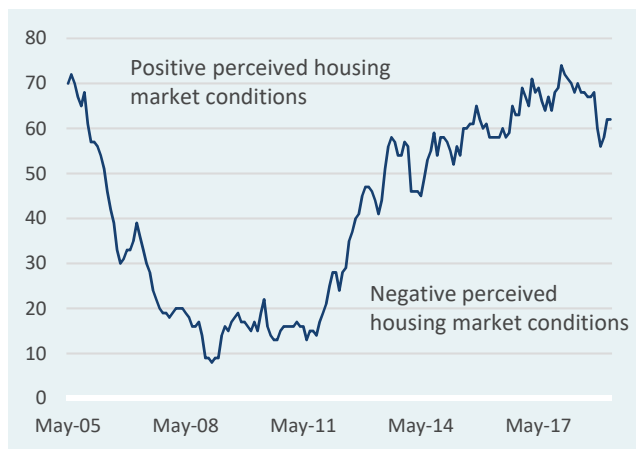
Housing

The U.S. housing market remains strong, though higher prices have dampened affordability and led to less demand. Rising interest rates in the fourth quarter generated fear of a housing slowdown, as borrowing costs have a large impact on home purchase activity. However, a reversal of monetary policy from expected tightening to expected neutrality (or easing) has placed downward pressure on the 30-year fixed mortgage rate. Given the importance of borrowing costs on housing demand, the move from 4.95% borrowing rates (peak reached in Q4) to 4.05% at the end of Q1 should ease concerns of a slowdown and bolster buying activity.

The National Association of Homebuilders (NAHB) Housing Market Index, based on a monthly survey of NAHB members designed to take the pulse of the single-family housing market, improved from 56 to 62 – above the neutral level of 50.

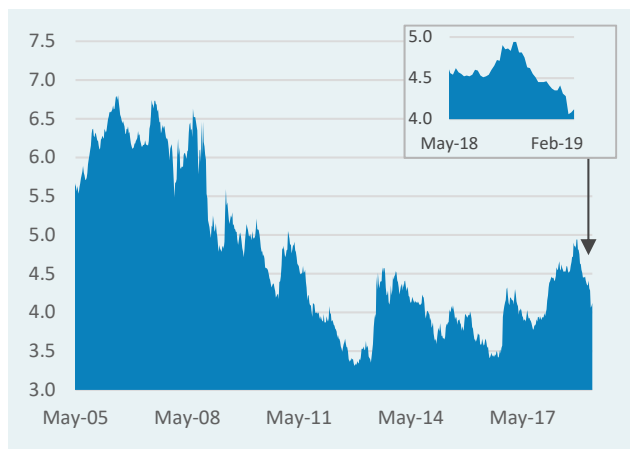
Home prices have faltered a bit, with the median U.S. home sales price falling -6.1% year-over-year in Q4. As is often the case, home price trends can vary significantly from city to city, which makes annual summary statistics difficult to interpret on a local level.

NAHB HOUSING MARKET INDEX



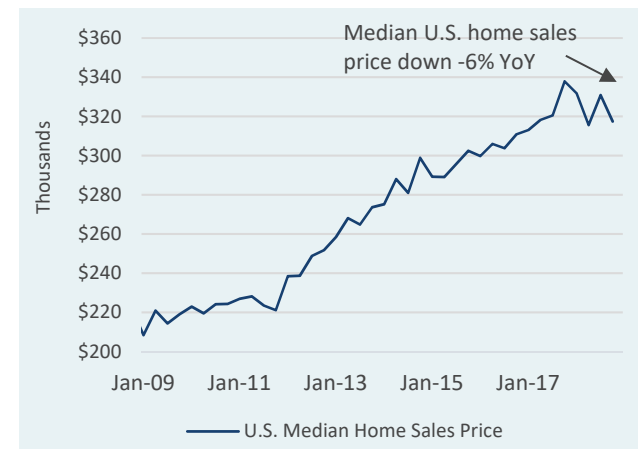
Source: Bloomberg, NAHB, as of 3/31/19 (see appendix)

30-YEAR FIXED MORTGAGE RATE



Source: FRED, as of 3/31/19

MEDIAN U.S. HOME SALES PRICE



Source: FRED, as of 12/31/18

International economics summary

- Global growth expectations for the next two years were revised materially lower in Q1. The OECD's global GDP growth forecast for 2019 and 2020 fell from 3.5% to 3.3%, and from 3.5% to 3.4%, respectively.
- In March, negotiations resumed between high-level U.S. and Chinese trade delegations. The dialogue was viewed as constructive, and optimism picked up for some sort of formal trade resolution being reached in the near-to-intermediate future, although the two sides have yet to agree on a formal timeline.
- The German Manufacturing PMI fell from 47.6 to 44.1 in March, falling further into the contractionary territory below 50. New orders and export sales data came in weaker than expected which contributed to a more pessimistic outlook for German manufacturing activity.
- The House of Commons in the British Parliament briefly took control of their government's legislative agenda, but failed to reach a majority vote on a path forward. On April 10th, British Prime Minister Theresa May and the European Council agreed to extend the Brexit deadline from April 12th to October 31st.
- The spread between the JP Morgan Global Services and Manufacturing PMIs rose to 3.1 in March. Last March, the spread was at 0.0, indicating that over the past year the outlook for global manufacturing activity has weakened relative to the outlook for global services activity. Typically, services activity is more resilient to a worsening economic backdrop.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	3.0% <i>12/31/18</i>	1.5% <i>2/28/19</i>	3.8% <i>3/31/19</i>
Eurozone	1.1% <i>12/31/18</i>	1.4% <i>3/31/19</i>	7.8% <i>2/28/19</i>
Japan	0.3% <i>12/31/18</i>	0.2% <i>2/28/19</i>	2.3% <i>2/28/19</i>
BRICS Nations	5.8% <i>12/31/18</i>	2.4% <i>3/31/19</i>	5.3% <i>12/31/18</i>
Brazil	1.1% <i>12/31/18</i>	3.9% <i>2/28/19</i>	12.2% <i>3/31/19</i>
Russia	2.7% <i>12/31/18</i>	5.3% <i>3/31/19</i>	4.9% <i>2/28/19</i>
India	7.2% <i>12/31/18</i>	2.6% <i>2/28/19</i>	8.5% <i>12/31/17</i>
China	6.4% <i>12/31/18</i>	1.5% <i>2/28/19</i>	3.8% <i>12/31/18</i>

International economics

Global economic growth trended lower over the past quarter. Most of the world experienced a deceleration in inflation, while labor markets showed moderate improvement. Global central banks took a more dovish stance in response to these conditions, which contributed to a sharp decline in global sovereign yields in March.

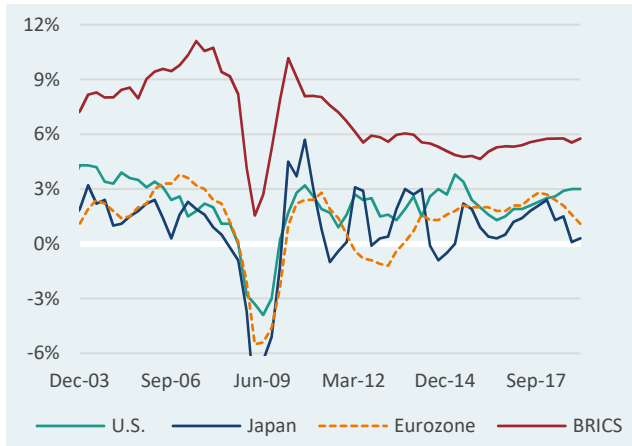
Real GDP in the Eurozone decelerated in Q4 from 1.6% to 1.1% YoY as the region continued to show weakness. Uncertainty surrounding Brexit, and the dependence of European economies on China likely factored into the regional outlook. Additionally, Europe faces significant

structural issues which are important to monitor, though perhaps not immediate in nature. As the ECB begins to discuss a tiered, sub-zero interest rate regime, the inability of EU members to pursue their own fiscal and monetary policies could prolong economic slowdowns and undermine subsequent recoveries.

Global growth forecasts were revised lower

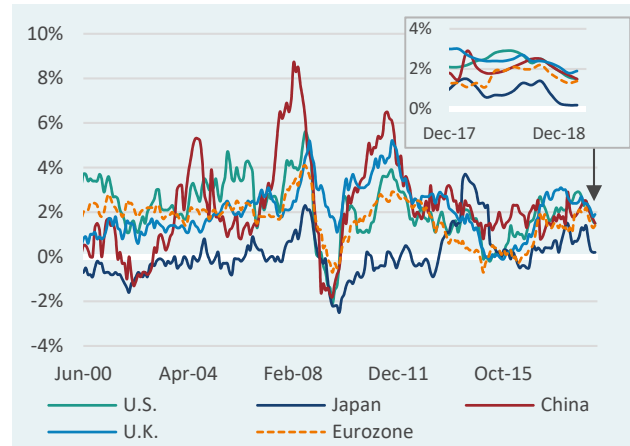
Following the failure of the House of Commons in British Parliament to agree on a Brexit strategy through “indicative votes”, Prime Minister Theresa May negotiated an extension of the Brexit deadline from April 12th to October 31st.

REAL GDP GROWTH (YOY)



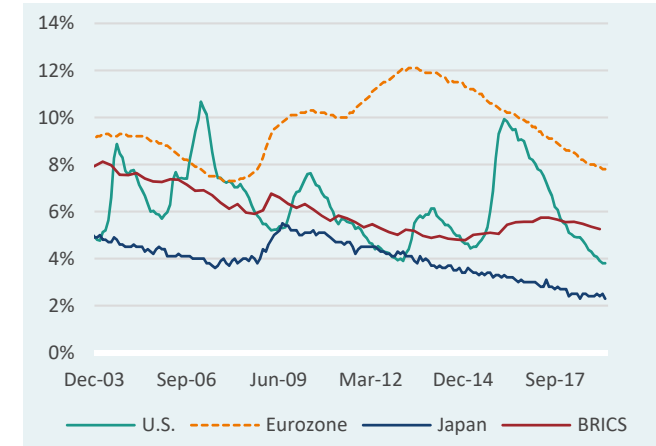
Source: Bloomberg, as of 12/31/18

INFLATION (CPI YOY)



Source: Bloomberg, as of 2/28/19

UNEMPLOYMENT RATE



Source: Bloomberg, as of 2/28/19 or most recent release

Fixed income rates & credit

Interest rate environment

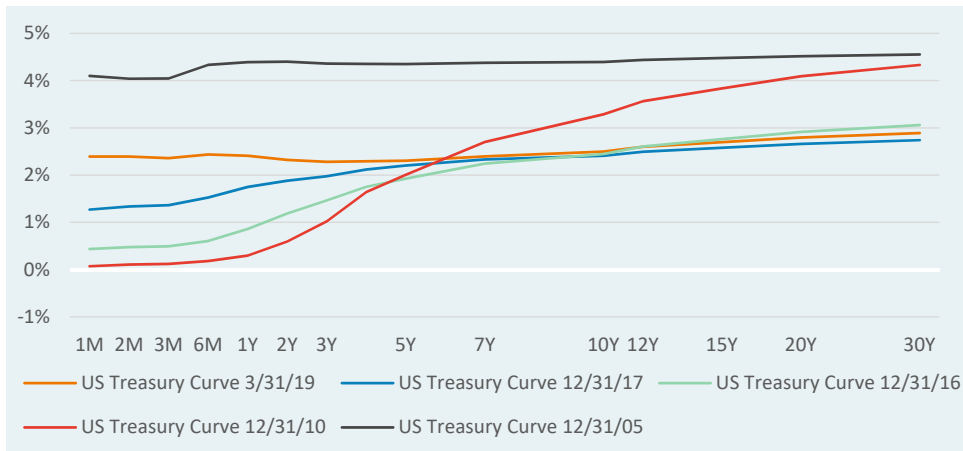
- The Federal Reserve held the fed funds rate unchanged over the quarter, and communicated a much more dovish stance on monetary policy amid slower growth expectations and stable inflation near 2%.
- Fed officials lowered their collective expectations for rate hikes in 2019 from two to zero, and announced that the balance sheet unwind would conclude in September, much earlier than previously anticipated.
- More dovish expectations for monetary policy and concerns over economic growth likely helped push long-term Treasury yields lower. The 10-year yield fell 28 bps to just above 2.4%.
- Falling long-term yields and stable short-term yields led to a brief inversion of the Treasury curve between the 10-year and 3-month yields.
- While widely considered a bearish signal for the economy and risk markets, the timing between curve inversion and bearish economic and market environments has varied widely. Additionally, Fed asset purchases of long-term Treasuries has artificially lowered yields and muddled the information conveyed by the yield curve.
- The ECB also pivoted to a more dovish stance as officials announced that deposit rates will be on hold through at least the end of the year.
- The 10-year German bund yield dipped back into negative territory for the first time since late 2016.
- Emerging market local bonds offer attractive yields relative to developed markets, even after adjusting for inflation. The JPM GBI-EM Index yielded 7% at the end of March.

Area	Short Term (3M)	10-Year
United States	2.39%	2.41%
Germany	(0.53%)	(0.07%)
France	(0.54%)	0.32%
Spain	(0.40%)	1.10%
Italy	(0.20%)	2.49%
Greece	0.87%	3.73%
U.K.	0.80%	1.00%
Japan	(0.17%)	0.08%
Australia	1.68%	1.77%
China	2.08%	3.07%
Brazil	6.31%	8.97%
Russia	7.35%	8.41%

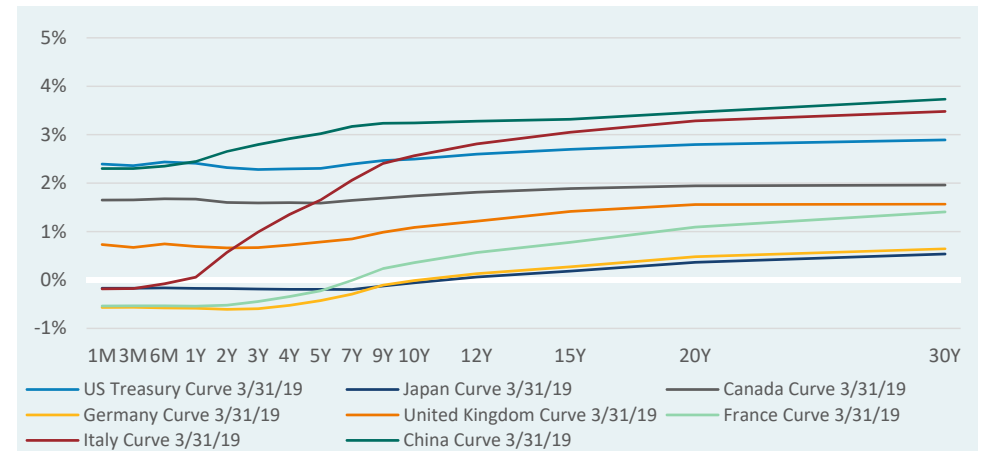
Source: Bloomberg, as of 3/31/19

Yield environment

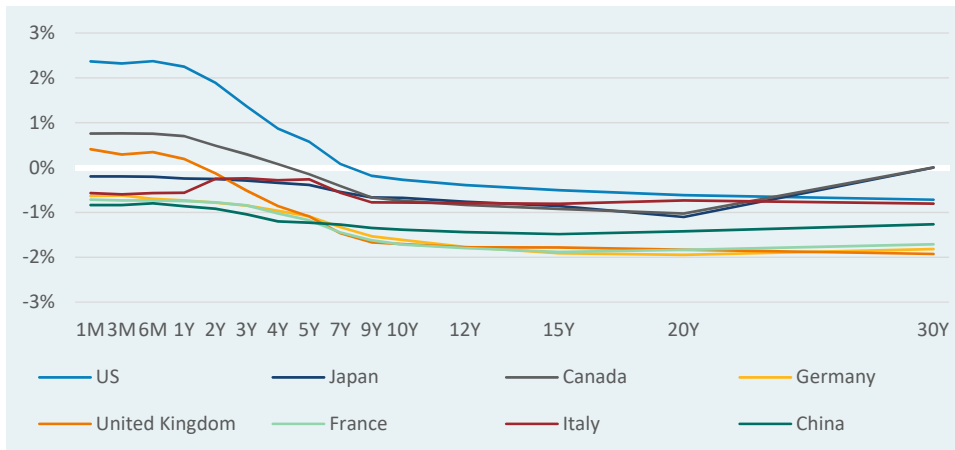
U.S. YIELD CURVE



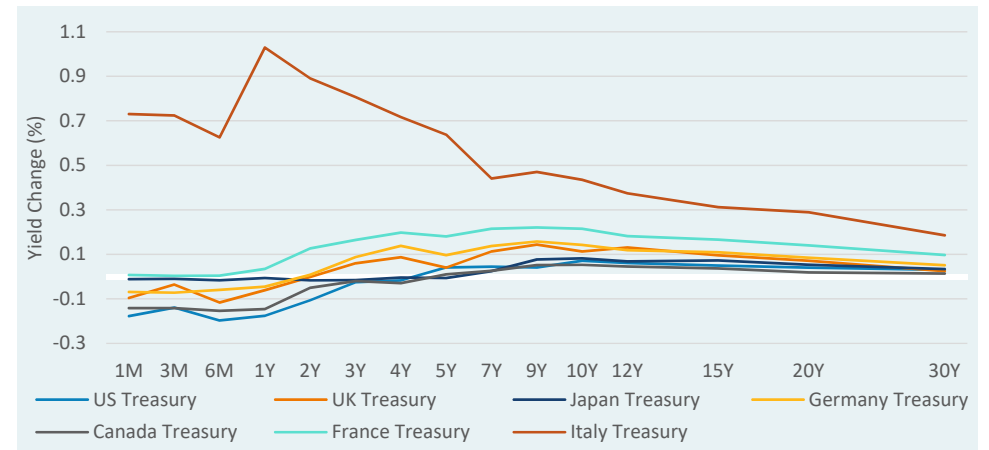
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/19

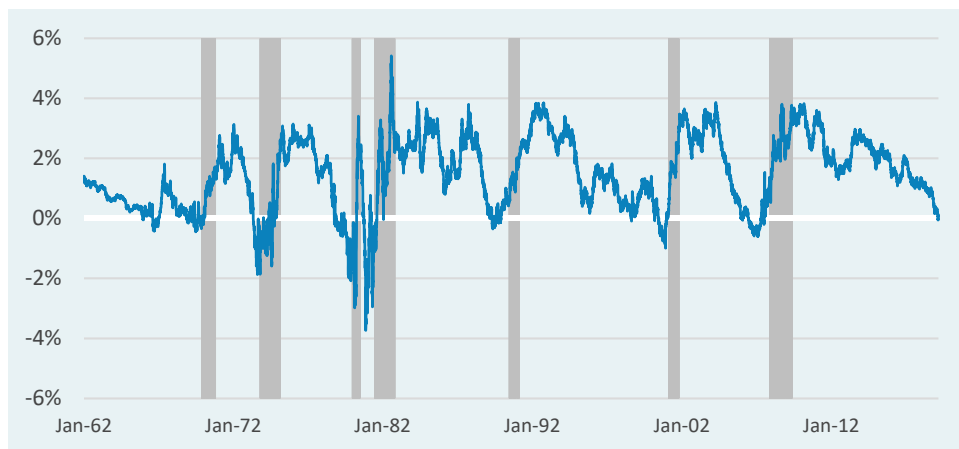
Yield curve inversion

The drop in long-term Treasury yields following the Fed meeting in March briefly caused the yield curve to invert, meaning that short-term yields (3-month) were higher than long-term yields (10-year). Investors have widely considered yield curve inversion as a sign that the economic cycle is coming to an end. At a high level, the shape of the yield curve tells investors something about what the market is expecting. All else equal, when the curve is steep, markets are expecting a positive growth environment and when the curve is flat or inverted, markets are expecting a negative growth environment.

While we have previously noted that the wide range of timing between curve inversion and recession has made the signal less useful, it is also important to note that the Fed's purchases of Treasuries has artificially lowered long-term yields. Therefore, Fed policy has obscured the market's expectation of future growth that is embedded in the shape of the yield curve. Although we are always wary of "this time is different" arguments, we believe that the recent yield curve inversion is not signaling an imminent recession.

The information conveyed by the shape of the yield curve has been obscured by Fed asset purchases

10-YEAR MINUS 3-MONTH TREASURY YIELD CURVE



Source: Bloomberg, as of 3/31/19, recessions are shaded with the dates defined by NBER

TIME FROM CURVE INVERSION TO THE NEXT RECESSION

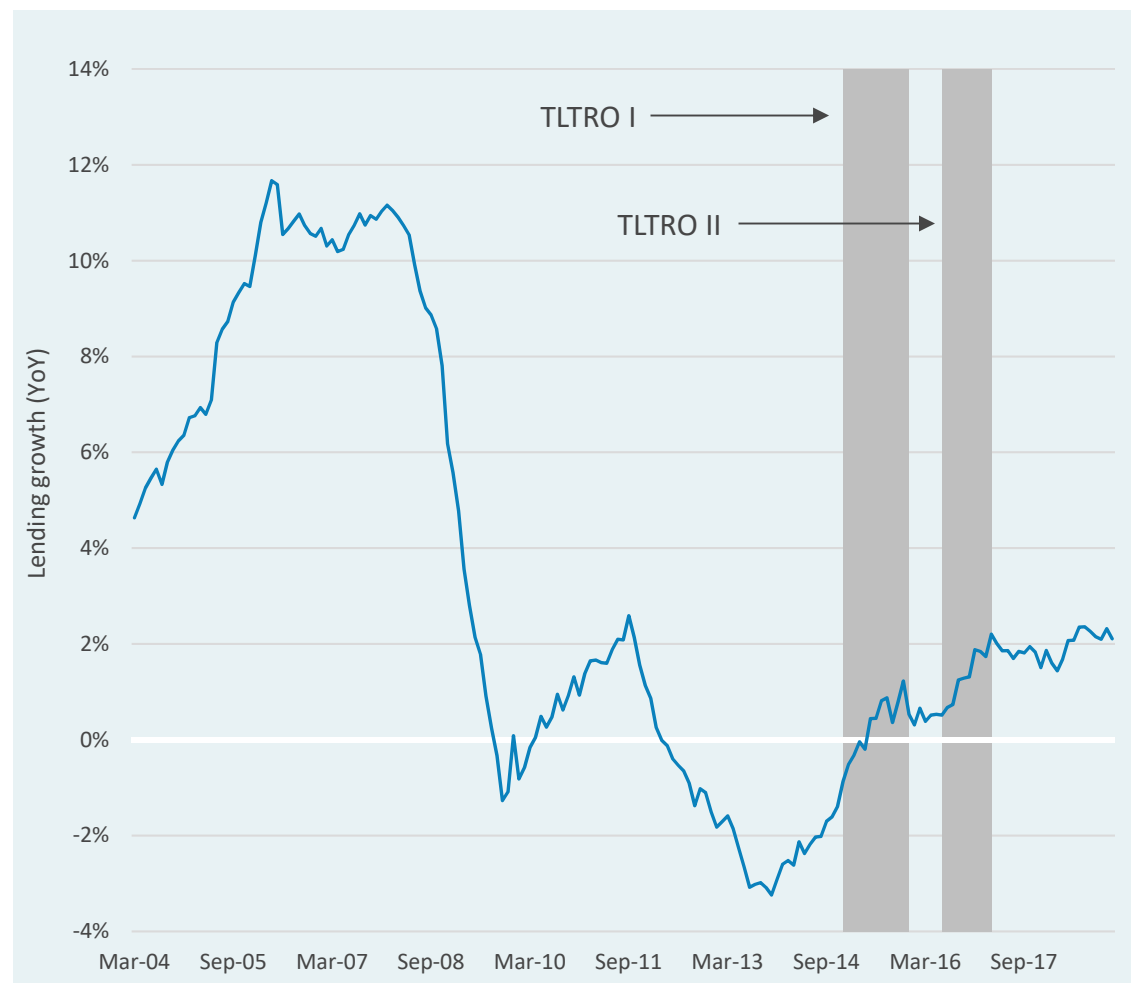
Start of Curve Inversion	Beginning of Next Recession	Months From Inversion to Recession
Jan-66	Dec-69	23
Dec-68	Dec-69	12
Jun-73	Nov-73	5
Nov-78	Jan-80	14
Oct-80	Jul-81	9
Mar-89	Jul-90	15
Jul-00	Mar-01	8
Jan-06	Dec-07	23
Average		13.6

Source: Bloomberg, recession dates defined by NBER

Eurozone monetary policy

- The European Central Bank (ECB) followed the Fed by pivoting to a more dovish monetary policy stance amid expectations of slower economic growth and muted inflation. ECB officials' latest growth forecasts show they expect only 1.1% real GDP growth in 2019.
- To counteract a potential growth slowdown, the ECB announced a third round of targeted long-term refinancing operations (TLTRO) and that it will keep deposit rates on hold through at least the end of the year. In the TLTRO program, the ECB gives out cheap short-term financing to banks with incentives for them to lend this money out to corporations and households.
- A total of €739 billion were lent out in the first two rounds of TLTROs, which helped lead to a modest pick up in bank lending growth. While this round of TLTROs may lead to banks rolling over previous loans, it is not likely to result in a significant increase in lending as the Eurozone already has ample liquidity and credit demand remains weak.
- Despite these recent steps, the ECB has limited ability to effectively ease. This puts the region at risk of a self-reinforcing downturn if conditions were to worsen, particularly since countries also have little room to provide fiscal stimulus.

EUROZONE BANK LENDING TO HOUSEHOLDS & CORPORATES



Source: Bloomberg, as of 1/31/19

Credit environment

High yield bond yields fell in March, impacted by the Fed's pause in the hiking cycle. Anticipation of an easier policy, which could potentially lengthen the credit cycle, has strengthened sentiment for risk assets. BB-rated bonds outperformed both CCC- and B-rated bonds in March. High yield bonds returned 7.3% YTD which is the strongest start to a calendar year on record for the asset class since 2003.

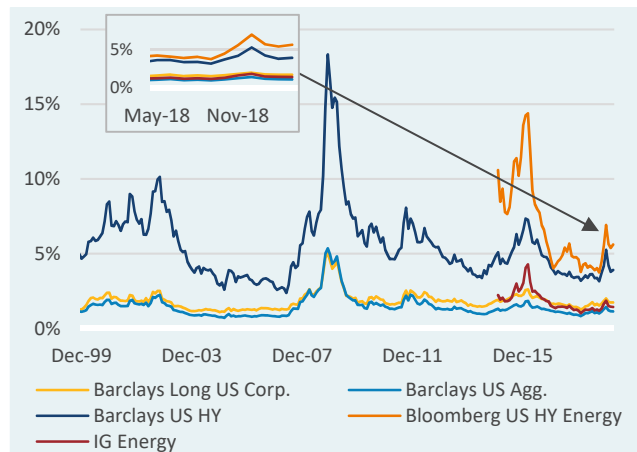
Leveraged loan prices declined during March as the asset class deals with outflows and a pause in the Fed's hiking cycle. The outflows have exceeded \$30 billion over the past two quarters

which represents 20% of assets under management, according to J.P. Morgan. Leveraged loans have returned 3.8% YTD, underperforming both high yield and investment grade bonds.

Based on concerns over late-cycle behavior in credit markets, we do not believe investors are being adequately compensated for credit risk. Late-cycle volatility tends to coincide with a jump in credit spreads and steep credit losses. An underweight to U.S. investment grade, high yield credit, and bank loans may be warranted. Within credit, higher quality and more liquid assets appear most attractive.

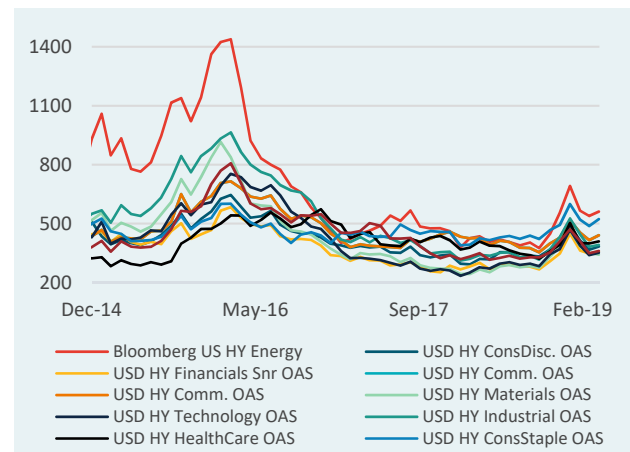
Credit spreads widened due to concerns over slowing global growth and broader risk-off behavior

SPREADS



Source: Barclays, Bloomberg, as of 3/31/19

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 3/31/19

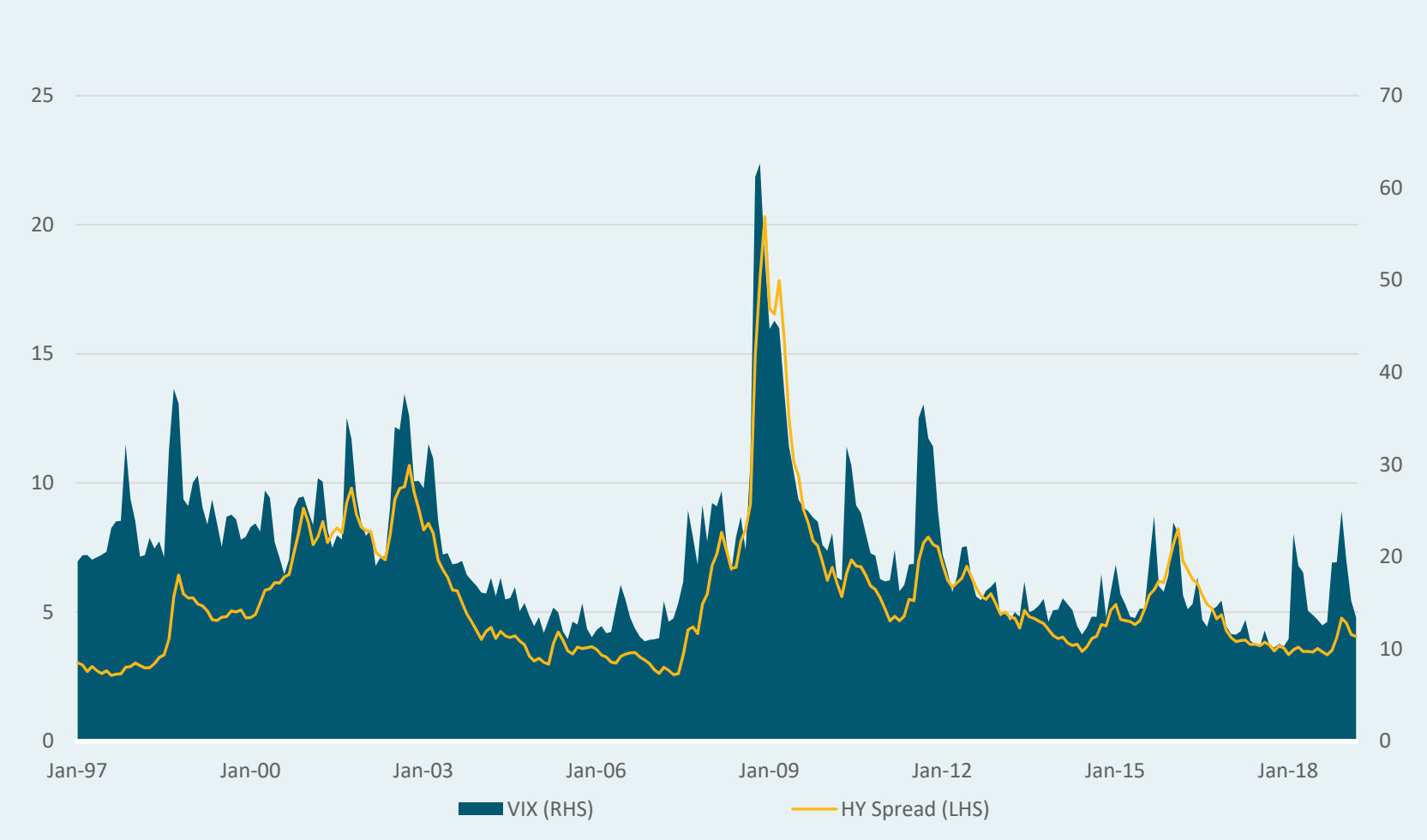
Market	Credit Spread (OAS)	
	3/31/19	3/31/18
Long U.S. Corp	1.7%	1.5%
U.S. Agg Corp	1.2%	1.1%
U.S. High Yield	3.9%	3.5%
U.S. Bank Loans*	4.4%	3.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 3/31/19

*Discount margin (4-year life)

Credit is sensitive to equity volatility

HIGH YIELD BOND SPREADS & VOLATILITY



When volatility rises, higher risk credit typically experiences losses

Source: Cboe, FRED, as of 3/31/19

Default & issuance

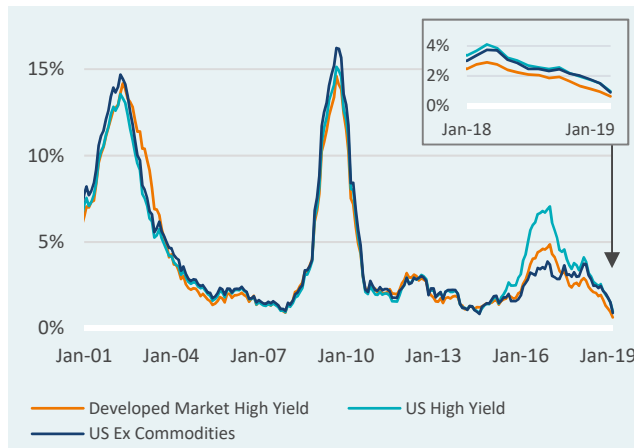
Default activity has been low and stable in the U.S. credit market, despite volatility in spreads. The par-weighted default rate declined to 0.9% and remains below its long-term average range of 3.0-3.5%. For loans, the par-weighted default rate at the end of March was 1.0%, its lowest level since April 2012 (0.8%), according to data from JPMorgan. Sectors that have been more prone to defaults include: consumer, retail, telecom, and automotive. The 2018 loan par-weighted default rate was 1.6%.

recovered from a wave of defaults seen in 2015-2016 that were generated from the energy and metals/mining sectors. High yield bond recovery rates have improved significantly since that time.

Gross high yield issue activity increased in March to the highest level seen since March of 2018. Loan market issuance is significantly behind last year's pace, likely influenced by a lower demand for floating rate securities now that the Fed has paused monetary tightening.

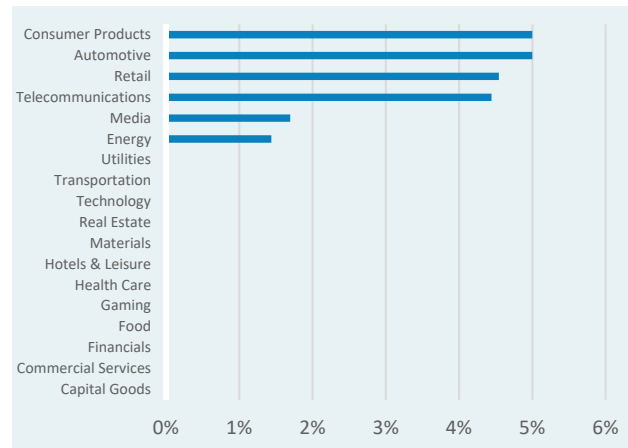
Senior loan and high yield markets have essentially

HY DEFAULT RATE (ROLLING 1-YEAR)



Source: BofA Merrill Lynch, as of 3/31/19

U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 3/31/19 – par weighted

GLOBAL ISSUANCE (\$ BILLIONS)



Source: Bloomberg, BofA Merrill Lynch, as of 3/31/19

Private credit

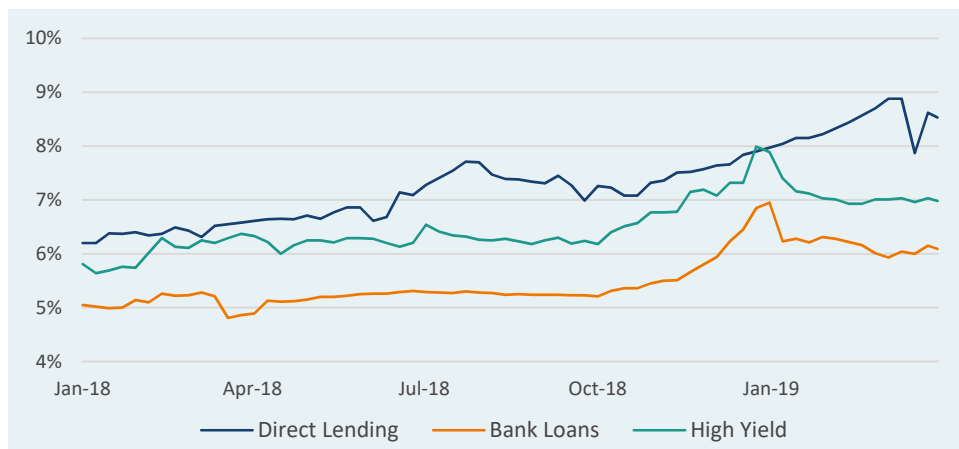
Fundraising in the private credit market slowed through year-end 2018. A total of 163 funds closed on \$110 billion during the year, which was down from 189 funds and \$129 billion in 2017. Direct lending, mezzanine, and distressed debt were the most active strategies, raising \$45 billion, \$31 billion, and \$21 billion, respectively. Even with slower fundraising, dry powder in private credit is at record levels. Private debt dry powder at the end of 2018 was \$280 billion, which beat the 2017 record of \$246 billion.

Yields for loans made by direct lending funds finished March at 8.5%. While yields have been aided by slightly higher LIBOR rates, which grew from 2.3% to 2.6% year-to-date, spreads increased from 4.3% to 5.9% year-to-date.

Fundraising slowed in private credit last year

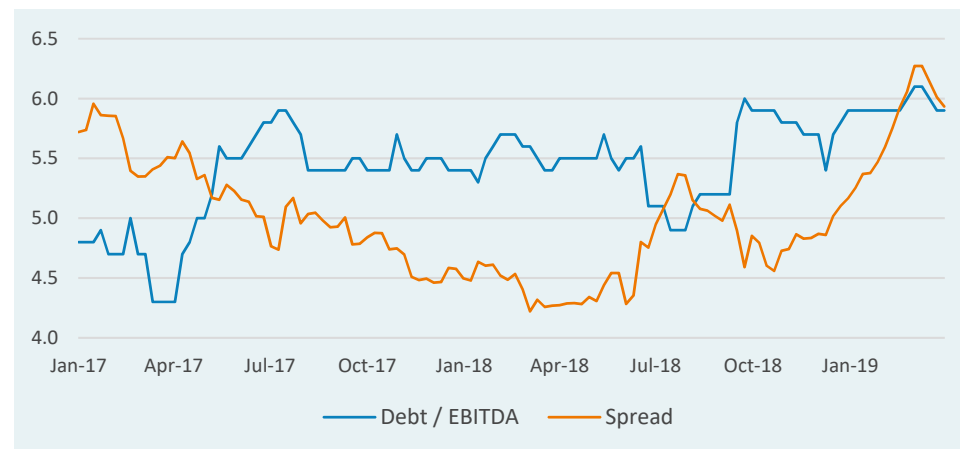
Credit spreads expanded in the first quarter, along with the debt multiples for borrowers. Borrowers now average debt totaling 5.9x EBITDA at the end of March, a 0.4x increase from one year prior.

YIELDS FOR DIRECT LENDING, BANK LOANS & HIGH YIELD



Source: The Lead Left, Middle Market, EBITDA < \$50MM; S&P LSTA US Leveraged Loan Index; ICE BofAML US High Yield Master II, as of 3/31/19

DIRECT LENDING LEVERAGE MULTIPLES (DEBT / EBITDA) & SPREAD



Source: The Lead Left, Middle Market Credit Stats, as of 3/31/19

Equity

Equity environment

- U.S. equities experienced a 13.6% total return (S&P 500 Index) in Q1, nearly a mirror image of Q4 2018. The first quarter has indeed been one of the strongest quarters recently, but was simply a bounce back in lost performance from the prior quarter. At the end of March, the S&P 500 price index was just 3.2% below its high watermark that was reached in September.
- Currency movement had little impact on unhedged international equity over the quarter, though currencies on a 1-year basis have had a substantially negative effect. An unhedged investment in international developed equities (MSCI EAFE) lost 8.9% of portfolio value due to currency movement.
- First quarter earnings growth for S&P 500 companies is expected to be negative for the first time since Q2 2016. If corporate earnings

expectations continue to be downgraded, this will likely hold back markets around the world. The greatest determinant of medium and long-term equity performance is typically the underlying trend of corporate earnings.

- The risk-on quarter drove small cap equities forward. The Russell 2000 Index posted a 14.6% return, compared to the 13.8% return of the Russell 1000 Index.
- Value equities underperformed growth equities over the quarter (Russell 1000 Value +11.7%, Russell 1000 Growth +16.0%). Performance over the quarter reversed value's gains from Q4 2018.
- After spiking in the fourth quarter, U.S. equity volatility returned to muted levels.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (Russell 1000)	13.8%		8.7%	
US Small Cap (Russell 2000)	14.6%		2.1%	
US Large Value (Russell 1000 Value)	11.7%		4.9%	
US Large Growth (Russell 1000 Growth)	16.0%		12.3%	
International Large (MSCI EAFE)	10.0%	11.3%	(3.7%)	5.2%
Eurozone (Euro Stoxx 50)	10.6%	12.9%	(6.3%)	5.8%
U.K. (FTSE 100)	9.5%	10.1%	(0.2%)	9.6%
Japan (NIKKEI 225)	6.8%	7.6%	(3.4%)	2.9%
Emerging Markets (MSCI Emerging Markets)	9.9%	9.8%	(7.4%)	(2.1%)

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 3/31/19

Domestic equity

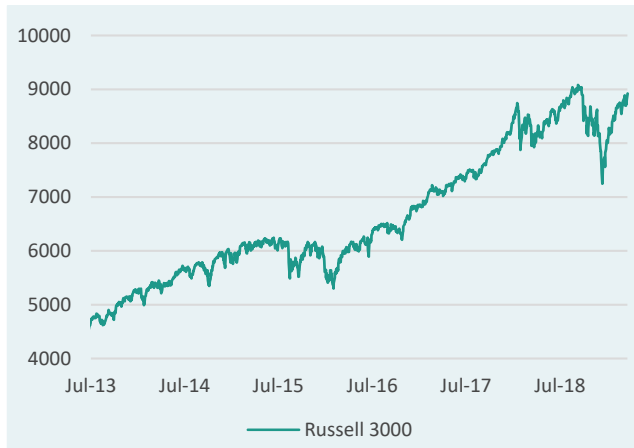
U.S. equities experienced a 13.6% total return (S&P 500 Index) in the first quarter, rebounding from the sharp sell-off in the prior quarter. At the end of March, the S&P 500 price index was just 3.2% below its high watermark that was reached in September. The bounce back in equity prices was driven by better than expected/feared Q1 corporate earnings, improving sentiment toward a U.S.-China trade deal, and the Fed's pivot to a more patient approach to monetary policy. The fall and subsequent rise in equities was primarily reflected in valuation changes. After dropping to a low of 13.6 in December, the forward 12-month P/E ratio on the S&P 500 finished the

quarter at 16.7, essentially unchanged over the past six months.

Now 10 years removed from the bottom of the financial crisis, it is worth noting that U.S. equities have experienced one of their best decades of performance ever. The S&P 500 had a compound price return of 14.2% per year, and over 75% of this was due to profit margin and valuation expansion. With both of these measures at above average levels, we do not think that it is reasonable to expect this level of performance to continue moving forward.

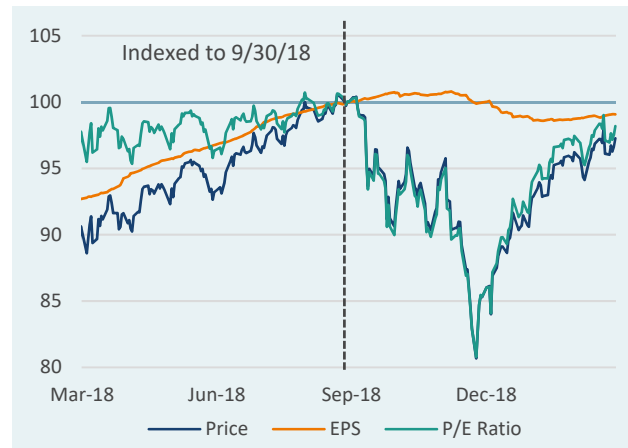
We maintain a neutral view on U.S. equities

U.S. EQUITIES



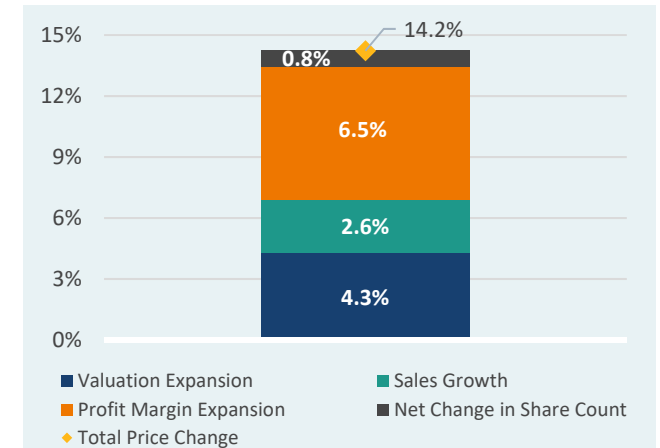
Source: Russell Investments, as of 3/31/19

S&P 500 PRICE MOVEMENT ATTRIBUTION



Source: Bloomberg, as of 3/31/19

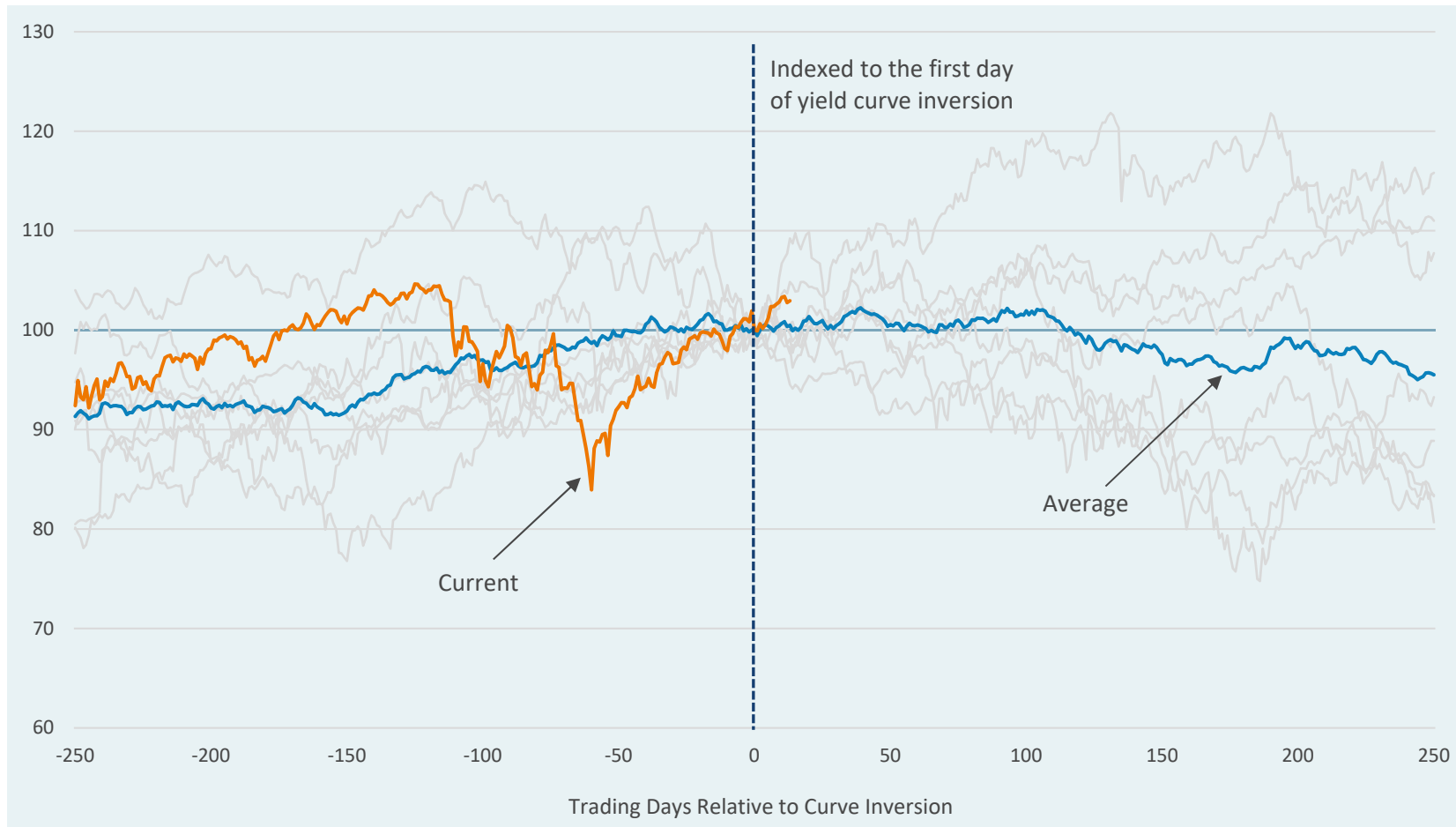
S&P 500 10-YR PRICE RETURN ATTRIBUTION



Source: Verus, Bloomberg, as of 3/31/19

Equity markets and yield curve inversions

EQUITY PERFORMANCE AROUND CURVE INVERSIONS



Equity performance has varied widely following yield curve inversion

Source: Bloomberg, Verus, as of 3/31/19 – equities are represented by the S&P 500 Index and the yield curve is defined as the difference between the 10-year and 3-month Treasury yield; see page 23 for the dates of yield curve inversion

U.S. equity & the economic cycle



A material short-term relationship exists between equity performance and economic growth

An investor's views on the economy cycle should therefore impact equity positioning

Source: Standard & Poor's, data since 1948

Domestic equity size & style

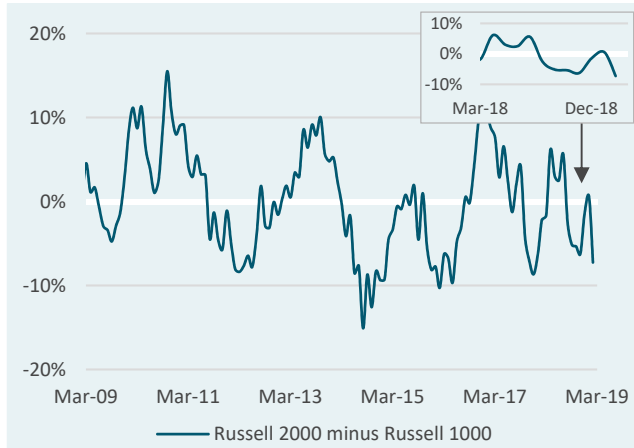
Small cap equities (Russell 2000 +14.6%) slightly outperformed large cap equities (Russell 1000 +14.0%) during the quarter. Meanwhile, growth stocks outperformed value stocks by a wide margin (Russell 1000 Growth +16.1% vs. Russell 1000 Value +11.9%).

The impact of sector performance on the value premium was more nuanced in Q1, as Materials (+10.3%) and Financials (+8.6%) underperformed the overall index (S&P 500 +13.6%), but Energy (+16.4%) outperformed. Information Technology,

the top performing sector, continued to deliver outsized returns (+19.9%).

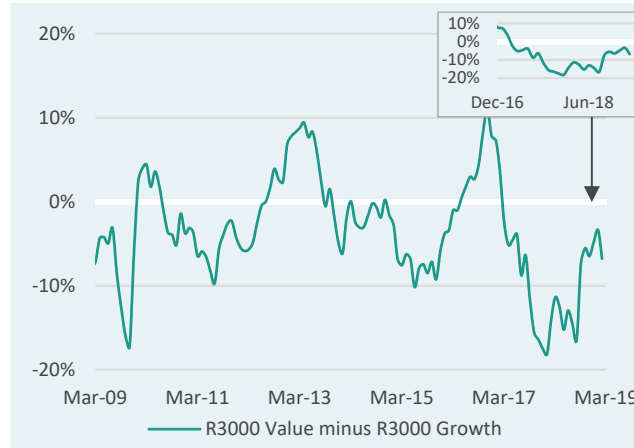
Both the small cap premium and value premium have struggled to deliver positive risk premiums over the past 10 years. It can be difficult to endure longer periods of factor underperformance, but similar to the equity premium in general, these periods do exist and investors should expect this on occasion.

SMALL CAP VS LARGE CAP (YOY)



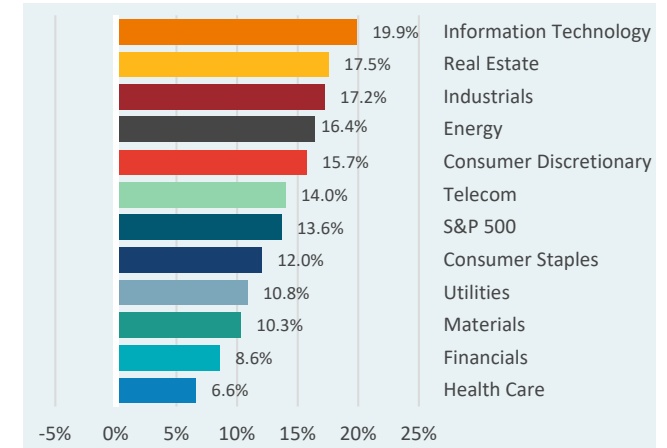
Source: FTSE, as of 3/31/19

VALUE VS GROWTH (YOY)



Source: FTSE, as of 3/31/19

Q1 S&P 500 SECTOR RETURNS



Source: Morningstar, as of 3/31/19

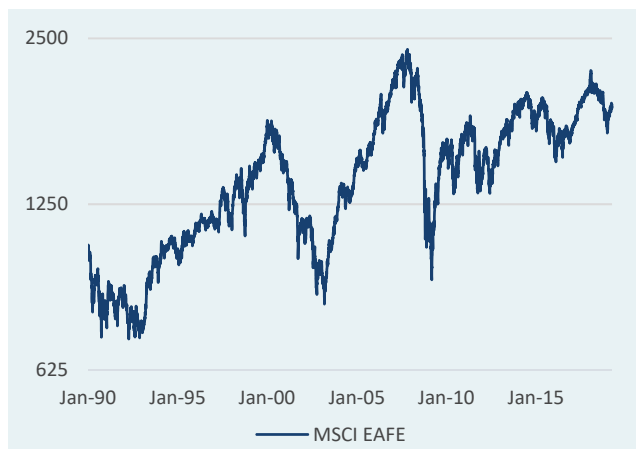
International developed equity

Like U.S. equities, international developed equities erased most of the losses they suffered in the prior quarter. After posting a return of -12.5% in Q4, the MSCI EAFE Index returned +10.2% in Q1. Currency losses were a mild detractor from unhedged U.S. dollar performance. On a currency hedged basis, EAFE equities returned 11.3%. From a country perspective, Swiss, French and UK equities outperformed, while Japanese and German equities lagged the overall index. While most markets are back near record highs, German equities (MSCI Germany) finished the quarter 17% below the previous high watermark. Underperformance in German equities has likely been influenced by a greater

sensitivity to global growth and trade as well as concerns over a slowing domestic economy.

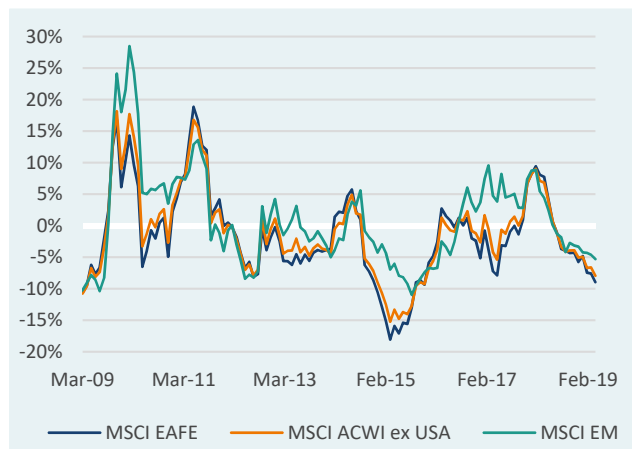
International developed equity markets are still cheap on both an absolute and relative basis at 13.3x forward earnings, but we believe there are good reasons for this pricing in certain markets. Within equity allocations, we are pessimistic on EAFE equities primarily due to a negative view on the Eurozone. We believe slowing economic growth, rising political risks, and the lacking ability of the ECB to meaningfully ease policy presents material headwinds to equity performance.

INTERNATIONAL DEVELOPED EQUITIES



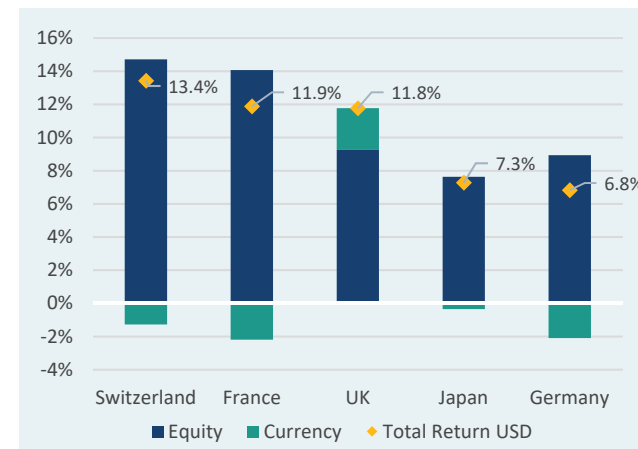
Source: MSCI, as of 3/31/19

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 3/31/19

Q1 COUNTRY PERFORMANCE



Source: MSCI, largest five country exposures shown above

Emerging market equity

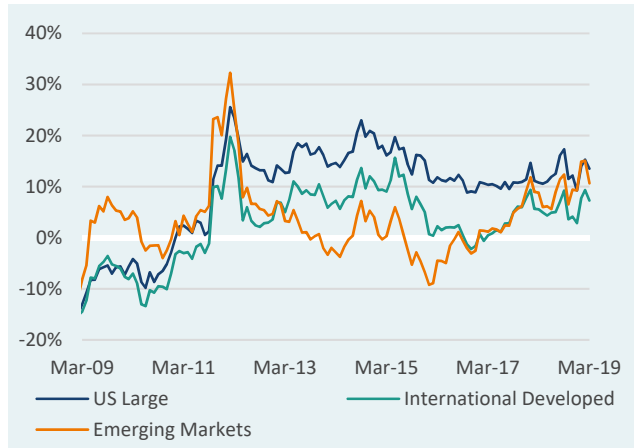
Emerging market equity performance was in-line with international developed markets in the first quarter, while U.S. equities outperformed. Currencies in these markets continued to show stability (MSCI EM +9.9%, MSCI EM Hedged +9.8%). Business sentiment across emerging market economies indicates expanding conditions, and fears of a sharp China slowdown have subsided. Moderating conditions may bolster emerging market returns throughout the year.

Equity multiples rebounded in the first quarter and are near

the long-term average. The divide between domestic and emerging equities remains wide.

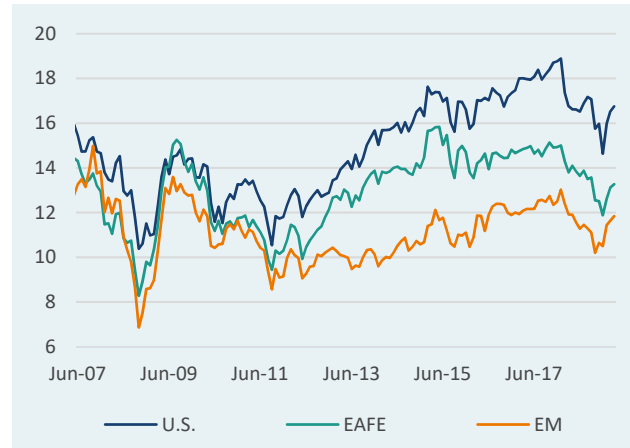
Decelerating global growth and rising probability of recession do present unique risks to emerging markets, as these markets typically exhibit a higher beta during market downside and upside moves. However, emerging markets can also deliver robust performance in times of moderate growth and easy monetary policy when investors seek growth and higher yields.

EQUITY PERFORMANCE (3-YR ROLLING)



Source: Standard & Poor's, MSCI, as of 3/31/19

FORWARD P/E



Source: MSCI, as of 3/31/19

PURCHASING MANAGERS' INDEX (PMI)

	18-Dec	19-Jan	19-Feb	19-Mar
Manufacturing				
Global	51.4	50.8	50.6	50.6
Developed	52.3	51.8	50.4	50.0
US	54.3	56.6	54.2	55.3
EM	50.3	49.5	50.6	51.0
Services				
Global	53.0	52.6	53.3	53.7
Developed	52.8	52.5	53.7	53.7
US	58.0	56.7	59.7	56.1
EM	53.6	52.9	52.1	53.6

Source: Markit, Institute for Supply Management (ISM)

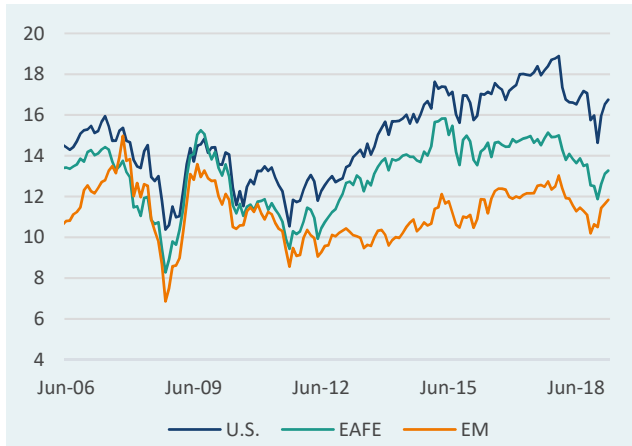
Equity valuations

The fall and subsequent rise in global equity prices was primarily driven by changes in valuations. The recovery in Q1 brought most broad equity market valuations back to September 2018 levels, but below recent cycle highs. In the U.S., equities commanded a forward P/E multiple of 16.7x after hitting a multi-year low in December at 14.6x. International equity valuations also recovered, but are still cheap on a relative basis, particularly when compared to the U.S. At the end of March, the MSCI EAFE and EM Indexes had forward P/E multiples of 13.3x and 11.8x, respectively. U.S. equities currently trade at a 25% forward premium to EAFE

equities, which is the largest gap over the past 15 years. While we believe there are reasons that EAFE equity markets command cheap valuations, particularly in Europe, it is worth noting that barring a significant change in the earnings environment, these markets should have a strong valuation support.

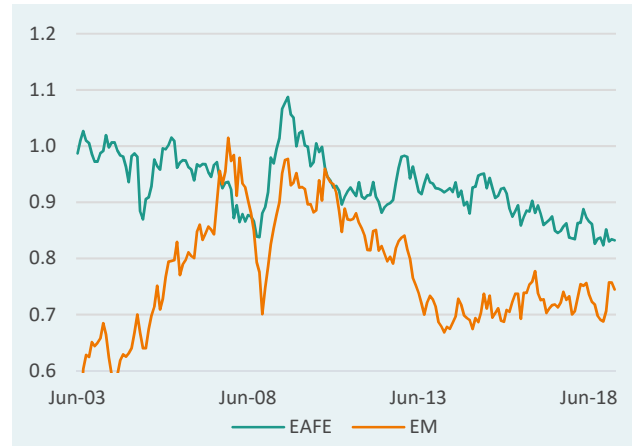
Over the long-term, valuations have had a material relationship with forward equity returns. Given this relationship, we are wary of extrapolating out the recent strong outperformance in U.S. equities.

FORWARD P/E RATIOS



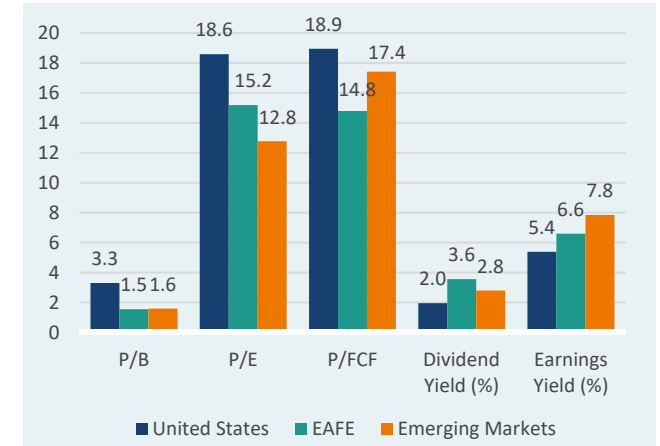
Source: MSCI, as of 3/31/19

P/E MULTIPLES RELATIVE TO U.S. EQUITIES



Source: Verus, MSCI, as of 3/31/19

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, MSCI as of 3/31/19 - trailing P/E

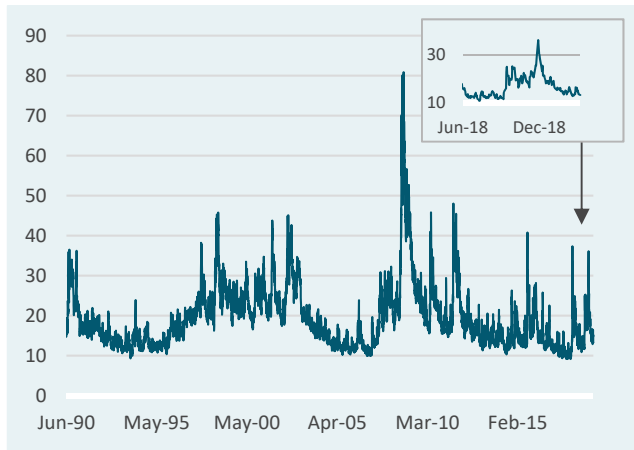
Equity volatility

Equity volatility spiked in the fourth quarter of 2018 but returned to low levels in Q1. The VIX Index ended March at 13.7, which ranked in the 26th percentile dating back to 1990 (volatility was this low 26% of the time). Low volatility is somewhat normal during later stages of the market cycle as the economy expands and business conditions hold steady. However, some investors have questioned the lack of price movement, given seemingly heightened geopolitical and economic risks present around the world today.

One-year volatility picked up after a tumultuous fourth quarter. U.S. markets have shown higher volatility than international markets for the first time since 2008, with a trailing 1 year volatility of 16%.

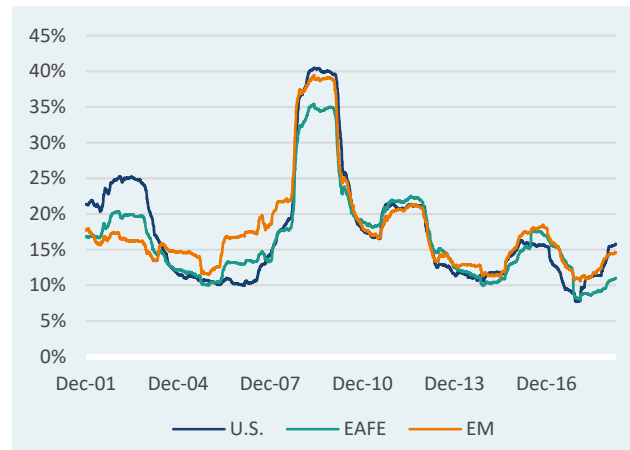
Equity performance around the world in Q1 was nearly a mirror image of 2018 Q4. The first quarter has indeed been one of the strongest quarters of recent decades, but this was mostly a bounceback in lost performance from the prior quarter.

U.S. IMPLIED VOLATILITY (VIX)



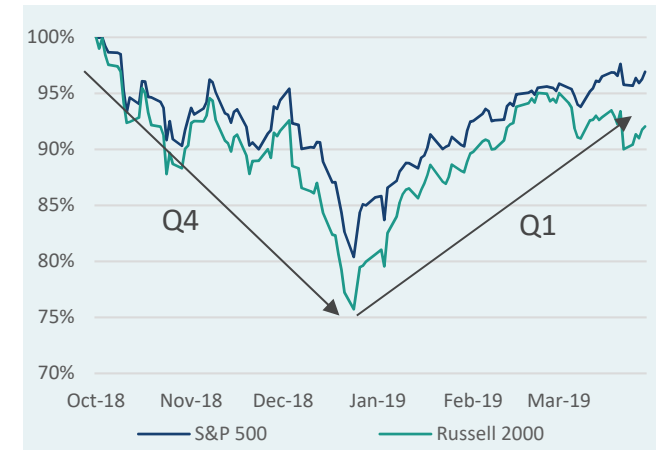
Source: CBOE, as of 3/31/19

REALIZED 1-YEAR ROLLING VOLATILITY



Source: Bloomberg, as of 3/31/19

2019 Q1 PERFORMANCE BOUNCE BACK



Source: Bloomberg, as of 3/31/19

Private equity

Venture capital fundraising and deal volumes continued to set records. \$55 billion of venture capital was raised in the U.S. in 2018, an increase of 63% over the previous year. Similarly, the amount of venture deals were up 58%. Venture deal volume in 2018 of \$131 billion exceeded the record of \$82 billion that was set in 2017.

Buyout activity continued to increase in 2018. Through the fourth quarter, buyouts were up 29% and 5% when measured by dollar value and number of transactions, respectively. The size of the average buyout, \$155 million, increased from \$133 million in 2017. Unlike deal flow, fund capital raising has slowed from the peaks of 2017. Only 186

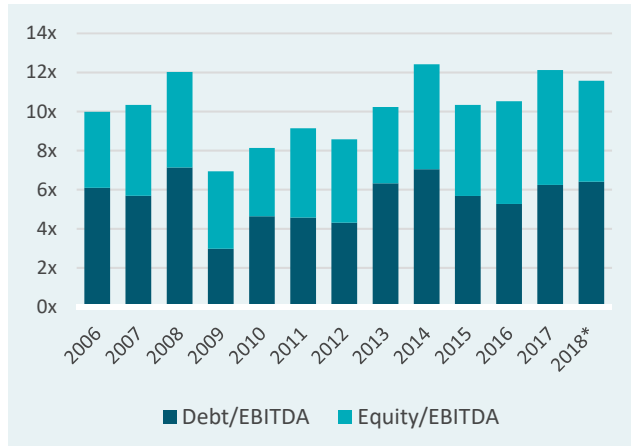
buyout funds representing \$166 billion closed in 2018, down from 235 funds representing a record \$225 billion in 2017.

Buyout multiples decreased slightly from 2017. Average EV/EBITDA was 11.6x through December 31, 2018 (down from 11.9x in 2017) with debt multiples averaging 6.2x through the fourth quarter. Debt as a percentage of transaction value hovered around 54%.

Balancing high deal multiples and a growing number of deals against a slowdown in fundraising, we advocate selectivity in fund investments.

Deals increased in buyouts and venture; multiples are steady; buyout fundraising has slowed

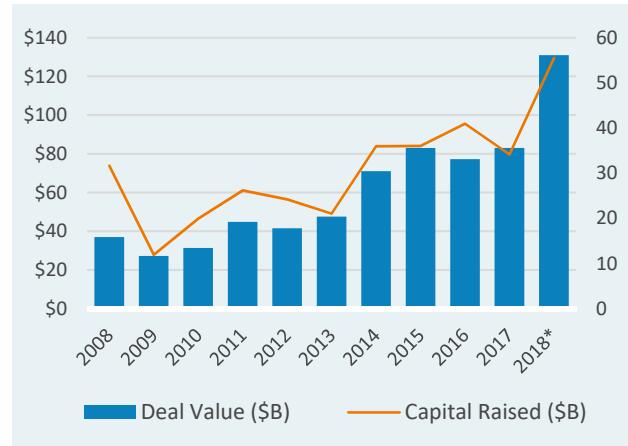
TRANSACTION MULTIPLES



Source: PitchBook, as of 12/31/18

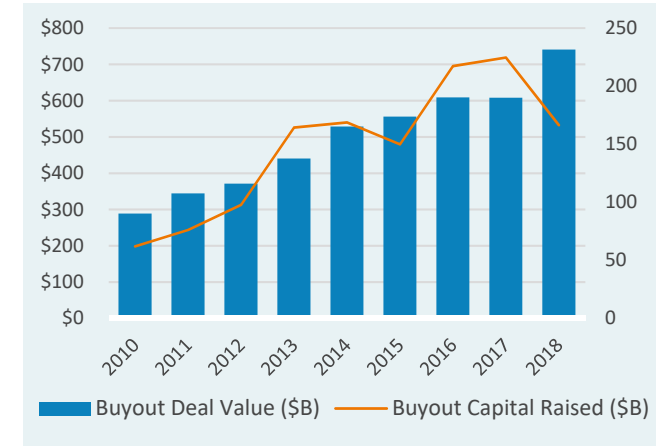
*2018 figures are estimates and are subject to change

VENTURE DEAL VOLUME & FUNDRAISING



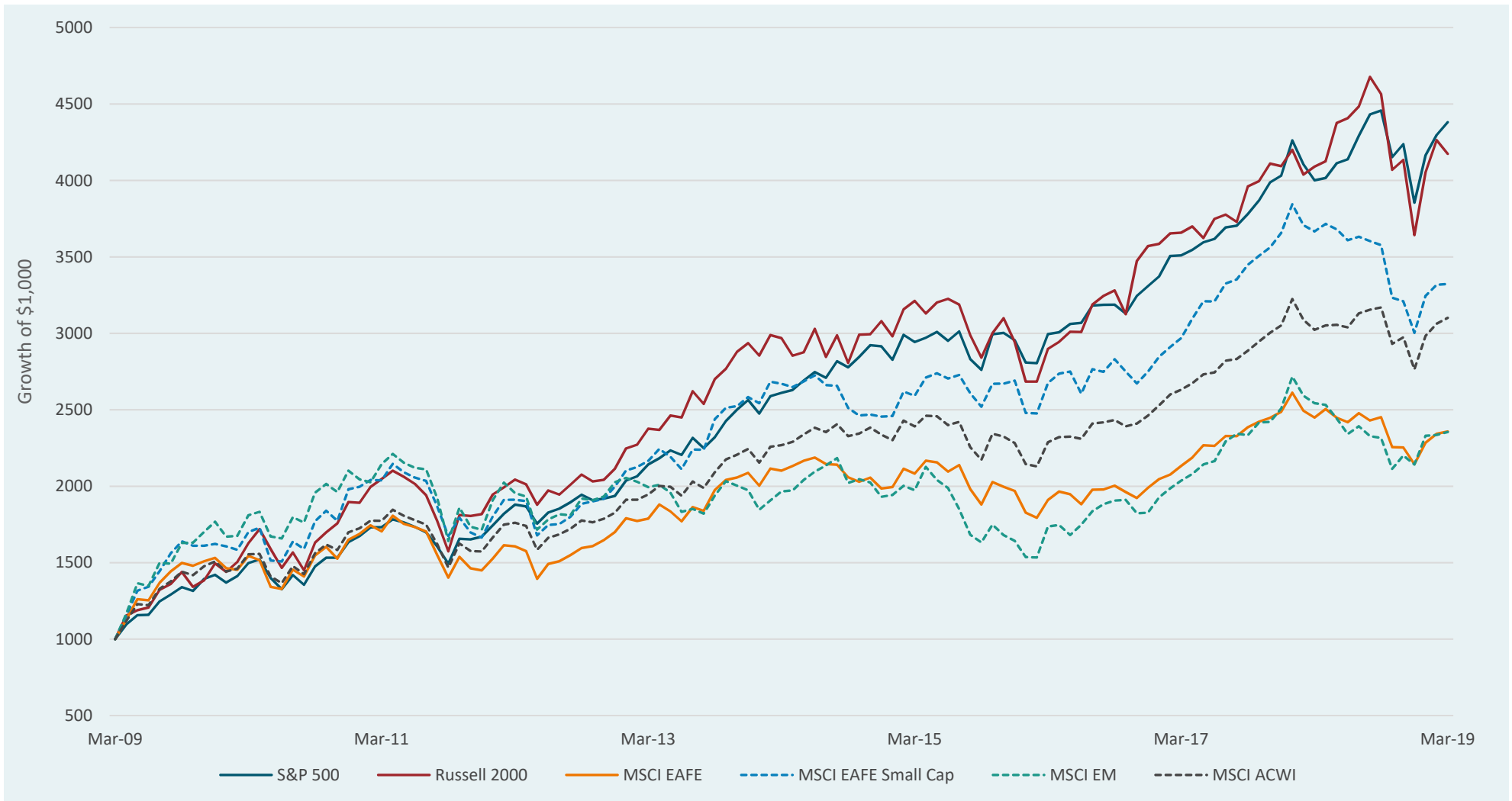
Source: PitchBook, as of 12/31/18

BUYOUTS DEAL VOLUME & CAPITAL RAISED



Source: PitchBook, as of 12/31/18

Long-term equity performance



Source: Morningstar, as of 3/31/19

Other assets

Currency

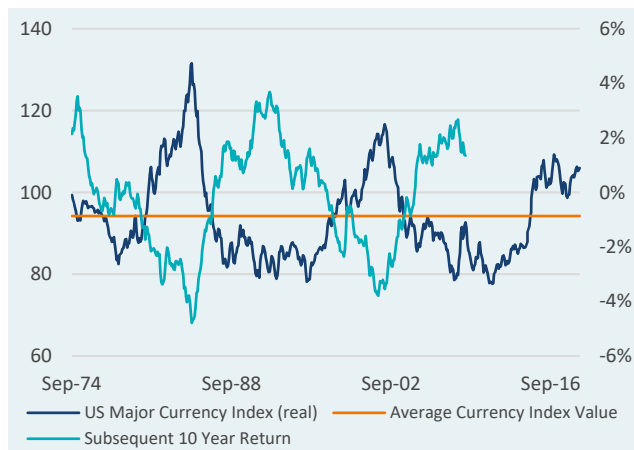
The U.S. dollar failed to gain traction in either direction during the first quarter, and remained near cycle highs. The Major Trade Weighted U.S. Dollar Index fell 0.3% over the period, but was 12.5% above its long-term average dating back to 1974 at the end of March. Expectations for a more accommodative Fed and weaker relative U.S. economic growth (from strong levels in 2018) has led many investors to call for U.S. dollar depreciation, but this has not occurred thus far. This may in part be because other developed central banks have followed the Fed's lead in moving away from monetary tightening.

Emerging market currencies were relatively stable versus the dollar for a second consecutive quarter. The JPMorgan Emerging Market Currency Index gained 0.4%. EM currencies have yet to stage a major comeback after falling more than 15% in the middle of last year.

The U.S. dollar remained near a cycle high

Despite some high-profile Brexit related volatility in the British pound, the global FX market has been relatively quiet. The trailing 1-year volatility of the Bloomberg Dollar Spot Index was 5.2% at the end of the quarter, the lowest level since 2014.

U.S. DOLLAR TRADE WEIGHTED INDEX



Source: Federal Reserve, Verus, as of 3/31/19

JPM EMERGING MARKET CURRENCY INDEX



Source: Bloomberg, JPMorgan, as of 3/31/19

BLOOMBERG DOLLAR SPOT INDEX VOLATILITY



Source: Bloomberg, as of 3/31/19, trailing 12-month vol shown

Hedge funds

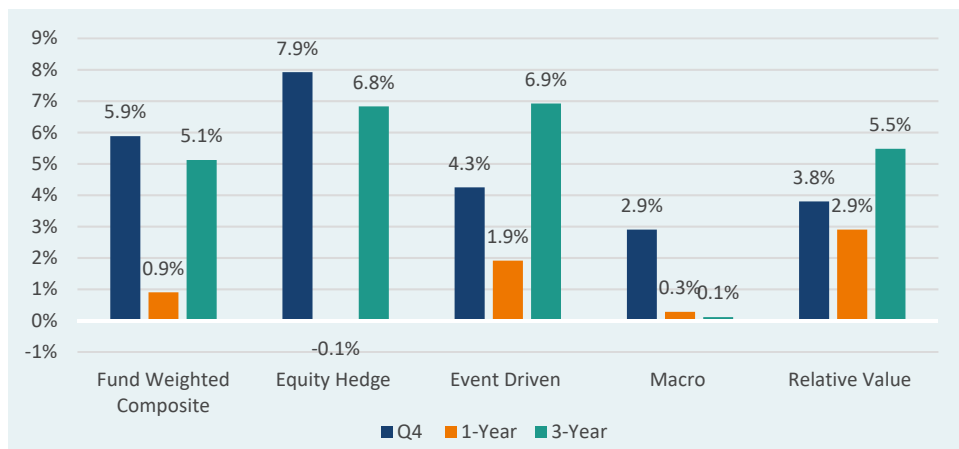
Hedge funds consistently advanced alongside the broad markets and enjoyed the best first calendar quarter result since 2006 (Hedge Fund Weighted Composite (FWC) +5.9% in 2019Q1; +0.9% trailing 12-months). While gains were broad based across strategy types, funds with greater equity market sensitivity earned the highest results. Within the equity hedge strategy set, funds with higher beta exposure rallied strongly.

According to Hedge Fund Research, growth-oriented managers (+9.3%) narrowly outperformed value-oriented (9%) peers. Healthcare focused funds (+13.2%) also stood out as winners. Activists (+8.3%) largely rebounded from a dismal Q4 last year.

For managers trading fixed income securities, funds focused on convertible arbitrage (+5.5%) and credit arbitrage (+5.1%) fared well as those markets bounced back this quarter. Asset backed (+1.7%) and fixed income multi-strategy managers (+2%) posted more muted gains.

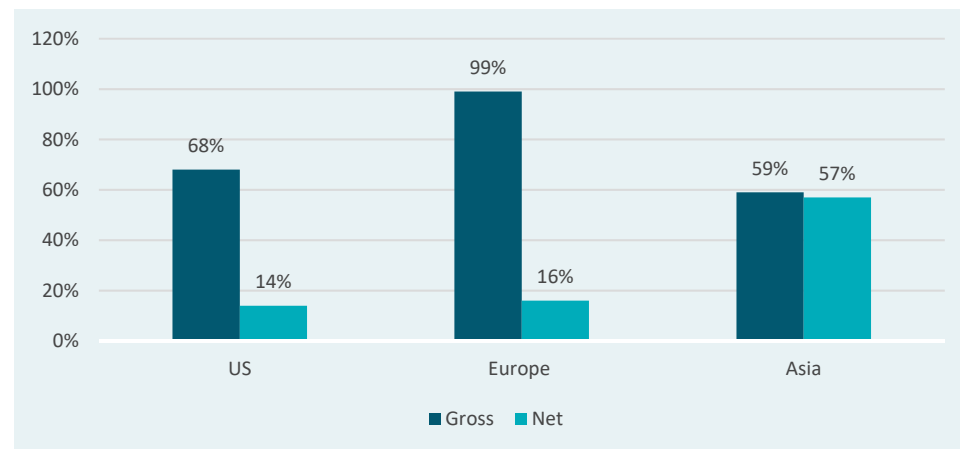
Hedge funds responded to the Q4 sell-off last year by cutting gross and net exposure levels to relatively low levels by year end. Gross leverage has since largely rebounded while net exposure, with the exception of Asia, remains below pre-sell off levels.

HFRI HEDGE FUND STYLE PERFORMANCE



Source: HFRI, as of 3/31/19

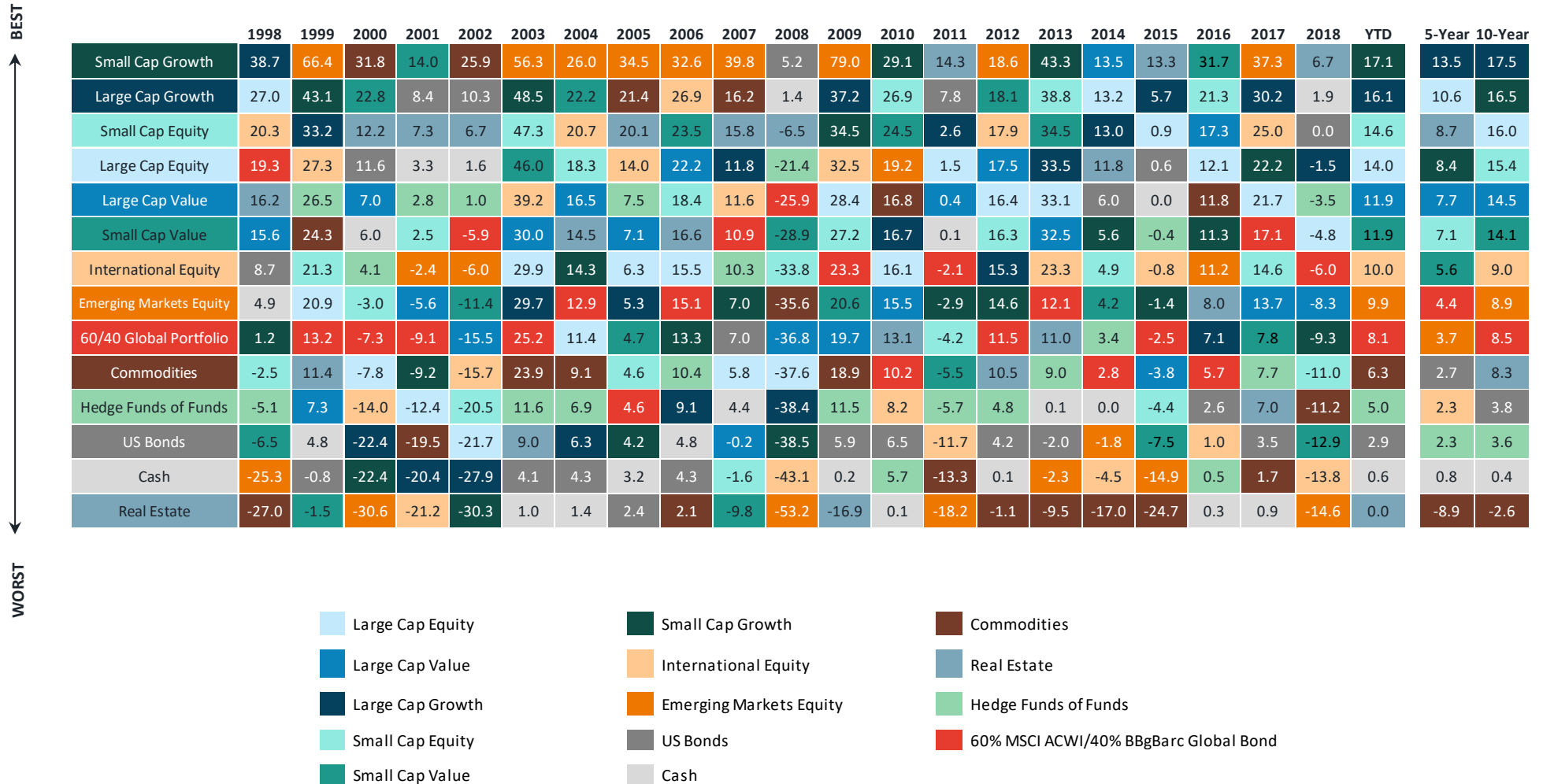
HEDGE FUND LEVERAGE LEVELS BY REGION



Source: Morgan Stanley, as of 3/31/19

Appendix

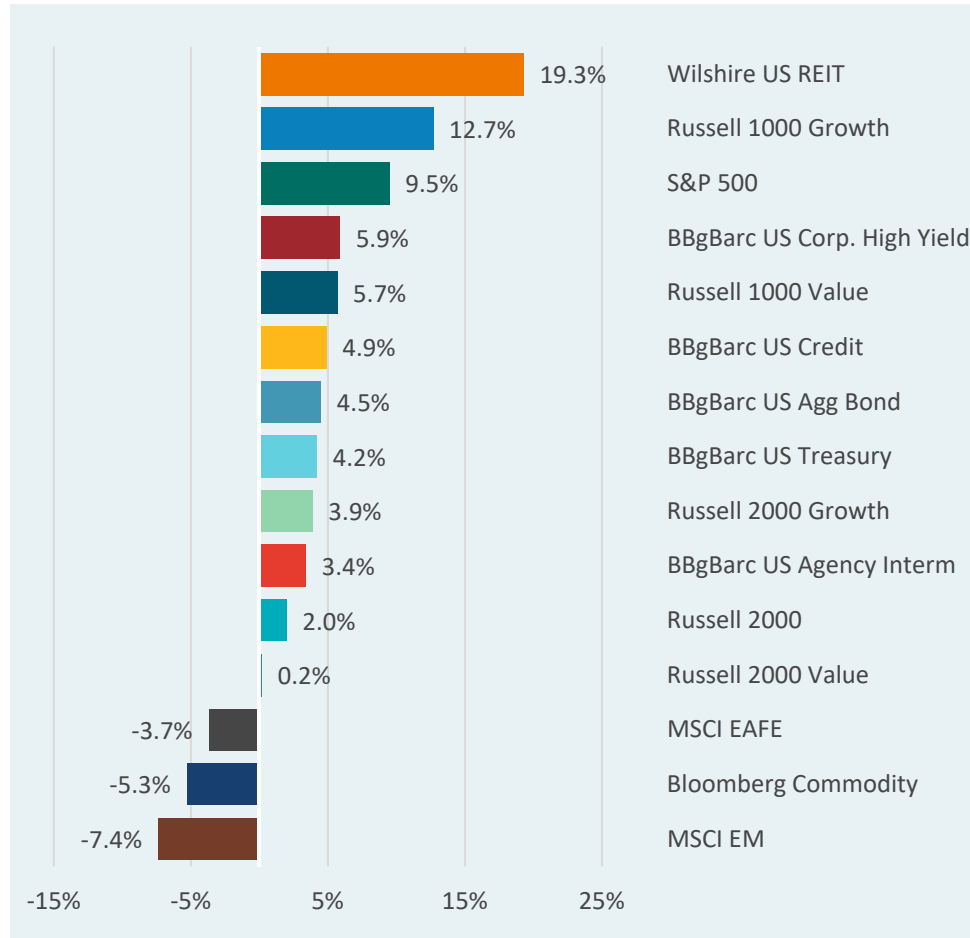
Periodic table of returns



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 12/31/18.

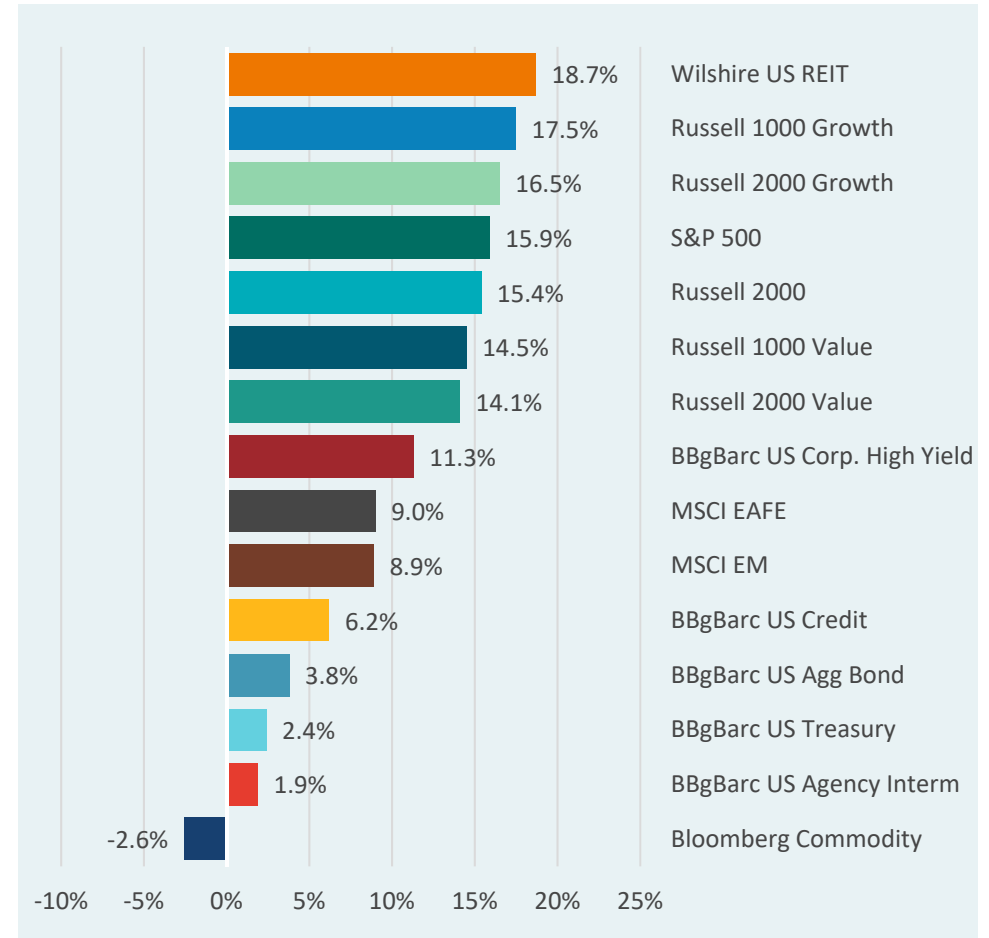
Major asset class returns

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/19

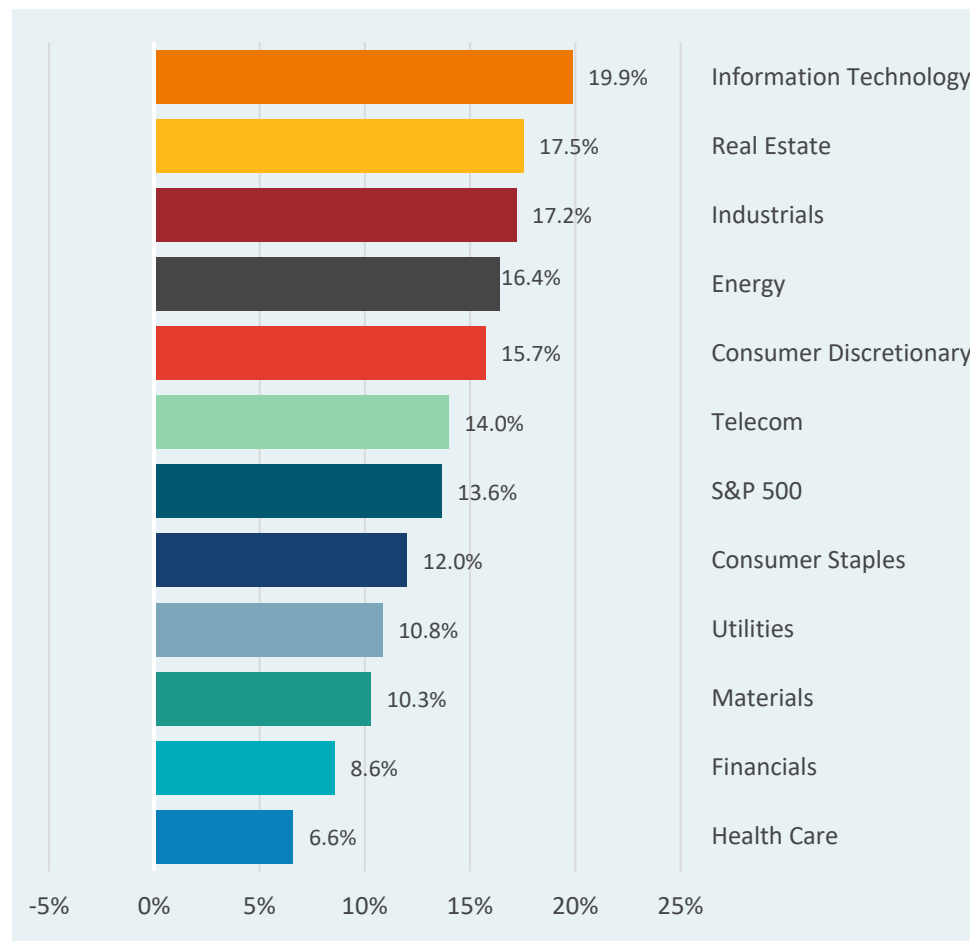
TEN YEARS ENDING MARCH



Source: Morningstar, as of 3/31/19

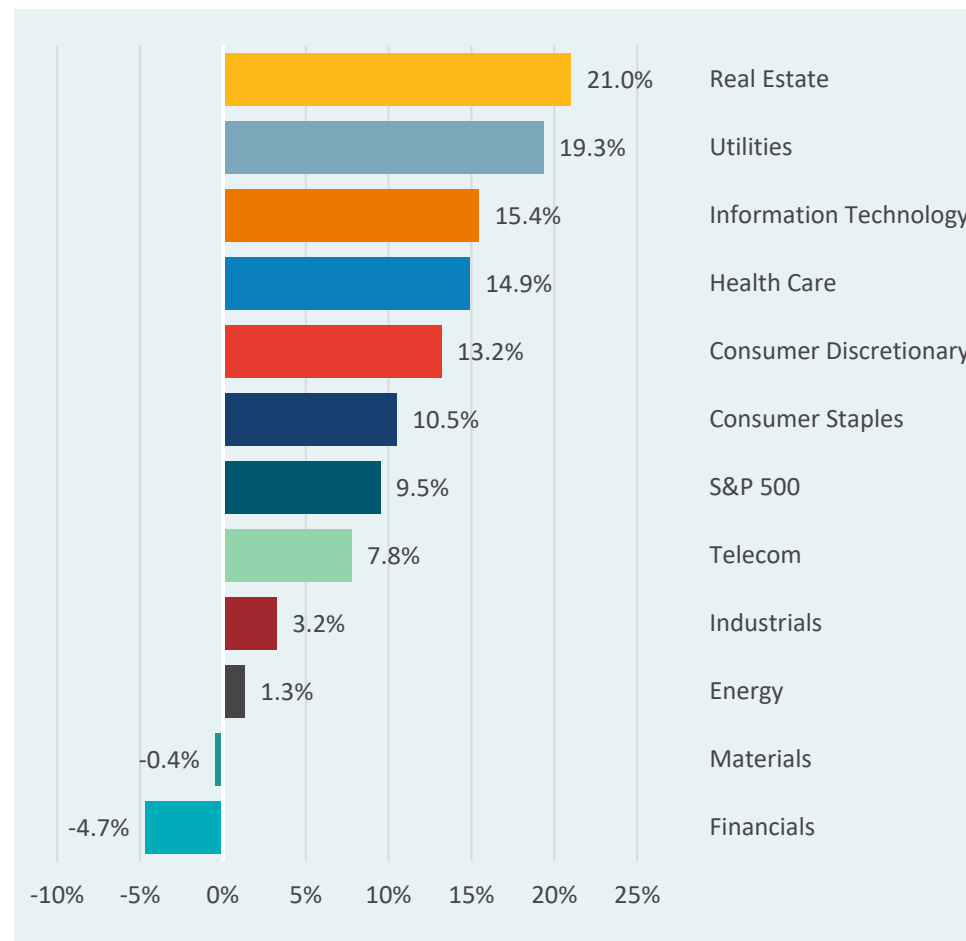
S&P 500 sector returns

QTD



Source: Morningstar, as of 3/31/19

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/19

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	1.9	13.6	13.6	9.5	13.5	10.9	15.9
S&P 500 Equal Weighted	0.9	14.9	14.9	7.2	12.0	9.5	17.8
DJ Industrial Average	0.2	11.8	11.8	10.1	16.4	12.2	16.0
Russell Top 200	2.1	13.1	13.1	10.4	14.2	11.4	15.7
Russell 1000	1.7	14.0	14.0	9.3	13.5	10.6	16.0
Russell 2000	(2.1)	14.6	14.6	2.0	12.9	7.1	15.4
Russell 3000	1.5	14.0	14.0	8.8	13.5	10.4	16.0
Russell Mid Cap	0.9	16.5	16.5	6.5	11.8	8.8	16.9
Style Index							
Russell 1000 Growth	2.8	16.1	16.1	12.7	16.5	13.5	17.5
Russell 1000 Value	0.6	11.9	11.9	5.7	10.5	7.7	14.5
Russell 2000 Growth	(1.4)	17.1	17.1	3.9	14.9	8.4	16.5
Russell 2000 Value	(2.9)	11.9	11.9	0.2	10.9	5.6	14.1

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	1.3	12.2	12.2	2.6	10.7	6.5	12.0
MSCI ACWI ex US	0.6	10.3	10.3	(4.2)	8.1	2.6	8.8
MSCI EAFE	0.6	10.0	10.0	(3.7)	7.3	2.3	9.0
MSCI EM	0.8	9.9	9.9	(7.4)	10.7	3.7	8.9
MSCI EAFE Small Cap	0.2	10.7	10.7	(9.4)	7.5	4.5	12.8
Style Index							
MSCI EAFE Growth	1.8	12.0	12.0	(1.3)	7.6	3.9	9.7
MSCI EAFE Value	(0.5)	7.9	7.9	(6.1)	6.9	0.7	8.1
Regional Index							
MSCI UK	1.1	11.9	11.9	(0.1)	6.3	0.7	9.3
MSCI Japan	0.6	6.7	6.7	(7.8)	8.1	5.6	8.0
MSCI Euro	0.0	9.8	9.8	(7.8)	6.5	0.6	7.5
MSCI EM Asia	1.8	11.1	11.1	(6.8)	11.8	6.2	10.8
MSCI EM Latin American	(2.5)	7.9	7.9	(6.7)	11.1	(0.3)	5.3

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	1.8	3.2	3.2	2.7	1.7	1.9	3.4
BBgBarc US Treasury Bills	0.2	0.6	0.6	2.2	1.2	0.8	0.5
BBgBarc US Agg Bond	1.9	2.9	2.9	4.5	2.0	2.7	3.8
Duration							
BBgBarc US Treasury 1-3 Yr	0.6	1.0	1.0	2.7	1.0	1.0	1.0
BBgBarc US Treasury Long	5.3	4.7	4.7	6.2	1.5	5.4	5.1
BBgBarc US Treasury	1.9	2.1	2.1	4.2	1.0	2.2	2.4
Issuer							
BBgBarc US MBS	1.5	2.2	2.2	4.4	1.8	2.6	3.1
BBgBarc US Corp. High Yield	0.9	7.3	7.3	5.9	8.6	4.7	11.3
BBgBarc US Agency Interim	0.9	1.4	1.4	3.4	1.2	1.6	1.9
BBgBarc US Credit	2.4	4.9	4.9	4.9	3.5	3.6	6.2

OTHER

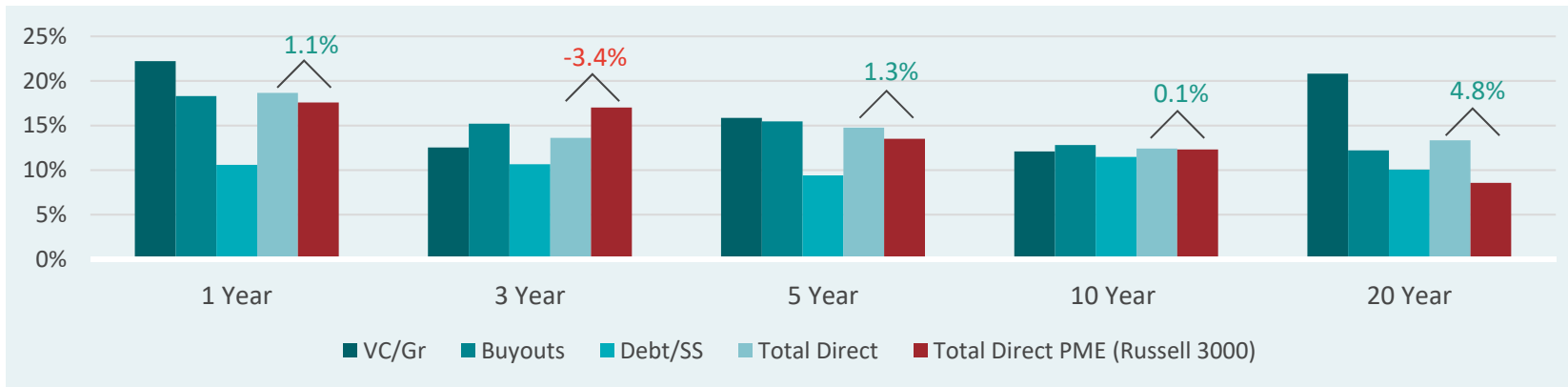
Index							
Bloomberg Commodity	(0.2)	6.3	6.3	(5.3)	2.2	(8.9)	(2.6)
Wilshire US REIT	3.2	16.0	16.0	19.3	5.5	9.0	18.7
CS Leveraged Loans	(0.1)	3.8	3.8	3.3	5.9	3.8	8.0
Alerian MLP	3.8	17.4	17.4	16.8	5.9	(4.2)	11.1
Regional Index							
JPM EMBI Global Div	1.4	7.0	7.0	4.2	5.8	5.4	8.5
JPM GBI-EM Global Div	(1.3)	2.9	2.9	(7.6)	3.3	(0.8)	4.4
Hedge Funds							
HFRI Composite	1.0	5.9	5.9	0.9	5.1	3.1	5.5
HFRI FOF Composite	1.3	5.0	5.0	0.5	4.1	2.3	3.6
Currency (Spot)							
Euro	(1.4)	(1.8)	(1.8)	(8.7)	(0.5)	(4.0)	(1.7)
Pound	(2.0)	2.3	2.3	(7.1)	(3.2)	(4.8)	(0.9)
Yen	0.6	(0.9)	(0.9)	(3.9)	0.5	(1.4)	(1.1)

Source: Morningstar, HFR, as of 3/31/19

Private equity vs. public performance

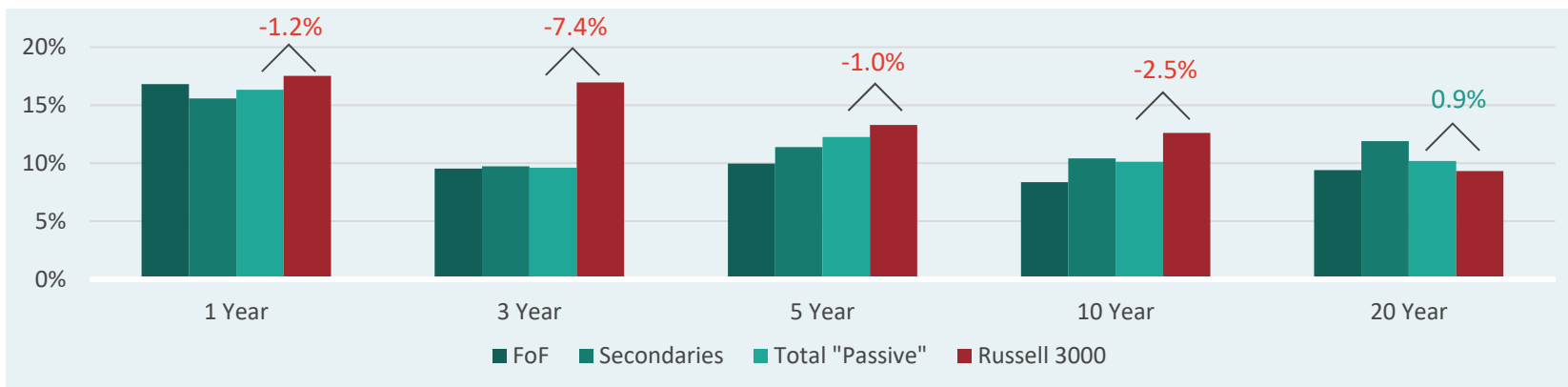
As of 9/30/2018

PUBLIC MARKET EQUIVALENT (PME) ANALYSIS - DIRECT PRIVATE EQUITY



Public market equivalent (PME) analysis shows that direct private equity has outperformed public equity over most periods

PUBLIC MARKET EQUIVALENT (PME) ANALYSIS - "PASSIVE" PRIVATE EQUITY



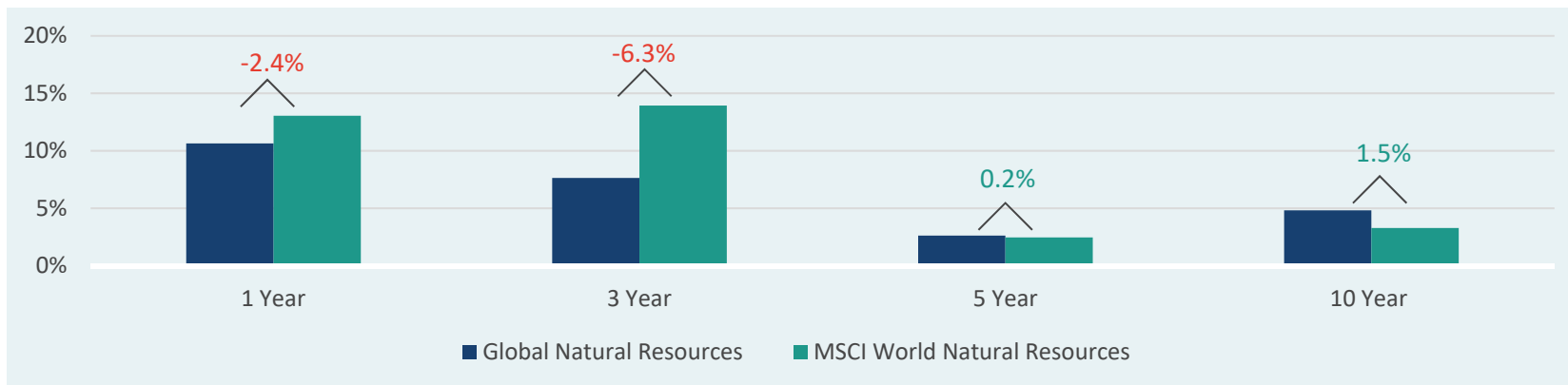
Fund-of-fund & secondary private equity investments have lagged public equities

Sources: Thomson Reuters Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of September 30, 2018. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

Private vs. liquid real assets performance

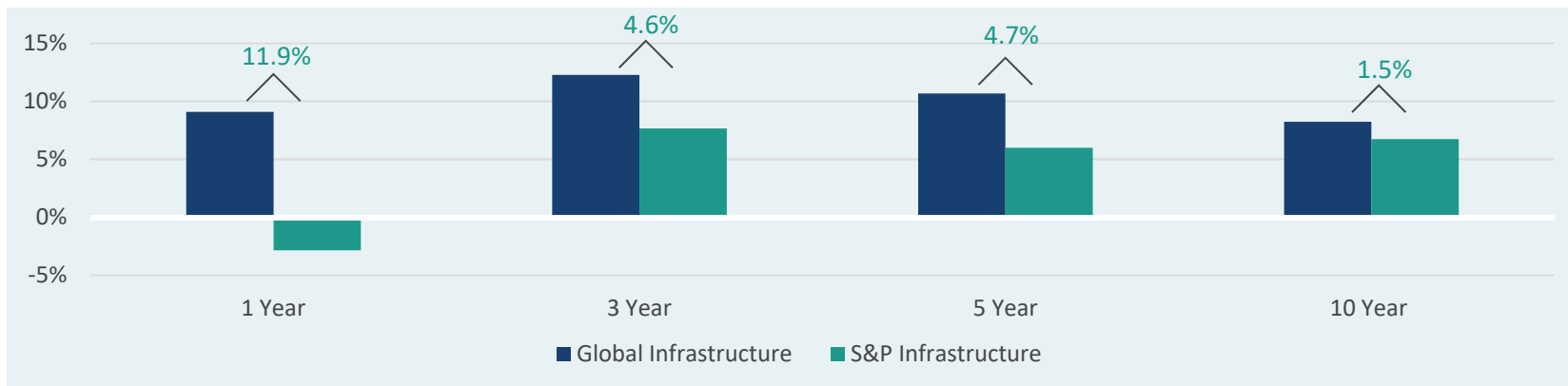
As of 9/30/2018

PUBLIC MARKET EQUIVALENT (PME) ANALYSIS - GLOBAL NATURAL RESOURCES FUNDS



Public market equivalent (PME) analysis shows that private infrastructure has recently underperformed publicly listed infrastructure

PUBLIC MARKET EQUIVALENT (PME) ANALYSIS - GLOBAL INFRASTRUCTURE FUNDS



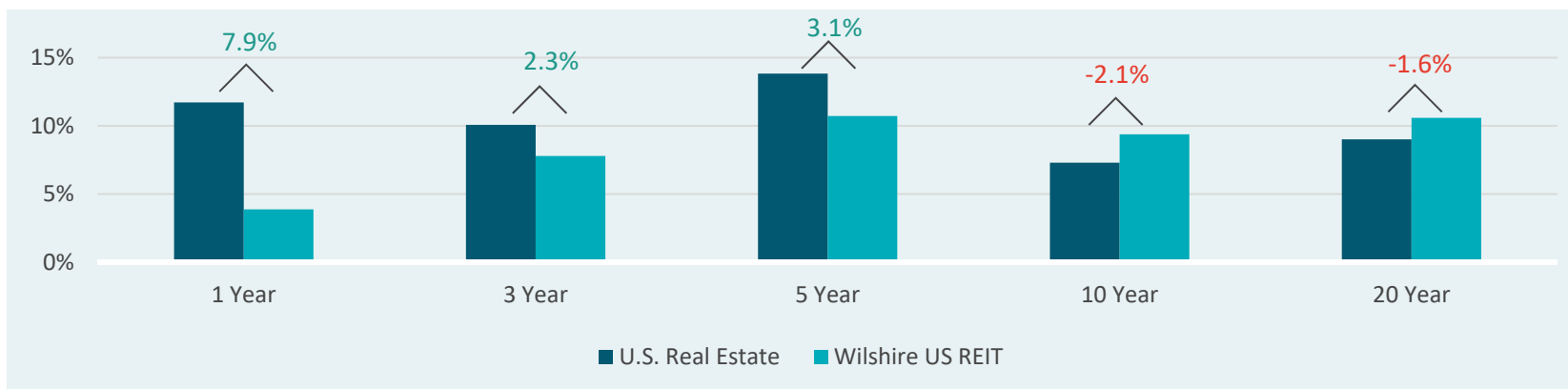
Private infrastructure has materially outperformed publicly listed infrastructure

Sources: Thomson Reuters CJA PME: Global Natural Resources (vintage 1996 and later, inception of MSCI ACWI Energy benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of September 30, 2018. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

Private vs. liquid & core real estate performance

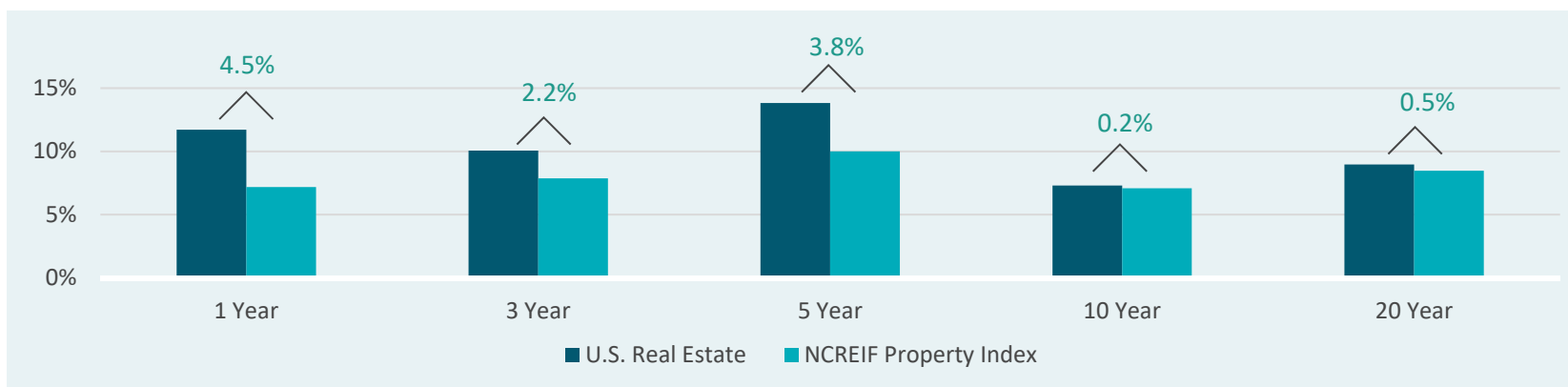
As of 9/30/2018

PUBLIC MARKET EQUIVALENT (PME) ANALYSIS - U.S. PRIVATE REAL ESTATE VS. LIQUID UNIVERSE



Public market equivalent (PME) analysis shows that U.S. private R.E. has underperformed liquid real estate over the long-term

PUBLIC MARKET EQUIVALENT (PME) ANALYSIS - U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. private R.E. has outperformed the NCREIF Property Index over each time period

Sources: Thomson Reuters C|A PME: Global and U.S. Real Estate universes as of September 30, 2018. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

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)

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)

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/>)

NAHB Housing Market Index - the housing market index is a weighted average of separate diffusion indices for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

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San Luis Obispo County Pension Trust

Investment Performance Review

Period Ending: March 31, 2019



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

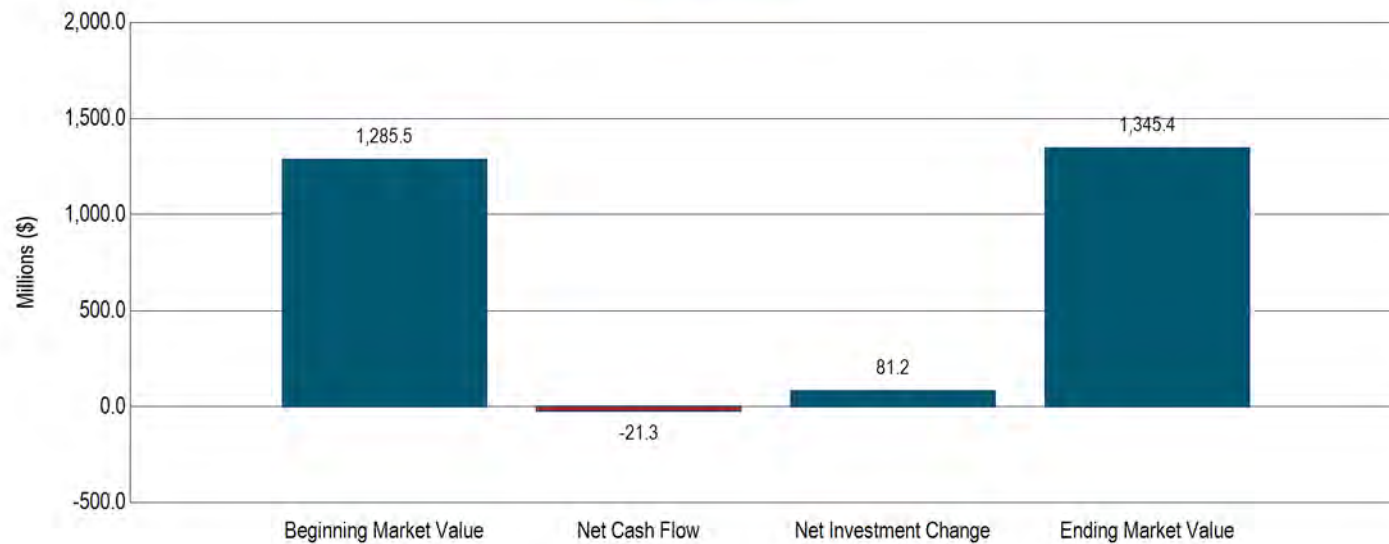
LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

Portfolio Reconciliation

	Last Three Months	One Year
Beginning Market Value	\$1,285,503,943	\$1,345,371,098
Net Cash Flow	-\$21,267,594	-\$23,263,941
Net Investment Change	\$81,165,582	\$23,294,774
Ending Market Value	\$1,345,401,931	\$1,345,401,931

Change in Market Value
Last Three Months



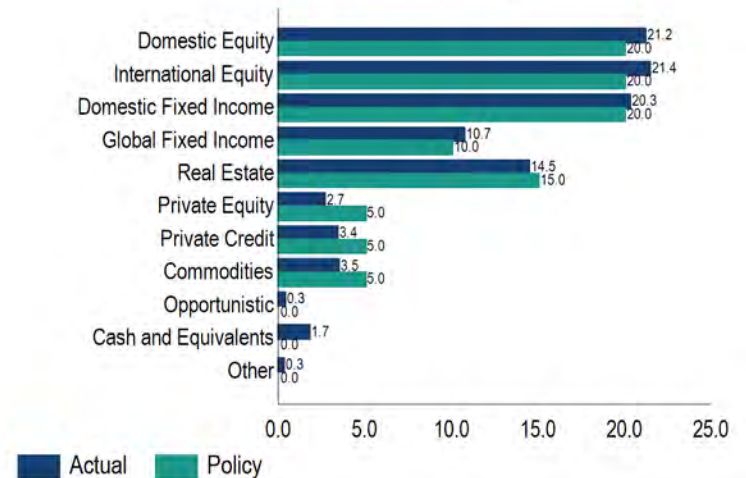
Contributions and withdrawals may include intra-account transfers between managers/funds.

Total Fund Executive Summary (Gross of Fees)

Period Ending: March 31, 2019

	QTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
Total Fund	6.4	95	2.2	90	7.5	83	5.3	82
<i>Policy Index</i>	6.9	91	3.9	55	7.5	82	5.3	79
Total Fund ex Overlay	6.5	94	2.2	90	7.5	84	5.3	82
<i>Policy Index</i>	6.9	91	3.9	55	7.5	82	5.3	79
Total Domestic Equity	13.2	92	7.4	64	14.0	14	10.9	5
<i>Russell 3000</i>	14.0	53	8.8	28	13.5	29	10.4	26
Total International Equity	11.6	21	-1.8	9	8.7	31	3.7	27
<i>MSCI ACWI ex USA Gross</i>	10.4	64	-3.7	19	8.6	33	3.0	56
Total Domestic Fixed Income	3.8	5	4.7	11	3.4	23	3.4	19
<i>BBgBarc US Aggregate TR</i>	2.9	44	4.5	37	2.0	57	2.7	50
Total Global Fixed	3.0	85	-8.4	99	2.1	96	-0.4	99
<i>FTSE World Govt Bond Index</i>	1.7	95	-1.6	75	1.0	99	0.6	93
Total Real Estate	0.5	--	5.9	--	7.2	--	9.9	--
<i>NCREIF Property Index</i>	1.8	--	6.8	--	7.1	--	9.1	--
Total Commodities	7.4	--	-5.9	--	3.8	--	-7.6	--
<i>Bloomberg Commodity Index TR USD</i>	6.3	--	-5.3	--	2.2	--	-8.9	--
Total Private Equity	0.1	--	12.6	--	16.4	--	16.6	--
<i>Russell 3000 + 3%</i>	14.9	--	12.0	--	16.9	--	13.6	--
Total Private Credit	-0.3	--	8.7	--	--	--	--	--
<i>BBgBarc High Yield +2% (Lagged)</i>	-4.1	--	-0.1	--	--	--	--	--
Total Cash	0.4	--	1.7	--	1.1	--	0.8	--
<i>91 Day T-Bills</i>	0.6	--	2.1	--	1.2	--	0.8	--
Total Opportunistic	-4.2	--	16.3	--	12.2	--	8.5	--
<i>Russell 3000 + 3%</i>	14.9	--	12.0	--	16.9	--	13.6	--

Actual vs Target Allocation (%)



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



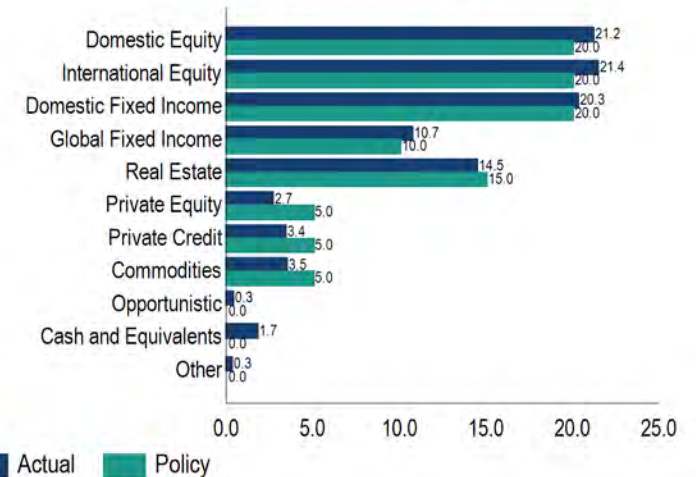
New Policy Index as of 10/1/2016: 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity Index, 5% Russell 3000 +3%, 5% BBgBarc High Yield +2% (Lagged). Private Equity, Private Credit and Opportunistic composite returns are lagged by one quarter. Stone Harbor funded 7/9/13. Gresham TAP funded 8/30/13. Pacific Asset Corporate Loan funded 9/1/2014. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019. All returns are (G) Gross of fees. 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.

Total Fund Executive Summary (Net of Fees)

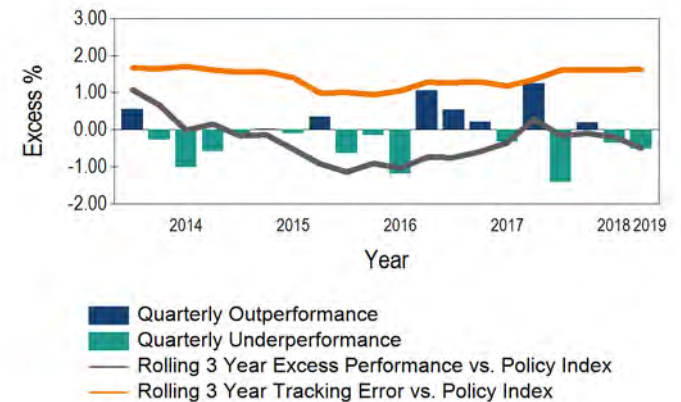
Period Ending: March 31, 2019

	QTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
Total Fund	6.3	96	1.8	94	7.1	90	4.8	94
<i>Policy Index</i>	6.9	91	3.9	55	7.5	82	5.3	79
Total Fund ex Overlay	6.4	96	1.8	94	7.0	90	4.8	94
<i>Policy Index</i>	6.9	91	3.9	55	7.5	82	5.3	79
Total Domestic Equity	13.1	94	6.9	73	13.6	26	10.5	20
<i>Russell 3000</i>	14.0	53	8.8	28	13.5	29	10.4	26
Total International Equity	11.4	27	-2.4	10	8.0	62	3.0	58
<i>MSCI ACWI ex USA Gross</i>	10.4	64	-3.7	19	8.6	33	3.0	56
Total Domestic Fixed Income	3.8	8	4.3	57	3.1	30	3.1	33
<i>BBgBarc US Aggregate TR</i>	2.9	44	4.5	37	2.0	57	2.7	50
Total Global Fixed	2.9	86	-9.0	99	1.4	99	-1.1	99
<i>FTSE World Govt Bond Index</i>	1.7	95	-1.6	75	1.0	99	0.6	93
Total Real Estate	0.5	--	5.9	--	6.9	--	9.4	--
<i>NCREIF Property Index</i>	1.8	--	6.8	--	7.1	--	9.1	--
Total Commodities	7.4	--	-5.9	--	3.6	--	-8.0	--
<i>Bloomberg Commodity Index TR USD</i>	6.3	--	-5.3	--	2.2	--	-8.9	--
Total Private Equity	0.1	--	12.6	--	15.9	--	15.3	--
<i>Russell 3000 + 3%</i>	14.9	--	12.0	--	16.9	--	13.6	--
Total Private Credit	-0.3	--	8.7	--	--	--	--	--
<i>BBgBarc High Yield +2% (Lagged)</i>	-4.1	--	-0.1	--	--	--	--	--
Total Cash	0.4	--	1.7	--	1.1	--	0.8	--
<i>91 Day T-Bills</i>	0.6	--	2.1	--	1.2	--	0.8	--
Total Opportunistic	-4.2	--	16.3	--	11.9	--	8.2	--
<i>Russell 3000 + 3%</i>	14.9	--	12.0	--	16.9	--	13.6	--

Actual vs Target Allocation (%)



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



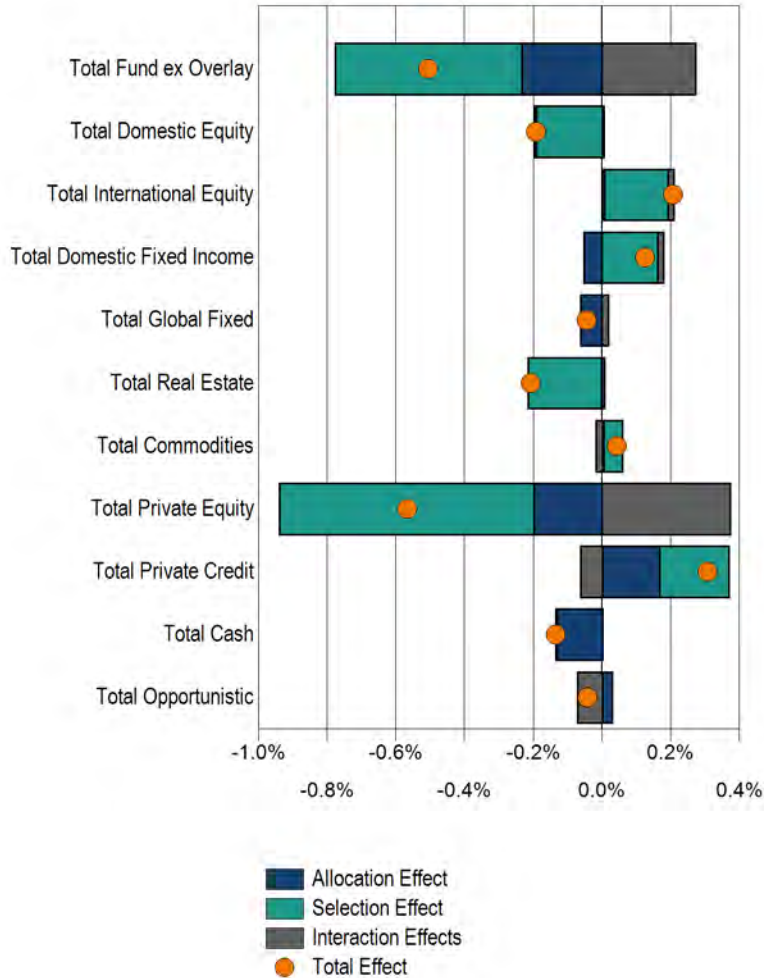
New Policy Index as of 10/1/2016: 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity Index, 5% Russell 3000 +3%, 5% BBgBarc High Yield +2% (Lagged). Private Equity, Private Credit and Opportunistic composite returns are lagged by one quarter. Stone Harbor funded 7/9/13. Gresham TAP funded 8/30/13. Pacific Asset Corporate Loan funded 9/1/2014. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019. All returns are (N) Net of fees. 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.

Total Fund ex Overlay
Attribution (Net of Fees)

Period Ending: March 31, 2019

Performance Attribution

Attribution Effects
3 Months Ending March 31, 2019



	Last 3 Mo.
Wtd. Actual Return	6.34%
Wtd. Index Return *	6.85%
Excess Return	-0.51%
Selection Effect	-0.54%
Allocation Effect	-0.23%
Interaction Effect	0.27%

*Calculated from policy benchmark returns and policy weightings of each component of the policy benchmark.

Attribution Summary
3 Months Ending March 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Domestic Equity	13.05%	14.04%	-0.99%	-0.19%	0.00%	0.00%	-0.19%
Total International Equity	11.42%	10.44%	0.98%	0.18%	0.01%	0.01%	0.21%
Total Domestic Fixed Income	3.75%	2.94%	0.81%	0.16%	-0.05%	0.01%	0.12%
Total Global Fixed	2.88%	2.94%	-0.06%	0.00%	-0.06%	0.02%	-0.04%
Total Real Estate	0.47%	1.80%	-1.33%	-0.21%	0.00%	0.01%	-0.21%
Total Commodities	7.41%	6.32%	1.08%	0.05%	0.01%	-0.02%	0.04%
Total Private Equity	0.14%	14.85%	-14.71%	-0.74%	-0.20%	0.37%	-0.57%
Total Private Credit	-0.30%	-4.05%	3.76%	0.20%	0.17%	-0.06%	0.31%
Total Cash	0.41%	0.59%	-0.18%	0.00%	-0.13%	0.00%	-0.13%
Total Opportunistic	-4.19%	14.85%	-19.05%	0.00%	0.03%	-0.07%	-0.04%
Total	6.34%	6.85%	-0.51%	-0.54%	-0.23%	0.27%	-0.51%

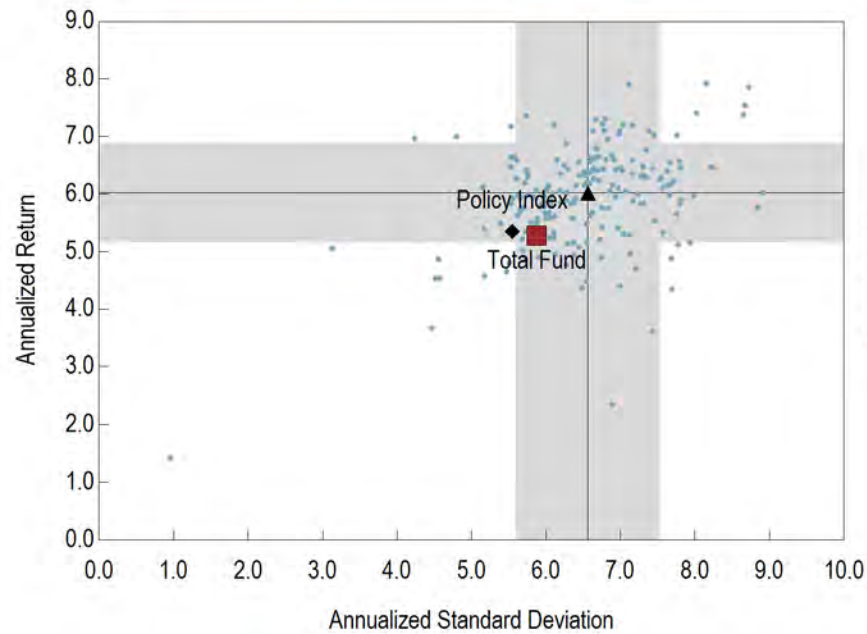
Attribution does not account for effects of overlay program. Weighted returns shown in attribution analysis may differ from actual returns. Wtd. Actual Return is the sum of the products of each group's return and its respective weight at the beginning of the period.

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

Period Ending: March 31, 2019

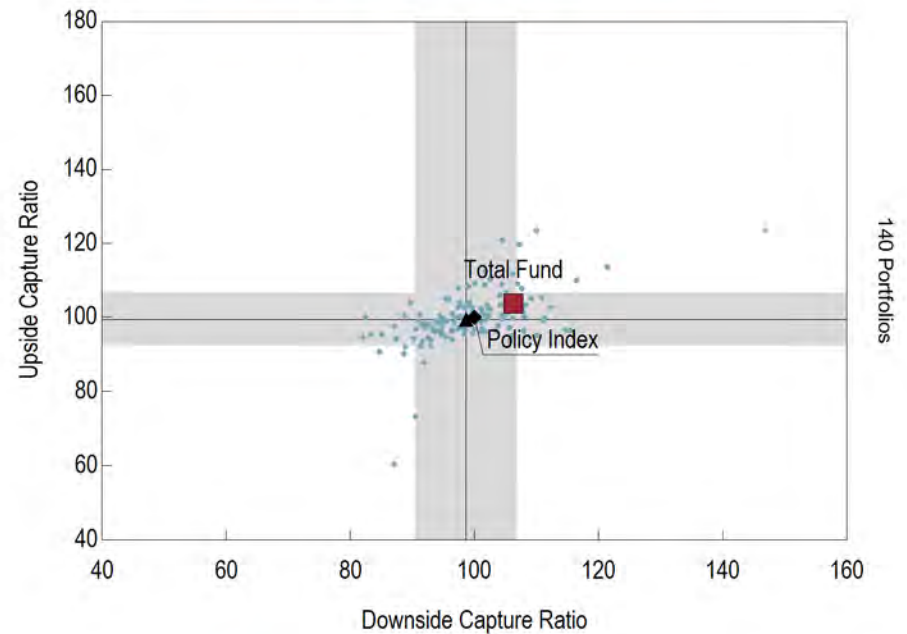
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	5.27%	-0.07%	5.88%	-0.26%	1.03	1.28%	0.95	0.77	-0.06	103.70%	106.28%

Annualized Return vs. Annualized Standard Deviation



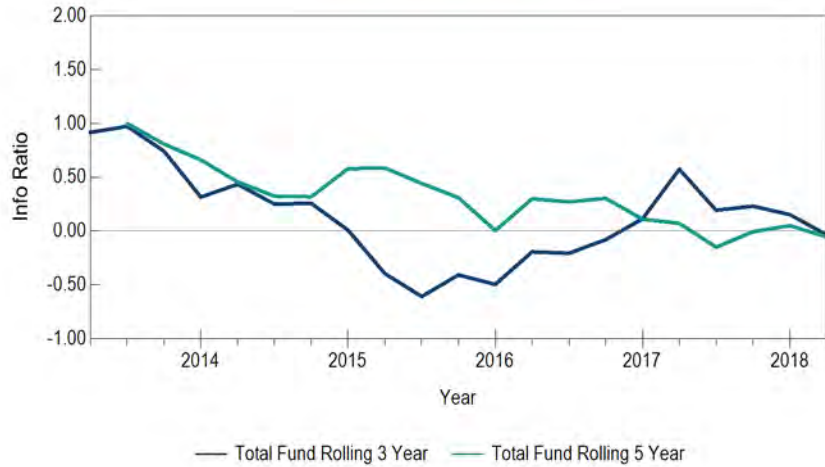
- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

Upside Capture Ratio vs. Downside Capture Ratio

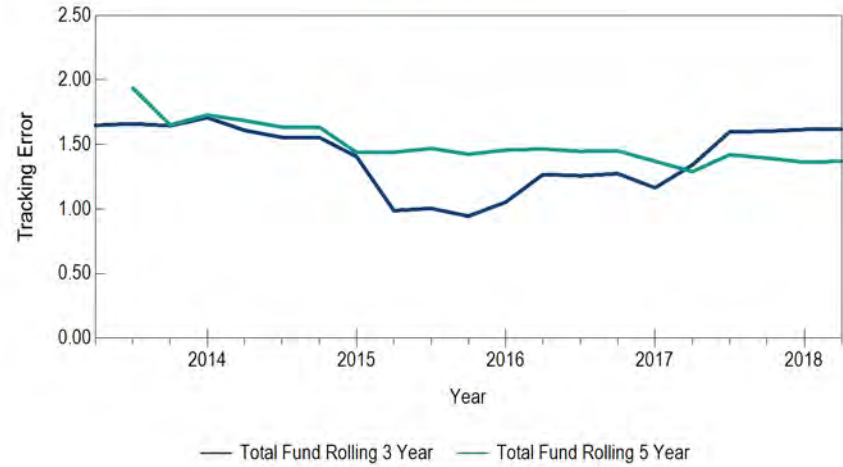


- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

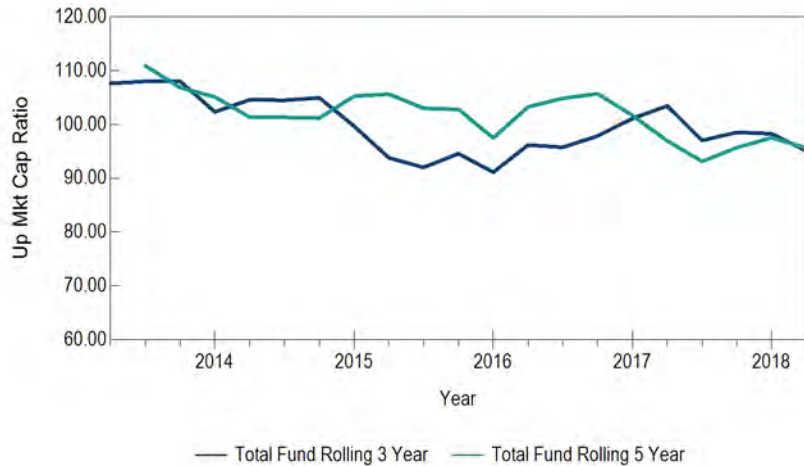
Rolling Information Ratio



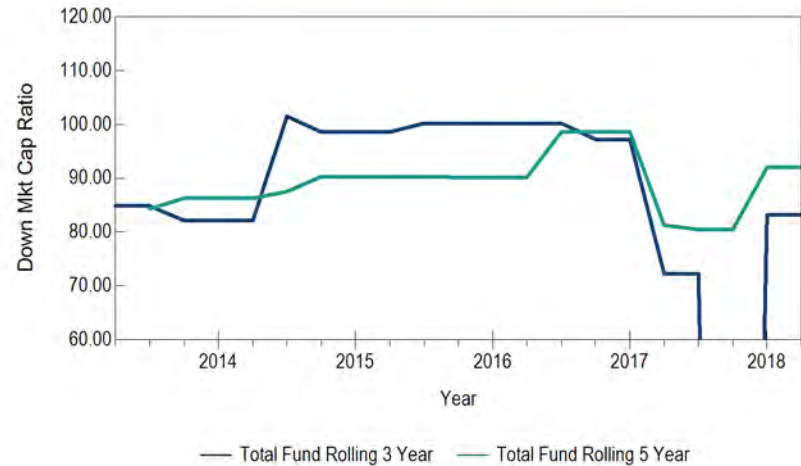
Rolling Tracking Error



Rolling Up Market Capture Ratio (%)



Rolling Down Market Capture Ratio (%)



Total Fund Performance Summary (Gross of Fees)

Period Ending: March 31, 2019

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Total Fund	1,345,401,931	100.0	6.4	2.2	7.5	5.3	--	-3.1	15.5	6.6	-0.8	5.1		
<i>InvestorForce Public DB Gross Rank</i>			95	90	83	82	--	25	47	84	74	66		
Total Fund ex Overlay	1,341,301,651	99.7	6.5	2.2	7.5	5.3	10.2	-3.1	15.3	6.6	-0.8	5.2		
<i>Policy Index</i>			6.9	3.9	7.5	5.3	9.3	-3.2	13.4	7.8	-0.5	5.2		
<i>InvestorForce Public DB Gross Rank</i>			94	90	84	82	36	25	51	83	75	64		
Total Domestic Equity	285,044,005	21.2	13.2	7.4	14.0	10.9	16.9	-5.2	25.1	13.0	1.2	11.0		
<i>Russell 3000</i>			14.0	8.8	13.5	10.4	16.0	-5.2	21.1	12.7	0.5	12.6		
<i>InvestorForce Public DB US Eq Gross Rank</i>			92	64	14	5	5	36	4	48	18	60		
PIMCO RAE Fundamental PLUS Instl	58,476,892	4.3	11.5	5.6	10.9	8.5	16.0	-6.6	17.0	15.9	-2.7	12.7	7.9	Nov-07
<i>S&P 500</i>			13.6	9.5	13.5	10.9	15.9	-4.4	21.8	12.0	1.4	13.7	8.2	Nov-07
<i>eV US Large Cap Core Equity Gross Rank</i>			83	74	86	87	34	72	89	6	86	58	77	Nov-07
Loomis Sayles Large Cap Growth	86,331,249	6.4	16.1	13.0	--	--	--	-1.7	34.1	--	--	--	20.8	Dec-16
<i>Russell 1000 Growth</i>			16.1	12.7	--	--	--	-1.5	30.2	--	--	--	19.4	Dec-16
<i>eV US Large Cap Growth Equity Gross Rank</i>			51	44	--	--	--	58	16	--	--	--	35	Dec-16
Boston Partners Large Cap Value	79,998,819	5.9	9.5	1.8	--	--	--	-8.5	--	--	--	--	8.5	Jan-17
<i>Russell 1000 Value</i>			11.9	5.7	--	--	--	-8.3	--	--	--	--	7.0	Jan-17
<i>eV US Large Cap Value Equity Gross Rank</i>			94	75	--	--	--	54	--	--	--	--	34	Jan-17
Atlanta Capital Mgmt	60,237,045	4.5	16.0	9.3	15.0	13.4	--	-4.5	26.6	12.6	10.4	5.8	17.7	Aug-10
<i>Russell 2500</i>			15.8	4.5	12.6	7.8	--	-10.0	16.8	17.6	-2.9	7.1	13.6	Aug-10
<i>eV US Small-Mid Cap Equity Gross Rank</i>			42	23	25	4	--	25	15	62	1	56	1	Aug-10
Total International Equity	288,337,516	21.4	11.6	-1.8	8.7	3.7	11.2	-12.2	26.6	2.2	-4.3	2.1		
<i>MSCI ACWI ex USA Gross</i>			10.4	-3.7	8.6	3.0	9.3	-13.8	27.8	5.0	-5.3	-3.4		
<i>InvestorForce Public DB ex-US Eq Gross Rank</i>			21	9	31	27	4	9	81	82	68	1		
Dodge & Cox Intl Stock	141,217,582	10.5	10.0	-7.4	8.6	1.5	10.9	-17.5	24.7	9.0	-10.8	0.7	2.3	Dec-07
<i>MSCI EAFE Gross</i>			10.1	-3.2	7.8	2.8	9.5	-13.4	25.6	1.5	-0.4	-4.5	1.5	Dec-07
<i>eV All EAFE Equity Gross Rank</i>			65	67	26	91	44	73	74	3	99	13	66	Dec-07
WCM International Growth	147,119,934	10.9	13.2	4.1	--	--	--	-6.7	--	--	--	--	13.8	Feb-17
<i>MSCI ACWI ex USA Gross</i>			10.4	-3.7	--	--	--	-13.8	--	--	--	--	7.2	Feb-17
<i>eV ACWI ex-US All Cap Growth Eq Gross Rank</i>			58	2	--	--	--	1	--	--	--	--	13	Feb-17

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 is lagged one quarter. Boston Partners funded 1/31/2017. Vontobel liquidated 2/15/2017. WCM International funded 2/15/2017. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core and Dodge & Cox Income funded 1/19/2017. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Fidelity Real Estate Growth III liquidated 12/29/2017. SSGA S&P 500 Flagship liquidated 1/3/2018. SSGA TIPS liquidated 1/17/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019.

Total Fund
Performance Summary (Gross of Fees)

Period Ending: March 31, 2019

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Total Domestic Fixed Income	272,944,108	20.3	3.8	4.7	3.4	3.4	7.3	0.4	4.3	4.5	1.1	4.7		
<i>BBgBarc US Aggregate TR</i>			2.9	4.5	2.0	2.7	3.8	0.0	3.5	2.6	0.6	6.0		
<i>InvestorForce Public DB US Fix Inc Gross Rank</i>			5	11	23	19	2	55	50	49	17	68		
BlackRock Core Bond	98,406,238	7.3	3.8	5.7	--	--	--	0.3	--	--	--	--	3.3	Jan-17
<i>BBgBarc US Aggregate TR</i>			2.9	4.5	--	--	--	0.0	--	--	--	--	2.9	Jan-17
<i>eV US Core Fixed Inc Gross Rank</i>			8	2	--	--	--	27	--	--	--	--	30	Jan-17
Dodge & Cox Income Fund	100,572,795	7.5	3.8	4.8	--	--	--	0.1	--	--	--	--	3.8	Jan-17
<i>BBgBarc US Aggregate TR</i>			2.9	4.5	--	--	--	0.0	--	--	--	--	2.9	Jan-17
<i>eV US Core Fixed Inc Gross Rank</i>			8	37	--	--	--	43	--	--	--	--	5	Jan-17
Pacific Asset Corporate Loan	73,965,075	5.5	3.9	3.5	5.7	--	--	1.0	4.9	9.2	2.5	--	4.4	Sep-14
<i>S&P/LSTA Leveraged Loan Index</i>			4.0	3.0	5.7	--	--	0.4	4.1	10.2	-0.7	--	3.6	Sep-14
<i>eV US Float-Rate Bank Loan Fixed Inc Gross Rank</i>			53	29	41	--	--	29	26	51	9	--	33	Sep-14
Total Global Fixed	144,238,572	10.7	3.0	-8.4	2.1	-0.4	3.6	-6.6	14.4	5.8	-11.8	-2.2		
<i>FTSE World Govt Bond Index</i>			1.7	-1.6	1.0	0.6	2.2	-0.8	7.5	1.6	-3.6	-0.5		
<i>InvestorForce Public DB Gbl Fix Inc Gross Rank</i>			85	99	96	99	99	99	29	67	95	93		
Brandywine Global Fixed Income	74,238,572	5.5	1.9	-6.7	1.1	0.3	4.3	-4.1	12.5	2.2	-9.3	2.9	3.7	Nov-07
<i>FTSE WGBI ex US TR</i>			1.5	-4.5	0.9	-0.1	2.0	-1.8	10.3	1.8	-5.5	-2.7	2.1	Nov-07
<i>eV Global Fixed Inc Unhedged Gross Rank</i>			86	98	90	92	61	83	9	71	96	43	52	Nov-07
Ashmore EM Blended Debt Fund	70,000,000	5.2	--	--	--	--	--	--	--	--	--	--	--	Mar-19
<i>JPM GBI-EM Global Diversified TR USD</i>			--	--	--	--	--	--	--	--	--	--	--	Mar-19
<i>eV All Emg Mkts Fixed Inc Gross Rank</i>			--	--	--	--	--	--	--	--	--	--	--	Mar-19
Total Real Estate	194,436,826	14.5	0.5	5.9	7.2	9.9	7.0	7.5	7.8	7.8	18.0	10.4		
<i>NCREIF Property Index</i>			1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8		
JP Morgan Core Real Estate	163,985,003	12.2	0.2	5.1	6.6	9.1	8.7	7.0	6.1	8.4	15.2	11.2	5.6	Mar-08
<i>NCREIF-ODCE</i>			1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5	5.4	Mar-08
<i>NCREIF Property Index</i>			1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8	6.3	Mar-08
ARA American Strategic Value Realty	23,550,741	1.8	1.4	8.5	--	--	--	9.1	7.4	--	--	--	8.6	Jun-16
<i>NCREIF-ODCE</i>			1.4	7.5	--	--	--	8.3	7.6	--	--	--	7.9	Jun-16
<i>NCREIF Property Index</i>			1.8	6.8	--	--	--	6.7	7.0	--	--	--	7.0	Jun-16
Direct Real Estate	6,901,081	0.5	3.8	12.7	13.1	13.7	6.6	11.6	20.6	5.5	22.9	6.1		
<i>NCREIF-ODCE</i>			1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5		
<i>NCREIF Property Index</i>			1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8		

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 is lagged one quarter. Boston Partners funded 1/31/2017. Vontobel liquidated 2/15/2017. WCM International funded 2/15/2017. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core and Dodge & Cox Income funded 1/19/2017. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Fidelity Real Estate Growth III liquidated 12/29/2017. SSGA S&P 500 Flagship liquidated 1/3/2018. SSGA TIPS liquidated 1/17/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019.

Total Fund
Performance Summary (Gross of Fees)

Period Ending: March 31, 2019

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Total Commodities	46,792,851	3.5	7.4	-5.9	3.8	-7.6	--	-12.4	6.2	12.6	-25.2	-16.0		
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0		
Gresham MTAP Commodity Builder	46,792,851	3.5	7.4	-5.9	3.8	-7.6	--	-12.4	6.2	12.6	-25.2	-16.0	-6.6	Aug-13
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0	-7.5	Aug-13
Total Private Equity	35,748,933	2.7												
Harbourvest Partners IX Buyout Fund L.P.	13,726,550	1.0												
Pathway Private Equity Fund Investors 9 L.P.	20,663,391	1.5												
Harbourvest 2018 Global Fund L.P.	1,358,992	0.1												
Total Private Credit	45,629,957	3.4												
TPG Diversified Credit Program	45,629,957	3.4												
Total Cash	23,528,072	1.7	0.4	1.7	1.1	0.8	0.7	1.5	1.0	0.5	0.4	0.3		
<i>91 Day T-Bills</i>			0.6	2.1	1.2	0.8	0.4	1.9	0.9	0.3	0.0	0.0		
Cash Account	23,528,072	1.7	0.4	1.7	1.1	0.8	0.7	1.5	1.0	0.5	0.4	0.3		
<i>91 Day T-Bills</i>			0.6	2.1	1.2	0.8	0.4	1.9	0.9	0.3	0.0	0.0		
Total Opportunistic	4,600,813	0.3												
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	4,497,329	0.3												
PIMCO Distressed Credit Fund	103,484	0.0												
<i>CPI + 5%</i>			2.4	6.9	7.3	6.5	--	7.0	7.2	7.2	5.8	5.8	6.9	Jun-10

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 is lagged one quarter. Boston Partners funded 1/31/2017. Vontobel liquidated 2/15/2017. WCM International funded 2/15/2017. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core and Dodge & Cox Income funded 1/19/2017. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Fidelity Real Estate Growth III liquidated 12/29/2017. SSGA S&P 500 Flagship liquidated 1/3/2018. SSGA TIPS liquidated 1/17/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019.

Total Fund Performance Summary (Net of Fees)

Period Ending: March 31, 2019

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Fund	1,345,401,931	100.0	6.3	1.8	7.1	4.8	--	-3.5	15.0	6.0	-1.3	4.6
Total Fund ex Overlay	1,341,301,651	99.7	6.4	1.8	7.0	4.8	9.8	-3.5	14.9	6.1	-1.3	4.7
<i>Policy Index</i>			6.9	3.9	7.5	5.3	9.3	-3.2	13.4	7.8	-0.5	5.2
Total Domestic Equity	285,044,005	21.2	13.1	6.9	13.6	10.5	16.5	-5.7	24.5	12.7	0.8	10.5
<i>Russell 3000</i>			14.0	8.8	13.5	10.4	16.0	-5.2	21.1	12.7	0.5	12.6
PIMCO RAE Fundamental PLUS Instl	58,476,892	4.3	11.4	5.2	10.5	8.1	15.6	-7.0	16.5	15.4	-3.2	12.3
<i>S&P 500</i>			13.6	9.5	13.5	10.9	15.9	-4.4	21.8	12.0	1.4	13.7
Loomis Sayles Large Cap Growth	86,331,249	6.4	15.9	12.5	--	--	--	-2.1	33.5	--	--	--
<i>Russell 1000 Growth</i>			16.1	12.7	--	--	--	-1.5	30.2	--	--	--
Boston Partners Large Cap Value	79,998,819	5.9	9.4	1.4	--	--	--	-8.9	--	--	--	--
<i>Russell 1000 Value</i>			11.9	5.7	--	--	--	-8.3	--	--	--	--
Atlanta Capital Mgmt	60,237,045	4.5	15.7	8.5	14.1	12.5	--	-5.3	25.6	11.7	9.6	5.0
<i>Russell 2500</i>			15.8	4.5	12.6	7.8	--	-10.0	16.8	17.6	-2.9	7.1
Total International Equity	288,337,516	21.4	11.4	-2.4	8.0	3.0	10.6	-12.8	25.8	1.6	-4.9	1.4
<i>MSCI ACWI ex USA Gross</i>			10.4	-3.7	8.6	3.0	9.3	-13.8	27.8	5.0	-5.3	-3.4
Dodge & Cox Intl Stock	141,217,582	10.5	9.8	-8.0	7.9	0.8	10.2	-18.0	23.9	8.3	-11.4	0.1
<i>MSCI EAFE Gross</i>			10.1	-3.2	7.8	2.8	9.5	-13.4	25.6	1.5	-0.4	-4.5
WCM International Growth	147,119,934	10.9	13.0	3.4	--	--	--	-7.4	--	--	--	--
<i>MSCI ACWI ex USA Gross</i>			10.4	-3.7	--	--	--	-13.8	--	--	--	--
Total Domestic Fixed Income	272,944,108	20.3	3.8	4.3	3.1	3.1	7.0	0.0	3.9	4.2	0.9	4.4
<i>BBgBarc US Aggregate TR</i>			2.9	4.5	2.0	2.7	3.8	0.0	3.5	2.6	0.6	6.0
BlackRock Core Bond	98,406,238	7.3	3.8	5.4	--	--	--	0.1	--	--	--	--
<i>BBgBarc US Aggregate TR</i>			2.9	4.5	--	--	--	0.0	--	--	--	--
Dodge & Cox Income Fund	100,572,795	7.5	3.7	4.3	--	--	--	-0.3	--	--	--	--
<i>BBgBarc US Aggregate TR</i>			2.9	4.5	--	--	--	0.0	--	--	--	--
Pacific Asset Corporate Loan	73,965,075	5.5	3.8	3.1	5.4	--	--	0.7	4.6	8.8	2.1	--
<i>S&P/LSTA Leveraged Loan Index</i>			4.0	3.0	5.7	--	--	0.4	4.1	10.2	-0.7	--
Total Global Fixed	144,238,572	10.7	2.9	-9.0	1.4	-1.1	3.0	-7.2	13.7	5.1	-12.4	-2.8
<i>FTSE World Govt Bond Index</i>			1.7	-1.6	1.0	0.6	2.2	-0.8	7.5	1.6	-3.6	-0.5
Brandywine Global Fixed Income	74,238,572	5.5	1.8	-7.1	0.7	-0.1	3.8	-4.5	12.0	1.7	-9.7	2.4
<i>FTSE WGBI ex US TR</i>			1.5	-4.5	0.9	-0.1	2.0	-1.8	10.3	1.8	-5.5	-2.7
Ashmore EM Blended Debt Fund	70,000,000	5.2	--	--	--	--	--	--	--	--	--	--
<i>JPM GBI-EM Global Diversified TR USD</i>			--	--	--	--	--	--	--	--	--	--

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 is lagged one quarter. Boston Partners funded 1/31/2017. Vontobel liquidated 2/15/2017. WCM International funded 2/15/2017. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core and Dodge & Cox Income funded 1/19/2017. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Fidelity Real Estate Growth III liquidated 12/29/2017. SSGA S&P 500 Flagship liquidated 1/3/2018. SSGA TIPS liquidated 1/17/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019.

Total Fund
Performance Summary (Net of Fees)

Period Ending: March 31, 2019

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Real Estate	194,436,826	14.5	0.5	5.9	6.9	9.4	6.5	7.5	7.8	6.8	16.9	9.6
<i>NCREIF Property Index</i>			1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
JP Morgan Core Real Estate	163,985,003	12.2	0.2	5.1	6.3	8.5	7.9	7.0	6.1	7.3	14.1	10.0
<i>NCREIF-ODCE</i>			1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5
<i>NCREIF Property Index</i>			1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
ARA American Strategic Value Realty	23,550,741	1.8	1.4	8.5	--	--	--	9.1	7.4	--	--	--
<i>NCREIF-ODCE</i>			1.4	7.5	--	--	--	8.3	7.6	--	--	--
<i>NCREIF Property Index</i>			1.8	6.8	--	--	--	6.7	7.0	--	--	--
Direct Real Estate	6,901,081	0.5	3.8	12.7	13.0	13.5	6.5	11.6	20.6	4.9	22.2	6.1
<i>NCREIF-ODCE</i>			1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5
<i>NCREIF Property Index</i>			1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
Total Commodities	46,792,851	3.5	7.4	-5.9	3.6	-8.0	--	-12.4	6.2	11.8	-25.8	-16.6
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0
Gresham MTAP Commodity Builder	46,792,851	3.5	7.4	-5.9	3.6	-8.0	--	-12.4	6.2	11.8	-25.8	-16.6
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0
Total Private Equity	35,748,933	2.7										
Harbourvest Partners IX Buyout Fund L.P.	13,726,550	1.0										
Pathway Private Equity Fund Investors 9 L.P.	20,663,391	1.5										
Harbourvest 2018 Global Fund L.P.	1,358,992	0.1										
Total Private Credit	45,629,957	3.4										
TPG Diversified Credit Program	45,629,957	3.4										
Total Cash	23,528,072	1.7	0.4	1.7	1.1	0.8	0.7	1.5	1.0	0.5	0.4	0.3
<i>91 Day T-Bills</i>			0.6	2.1	1.2	0.8	0.4	1.9	0.9	0.3	0.0	0.0
Cash Account	23,528,072	1.7	0.4	1.7	1.1	0.8	0.7	1.5	1.0	0.5	0.4	0.3
<i>91 Day T-Bills</i>			0.6	2.1	1.2	0.8	0.4	1.9	0.9	0.3	0.0	0.0
Total Opportunistic	4,600,813	0.3										
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	4,497,329	0.3										
PIMCO Distressed Credit Fund	103,484	0.0										
<i>CPI + 5%</i>			2.4	6.9	7.3	6.5	--	7.0	7.2	7.2	5.8	5.8

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 is lagged one quarter. Boston Partners funded 1/31/2017. Vontobel liquidated 2/15/2017. WCM International funded 2/15/2017. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core and Dodge & Cox Income funded 1/19/2017. Pathway Private Equity Fund Investors 9 L.P. funded 4/7/2017. Fidelity Real Estate Growth III liquidated 12/29/2017. SSGA S&P 500 Flagship liquidated 1/3/2018. SSGA TIPS liquidated 1/17/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor Local Markets terminated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019.

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

Period Ending: March 31, 2019

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
PIMCO RAE Fundamental PLUS Instl	10.47%	-3.04%	10.88%	-2.78%	0.98	2.78%	0.94	0.85	-1.09	83.65%	100.79%
Atlanta Capital Mgmt	14.10%	1.54%	12.96%	3.57%	0.84	5.50%	0.85	1.00	0.28	94.96%	83.62%
Dodge & Cox Intl Stock	7.87%	0.07%	12.55%	-0.63%	1.09	5.27%	0.83	0.53	0.01	110.39%	110.28%
Pacific Asset Corporate Loan	5.36%	-0.31%	2.63%	0.26%	0.90	0.71%	0.94	1.57	-0.43	95.69%	101.91%
Brandywine Global Fixed Income	0.66%	-0.20%	7.78%	-0.12%	0.90	4.31%	0.70	-0.07	-0.05	92.21%	95.44%
JP Morgan Core Real Estate	6.30%	-1.68%	0.84%	5.87%	0.05	3.18%	0.04	6.10	-0.53	26.99%	--
Direct Real Estate	12.96%	4.98%	6.57%	17.50%	-0.57	8.10%	0.08	1.79	0.62	12.49%	--
Gresham MTAP Commodity Builder	3.61%	1.39%	9.96%	1.51%	0.94	3.53%	0.88	0.25	0.39	112.46%	100.07%

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
PIMCO RAE Fundamental PLUS Instl	8.06%	-2.85%	11.10%	-2.48%	0.97	2.55%	0.95	0.66	-1.12	82.26%	101.51%
Atlanta Capital Mgmt	12.49%	4.71%	12.82%	6.04%	0.83	5.26%	0.87	0.92	0.90	95.33%	75.34%
Dodge & Cox Intl Stock	0.85%	-1.97%	14.03%	-2.27%	1.11	5.24%	0.87	0.01	-0.38	103.08%	109.87%
Brandywine Global Fixed Income	-0.13%	-0.08%	7.43%	-0.09%	0.84	4.54%	0.65	-0.12	-0.02	76.61%	84.81%
Direct Real Estate	13.46%	3.29%	8.42%	8.34%	0.50	8.41%	0.07	1.51	0.39	53.03%	--
JP Morgan Core Real Estate	8.46%	-1.71%	1.30%	7.29%	0.12	3.99%	0.14	5.96	-0.43	27.70%	--

Private Markets
Non Marketable Securities Overview

Period Ending: March 31, 2019

Vintage	Manager & Fund Name	Estimated 3/31 Market Value ³	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI) ¹	Tot. Value/ Paid-In (TVPI) ²	Net IRR Since Inception ⁵	IRR Date
2011	HarbourVest Partners IX-Buyout Fund L.P.	\$13,726,550	\$20,000,000	\$16,050,000	80%	\$3,950,000	\$11,177,703	\$13,154,323	69.6%	155.2%	17.3%	12/31/18
2018	HarbourVest Partners 2018 Global Fund L.P.	\$1,358,992	\$20,000,000	\$1,400,000	7%	\$18,600,000	-	-	-	-	-	-
2010	KKR Mezzanine Partners I L.P. ⁶	\$4,497,329	\$20,000,000	\$20,000,000	100%	\$0	\$29,566,840	\$4,497,329	147.8%	170.3%	8.5%	12/31/18
2010	PIMCO Distressed Credit Fund ⁴	\$103,484	\$20,000,000	\$20,000,000	100%	\$0	\$27,950,093	\$161,172	139.8%	140.3%	12.4%	9/30/18
2016	TPG Diversified Credit Program	\$45,629,957	\$75,000,000	\$45,492,563	61%	\$29,507,437	\$4,524,285	\$45,629,957	9.9%	110.2%	8.1%	12/31/18
2017	Pathway Private Equity Fund Investors 9 L.P.	\$20,663,391	\$65,000,000	\$20,292,875	31%	\$44,707,125	\$243,599	-	1.2%	103.0%	-	-
Total Alternative Illiquids		\$85,979,702	\$220,000,000	\$123,235,438	56%	\$96,764,562	\$73,462,520	\$63,442,781	51.5%	111.1%		
% of Portfolio (Market Value)		6.4%										

	Management Fee	Admin Fee	Interest Expense	Other Expense	Total Expense ⁷
HarbourVest Partners IX-Buyout Fund L.P.	\$49,802	\$0	\$0	\$24,244	\$74,046
HarbourVest Partners 2018 Global Fund L.P.	\$70,500	\$0	\$0	\$32,149	\$102,649
KKR Mezzanine Partners I L.P.	\$15,688	\$0	\$0	\$2,267	\$17,955
PIMCO Distressed Credit Fund ⁴	\$0	\$0	\$0	\$46	\$46
TPG Diversified Credit Program	\$52,701	\$0	\$0	\$0	\$52,701
Pathway Private Equity Fund Investors 9 L.P.	\$66,250	\$0	\$0	\$0	\$66,250
	\$254,941	\$0	\$0	\$58,706	\$313,647

¹(DPI) is equal to (capital returned / capital called)

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

³Last known market value + capital calls - distributions

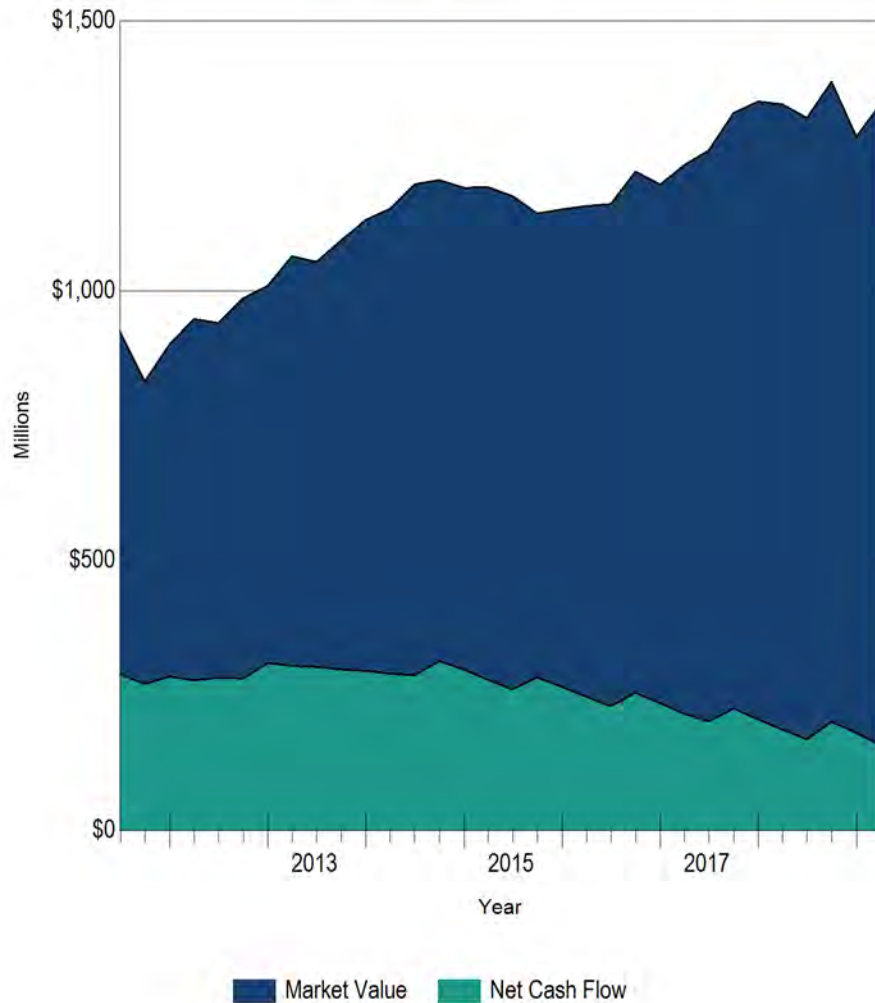
⁴Investment period ended, no further capital to be called.

⁵Net 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

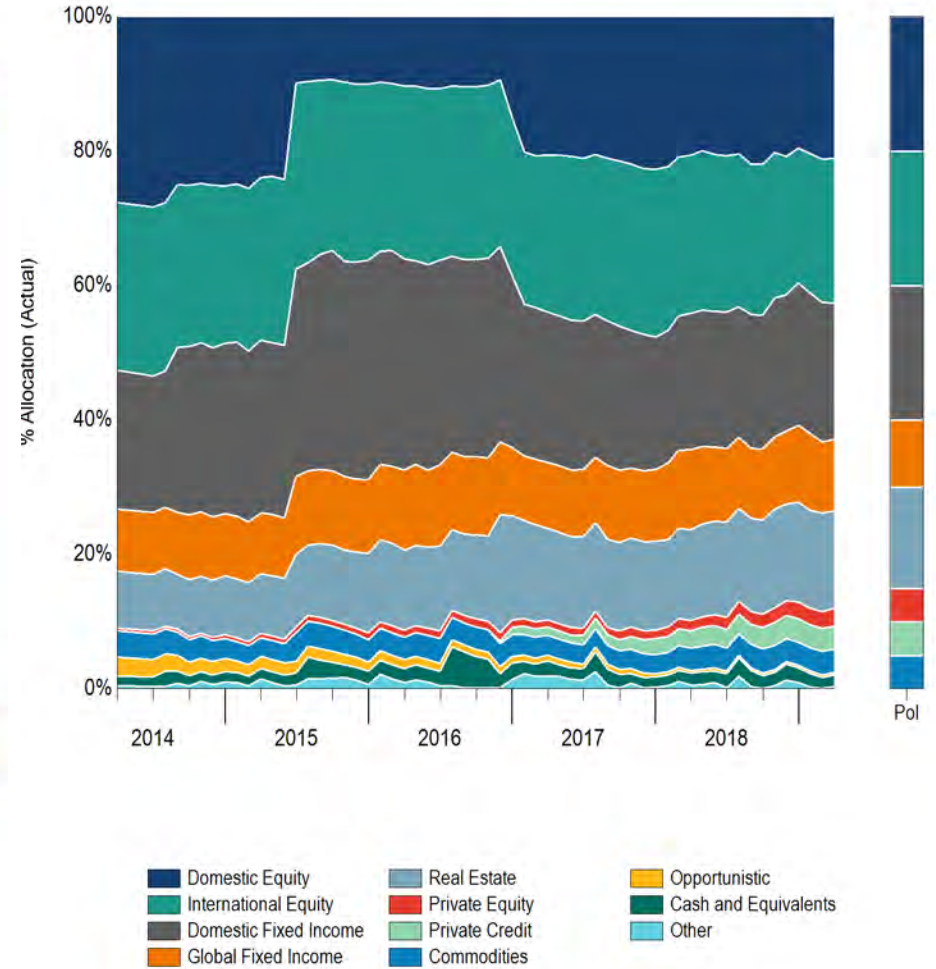
⁶KKR: As of 1Q2019, total capital called is \$23,593,570, which includes recycled distributions. Unused capital commitment is \$2,109,437 after including distribution proceeds available for reinvestment

⁷All fees and expenses are for 4Q 2018, except for Pathway, for which 3Q18 fees are shown.

Market Value History



Asset Allocation History



*Other balance represents Clifton Group

Total Fund
Asset Allocation vs. Policy

Period Ending: March 31, 2019



	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Domestic Equity	\$285,044,005	21.2%	20.0%	\$15,963,619	15.0% - 30.0%	Yes
International Equity	\$288,337,516	21.4%	20.0%	\$19,257,130	15.0% - 30.0%	Yes
Domestic Fixed Income	\$272,944,108	20.3%	20.0%	\$3,863,721	10.0% - 30.0%	Yes
Global Fixed Income	\$144,238,572	10.7%	10.0%	\$9,698,379	0.0% - 20.0%	Yes
Real Estate	\$194,436,826	14.5%	15.0%	-\$7,373,464	5.0% - 20.0%	Yes
Private Equity	\$35,748,933	2.7%	5.0%	-\$31,521,164	0.0% - 10.0%	Yes
Private Credit	\$45,629,957	3.4%	5.0%	-\$21,640,140	0.0% - 10.0%	Yes
Commodities	\$46,792,851	3.5%	5.0%	-\$20,477,245	0.0% - 10.0%	Yes
Opportunistic	\$4,600,813	0.3%	0.0%	\$4,600,813	0.0% - 10.0%	Yes
Cash and Equivalents	\$23,528,072	1.7%	0.0%	\$23,528,072	0.0% - 5.0%	Yes
Other	\$4,100,279	0.3%	--	\$4,100,279	--	No
Total	\$1,345,401,931	100.0%	100.0%			

*Other balance represents Clifton Group

Total Fund Investment Fund Fee Analysis

Period Ending: March 31, 2019

Account	Fee Schedule	Market Value As of 3/31/2019	% 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	\$23,550,741	1.8%	\$287,609	1.22%
Ashmore EM Blended Debt Fund	1.00% of Assets	\$70,000,000	5.2%	\$700,000	1.00%
Atlanta Capital Mgmt	0.80% of First 50.0 Mil, 0.70% of Next 100.0 Mil, 0.60% Thereafter	\$60,237,045	4.5%	\$471,659	0.78%
BlackRock Core Bond	0.28% of First 100.0 Mil, 0.26% Thereafter	\$98,406,238	7.3%	\$275,537	0.28%
Boston Partners Large Cap Value	0.40% of Assets	\$79,998,819	5.9%	\$319,995	0.40%
Brandywine Global Fixed Income	0.45% of First 50.0 Mil, 0.40% of Next 50.0 Mil, 0.35% Thereafter	\$74,238,572	5.5%	\$321,954	0.43%
Cash Account	No Fee	\$23,528,072	1.7%	--	--
Direct Real Estate	No Fee	\$6,901,081	0.5%	--	--
Dodge & Cox Income Fund	0.43% of Assets	\$100,572,795	7.5%	\$432,463	0.43%
Dodge & Cox Intl Stock	0.64% of Assets	\$141,217,582	10.5%	\$903,793	0.64%
Gresham MTAP Commodity Builder	0.75% of First 50.0 Mil, 0.50% Thereafter	\$46,792,851	3.5%	\$350,946	0.75%
Harbourvest 2018 Global Fund L.P.	282,000 Annually	\$1,358,992	0.1%	\$282,000	20.75%
Harbourvest Partners IX Buyout Fund L.P.	200,000 Annually	\$13,726,550	1.0%	\$200,000	1.46%
JP Morgan Core Real Estate	1.00% of Assets	\$163,985,003	12.2%	\$1,639,850	1.00%
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	300,000 Annually	\$4,497,329	0.3%	\$300,000	6.67%
Loomis Sayles Large Cap Growth	0.45% of First 100.0 Mil, 0.40% Thereafter	\$86,331,249	6.4%	\$388,491	0.45%
Pacific Asset Corporate Loan	0.37% of Assets	\$73,965,075	5.5%	\$273,671	0.37%
Pathway Private Equity Fund Investors 9 L.P.	Please see footnote	\$20,663,391	1.5%	--	--
PIMCO Distressed Credit Fund	150,000 Annually	\$103,484	0.0%	\$150,000	144.95%
PIMCO RAE Fundamental PLUS Instl	0.40% of Assets	\$58,476,892	4.3%	\$233,908	0.40%
The Clifton Group	50,000 Annually	\$4,100,279	0.3%	\$50,000	1.22%
TPG Diversified Credit Program	Please see footnote	\$45,629,957	3.4%	--	--
WCM International Growth	0.70% of Assets	\$147,119,934	10.9%	\$1,029,840	0.70%
Investment Management Fee		\$1,345,401,931	100.0%	\$8,611,716	0.64%

*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. Pathway fee steps up and down over time, with an effective average of 0.71% up to \$25m, 0.67% up to \$50m, 0.63% up to \$75m, and 0.40% above \$75m.

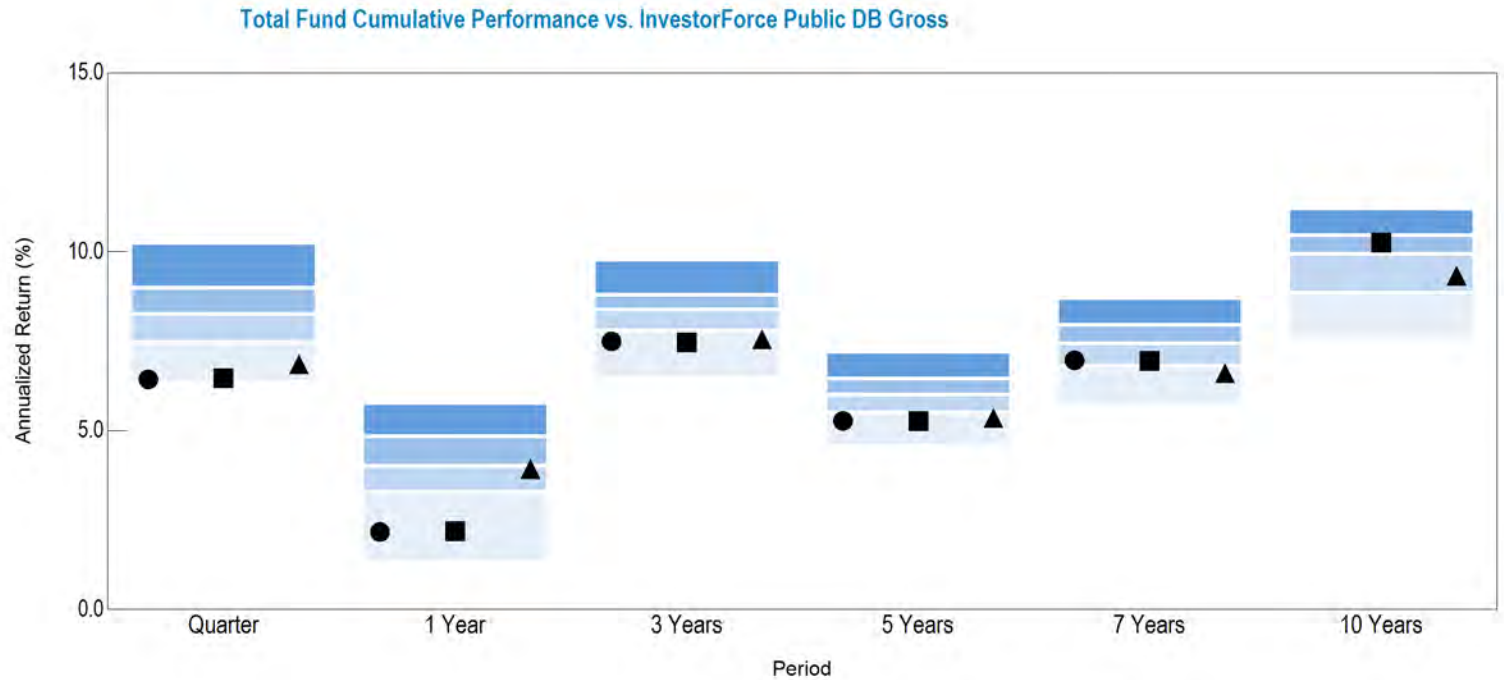
*Clifton Group fee schedule represents contractual minimum fee. Actual fee charged is \$1,500 per month through at least 6/30/2015.

*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: March 31, 2019

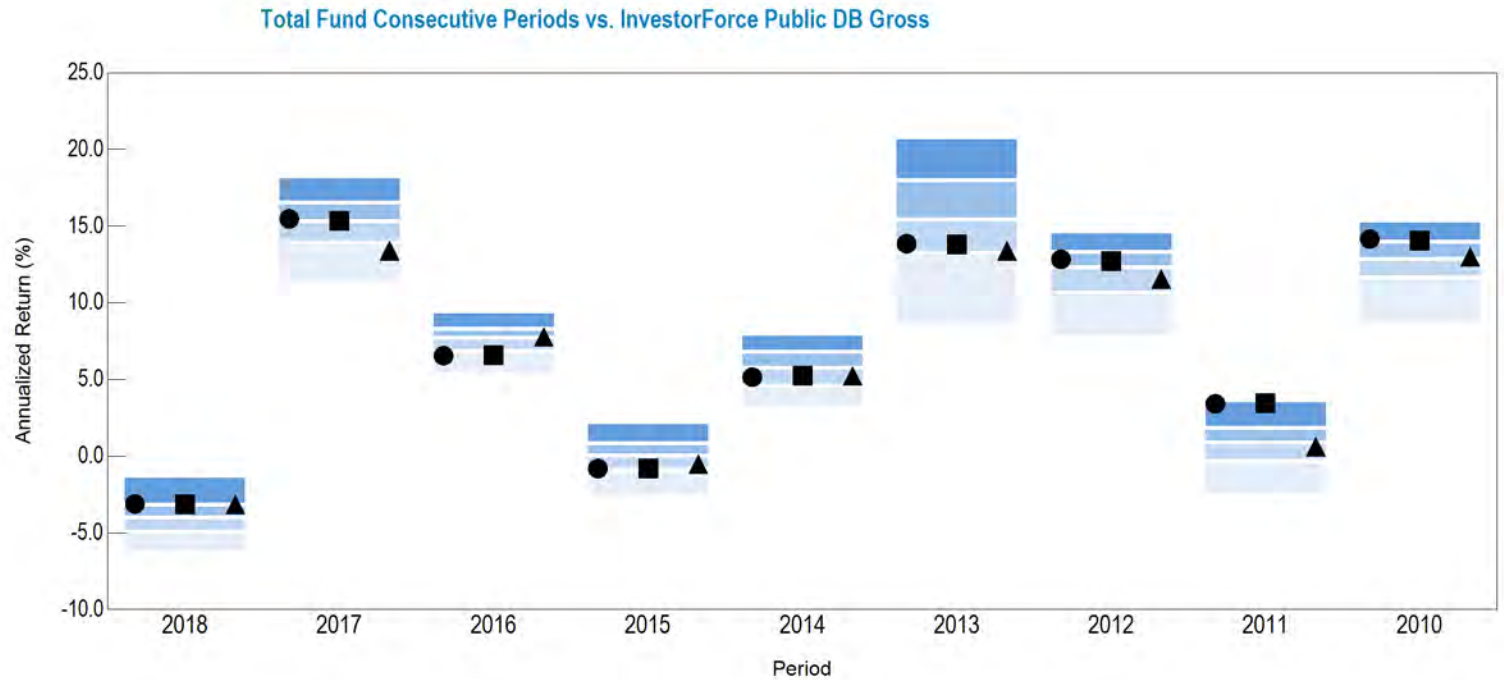


	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	10.2		5.8		9.8		7.2		8.7		11.2	
25th Percentile	9.0		4.8		8.8		6.5		8.0		10.5	
Median	8.3		4.0		8.4		6.0		7.4		10.0	
75th Percentile	7.5		3.3		7.8		5.5		6.8		8.9	
95th Percentile	6.4		1.4		6.5		4.6		5.7		7.6	
# of Portfolios	224		220		211		203		195		172	
● Total Fund	6.4	(95)	2.2	(90)	7.5	(83)	5.3	(82)	7.0	(69)	--	(--)
■ Total Fund ex Overlay	6.5	(94)	2.2	(90)	7.5	(84)	5.3	(82)	7.0	(69)	10.2	(36)
▲ Policy Index	6.9	(91)	3.9	(55)	7.5	(82)	5.3	(79)	6.6	(82)	9.3	(65)

Total Fund

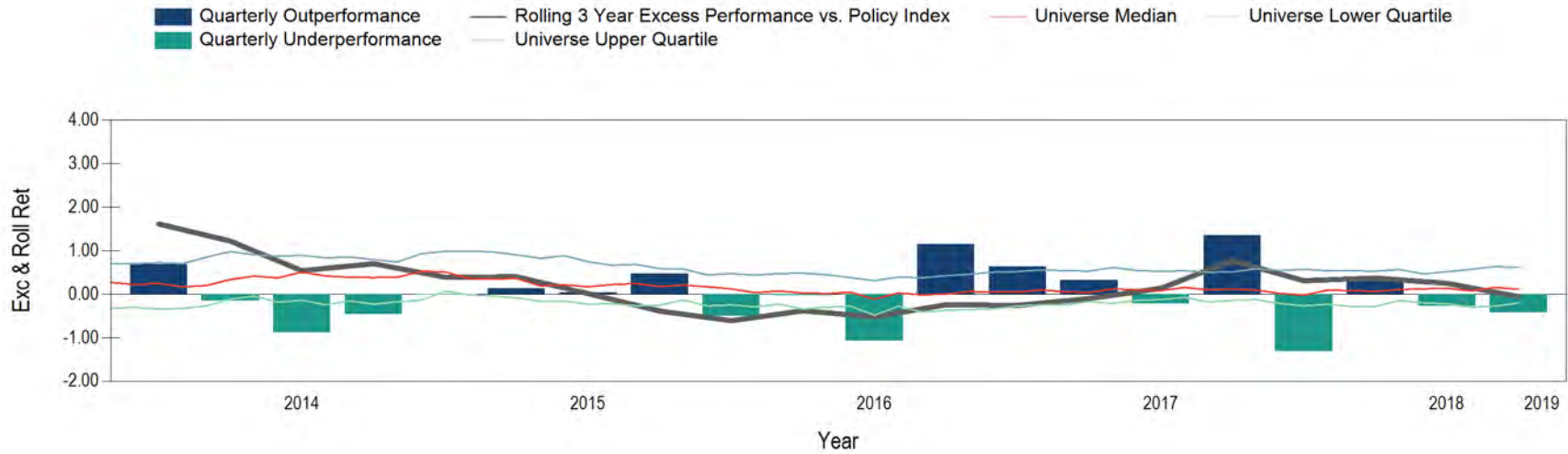
Peer Universe Comparison: Consecutive Periods (Gross of Fees)

Period Ending: March 31, 2019

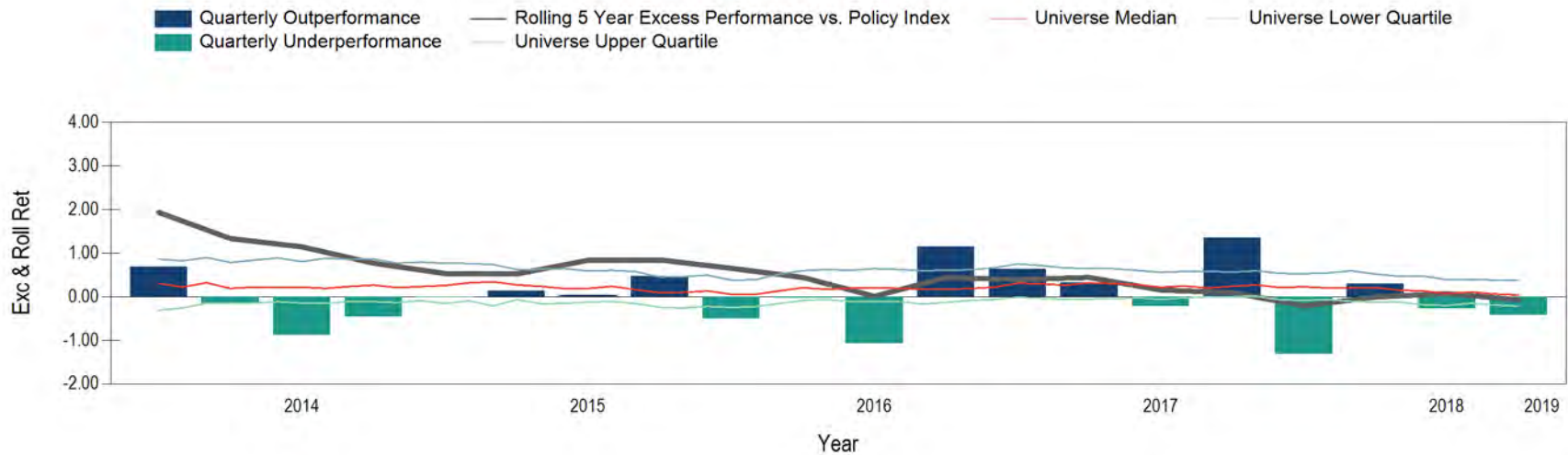


	2018	2017	2016	2015	2014	2013	2012	2011	2010
5th Percentile	-1.3	18.2	9.4	2.2	8.0	20.8	14.6	3.6	15.4
25th Percentile	-3.1	16.5	8.4	0.9	6.8	18.0	13.4	1.9	14.0
Median	-4.0	15.3	7.7	0.1	5.8	15.5	12.4	0.9	12.9
75th Percentile	-4.9	14.0	6.9	-0.9	4.6	13.3	10.7	-0.3	11.7
95th Percentile	-6.3	11.3	5.3	-2.6	3.2	8.5	7.8	-2.5	8.6
# of Portfolios	319	304	305	316	248	231	236	206	188
● Total Fund	-3.1 (25)	15.5 (47)	6.6 (84)	-0.8 (74)	5.1 (66)	13.8 (71)	12.8 (40)	3.4 (6)	14.2 (21)
■ Total Fund ex Overlay	-3.1 (25)	15.3 (51)	6.6 (83)	-0.8 (75)	5.2 (64)	13.8 (72)	12.7 (43)	3.5 (6)	14.1 (24)
▲ Policy Index	-3.2 (26)	13.4 (86)	7.8 (49)	-0.5 (67)	5.2 (64)	13.4 (74)	11.6 (69)	0.6 (60)	13.0 (48)

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



Total Domestic Equity
Asset Class Overview (Gross of Fees)

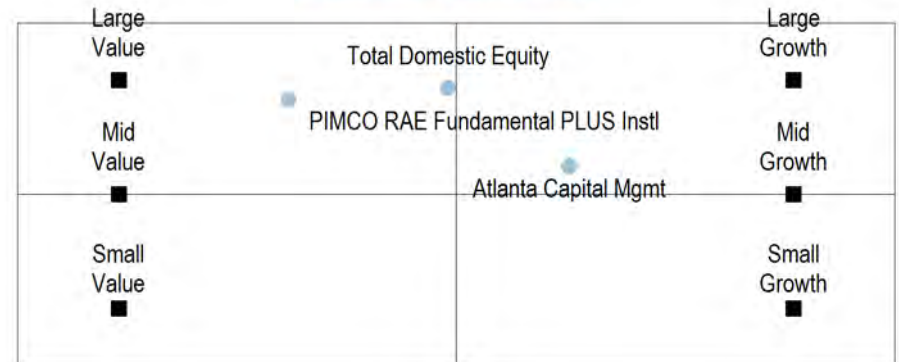
Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Domestic Equity	285,044,005	13.2	7.4	14.0	10.9	16.9	-5.2	25.1	13.0	1.2	11.0
<i>Russell 3000</i>		14.0	8.8	13.5	10.4	16.0	-5.2	21.1	12.7	0.5	12.6
<i>InvestorForce Public DB US Eq Gross Rank</i>		92	64	14	5	5	36	4	48	18	60
PIMCO RAE Fundamental PLUS Instl	58,476,892	11.5	5.6	10.9	8.5	16.0	-6.6	17.0	15.9	-2.7	12.7
<i>S&P 500</i>		13.6	9.5	13.5	10.9	15.9	-4.4	21.8	12.0	1.4	13.7
<i>eV US Large Cap Core Equity Gross Rank</i>		83	74	86	87	34	72	89	6	86	58
Loomis Sayles Large Cap Growth	86,331,249	16.1	13.0	--	--	--	-1.7	34.1	--	--	--
<i>Russell 1000 Growth</i>		16.1	12.7	--	--	--	-1.5	30.2	--	--	--
<i>eV US Large Cap Growth Equity Gross Rank</i>		51	44	--	--	--	58	16	--	--	--
Boston Partners Large Cap Value	79,998,819	9.5	1.8	--	--	--	-8.5	--	--	--	--
<i>Russell 1000 Value</i>		11.9	5.7	--	--	--	-8.3	--	--	--	--
<i>eV US Large Cap Value Equity Gross Rank</i>		94	75	--	--	--	54	--	--	--	--
Atlanta Capital Mgmt	60,237,045	16.0	9.3	15.0	13.4	--	-4.5	26.6	12.6	10.4	5.8
<i>Russell 2500</i>		15.8	4.5	12.6	7.8	--	-10.0	16.8	17.6	-2.9	7.1
<i>eV US Small-Mid Cap Equity Gross Rank</i>		42	23	25	4	--	25	15	62	1	56

U.S. Effective Style Map
3 Years Ending March 31, 2019



U.S. Effective Style Map
5 Years Ending March 31, 2019



Total Domestic Equity
Asset Class Overview (Net of Fees)

Period Ending: March 31, 2019

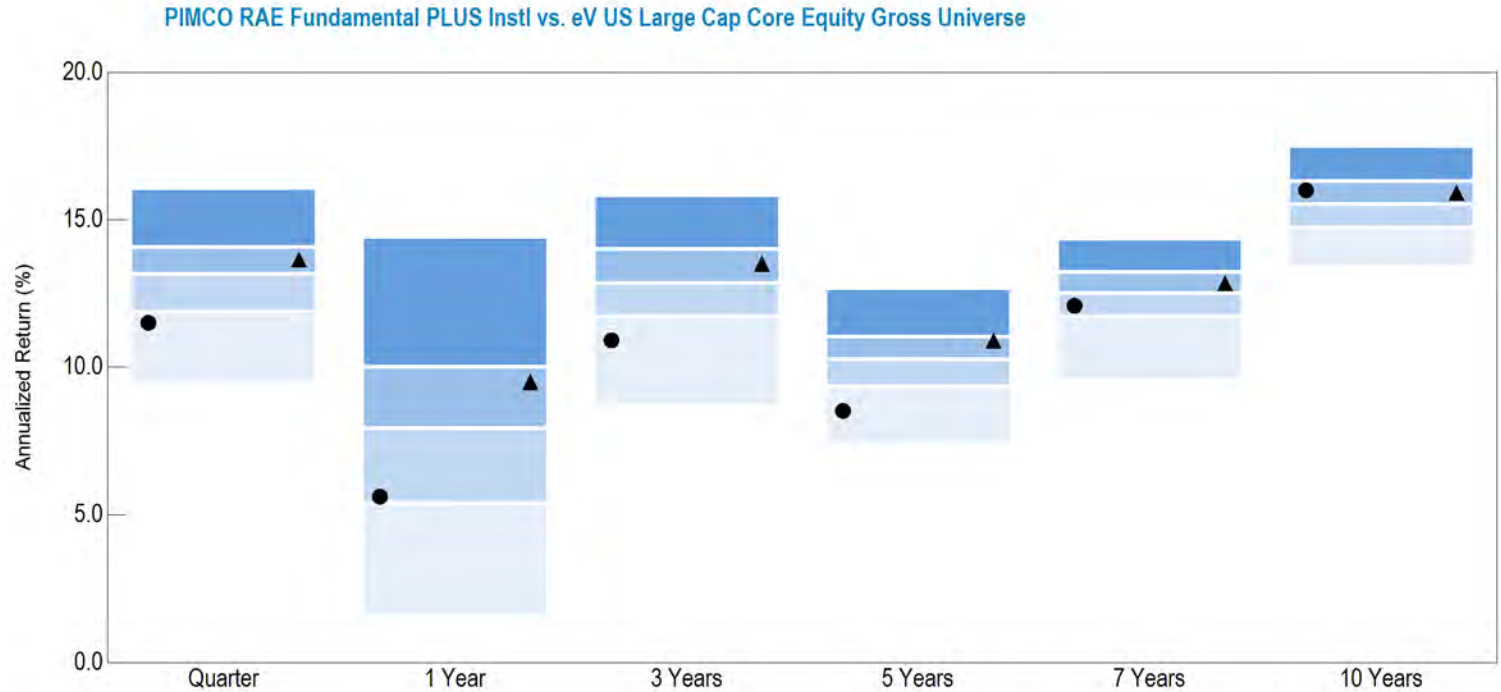
	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Domestic Equity	285,044,005	13.1	6.9	13.6	10.5	16.5	-5.7	24.5	12.7	0.8	10.5
<i>Russell 3000</i>		14.0	8.8	13.5	10.4	16.0	-5.2	21.1	12.7	0.5	12.6
PIMCO RAE Fundamental PLUS Instl	58,476,892	11.4	5.2	10.5	8.1	15.6	-7.0	16.5	15.4	-3.2	12.3
<i>S&P 500</i>		13.6	9.5	13.5	10.9	15.9	-4.4	21.8	12.0	1.4	13.7
Loomis Sayles Large Cap Growth	86,331,249	15.9	12.5	--	--	--	-2.1	33.5	--	--	--
<i>Russell 1000 Growth</i>		16.1	12.7	--	--	--	-1.5	30.2	--	--	--
Boston Partners Large Cap Value	79,998,819	9.4	1.4	--	--	--	-8.9	--	--	--	--
<i>Russell 1000 Value</i>		11.9	5.7	--	--	--	-8.3	--	--	--	--
Atlanta Capital Mgmt	60,237,045	15.7	8.5	14.1	12.5	--	-5.3	25.6	11.7	9.6	5.0
<i>Russell 2500</i>		15.8	4.5	12.6	7.8	--	-10.0	16.8	17.6	-2.9	7.1

Correlation Matrix
 Last 5 Years

	Total Domestic Equity	PIMCO RAE Fundamental PLUS Instl	Loomis Sayles Large Cap Growth	Boston Partners Large Cap Value	Russell 3000
Total Domestic Equity	1.00	--	--	--	--
PIMCO RAE Fundamental PLUS Instl	0.97	1.00	--	--	--
Loomis Sayles Large Cap Growth	--	--	--	--	--
Boston Partners Large Cap Value	--	--	--	--	--
Russell 3000	0.99	0.98	--	--	1.00

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

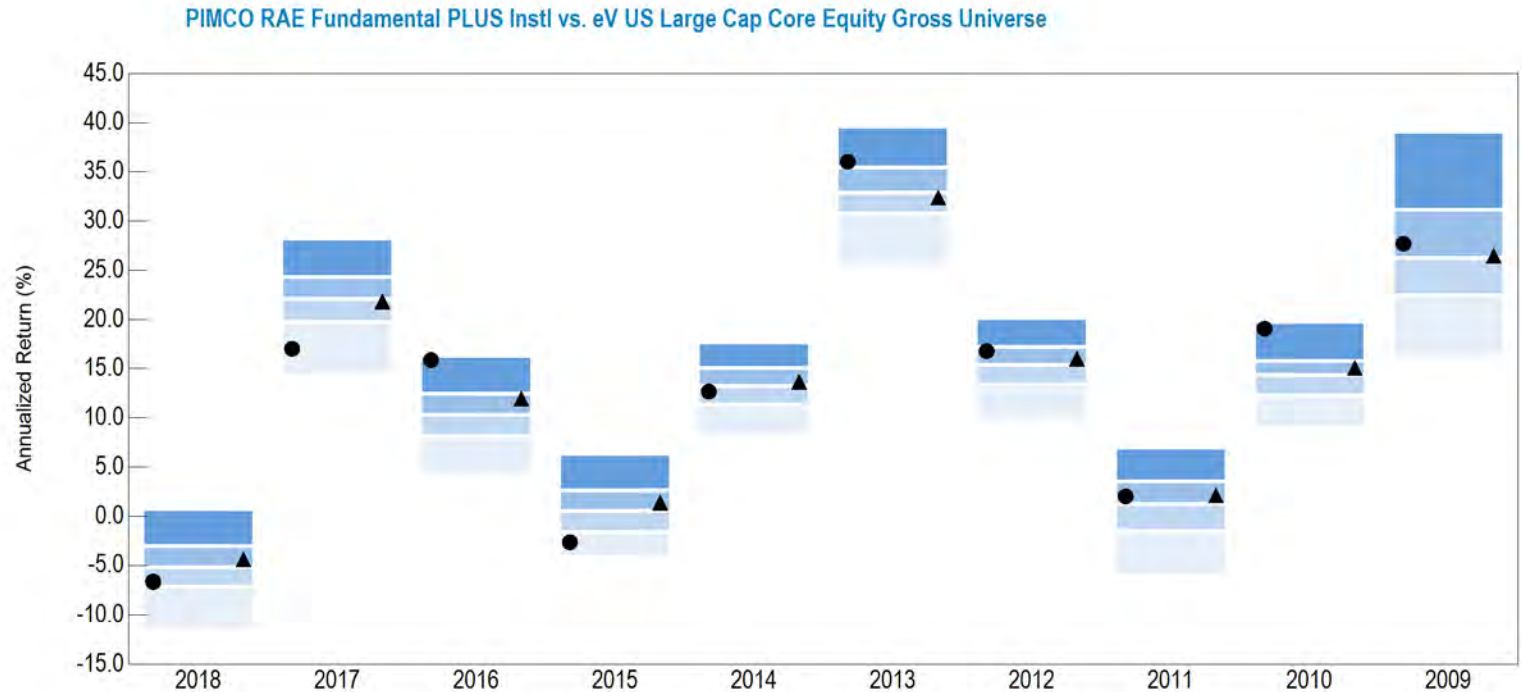
Period Ending: March 31, 2019



	Return (Rank)					
	Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
5th Percentile	16.1	14.4	15.8	12.7	14.3	17.5
25th Percentile	14.1	10.0	14.0	11.0	13.2	16.3
Median	13.2	8.0	12.9	10.3	12.5	15.5
75th Percentile	11.9	5.4	11.8	9.4	11.7	14.7
95th Percentile	9.4	1.6	8.7	7.4	9.6	13.4
# of Portfolios	313	313	300	283	256	221
● PIMCO RAE Fundamental PLUS Instl	11.5 (83)	5.6 (74)	10.9 (86)	8.5 (87)	12.1 (64)	16.0 (34)
▲ S&P 500	13.6 (37)	9.5 (33)	13.5 (35)	10.9 (32)	12.8 (40)	15.9 (36)

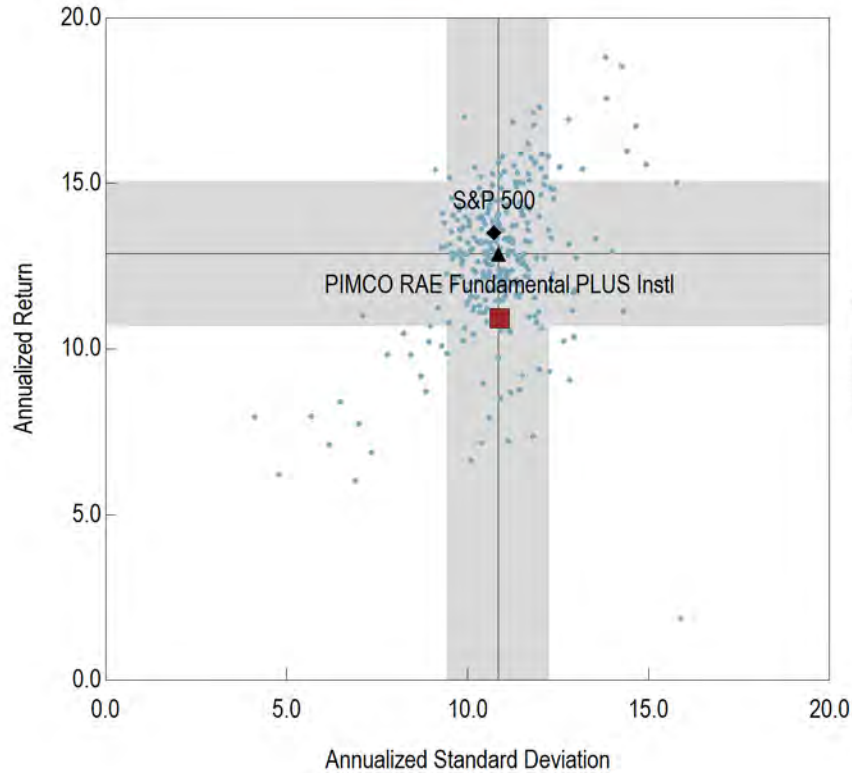
PIMCO RAE Fundamental PLUS Instl
 Consecutive Performance Comparison (Gross of Fees)

Period Ending: March 31, 2019



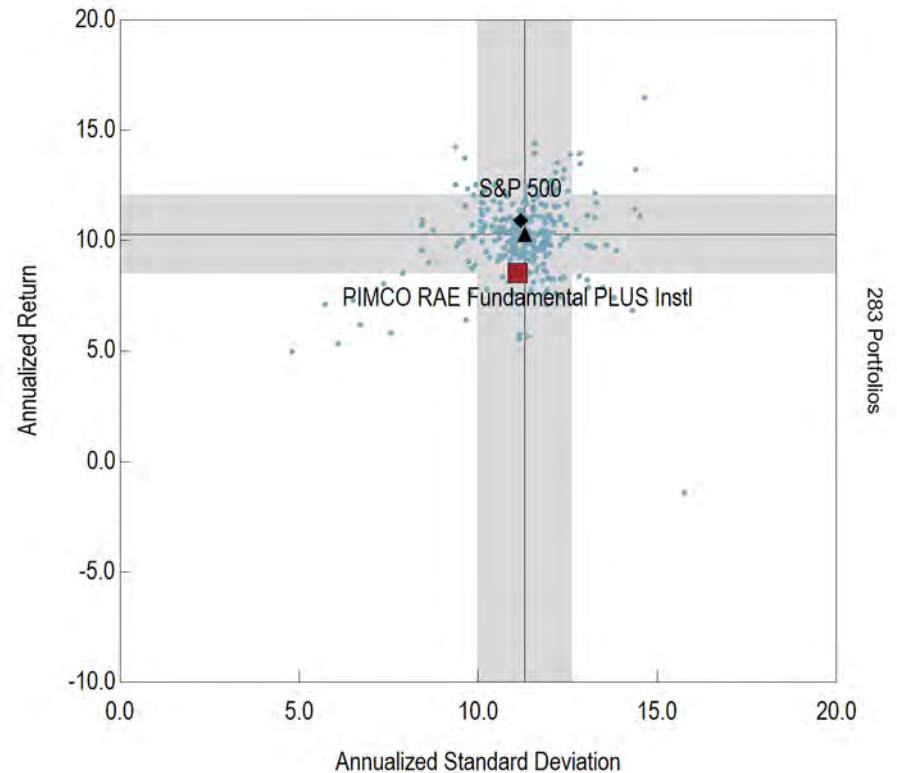
	Return (Rank)									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
5th Percentile	0.7	28.2	16.3	6.3	17.7	39.6	20.1	7.0	19.7	39.1
25th Percentile	-3.0	24.3	12.5	2.7	15.1	35.5	17.2	3.6	15.8	31.2
Median	-5.1	22.1	10.4	0.6	13.3	32.9	15.4	1.3	14.4	26.3
75th Percentile	-7.1	19.8	8.2	-1.6	11.4	30.8	13.4	-1.5	12.3	22.6
95th Percentile	-11.4	14.4	4.3	-4.1	8.2	25.4	9.8	-5.9	9.1	16.1
# of Portfolios	316	318	308	267	267	261	254	259	254	280
● PIMCO RAE Fundamental PLUS Instl	-6.6 (72)	17.0 (89)	15.9 (6)	-2.7 (86)	12.7 (58)	36.0 (22)	16.8 (29)	2.0 (41)	19.0 (7)	27.7 (42)
▲ S&P 500	-4.4 (40)	21.8 (53)	12.0 (31)	1.4 (42)	13.7 (42)	32.4 (58)	16.0 (41)	2.1 (40)	15.1 (37)	26.5 (48)

Annualized Return vs. Annualized Standard Deviation
 3 Years Ending March 31, 2019

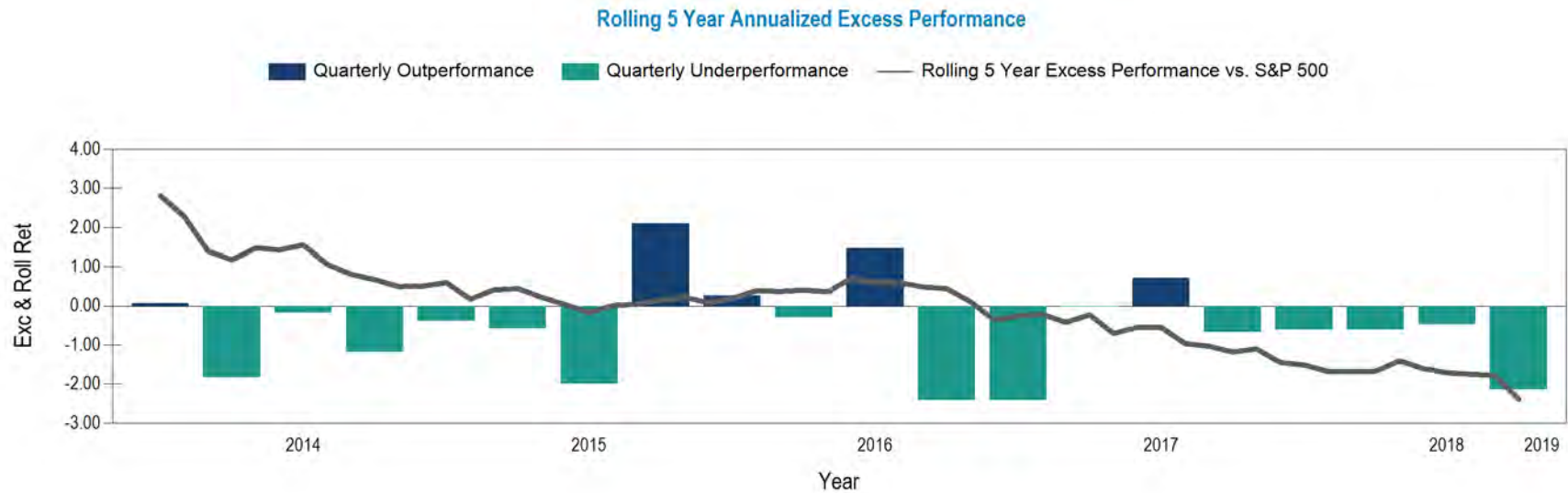
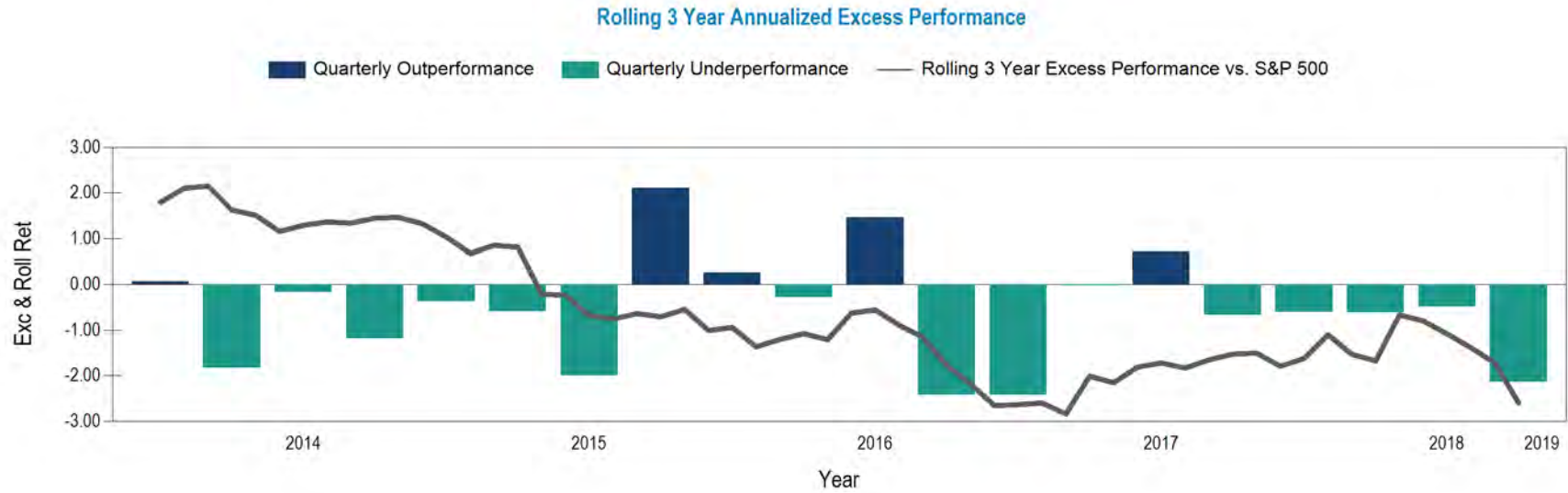


- PIMCO RAE Fundamental PLUS Instl
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eV US Large Cap Core Equity Gross

Annualized Return vs. Annualized Standard Deviation
 5 Years Ending March 31, 2019



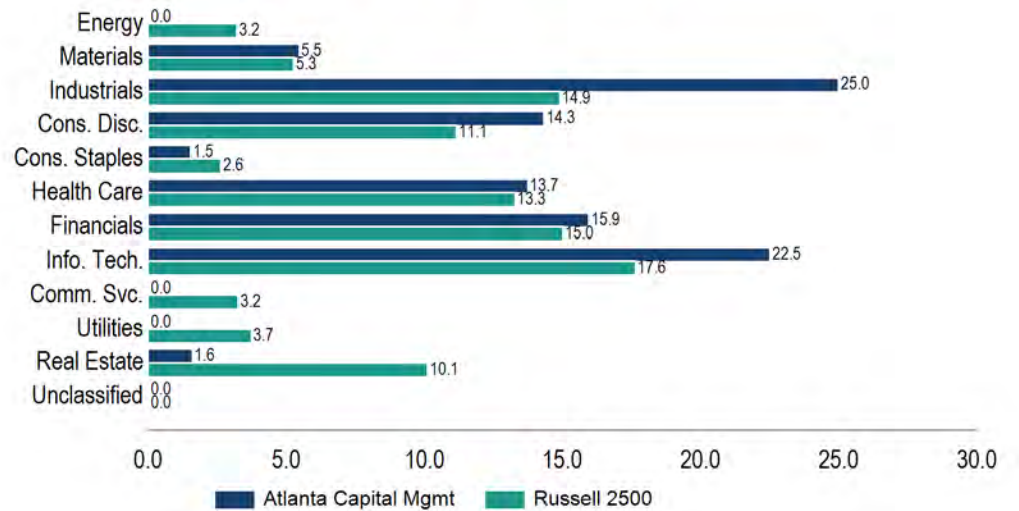
- PIMCO RAE Fundamental PLUS Instl
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eV US Large Cap Core Equity Gross



Characteristics

	Portfolio	Russell 2500
Number of Holdings	52	2,474
Weighted Avg. Market Cap. (\$B)	8.80	5.30
Median Market Cap. (\$B)	7.53	1.11
Price To Earnings	25.34	19.57
Price To Book	4.00	2.63
Price To Sales	1.84	1.32
Return on Equity (%)	22.40	9.57
Yield (%)	0.80	1.60
Beta	0.89	1.00

Sector Allocation (%) vs Russell 2500



*Unclassified includes Cash

Top Holdings
 Ending Period Weight

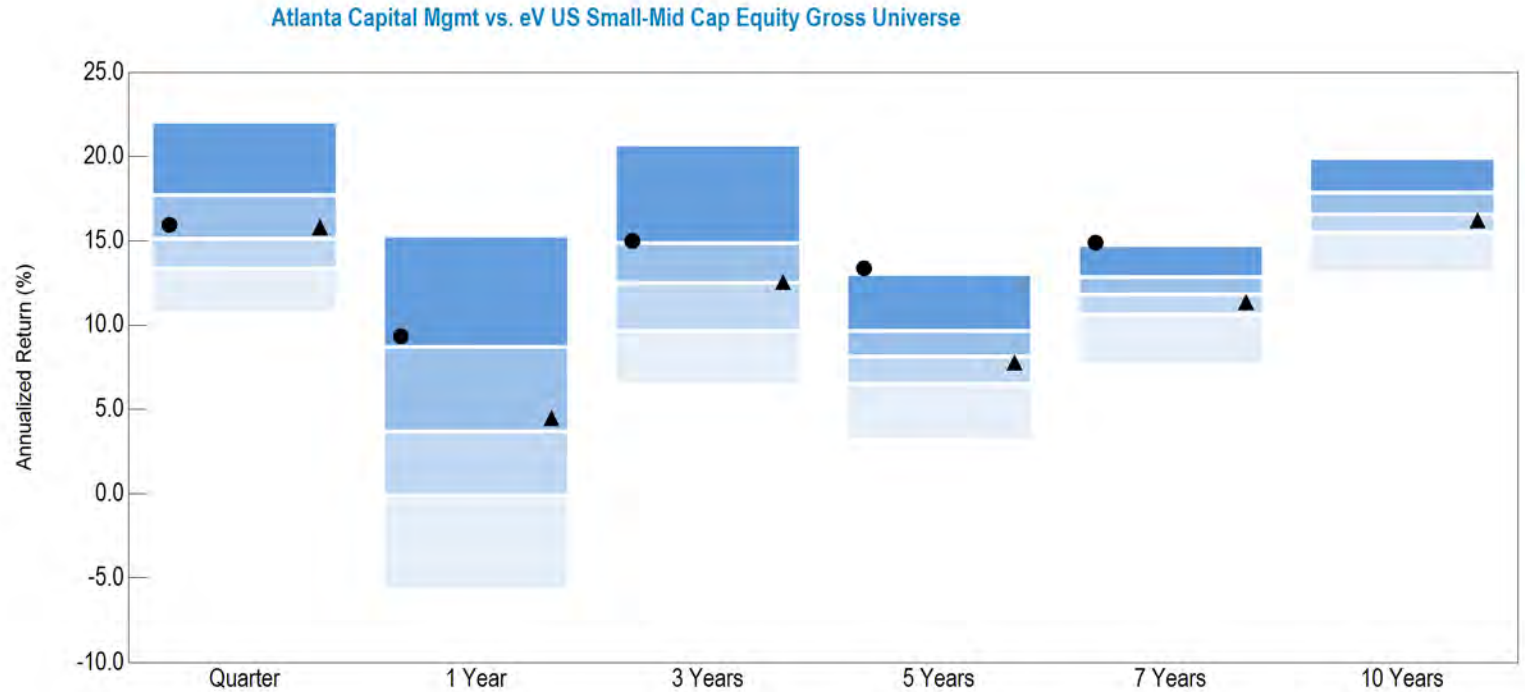
TELEFLEX	5.12%
W R BERKLEY	4.89%
TRANSUNION	4.34%
SERVICEMASTER GLB.HDG.	3.91%
CDW	3.72%
ARAMARK	3.30%
WEX	3.14%
LENNOX INTL.	3.14%
CARLISLE COS.	2.87%
APTARGROUP	2.74%
Total	37.18%

Top Contributors

	Avg Wgt	Return	Contribution
WEX	2.65	37.08	0.98
SERVICEMASTER GLB.HDG.	3.56	27.11	0.96
TELEFLEX	5.06	17.04	0.86
FAIR ISAAC	1.79	45.26	0.81
TRANSUNION	4.15	17.81	0.74
W R BERKLEY	4.93	14.83	0.73
CDW	3.61	19.27	0.70
ANSYS	2.41	27.82	0.67
LENNOX INTL.	3.01	21.10	0.63
MANHATTAN ASSOCS.	2.07	30.07	0.62

Bottom Contributors

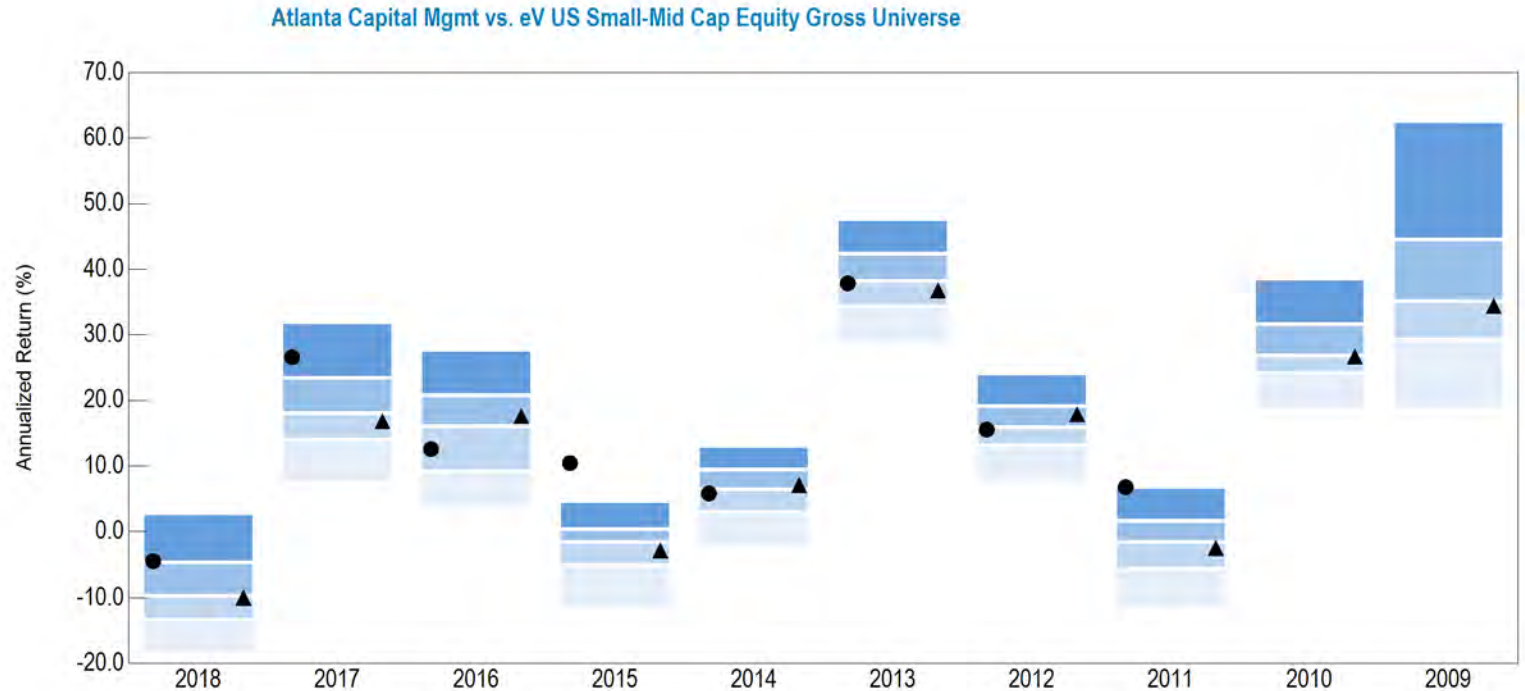
	Avg Wgt	Return	Contribution
HENRY SCHEIN	3.70	-2.34	-0.09
MARKEL	2.08	-4.03	-0.08
RPM INTERNATIONAL	1.70	-0.61	-0.01
SERVICE CORP.INTL.	0.68	0.18	0.00
ACUITY BRANDS	1.46	4.52	0.07
UMPQUA HOLDINGS	1.43	5.08	0.07
ARAMARK	3.33	2.36	0.08
POOL	0.78	11.29	0.09
AFFILIATED MANAGERS	0.89	10.25	0.09
BROADRIDGE FINL.SLTN.	1.42	8.23	0.12



	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	22.1		15.3		20.7		13.0		14.7		19.9	
25th Percentile	17.7		8.7		14.9		9.7		12.9		17.9	
Median	15.2		3.7		12.5		8.2		11.8		16.6	
75th Percentile	13.4		-0.1		9.7		6.5		10.7		15.5	
95th Percentile	10.7		-5.7		6.5		3.2		7.6		13.1	
# of Portfolios	230		230		213		196		178		148	
● Atlanta Capital Mgmt	16.0	(42)	9.3	(23)	15.0	(25)	13.4	(4)	14.9	(4)	--	(--)
▲ Russell 2500	15.8	(42)	4.5	(45)	12.6	(50)	7.8	(55)	11.4	(61)	16.2	(62)

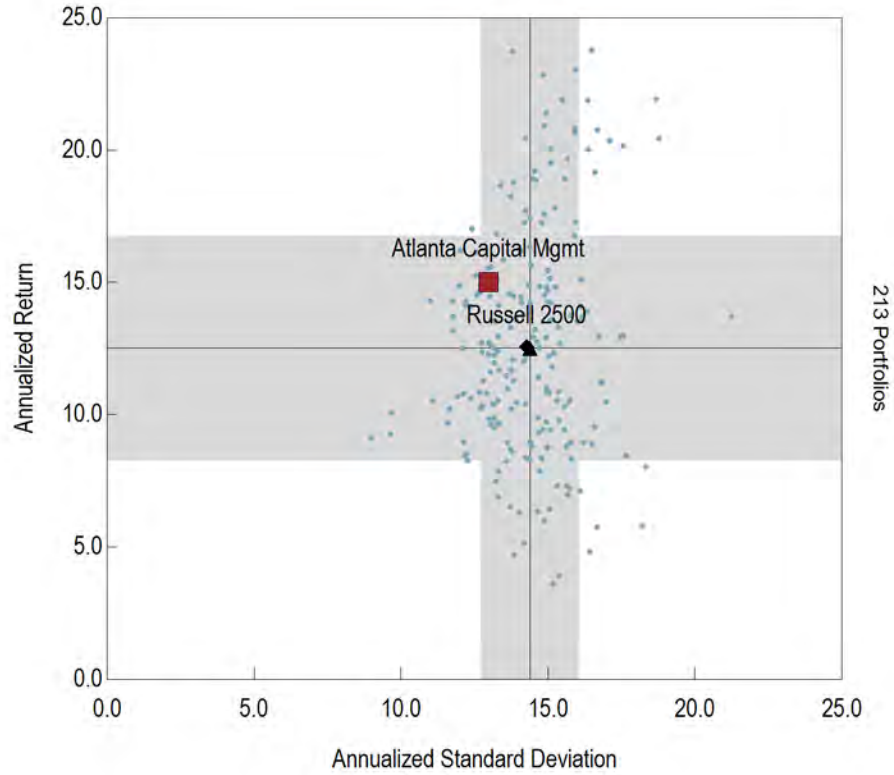
Atlanta Capital Mgmt
 Consecutive Performance Comparison (Gross of Fees)

Period Ending: March 31, 2019



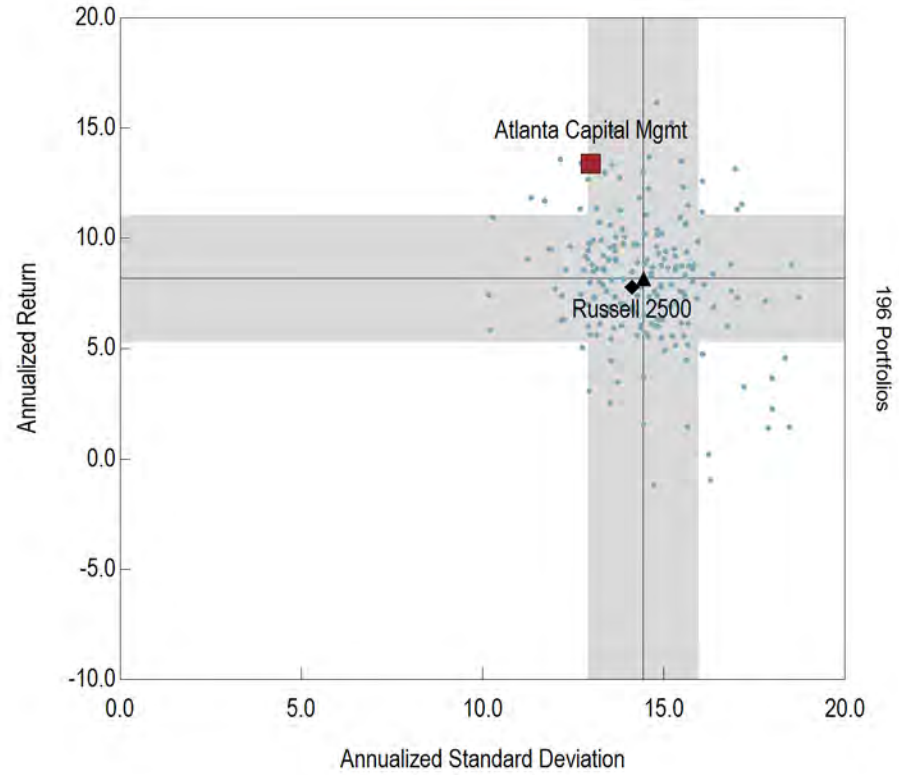
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Return (Rank)										
5th Percentile	2.8	31.9	27.6	4.6	13.0	47.6	24.1	6.8	38.5	62.6
25th Percentile	-4.6	23.5	20.8	0.4	9.6	42.5	19.2	1.7	31.7	44.6
Median	-9.6	18.1	16.1	-1.5	6.5	38.2	16.0	-1.5	26.9	35.2
75th Percentile	-13.3	14.1	9.2	-5.0	3.1	34.4	13.3	-5.6	24.3	29.4
95th Percentile	-18.5	7.5	3.8	-11.6	-2.3	28.7	7.8	-11.6	18.7	18.7
# of Portfolios	236	233	238	215	210	210	216	211	210	226
● Atlanta Capital Mgmt	-4.5 (25)	26.6 (15)	12.6 (62)	10.4 (1)	5.8 (56)	37.8 (52)	15.5 (55)	6.8 (5)	-- (--)	-- (--)
▲ Russell 2500	-10.0 (53)	16.8 (61)	17.6 (38)	-2.9 (64)	7.1 (46)	36.8 (58)	17.9 (36)	-2.5 (56)	26.7 (52)	34.4 (55)

Annualized Return vs. Annualized Standard Deviation
 3 Years Ending March 31, 2019

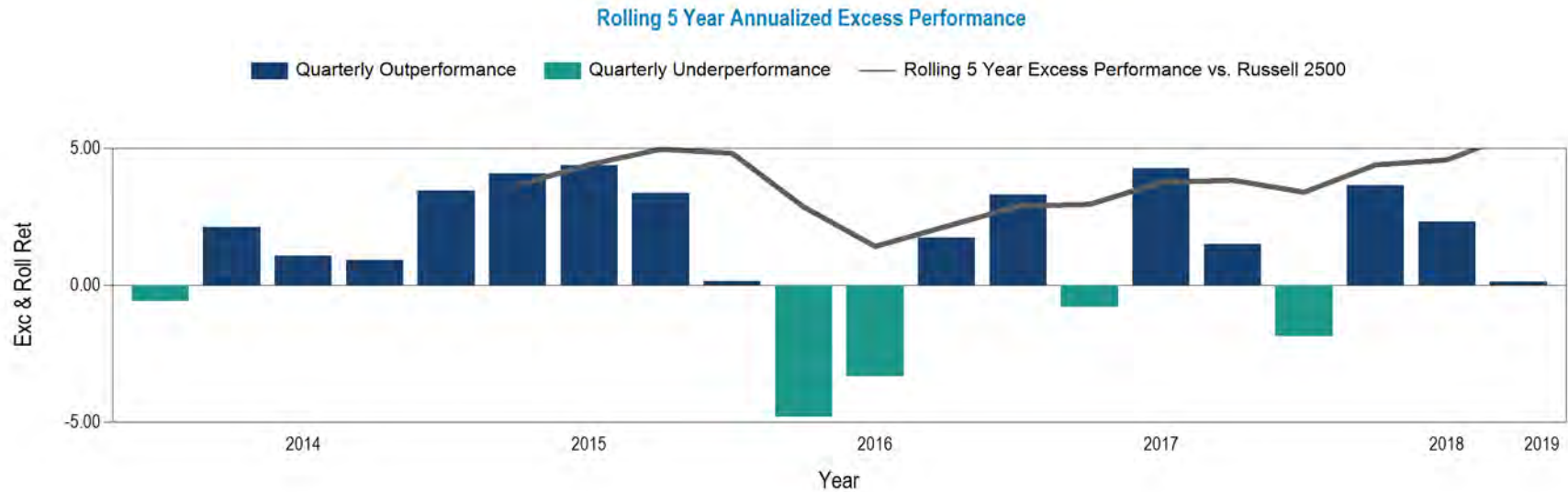
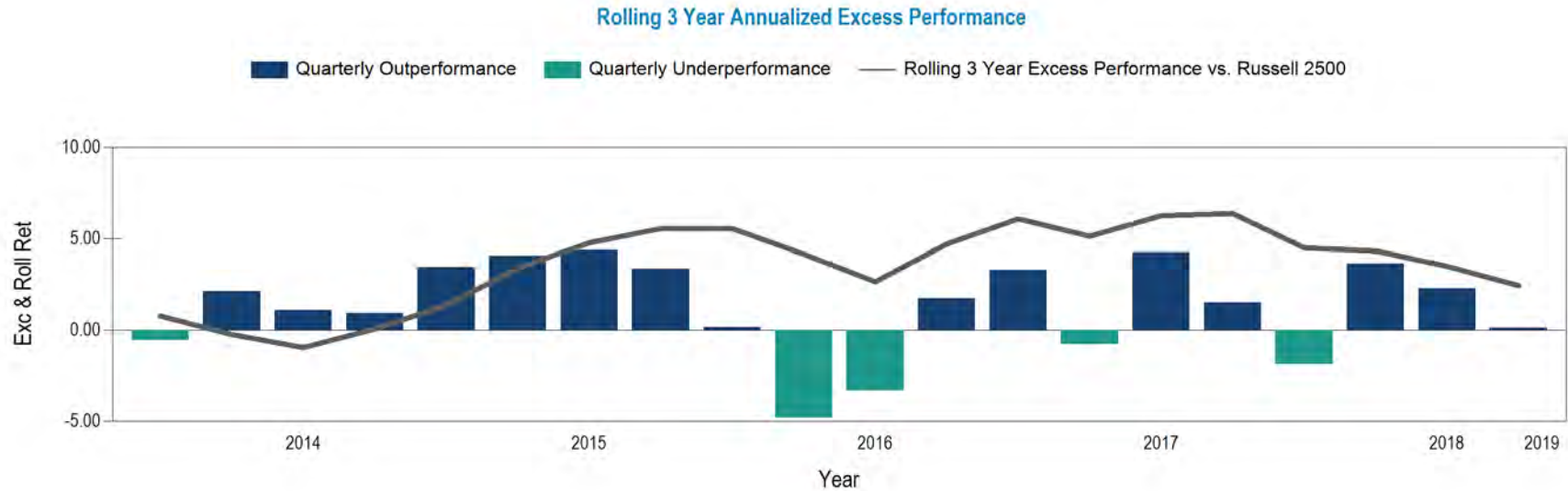


- Atlanta Capital Mgmt
- ◆ Russell 2500
- ▲ Universe Median
- 68% Confidence Interval
- eV US Small-Mid Cap Equity Gross

Annualized Return vs. Annualized Standard Deviation
 5 Years Ending March 31, 2019



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

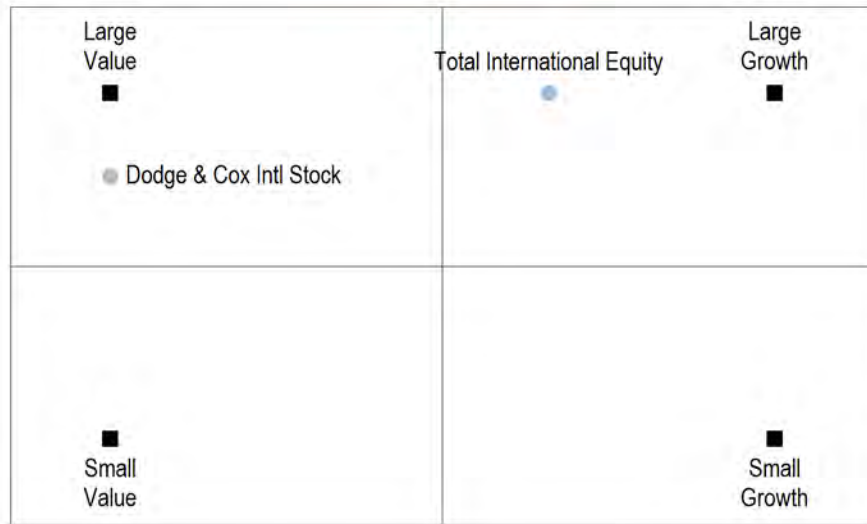


Total International Equity
Asset Class Overview (Gross of Fees)

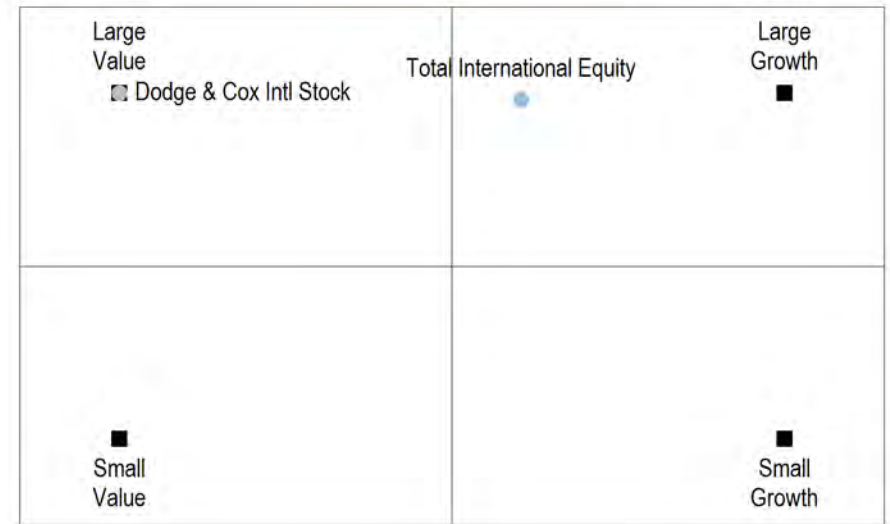
Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total International Equity	288,337,516	11.6	-1.8	8.7	3.7	11.2	-12.2	26.6	2.2	-4.3	2.1
MSCI ACWI ex USA Gross		10.4	-3.7	8.6	3.0	9.3	-13.8	27.8	5.0	-5.3	-3.4
InvestorForce Public DB ex-US Eq Gross Rank		21	9	31	27	4	9	81	82	68	1
Dodge & Cox Intl Stock	141,217,582	10.0	-7.4	8.6	1.5	10.9	-17.5	24.7	9.0	-10.8	0.7
MSCI EAFE Gross		10.1	-3.2	7.8	2.8	9.5	-13.4	25.6	1.5	-0.4	-4.5
eV All EAFE Equity Gross Rank		65	67	26	91	44	73	74	3	99	13
WCM International Growth	147,119,934	13.2	4.1	--	--	--	-6.7	--	--	--	--
MSCI ACWI ex USA Gross		10.4	-3.7	--	--	--	-13.8	--	--	--	--
eV ACWI ex-US All Cap Growth Eq Gross Rank		58	2	--	--	--	1	--	--	--	--

EAFE Effective Style Map
3 Years Ending March 31, 2019



EAFE Effective Style Map
5 Years Ending March 31, 2019



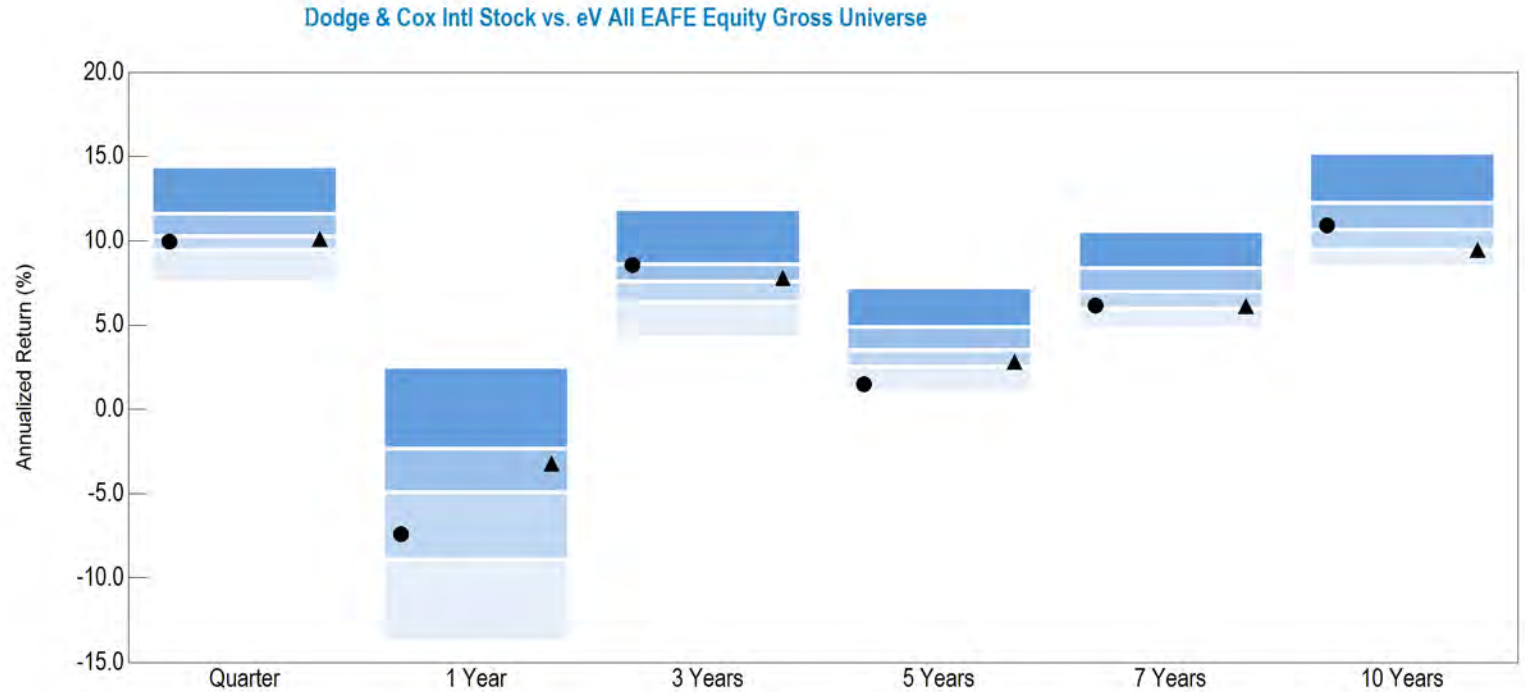
Total International Equity
 Asset Class Overview (Net of Fees)

Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total International Equity	288,337,516	11.4	-2.4	8.0	3.0	10.6	-12.8	25.8	1.6	-4.9	1.4
<i>MSCI ACWI ex USA Gross</i>		10.4	-3.7	8.6	3.0	9.3	-13.8	27.8	5.0	-5.3	-3.4
Dodge & Cox Intl Stock	141,217,582	9.8	-8.0	7.9	0.8	10.2	-18.0	23.9	8.3	-11.4	0.1
<i>MSCI EAFE Gross</i>		10.1	-3.2	7.8	2.8	9.5	-13.4	25.6	1.5	-0.4	-4.5
WCM International Growth	147,119,934	13.0	3.4	--	--	--	-7.4	--	--	--	--
<i>MSCI ACWI ex USA Gross</i>		10.4	-3.7	--	--	--	-13.8	--	--	--	--

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

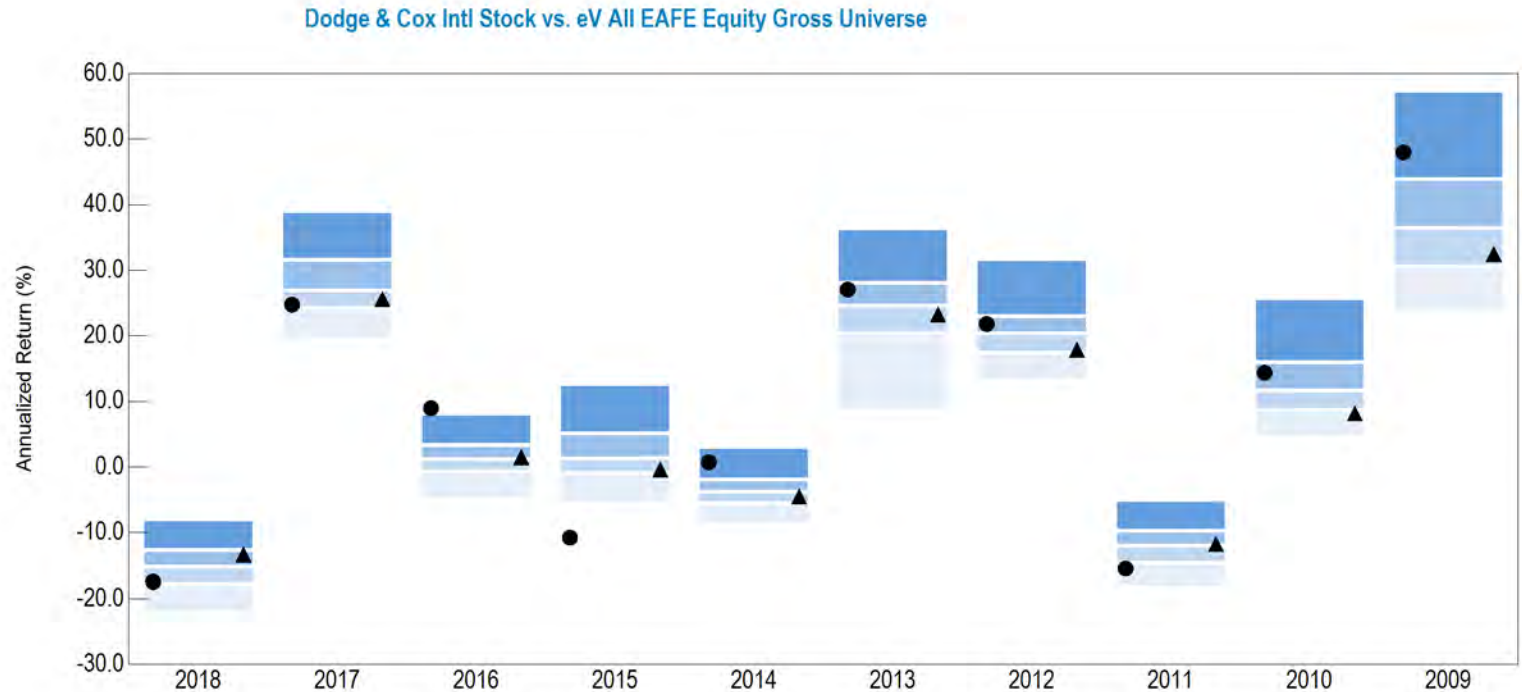
Period Ending: March 31, 2019



	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	14.4		2.5		11.8		7.2		10.6		15.2	
25th Percentile	11.6		-2.3		8.6		4.9		8.4		12.3	
Median	10.3		-4.9		7.6		3.5		7.0		10.7	
75th Percentile	9.5		-8.9		6.4		2.6		6.0		9.5	
95th Percentile	7.6		-13.7		4.3		1.1		4.8		8.5	
# of Portfolios	384		384		368		326		289		260	
● Dodge & Cox Intl Stock	10.0	(65)	-7.4	(67)	8.6	(26)	1.5	(91)	6.2	(73)	10.9	(44)
▲ MSCI EAFE Gross	10.1	(57)	-3.2	(33)	7.8	(43)	2.8	(69)	6.1	(73)	9.5	(77)

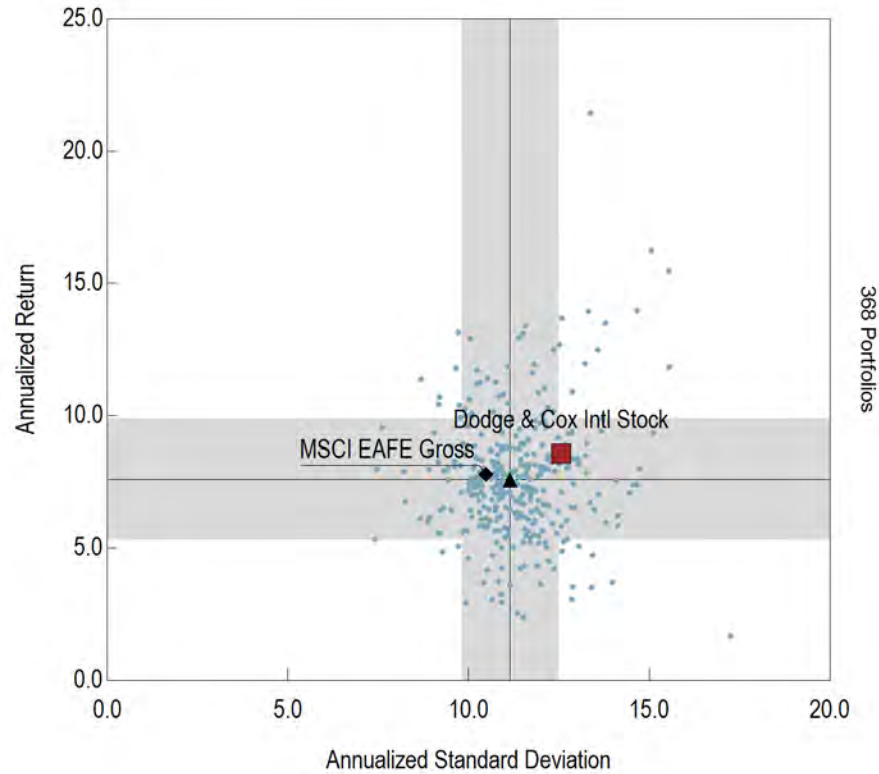
Dodge & Cox Intl Stock
 Consecutive Performance Comparison (Gross of Fees)

Period Ending: March 31, 2019



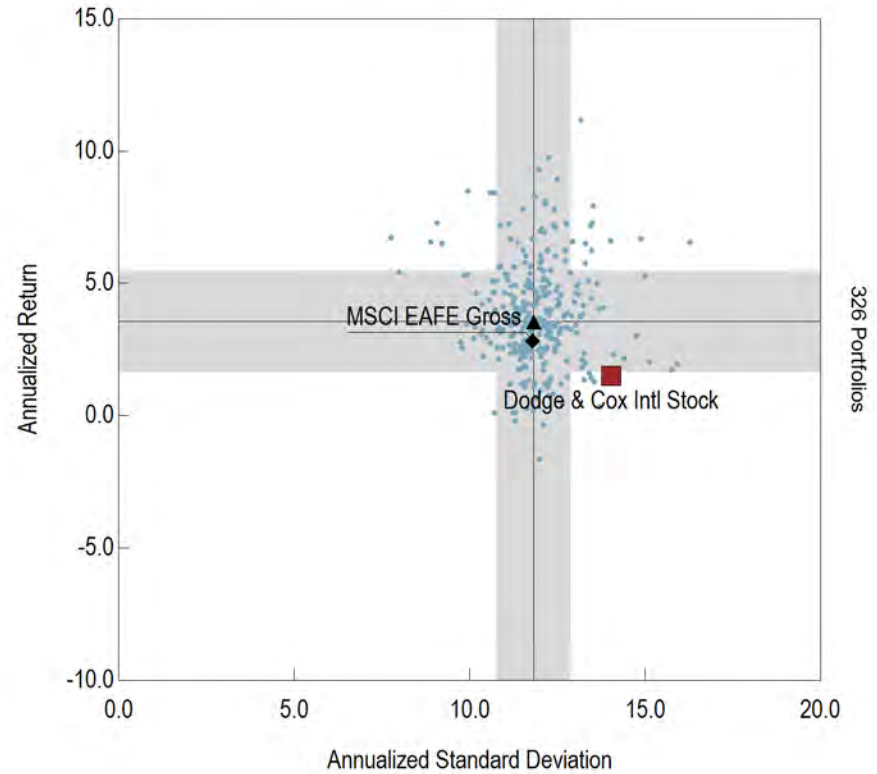
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Return (Rank)										
5th Percentile	-8.0	39.0	8.1	12.6	3.0	36.3	31.7	-5.1	25.7	57.3
25th Percentile	-12.6	31.6	3.4	5.2	-1.9	28.1	23.1	-9.7	16.1	44.0
Median	-15.1	27.0	1.3	1.4	-3.7	24.6	20.4	-12.0	11.7	36.5
75th Percentile	-17.8	24.3	-0.6	-0.9	-5.4	20.5	17.5	-14.5	8.7	30.7
95th Percentile	-22.2	19.7	-4.9	-5.4	-8.6	8.6	13.3	-18.2	4.6	23.7
# of Portfolios	391	370	350	325	314	284	263	278	352	455
● Dodge & Cox Intl Stock	-17.5 (73)	24.7 (74)	9.0 (3)	-10.8 (99)	0.7 (13)	27.1 (32)	21.8 (37)	-15.5 (82)	14.4 (36)	48.0 (17)
▲ MSCI EAFE Gross	-13.4 (35)	25.6 (63)	1.5 (47)	-0.4 (66)	-4.5 (60)	23.3 (60)	17.9 (72)	-11.7 (47)	8.2 (78)	32.5 (67)

Annualized Return vs. Annualized Standard Deviation
 3 Years Ending March 31, 2019



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

Annualized Return vs. Annualized Standard Deviation
 5 Years Ending March 31, 2019



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



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

Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Domestic Fixed Income	272,944,108	3.8	4.7	3.4	3.4	7.3	0.4	4.3	4.5	1.1	4.7
<i>BBgBarc US Aggregate TR</i>		2.9	4.5	2.0	2.7	3.8	0.0	3.5	2.6	0.6	6.0
<i>InvestorForce Public DB US Fix Inc Gross Rank</i>		5	11	23	19	2	55	50	49	17	68
BlackRock Core Bond	98,406,238	3.8	5.7	--	--	--	0.3	--	--	--	--
<i>BBgBarc US Aggregate TR</i>		2.9	4.5	--	--	--	0.0	--	--	--	--
<i>eV US Core Fixed Inc Gross Rank</i>		8	2	--	--	--	27	--	--	--	--
Dodge & Cox Income Fund	100,572,795	3.8	4.8	--	--	--	0.1	--	--	--	--
<i>BBgBarc US Aggregate TR</i>		2.9	4.5	--	--	--	0.0	--	--	--	--
<i>eV US Core Fixed Inc Gross Rank</i>		8	37	--	--	--	43	--	--	--	--
Pacific Asset Corporate Loan	73,965,075	3.9	3.5	5.7	--	--	1.0	4.9	9.2	2.5	--
<i>S&P/LSTA Leveraged Loan Index</i>		4.0	3.0	5.7	--	--	0.4	4.1	10.2	-0.7	--
<i>eV US Float-Rate Bank Loan Fixed Inc Gross Rank</i>		53	29	41	--	--	29	26	51	9	--

Fixed Income Effective Style Map
3 Years Ending March 31, 2019



Fixed Income Effective Style Map
5 Years Ending March 31, 2019



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

Period Ending: March 31, 2019

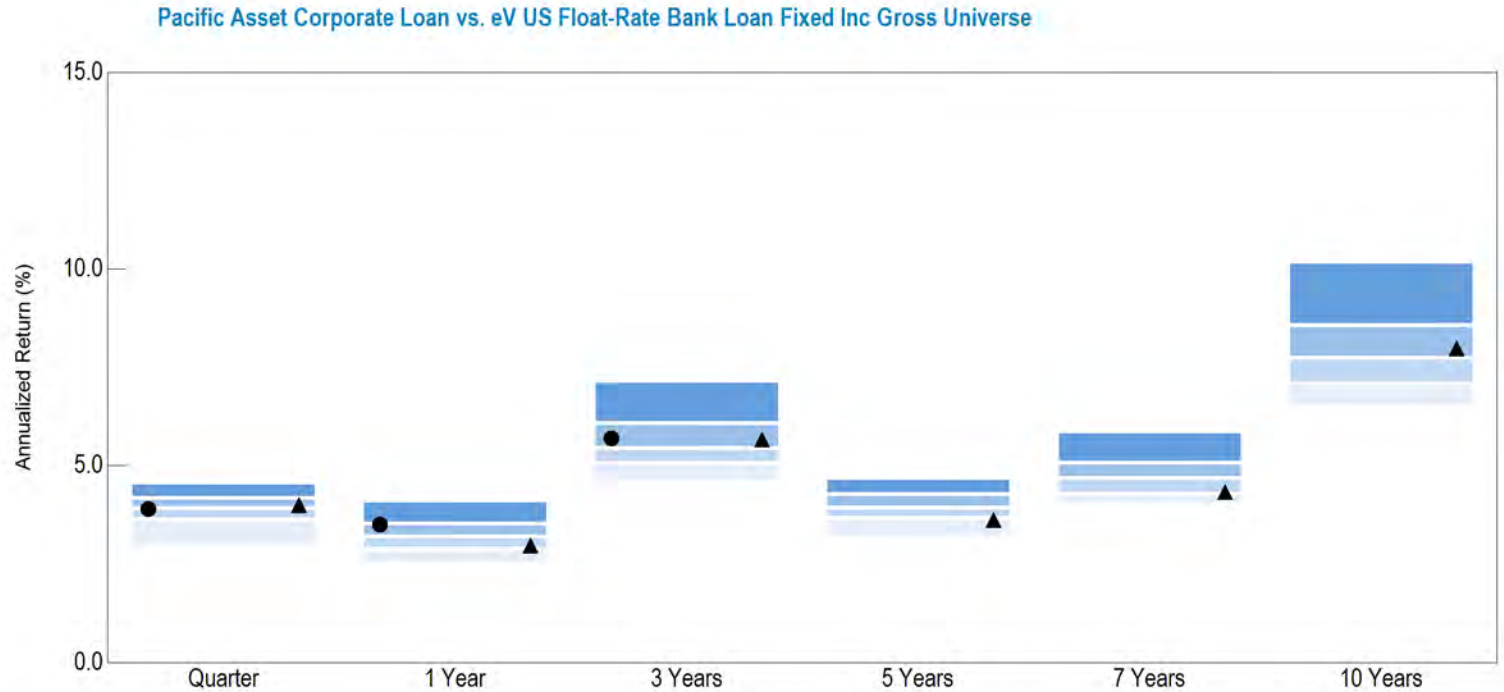
	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Domestic Fixed Income	272,944,108	3.8	4.3	3.1	3.1	7.0	0.0	3.9	4.2	0.9	4.4
<i>BBgBarc US Aggregate TR</i>		2.9	4.5	2.0	2.7	3.8	0.0	3.5	2.6	0.6	6.0
BlackRock Core Bond	98,406,238	3.8	5.4	--	--	--	0.1	--	--	--	--
<i>BBgBarc US Aggregate TR</i>		2.9	4.5	--	--	--	0.0	--	--	--	--
Dodge & Cox Income Fund	100,572,795	3.7	4.3	--	--	--	-0.3	--	--	--	--
<i>BBgBarc US Aggregate TR</i>		2.9	4.5	--	--	--	0.0	--	--	--	--
Pacific Asset Corporate Loan	73,965,075	3.8	3.1	5.4	--	--	0.7	4.6	8.8	2.1	--
<i>S&P/LSTA Leveraged Loan Index</i>		4.0	3.0	5.7	--	--	0.4	4.1	10.2	-0.7	--

Correlation Matrix
1 Year Ending March 31, 2019

	Total Domestic Fixed Income	BlackRock Core Bond	Dodge & Cox Income Fund	Pacific Asset Corporate Loan	BBgBarc US Aggregate TR
Total Domestic Fixed Income	1.00	--	--	--	--
BlackRock Core Bond	0.87	1.00	--	--	--
Dodge & Cox Income Fund	0.96	0.96	1.00	--	--
Pacific Asset Corporate Loan	0.83	0.46	0.65	1.00	--
BBgBarc US Aggregate TR	0.68	0.95	0.84	0.16	1.00

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

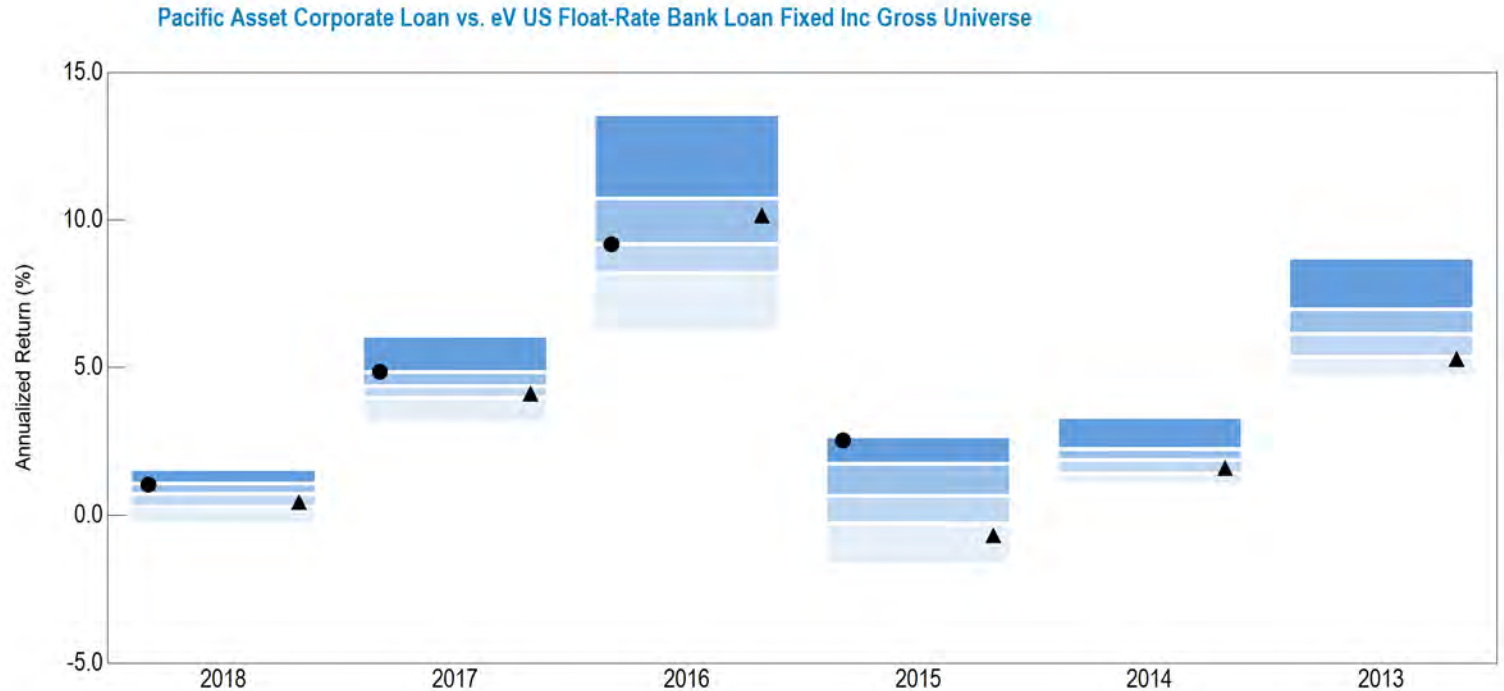
Period Ending: March 31, 2019



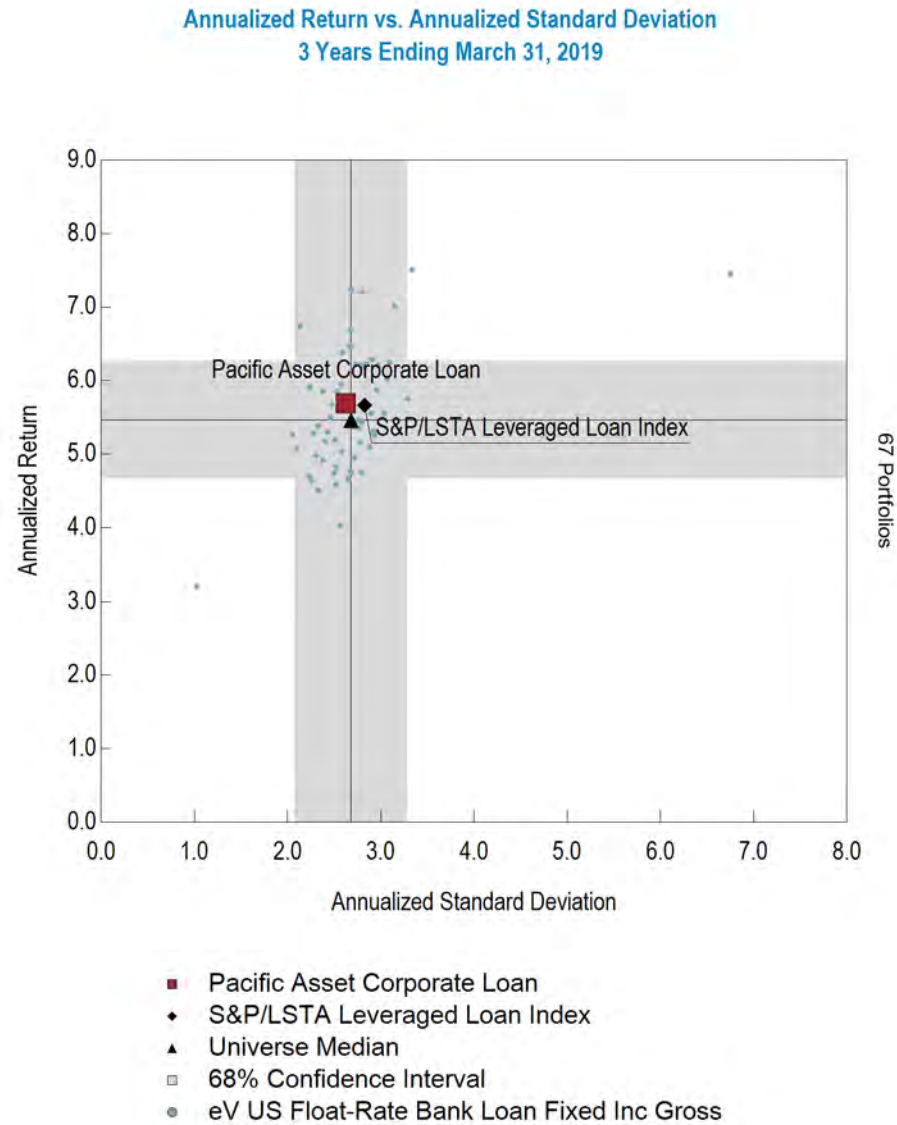
	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	4.6		4.1		7.2		4.7		5.9		10.2	
25th Percentile	4.2		3.5		6.1		4.3		5.1		8.6	
Median	3.9		3.2		5.5		3.9		4.7		7.8	
75th Percentile	3.6		2.9		5.1		3.7		4.3		7.1	
95th Percentile	3.0		2.5		4.6		3.2		4.0		6.5	
# of Portfolios	69		68		67		67		58		43	
● Pacific Asset Corporate Loan	3.9	(53)	3.5	(29)	5.7	(41)	--	(--)	--	(--)	--	(--)
▲ S&P/LSTA Leveraged Loan Index	4.0	(48)	3.0	(71)	5.7	(42)	3.6	(81)	4.3	(75)	8.0	(41)

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

Period Ending: March 31, 2019



	2018		2017		2016		2015		2014		2013	
5th Percentile	1.6		6.1		13.6		2.7		3.3		8.7	
25th Percentile	1.1		4.9		10.7		1.8		2.3		7.0	
Median	0.7		4.4		9.2		0.7		1.9		6.2	
75th Percentile	0.3		4.0		8.2		-0.3		1.4		5.4	
95th Percentile	-0.3		3.1		6.2		-1.7		1.1		4.7	
# of Portfolios	76		75		69		54		48		53	
● Pacific Asset Corporate Loan	1.0	(29)	4.9	(26)	9.2	(51)	2.5	(9)	--	(--)	--	(--)
▲ S&P/LSTA Leveraged Loan Index	0.4	(68)	4.1	(71)	10.2	(35)	-0.7	(82)	1.6	(68)	5.3	(79)





Total Global Fixed
Asset Class Overview (Gross of Fees)

Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Global Fixed	144,238,572	3.0	-8.4	2.1	-0.4	3.6	-6.6	14.4	5.8	-11.8	-2.2
<i>FTSE World Govt Bond Index</i>		1.7	-1.6	1.0	0.6	2.2	-0.8	7.5	1.6	-3.6	-0.5
<i>InvestorForce Public DB Gbl Fix Inc Gross Rank</i>		85	99	96	99	99	99	29	67	95	93
Brandywine Global Fixed Income	74,238,572	1.9	-6.7	1.1	0.3	4.3	-4.1	12.5	2.2	-9.3	2.9
<i>FTSE WGBI ex US TR</i>		1.5	-4.5	0.9	-0.1	2.0	-1.8	10.3	1.8	-5.5	-2.7
<i>eV Global Fixed Inc Unhedged Gross Rank</i>		86	98	90	92	61	83	9	71	96	43
Ashmore EM Blended Debt Fund	70,000,000	--	--	--	--	--	--	--	--	--	--
<i>JPM GBI-EM Global Diversified TR USD</i>		--	--	--	--	--	--	--	--	--	--
<i>eV All Emg Mkts Fixed Inc Gross Rank</i>		--	--	--	--	--	--	--	--	--	--

Total Global Fixed
Asset Class Overview (Net of Fees)

Period Ending: March 31, 2019

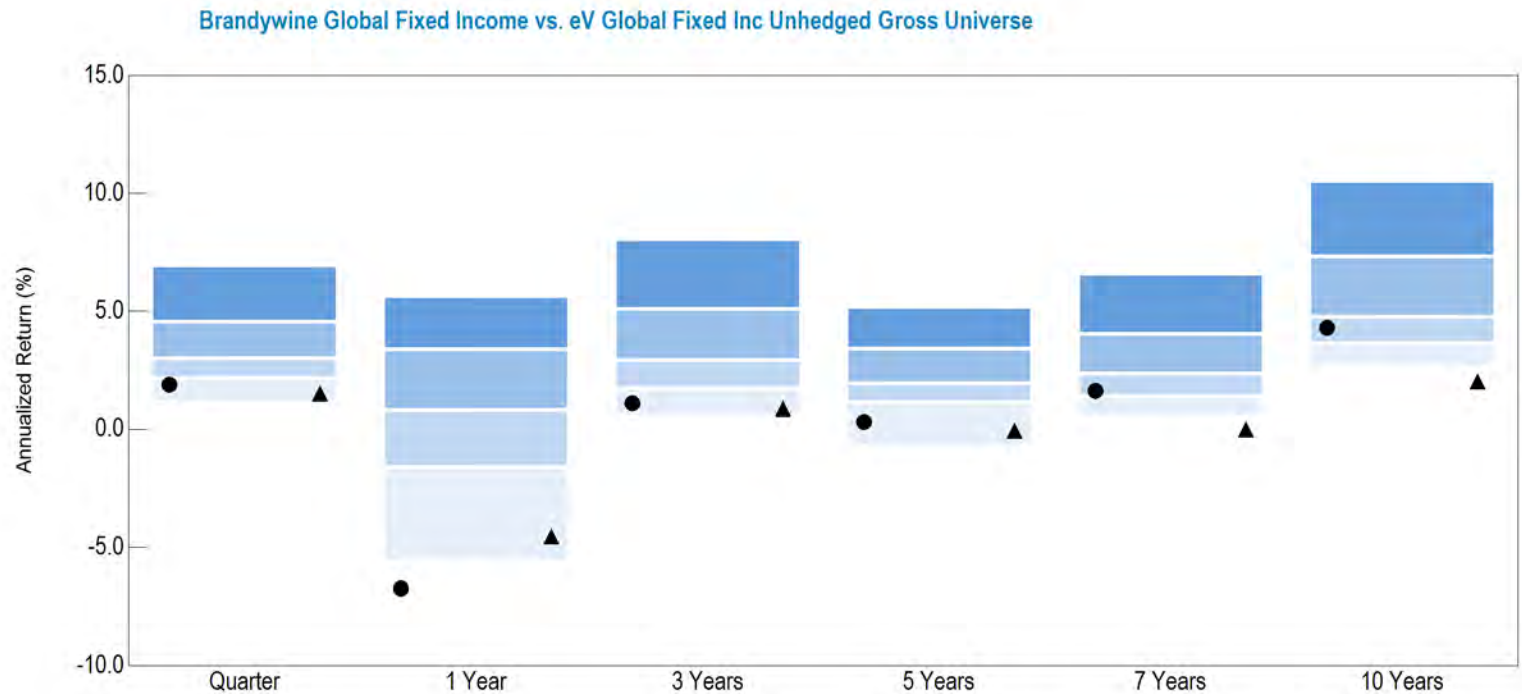
	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Global Fixed	144,238,572	2.9	-9.0	1.4	-1.1	3.0	-7.2	13.7	5.1	-12.4	-2.8
<i>FTSE World Govt Bond Index</i>		1.7	-1.6	1.0	0.6	2.2	-0.8	7.5	1.6	-3.6	-0.5
Brandywine Global Fixed Income	74,238,572	1.8	-7.1	0.7	-0.1	3.8	-4.5	12.0	1.7	-9.7	2.4
<i>FTSE WGBI ex US TR</i>		1.5	-4.5	0.9	-0.1	2.0	-1.8	10.3	1.8	-5.5	-2.7
Ashmore EM Blended Debt Fund	70,000,000	--	--	--	--	--	--	--	--	--	--
<i>JPM GBI-EM Global Diversified TR USD</i>		--	--	--	--	--	--	--	--	--	--

Correlation Matrix
Last 5 Years

	Total Global Fixed	Brandywine Global Fixed Income	Ashmore EM Blended Debt Fund	FTSE World Govt Bond Index
Total Global Fixed	1.00	--	--	--
Brandywine Global Fixed Income	0.95	1.00	--	--
Ashmore EM Blended Debt Fund	--	--	--	--
FTSE World Govt Bond Index	0.77	0.81	--	1.00

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

Period Ending: March 31, 2019

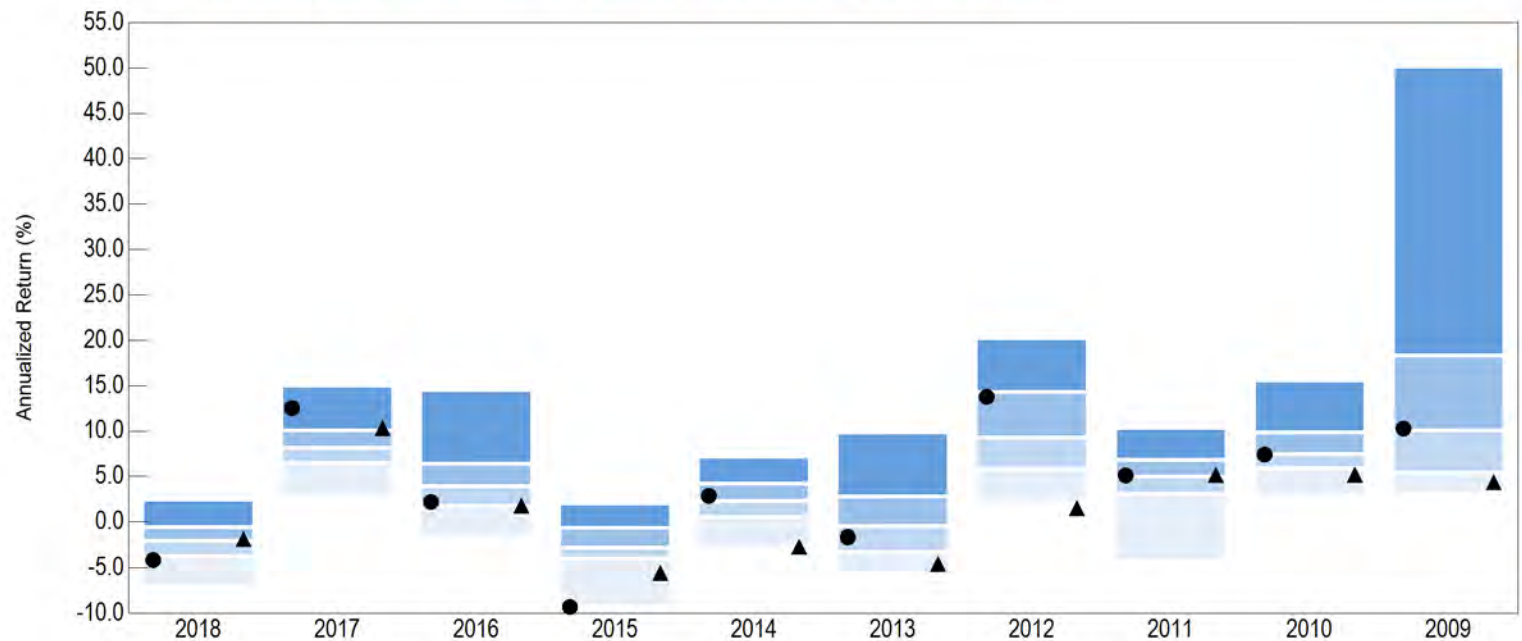


	Return (Rank)											
	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	6.9		5.6		8.1		5.2		6.6		10.5	
25th Percentile	4.6		3.4		5.1		3.4		4.1		7.3	
Median	3.0		0.8		2.9		2.0		2.4		4.8	
75th Percentile	2.2		-1.6		1.8		1.2		1.4		3.7	
95th Percentile	1.1		-5.6		0.5		-0.7		0.6		2.7	
# of Portfolios	230		230		218		199		164		120	
● Brandywine Global Fixed Income	1.9	(86)	-6.7	(98)	1.1	(90)	0.3	(92)	1.6	(68)	4.3	(61)
▲ FTSE WGBI ex US TR	1.5	(92)	-4.5	(92)	0.9	(92)	-0.1	(93)	0.0	(99)	2.0	(98)

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

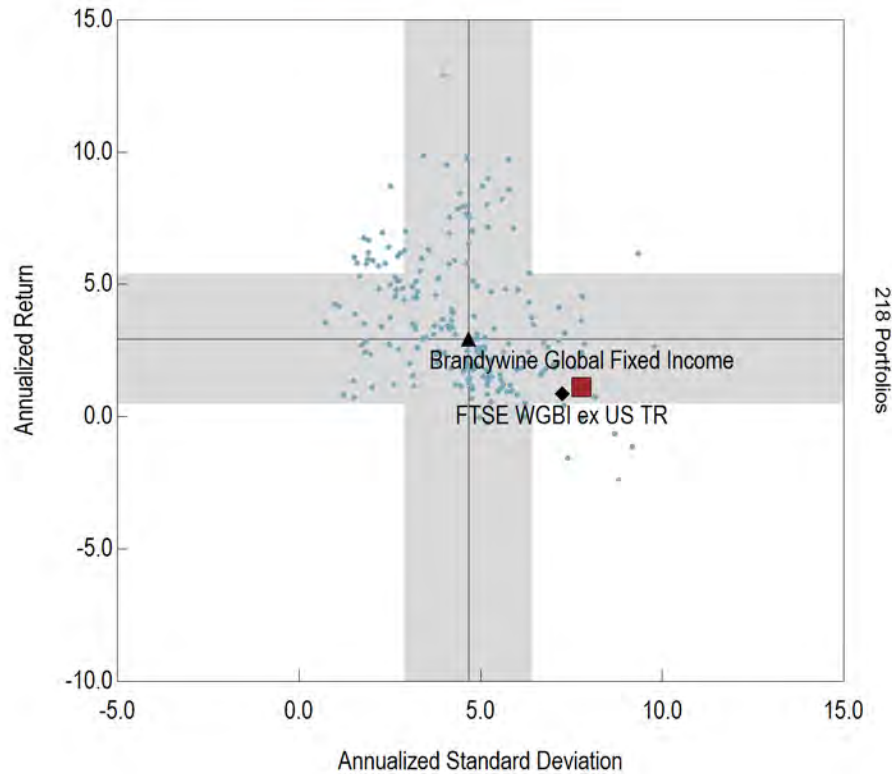
Period Ending: March 31, 2019

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

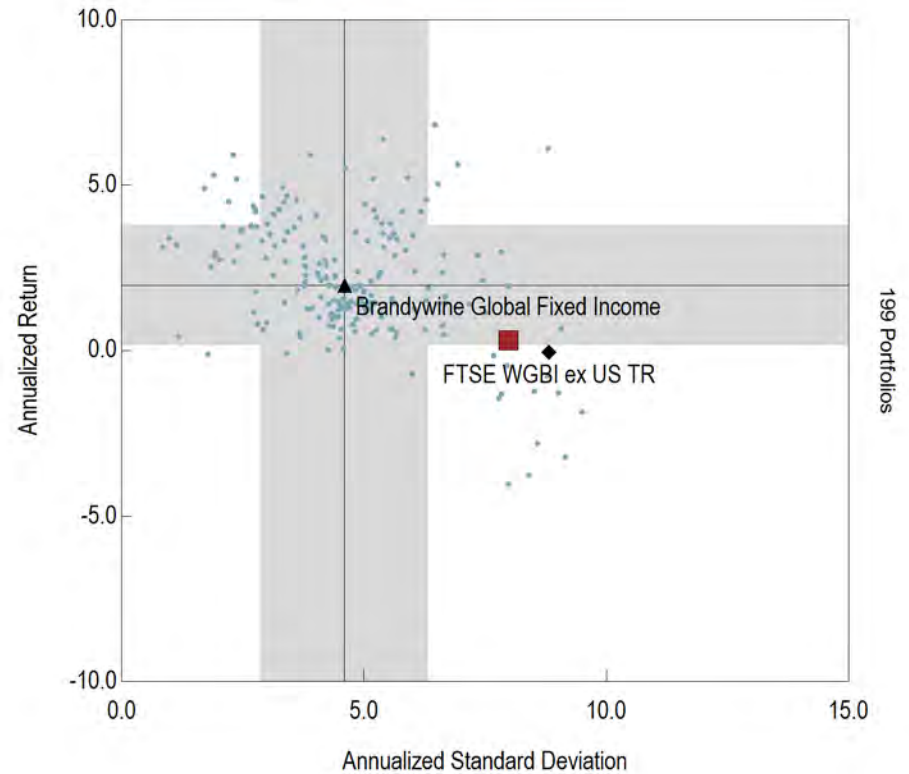


	Return (Rank)									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
5th Percentile	2.5	15.0	14.5	2.0	7.1	9.8	20.2	10.4	15.5	50.1
25th Percentile	-0.5	10.1	6.5	-0.6	4.2	2.8	14.3	6.9	9.9	18.4
Median	-2.0	8.2	4.0	-2.7	2.3	-0.4	9.4	5.0	7.5	10.1
75th Percentile	-3.7	6.5	1.8	-4.0	0.6	-3.2	5.9	3.2	6.0	5.4
95th Percentile	-7.0	3.0	-1.5	-9.2	-2.7	-5.6	2.2	-4.2	3.0	3.2
# of Portfolios	231	231	221	189	159	142	118	108	76	72
● Brandywine Global Fixed Income	-4.1 (83)	12.5 (9)	2.2 (71)	-9.3 (96)	2.9 (43)	-1.6 (59)	13.8 (30)	5.1 (49)	7.4 (52)	10.3 (49)
▲ FTSE WGBI ex US TR	-1.8 (48)	10.3 (21)	1.8 (75)	-5.5 (89)	-2.7 (95)	-4.6 (89)	1.5 (98)	5.2 (48)	5.2 (87)	4.4 (84)

Annualized Return vs. Annualized Standard Deviation
 3 Years Ending March 31, 2019



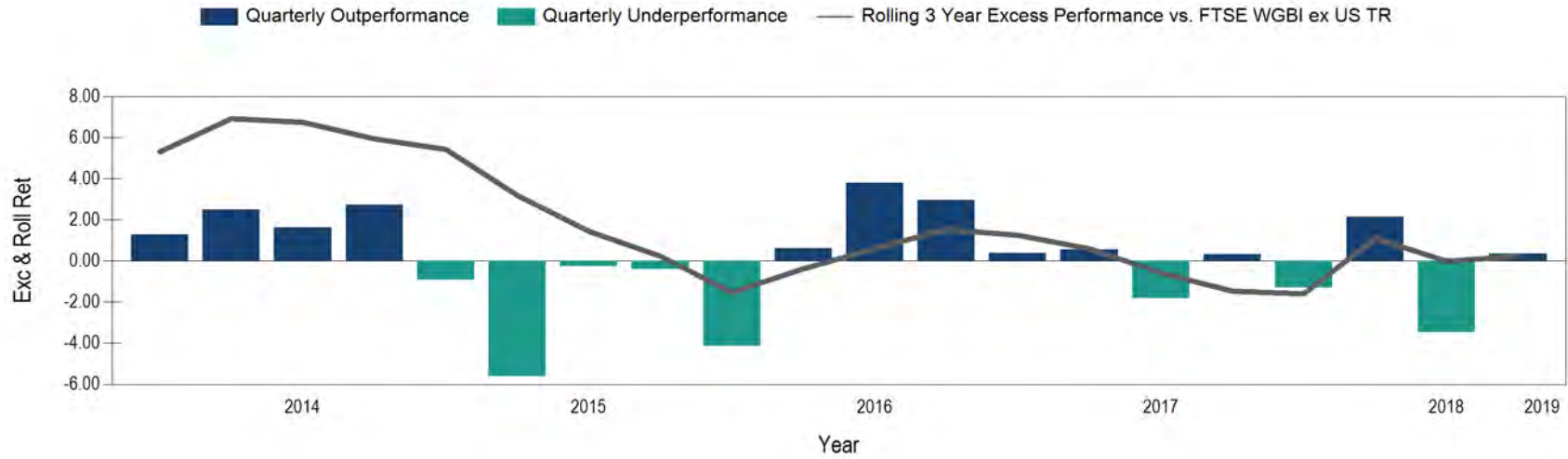
Annualized Return vs. Annualized Standard Deviation
 5 Years Ending March 31, 2019



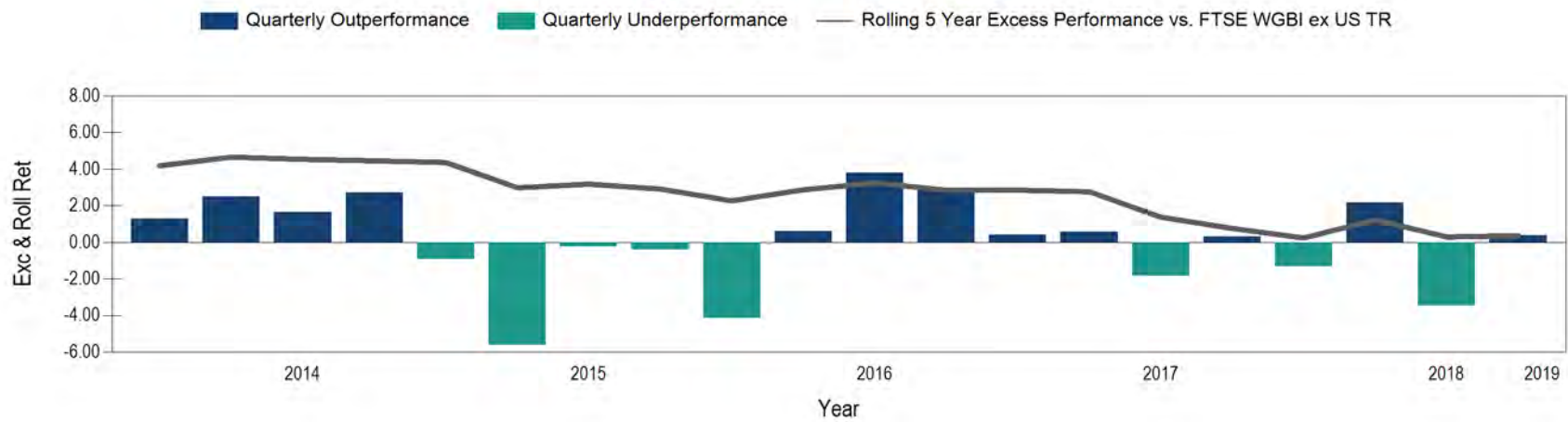
- Brandywine Global Fixed Income
- ◆ FTSE WGBI ex US TR
- ▲ Universe Median
- ▣ 68% Confidence Interval
- eV Global Fixed Inc Unhedged Gross

- Brandywine Global Fixed Income
- ◆ FTSE WGBI ex US TR
- ▲ Universe Median
- ▣ 68% Confidence Interval
- eV Global Fixed Inc Unhedged Gross

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance

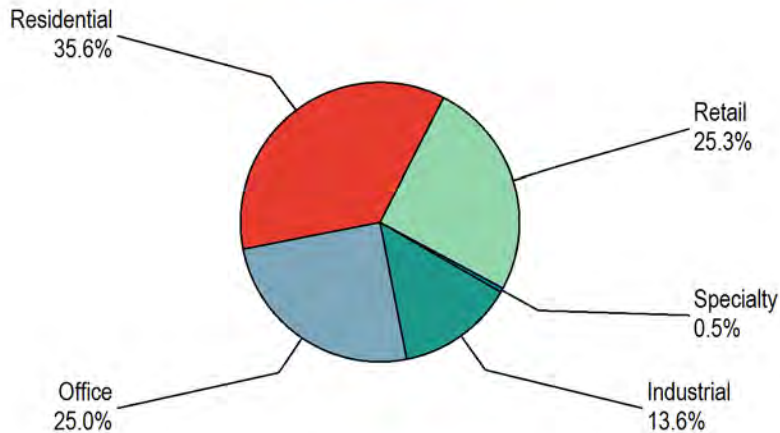


Total Real Estate
Asset Class Overview (Gross of Fees)

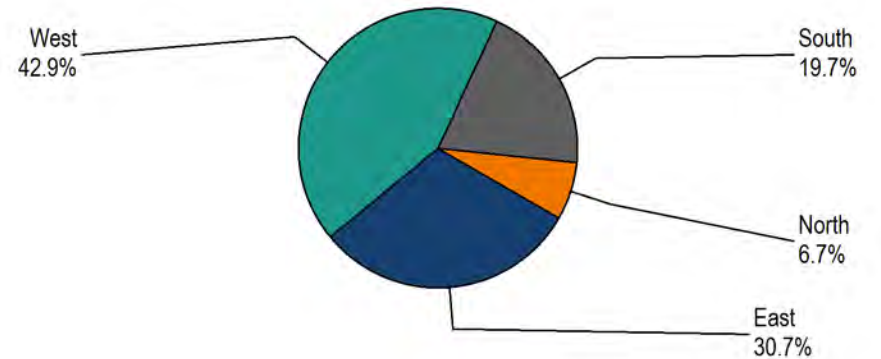
Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Real Estate	194,436,826	0.5	5.9	7.2	9.9	7.0	7.5	7.8	7.8	18.0	10.4
<i>NCREIF Property Index</i>		1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
JP Morgan Core Real Estate	163,985,003	0.2	5.1	6.6	9.1	8.7	7.0	6.1	8.4	15.2	11.2
<i>NCREIF-ODCE</i>		1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5
<i>NCREIF Property Index</i>		1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
ARA American Strategic Value Realty	23,550,741	1.4	8.5	--	--	--	9.1	7.4	--	--	--
<i>NCREIF-ODCE</i>		1.4	7.5	--	--	--	8.3	7.6	--	--	--
<i>NCREIF Property Index</i>		1.8	6.8	--	--	--	6.7	7.0	--	--	--
Direct Real Estate	6,901,081	3.8	12.7	13.1	13.7	6.6	11.6	20.6	5.5	22.9	6.1
<i>NCREIF-ODCE</i>		1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5
<i>NCREIF Property Index</i>		1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8

Property Type Allocation
Allocation as of March 31, 2019



Geographic Diversification
Allocation as of March 31, 2019



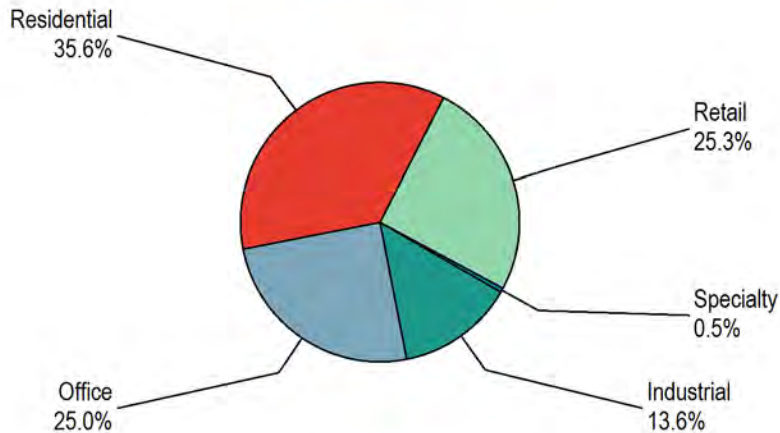
Property Allocation and Geographic Diversification analytics exclude Direct Real Estate. ARA American Strategic Value Realty and Direct Real Estate are lagged one quarter.

Total Real Estate
Asset Class Overview (Net of Fees)

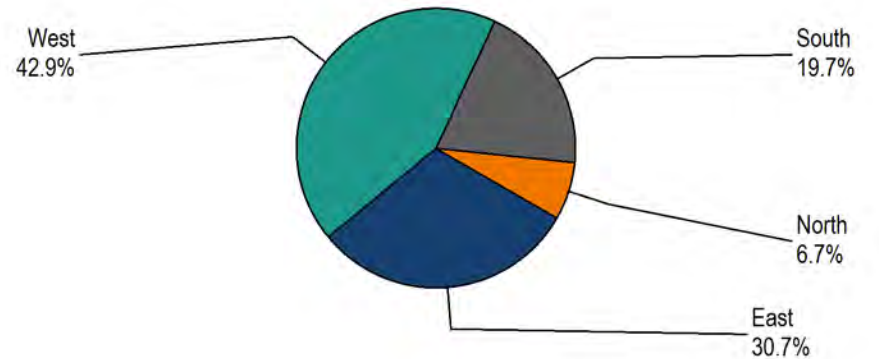
Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Real Estate	194,436,826	0.5	5.9	6.9	9.4	6.5	7.5	7.8	6.8	16.9	9.6
<i>NCREIF Property Index</i>		1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
JP Morgan Core Real Estate	163,985,003	0.2	5.1	6.3	8.5	7.9	7.0	6.1	7.3	14.1	10.0
<i>NCREIF-ODCE</i>		1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5
<i>NCREIF Property Index</i>		1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8
ARA American Strategic Value Realty	23,550,741	1.4	8.5	--	--	--	9.1	7.4	--	--	--
<i>NCREIF-ODCE</i>		1.4	7.5	--	--	--	8.3	7.6	--	--	--
<i>NCREIF Property Index</i>		1.8	6.8	--	--	--	6.7	7.0	--	--	--
Direct Real Estate	6,901,081	3.8	12.7	13.0	13.5	6.5	11.6	20.6	4.9	22.2	6.1
<i>NCREIF-ODCE</i>		1.4	7.5	8.0	10.2	8.7	8.3	7.6	8.8	15.0	12.5
<i>NCREIF Property Index</i>		1.8	6.8	7.1	9.1	8.5	6.7	7.0	8.0	13.3	11.8

Property Type Allocation
Allocation as of March 31, 2019



Geographic Diversification
Allocation as of March 31, 2019



Property Allocation and Geographic Diversification analytics exclude Direct Real Estate. ARA American Strategic Value Realty and Direct Real Estate are lagged one quarter.

Total Commodities
 Asset Class Summary (Gross of Fees)

Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Commodities	46,792,851	7.4	-5.9	3.8	-7.6	--	-12.4	6.2	12.6	-25.2	-16.0
<i>Bloomberg Commodity Index TR USD</i>		6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0
Gresham MTAP Commodity Builder	46,792,851	7.4	-5.9	3.8	-7.6	--	-12.4	6.2	12.6	-25.2	-16.0
<i>Bloomberg Commodity Index TR USD</i>		6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0

Total Commodities
 Asset Class Summary (Net of Fees)

Period Ending: March 31, 2019

	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014
Total Commodities	46,792,851	7.4	-5.9	3.6	-8.0	--	-12.4	6.2	11.8	-25.8	-16.6
<i>Bloomberg Commodity Index TR USD</i>		6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0
Gresham MTAP Commodity Builder	46,792,851	7.4	-5.9	3.6	-8.0	--	-12.4	6.2	11.8	-25.8	-16.6
<i>Bloomberg Commodity Index TR USD</i>		6.3	-5.3	2.2	-8.9	--	-11.2	1.7	11.8	-24.7	-17.0

Performance Return Calculations

Performance is calculated using Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked 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

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

Manager	Inception Date	Data Source	Manager	Inception Date	Data Source
PIMCO RAE Fundamental PLUS	11/30/2007	J.P. Morgan	Direct Real Estate	-	American Realty Adv.
Loomis Sayles Large Cap Growth	12/31/2016	J.P. Morgan	JP Morgan Core Real Estate	3/6/2008	J.P. Morgan
Boston Partners Large Cap Value	1/31/2017	Boston Partners	Gresham MTAP Commodity	8/31/2013	BNY Mellon
Atlanta Capital Management	8/31/2010	J.P. Morgan	Cash Account	-	SLOCPT
Dodge & Cox Intl Stock	12/6/2007	J.P. Morgan	HarbourVest Partners IX-Buyout	2011 ¹	HarbourVest
WCM International Growth	2/15/2017	WCM	HarbourVest 2018 Global Fund L.P.	-	HarbourVest
BlackRock Core Bond	1/19/2017	J.P. Morgan	KKR Mezzanine Partners	2010 ¹	KKR
Dodge & Cox Income	1/19/2017	Deutsche Bank	PIMCO Distressed Credit Fund	2010 ¹	Brown Brothers Harriman
Pacific Asset Corporate Loan	9/1/2014	Deutsche Bank	ARA American Strategic Value	6/22/2016	American Realty Adv.
Brandywine Global Fixed	11/30/2007	J.P. Morgan	TPG Diversified Credit Program	2016 ¹	TPG
Ashmore EM Blended Debt Fund	3/31/2019	Ashmore	Pathway Private Equity Fund 9	2017 ¹	Pathway

¹Represents 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, 5% Russell 3000+ 300 bps, 5% BBgBarc High Yield +2% (lagged).
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.

Other Disclosures

Glossary

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: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - 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: excess return divided by 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: Portfolio Excess Return / 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.

Disclaimer

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The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management, (c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

Verus will make every reasonable effort to obtain and include accurate market values. However, if managers or custodians are unable to provide the reporting period's market values prior to the report issuance, Verus may use the last reported market value or make estimates based on the manager's stated or estimated returns and other information available at the time. These estimates may differ materially from the actual value. Hedge fund market values presented in this report are provided by the fund manager or custodian. Market values presented for private equity investments reflect the last reported NAV by the custodian or manager net of capital calls and distributions as of the end of the reporting period. These values are estimates and may differ materially from the investments actual value. Private equity managers report performance using an internal rate of return (IRR), which differs from the time-weighted rate of return (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.

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

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



Date: May 20, 2019

To: Board of Trustees

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

Agenda Item 10: Investment Report for April 2019

	April	Year to Date 2019	2018	2017	2016	2015	2014
Total Trust Investments (\$ millions)	\$1,362		\$1,285 year end	\$1,351 year end	\$1,196 year end	\$1,148 year end	\$1,190 year end
Total Fund Return	2.2% Gross	8.8% Gross	-3.2 % Gross	15.5 % Gross	6.6 % Gross	-0.8% Gross	5.1 % Gross
Policy Index Return (r)	1.8%	8.7%	-3.2 %	13.4 %	7.7 %	-0.5 %	5.2 %

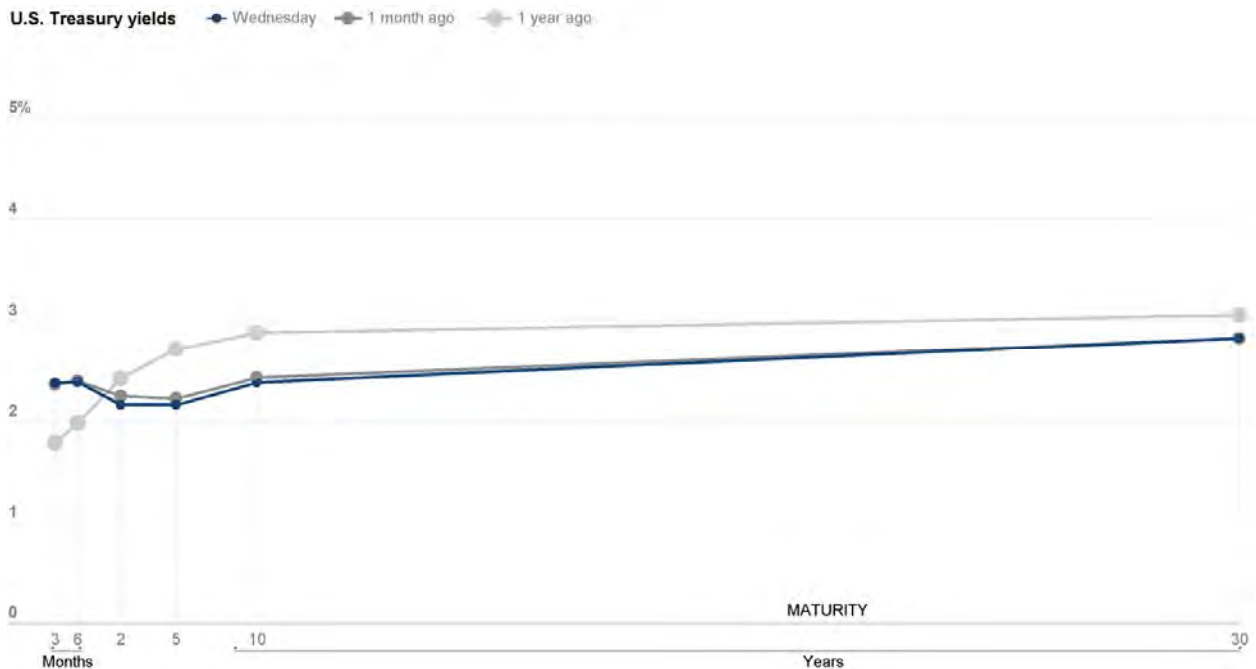
(r) Policy index as of Aug. 2016 revision to Strategic Asset Allocation Policy: 20% domestic equity, 20% international equity, 15% core bonds, 5% bank loans, 5% global bonds, 5% emerging market debt, 15% real estate, 5% commodities, 5% private equity, 5% private credit.

The Economy and Capital Markets:

- **Fed Policy and Interest Rates –**

- The Fed held to its new Dovish tone at the March meeting and did not change rates in any significant way. Comments by Fed Chair Powell noted that inflation was being dragged down by transitory forces and that there was no Fed bias to either tighten or loosen monetary policy.
- The capital markets reflect the view of a neutral Fed approach to rate normalization for the remainder of 2019 with even some possibility of a rate cut late in the year reflected in futures prices.

- The yield curve, which touched a near inverted point early in March with 10-year Treasuries yielding less than 3 month Treasuries remained as just above an inverted state. Treasury yields have remained in a narrow range with the 10 year Treasury yielding 2.36% on May 15th – and just below the 3-month yield of 2.40%. The yield curve as of May 15th is shown below. This return to a tenuous inverted yield curve appears to be driven heavily by flight-to-quality trades in the aftermath of a breakdown in U.S. / China trade talks.



- **GDP Growth –**

- **U.S. Growth –**

- The domestic GDP growth for 1Q19 was at a surprisingly robust 3.2% annual rate. The strong 1Q19 GDP growth was fueled in part by an increase in net exports (+1.0% in GDP) and inventory building (+0.7%) which are historically volatile components of GDP growth. The long-term expectations for GDP growth in the U.S. remain in the sustainable range 2% to 3%.
 - The strong 1Q19 GDP growth reinforced the optimistic view that a recession is not imminent for the domestic economy despite the historically long economic growth phase still underway. The possible impacts of negative trade policy changes and European Union turmoil appear to not be materializing yet in their impact on U.S. economic activity.
 - In a New York Times article on the low unemployment rate on May 3rd, the author summarized the current economic expansion in an interesting manner quoted below.

“For all the signs that the economy is humming, the current expansion doesn’t resemble past booms. The scars of the Great Recession run deep, and even after 10 years of growth, the kind of euphoria that marked the technology sector in the late 1990s or the real estate market in the 2000s is conspicuously absent.

The pace of the current recovery has been weaker than during periods like the 1990s, which is among the reasons wage gains were so tepid until recently. It even prompted some economists to assert that a subdued economy was the new normal.

But the upside of slower growth during the last 10 years may be a longer, more durable expansion, said Michael Gapen, chief United States economist at Barclays. Consumers have been wary of borrowing to the hilt as they did before 2008, while businesses have been cautious about expanding too quickly.”

- **Trade Policy –**

- Reports of constructive U.S. / China trade negotiations and a delay of the Administrations deadline for threatened tariff increases had provided significant calming to the capital markets since the start of the year.
- However, capital markets were roiled on May 5th and beyond with President Trump’s surprise threats to proceed with steep tariff increases on the eve of what was expected to be a productive conclusion of negotiations. Claiming insufficient concessions by China, the Administration expanded tariffs on \$200 billion of Chinese exports from 10% to 25%. Subsequently, talks broke off entirely raising the expectation of a long and troubled course for trade policy.
- The Trump Administration has also threatened expande tariffs on other countries exports including European automobiles.
- The impact of trade policy confrontation is unclear in terms of its being a “tipping point” for recession. What is clear is an upward impact on domestic inflation as a portion of the tariffs find their way into consumer prices.

- **Employment and Wages –**

- The April DOL report on nonfarm employment released on May 3rd showed -
 - New jobs up above expectations at +263k in April making for a surprisingly robust hiring climate since the start of the year. The U.S. economy has added jobs for 100 consecutive months – the longest unbroken string of positive jobs reports in modern history.
 - Unemployment (U-3 rate) decreased 0.2% to 3.6%. This is the lowest unemployment rate since 1969. The broader U-6 measure of unemployment including underemployed remained stable at 7.3%. The Labor Force Participation rate declined slightly to 62.8% and has changed little over the last year.
- Wage growth – For April average hourly earnings brought the year-over-year increase 3.2% continuing a trend of improving wage increases.
- San Luis Obispo area unemployment in March was reported at a 3.3% rate. The unemployment rate for California in March was 4.3%.

SLOCPT Investment Returns:

The attached report from Verus covers the investment returns of the SLOCPT portfolio and general market conditions through the end of April. The attached market commentary from Verus details the strong market returns for April, but subsequent increases in volatility in May are not yet factored into these numbers.

The strong equity market returns in January through April (a +18.2% return on the S&P 500 year to date) has brought the total gross return on the SLOCPT assets YTD to +8.8%. Compared to the -3.2% return for all of 2018.

Respectfully submitted

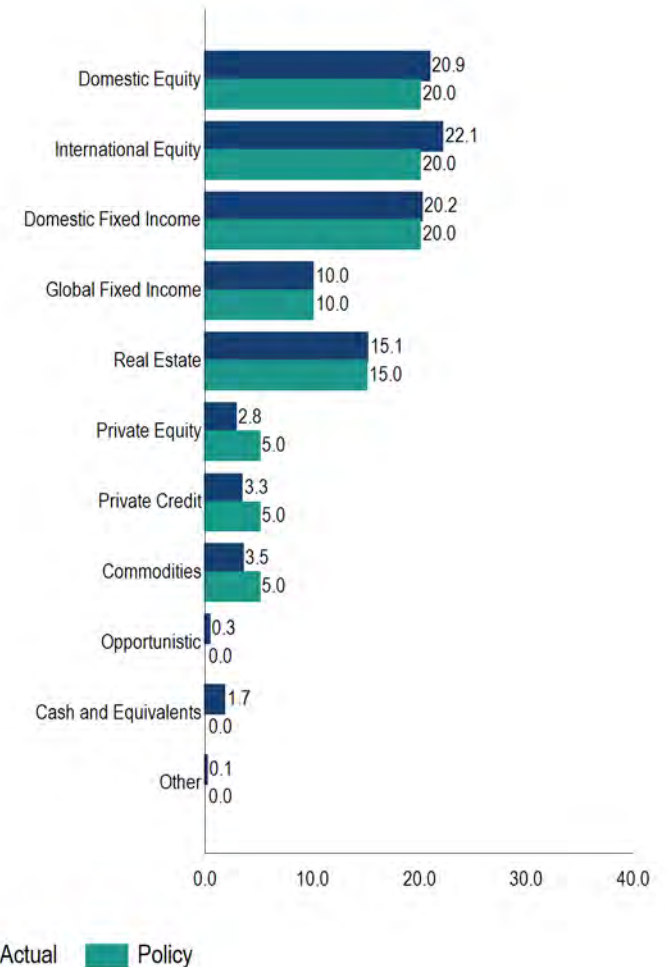
San Luis Obispo County Pension Trust

Executive Summary - Preliminary (Gross of Fees)

Period Ending: April 30, 2019

	Market Value	% of Portfolio	1 Mo	YTD
Total Fund	1,362,436,285	100.0	2.2	8.8
Total Fund ex Overlay	1,361,189,425	99.9	2.2	8.8
Policy Index			1.8	8.7
Total Domestic Equity	284,559,575	20.9	4.5	18.3
Russell 3000			4.0	18.6
PIMCO RAE Fundamental PLUS Instl	55,309,348	4.1	3.2	15.0
S&P 500			4.0	18.2
Loomis Sayles Large Cap Growth	86,916,577	6.4	5.5	22.6
Russell 1000 Growth			4.5	21.3
Boston Partners Large Cap Value	78,974,566	5.8	3.8	13.7
Russell 1000 Value			3.5	15.9
Atlanta Capital Mgmt	63,359,083	4.7	5.2	22.0
Russell 2500			3.5	19.9
Total International Equity	301,113,145	22.1	4.5	16.6
MSCI ACWI ex USA Gross			2.7	13.4
Dodge & Cox Intl Stock	147,107,458	10.8	4.2	14.6
MSCI EAFE Gross			2.9	13.3
WCM International Growth	154,005,687	11.3	4.7	18.6
MSCI ACWI ex USA Gross			2.7	13.4
Total Domestic Fixed Income	274,789,701	20.2	0.7	4.6
BBgBarc US Aggregate TR			0.0	3.0
BlackRock Core Bond	98,591,346	7.2	0.2	4.1
BBgBarc US Aggregate TR			0.0	3.0
Dodge & Cox Income Fund	101,088,931	7.4	0.5	4.4
BBgBarc US Aggregate TR			0.0	3.0
Pacific Asset Corporate Loan	75,109,424	5.5	1.6	5.5
S&P/LSTA Leveraged Loan Index			1.7	5.7
Total Global Fixed	136,291,776	10.0	0.0	3.0
FTSE World Govt Bond Index			-0.5	1.2
Brandywine Global Fixed Income	66,200,776	4.9	-0.2	1.7
FTSE WGBI ex US TR			-0.6	0.9
Ashmore EM Blended Debt Fund	70,091,000	5.1	0.2	--
JPM GBI-EM Global Diversified TR USD			-0.2	--

Actual vs Target Allocation (%)



*Other balance represents Clifton Group.

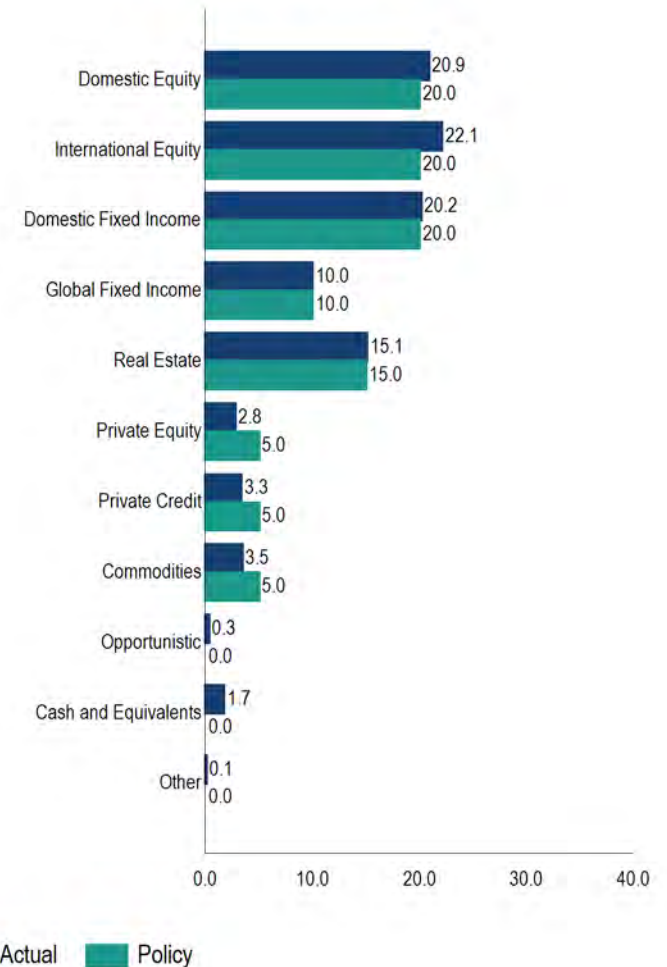
Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 5% Russell 3000 + 300 bp, 5% BBgBarc High Yield + 200 bp lagged. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. Boston Partners funded 2/1/2017. WCM Intl Growth replaced Vontobel on 2/15/2017. Pathway 9 funded 4/7/2017. SSGA TIPS liquidated on 12/7/2017. Fidelity Real Estate Growth III liquidated on 12/29/2017. SSGA Flagship S&P 500 liquidated 2/1/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor liquidated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019. Most recently reported market values for private equity/credit, opportunistic, and illiquid real estate funds adjusted for calls and distributions through the report end date. All data is preliminary.

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

Period Ending: April 30, 2019

	Market Value	% of Portfolio	1 Mo	YTD
Total Real Estate	205,595,455	15.1	0.9	1.4
NCREIF Property Index			0.0	1.8
JP Morgan Core Real Estate	164,680,530	12.1	0.3	0.5
NCREIF-ODCE			0.0	1.4
NCREIF Property Index			0.0	1.8
ARA American Strategic Value Realty	33,374,724	2.4	2.3	3.8
NCREIF-ODCE			0.0	1.4
NCREIF Property Index			0.0	1.8
Direct Real Estate	7,540,202	0.6	8.9	13.0
NCREIF-ODCE			0.0	1.4
NCREIF Property Index			0.0	1.8
Total Commodities	47,065,173	3.5	0.6	8.0
Bloomberg Commodity Index TR USD			-0.4	5.9
Gresham MTAP Commodity Builder	47,065,173	3.5	0.6	8.0
Bloomberg Commodity Index TR USD			-0.4	5.9
Total Private Equity	38,013,146	2.8		
Harbourvest Partners IX Buyout Fund L.P.	13,726,550	1.0		
Pathway Private Equity Fund Investors 9 L.P.	22,927,604	1.7		
Harbourvest 2018 Global Fund L.P.	1,358,992	0.1		
Total Private Credit	45,629,957	3.3		
TPG Diversified Credit Program	45,629,957	3.3		
Total Cash	23,680,348	1.7	0.5	0.9
91 Day T-Bills			0.2	0.8
Cash Account	23,680,348	1.7	0.5	0.9
91 Day T-Bills			0.2	0.8
Total Opportunistic	4,451,149	0.3		
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	4,348,928	0.3		
PIMCO Distressed Credit Fund	102,221	0.0		
CPI + 5%			0.9	3.4

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, 5% Russell 3000 + 300 bp, 5% BBgBarc High Yield + 200 bp lagged. 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. Boston Partners funded 2/1/2017. WCM Intl Growth replaced Vontobel on 2/15/2017. Pathway 9 funded 4/7/2017. SSGA TIPS liquidated on 12/7/2017. Fidelity Real Estate Growth III liquidated on 12/29/2017. SSGA Flagship S&P 500 liquidated 2/1/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor liquidated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019. Most recently reported market values for private equity/credit, opportunistic, and illiquid real estate funds adjusted for calls and distributions through the report end date. All data is preliminary.



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

APRIL 2019
Capital Markets Update

Market commentary

U.S. ECONOMICS

- U.S. GDP expanded at an annualized quarterly rate of 3.2% (exp. 2.3%) in Q1 2019. Inventory builds and net exports, which are viewed as more volatile components to the GDP calculation, contributed 1.7% to the print, their highest addition since 2013.
- Nonfarm payrolls grew by 263k in April, beating expectations for a 190k increase. Hiring activity was strongest within business services (+76k), health care (+53k) and construction (+33k). Unemployment dipped to 3.6% (exp. 3.8%), a fresh 49-year low.
- Average hourly earnings missed expectations in April, rising at a year-over-year rate of 3.2% (exp. 3.3%). Some analysts pointed to mild inflation data and contained wage gains as evidence of a labor market with some room to run.

U.S. EQUITIES

- The S&P 500 advanced 4.0% in April and cyclical sectors led the way. The Financials (+9.0%), Telecom (+6.5%), and IT (+6.4%) sectors were the top performers for the month.
- With 89% of companies reporting, revenue and earnings growth for the S&P 500 have come in at 4.8% and 1.7%, respectively. Sales growth has been in line with expectations, while earnings growth has topped estimates by 6.5% in aggregate.
- Per FactSet, there are 11,045 ratings on stocks in the S&P 500 - 51.9% are buy ratings, 41.8% are hold ratings, and 6.3% are sell ratings. The Energy sector (63%) has the highest percentage of buy ratings, and the Consumer Staples sector (39%) has the lowest.

U.S. FIXED INCOME

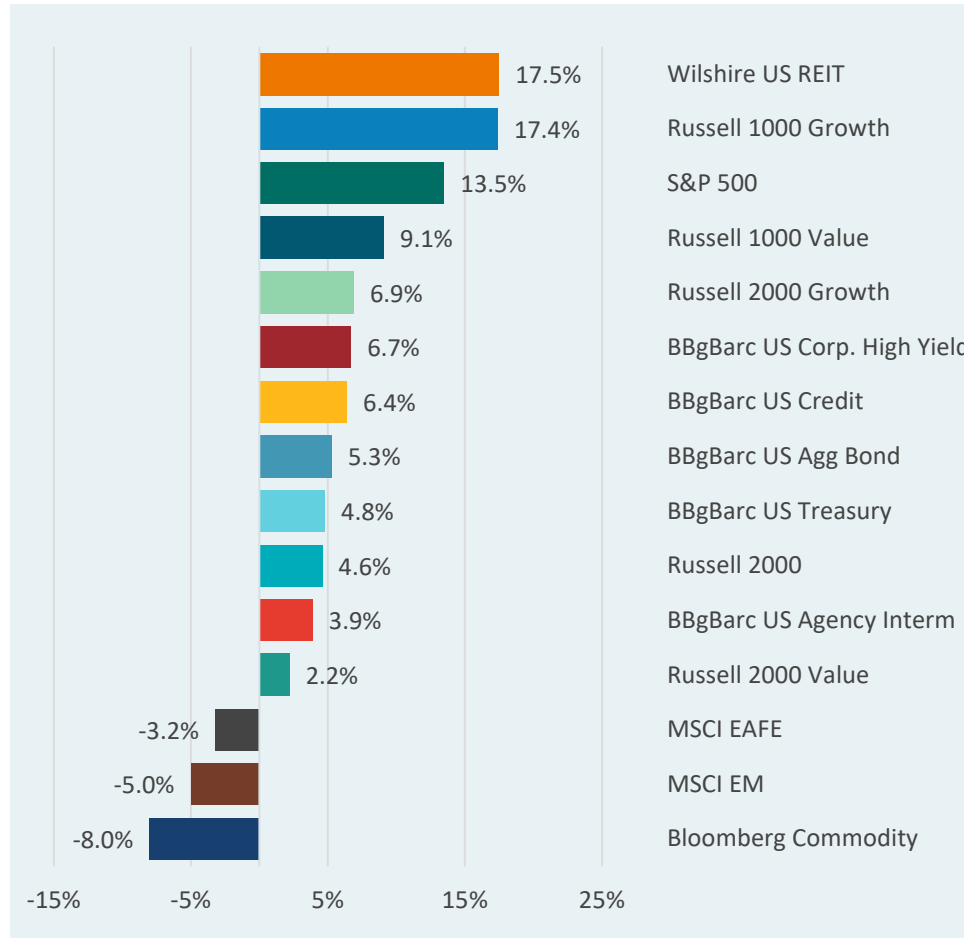
- The Federal Open Market Committee decided in its May meeting to leave its range for the benchmark interest rate unchanged at 2.25%-2.50%. The committee made a “mechanical” adjustment to the rate paid on excess reserves, cutting it 5 bps to 2.35%.
- Following the Federal Reserve’s meeting, Chairman Powell stated that the slowdown in core PCE inflation, the Fed’s preferred measure, was due to “transitory factors”. Over the first quarter of 2019, year-over-year core PCE growth fell from 1.95% to 1.55%.
- Credit spreads continued to edge lower in April. Investment-grade spreads compressed from 1.19% to 1.11%, and high-yield spreads ended the month 18 bps tighter, at 3.58%.

INTERNATIONAL MARKETS

- U.S. and Chinese officials met several times to discuss trade, and optimism built for a formal deal to be reached by May 10th. On May 5th, the Trump administration squashed this optimism, announcing that tariff rates on \$200 billion in Chinese imports would be raised from 10% to 25% on May 10th. President Trump cited progress that was too slow, and noted that 25% tariffs on an additional \$325 billion in Chinese imports could be levied soon.
- On April 10th, the British Prime Minister Theresa May reached an agreement with the European Council to extend the Brexit deadline from April 12th to October 31st.
- Italy emerged from recession, reporting (QoQ) GDP growth of 0.2% in Q1 following two consecutive quarters of contraction. Year-over-year, GDP growth remained anemic at 0.1%.

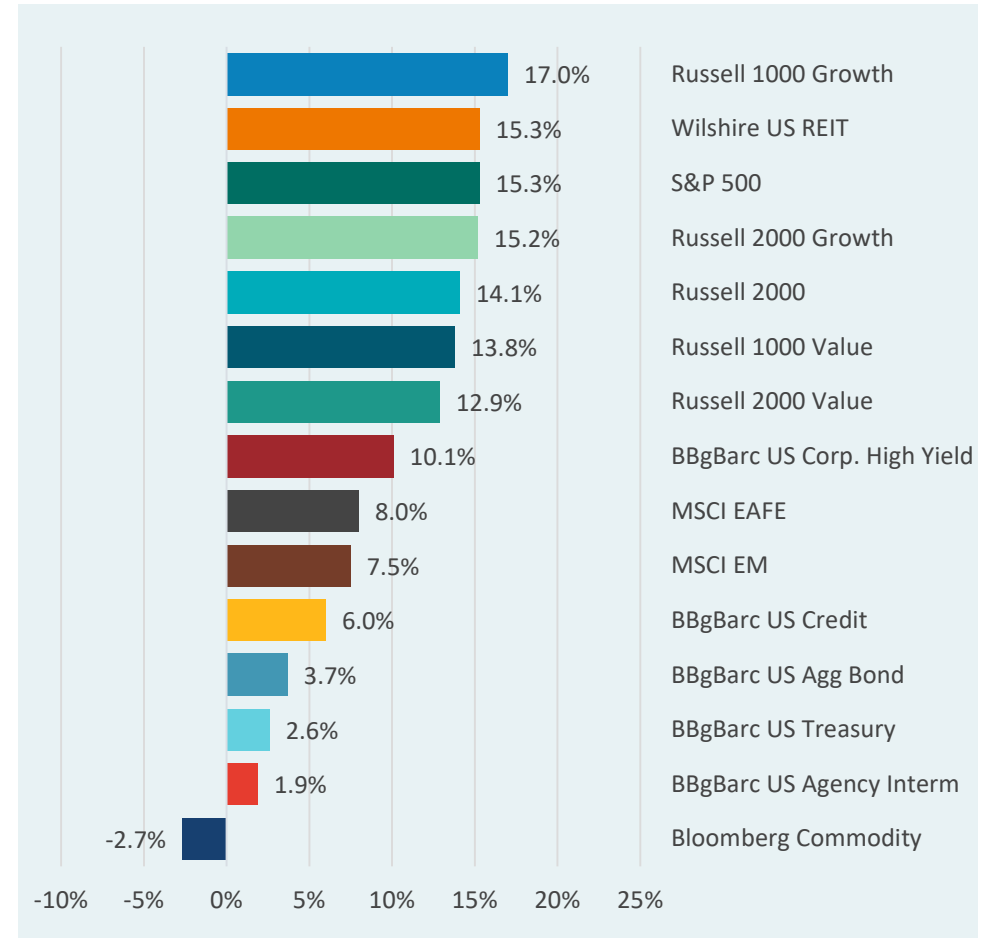
Major asset class returns

ONE YEAR ENDING APRIL



Source: Morningstar, as of 4/30/19

TEN YEARS ENDING APRIL



Source: Morningstar, as of 4/30/19

U.S. large cap equities

- The S&P 500 Index gained 4.0% in April, and all sectors except for Health Care (-2.6%) and Real Estate (-0.5%) posted positive performance for the month.
- The Health Care sector was the worst performer, falling 2.6% despite solid aggregate Q1 sales and earnings growth. Some analysts have contended that Bernie Sanders' introduction of Medicare for All legislation, which was co-signed by several Senate Democrats running for the presidency in 2020, has weighed on prices for health care stocks.
- Implied volatility on U.S. stocks remained subdued in April. The CBOE VIX Index traded in a narrow range between 12-14 for most of the month, materially below its long-term average of 18.
- At month-end, the forward one-year P/E ratio on the S&P 500 Index was 17.0, which exceeded both its 5- and 10-year averages of 16.4 and 14.7. Per FactSet, the Consumer Discretionary (21.4), and Financials (12.1) sectors held the highest and lowest one-year forward P/E multiples.

S&P 500 PRICE INDEX



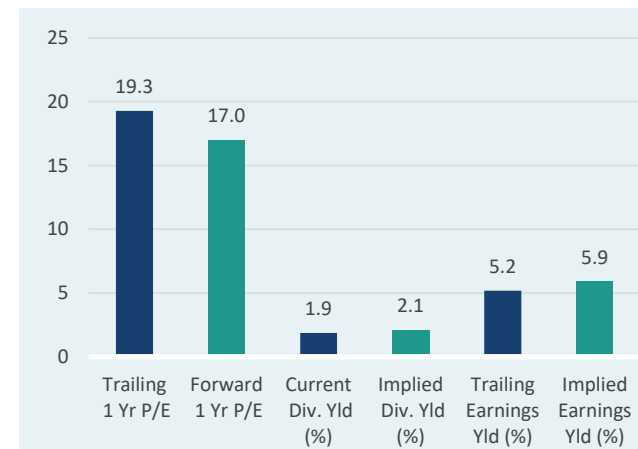
Source: Bloomberg, as of 4/30/19

IMPLIED VOLATILITY (VIX INDEX)



Source: CBOE, as of 4/30/19

S&P 500 VALUATION SNAPSHOT

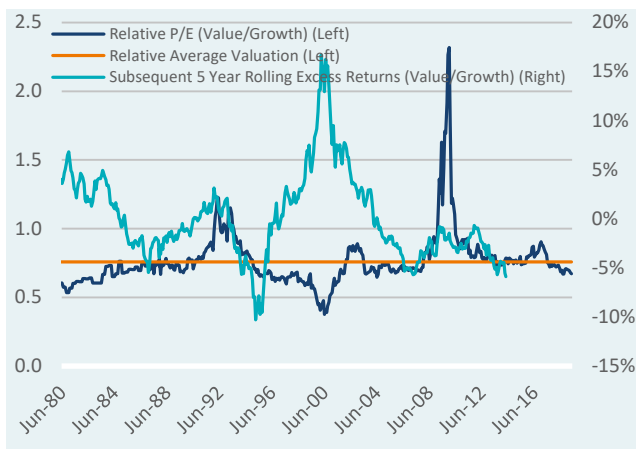


Source: Bloomberg, as of 4/30/19

Domestic equity size and style

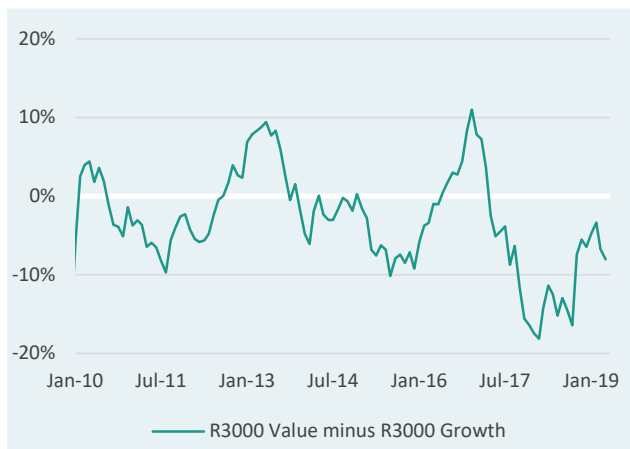
- Large-cap stocks picked up where they left off in March, and outperformed small-cap stocks. The Russell 1000 Index returned 4.0% while the Russell 2000 Index returned 3.4%.
- Large-cap stocks' outperformance of small-cap stocks was most evident within the Telecommunication Services sector. The Russell 1000 Telecom Sub-Index advanced 13.0%, significantly outpacing its small-cap counterpart, which registered a 7.3% advance.
- Growth stocks continued to outperform value stocks. The Russell 3000 Growth Index returned 4.4%, while the Russell 3000 Value Index returned 3.6%. The underperformance of the Russell 3000 Value Index was fueled by its lower relative weights to the IT and Consumer Discretionary sectors, as well as its higher relative weight to the Real Estate sector.
- The MSCI USA Cyclical-Defensives Return Spread Index delivered performance of 6.5% in April, its largest monthly return since January 2012.

VALUE VS. GROWTH RELATIVE VALUATIONS



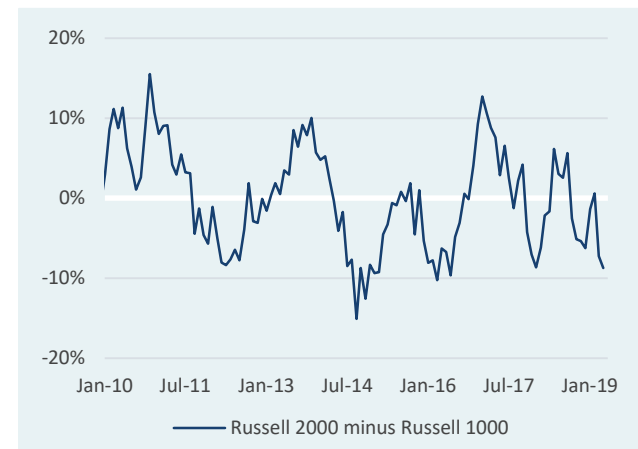
Source: Russell, Bloomberg, as of 4/30/19

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, as of 4/30/19

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE

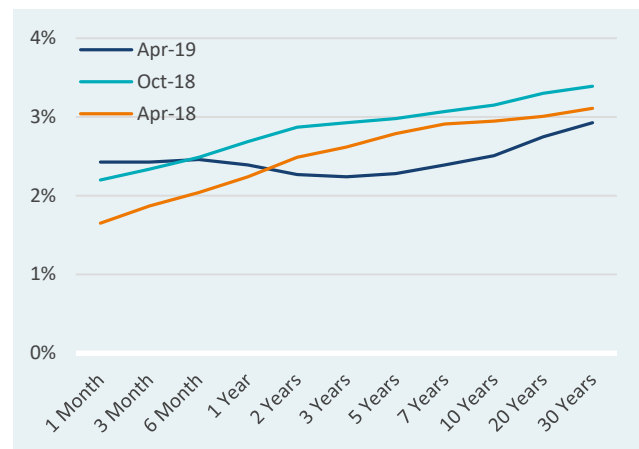


Source: FTSE, as of 4/30/19

Fixed income

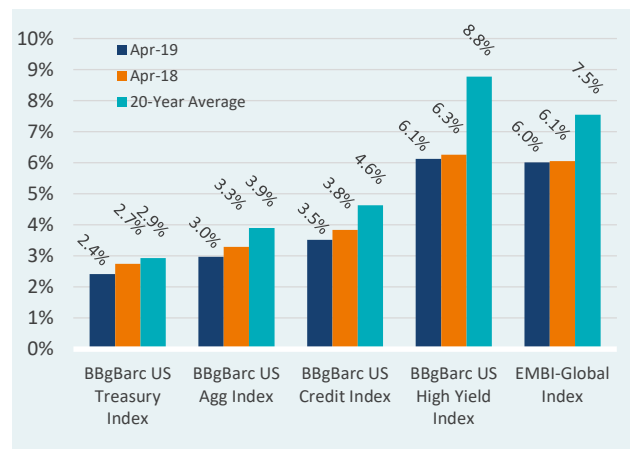
- Ten-year Treasury yields rose from 2.41% to 2.50%, while two-year Treasury yields moved from 2.26% to 2.27%. The spread between the 10- and 2-year yields steepened 8 bps to 23 bps.
- Fed funds futures pricing in April illuminated a market undecided on the future path of interest rates. At the beginning of the month, the futures-implied probability of a rate cut by the end of the year was 70%. Mid-month, that probability touched as low as 39%, and by the end of the month, the probability was up to 67%.
- The J.P. Morgan EMBI Global Diversified Index gained 0.2% in April, while the J.P. Morgan GBI-EM Global Diversified Index declined 0.2%, indicating that emerging market currency movements presented headwinds for unhedged U.S.-based investors in emerging market debt.
- U.S. core CPI rose 0.1% (exp. 0.2%) from the previous month in April. Over the last year, core CPI expanded 2.1%, in line with expectations, and in support of the Fed's stated patient approach on interest rate policy.

U.S. TREASURY YIELD CURVE



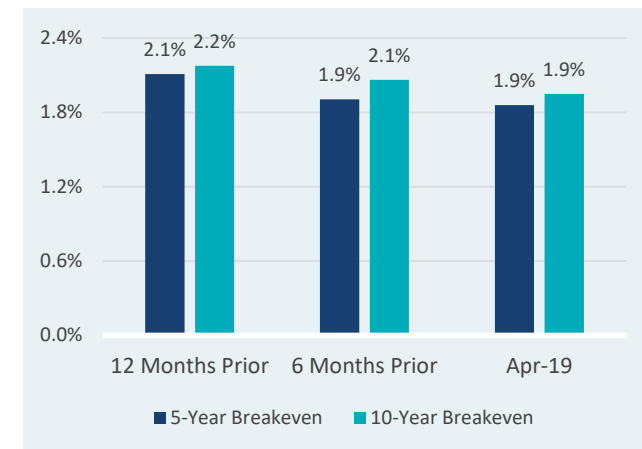
Source: Bloomberg, as of 4/30/19

NOMINAL YIELDS



Source: Morningstar, as of 4/30/19

BREAKEVEN INFLATION RATES

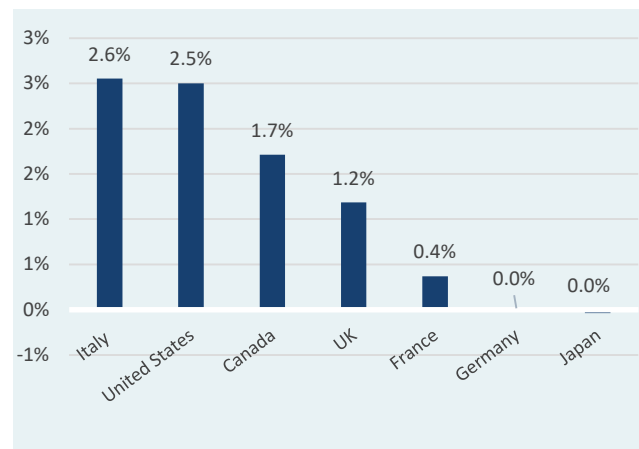


Source: Bloomberg, as of 4/30/19

Global markets

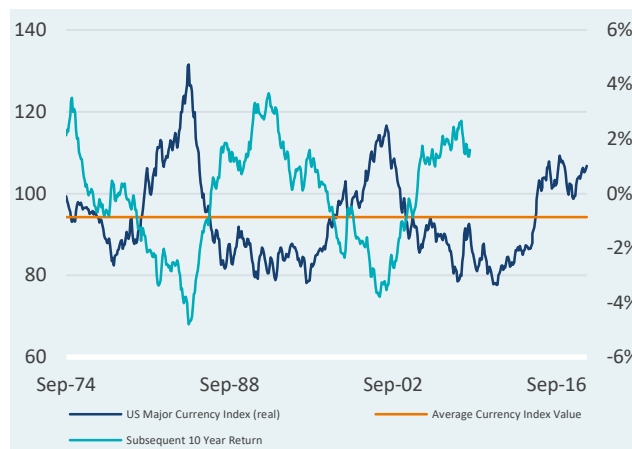
- Chinese GDP expanded at a rate of 6.4% year-over-year in Q1, beating expectations for 6.3% growth. In March, industrial production expanded 8.5% YoY (exp. 5.9%), and retail sales grew 8.7% YoY (exp. 8.4%), signaling a stronger-than-expected economic picture in China.
- Global sovereign yields mostly ticked higher in April. Yields on 10-year U.K. bonds rose from 0.99% to 1.18%, as the most recent extension of the Brexit deadline from April 12th to October 31st likely emboldened investors to lean in to riskier assets for the time being.
- Over the month, U.S. stocks outperformed international and emerging markets stocks. The S&P 500 Index gained 4.0%, ahead of the MSCI EAFE Index (2.8%) and the MSCI EM Index (2.1%).
- Since March, the 3-month average trailing P/FCF ratio of the MSCI U.S. Index rose from 18.9 to 20.4 while the equivalent MSCI EM Index ratio fell from 17.4 to 16.8. The widening in the P/FCF spread between the two indices indicates investors in U.S. stocks are paying more for free-cash-flow than investors in EM equities.

GLOBAL SOVEREIGN 10-YEAR YIELDS



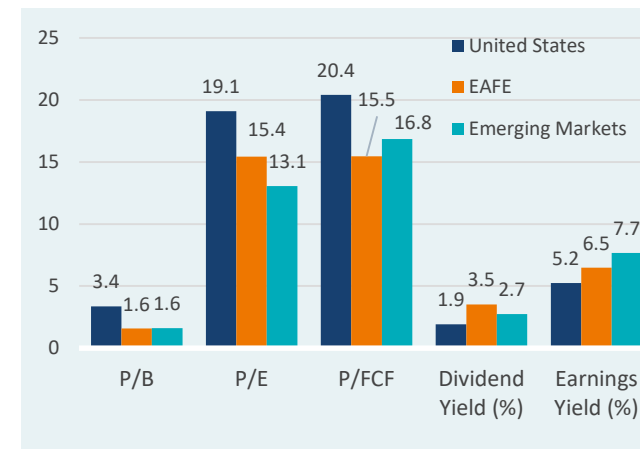
Source: Bloomberg, as of 4/30/19

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 4/30/19

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 4/30/19

Commodities

- The Bloomberg Commodity Index fell 0.4% over the month. The Petroleum (+7.1%) and Energy (+4.3%) Sub-Indexes significantly outperformed the overall index, while Grains (-3.9%) and Industrial Metals (-3.4%) underperformed.
- Crude oil continued its strong year-to-date advance, as WTI crude futures rose from \$60.28 to \$63.91. Expiring U.S. sanction waivers for Iranian crude oil imports, as well as speculation on a trade outcome between the U.S. and China were likely the largest factors moving oil markets.

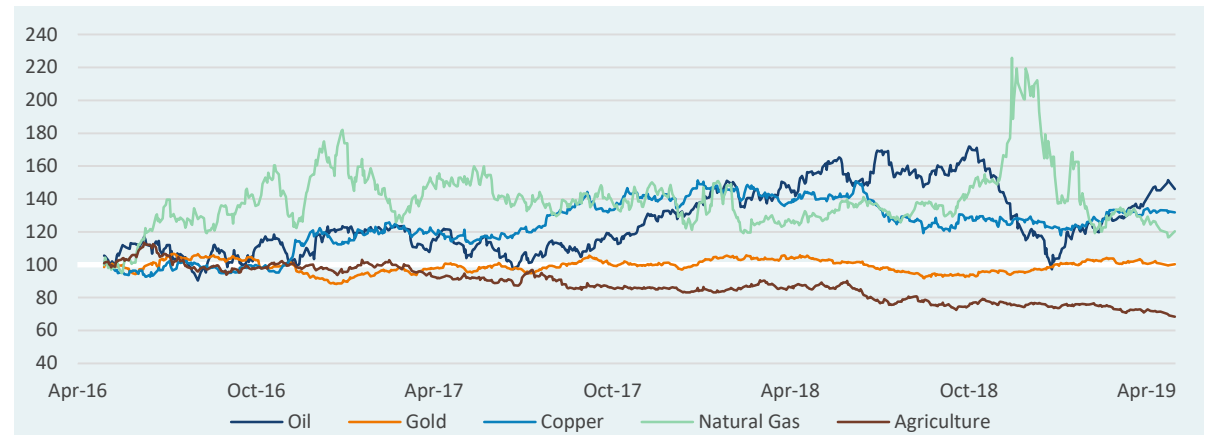
- The Grains Sub-Index, which represents 23% of the overall index, declined 3.9% in April. Concerns over Chinese demand for U.S. agricultural goods, as well as fears that retaliatory Chinese tariffs could be levied on U.S. agricultural exports contributed to the decline.
- The Industrial Metals Sub-Index declined 3.4% and nickel was the poorest performer. Several analysts attributed the recent weakness in nickel to slower manufacturing activity in China, as well as the introduction to the market of cheaper alternatives such as nickel pig iron.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	(0.4)	(0.4)	5.9	(8.0)	(0.7)	(9.4)	(2.7)
Bloomberg Agriculture	(3.3)	(3.3)	(6.4)	(20.2)	(11.1)	(13.6)	(3.6)
Bloomberg Energy	4.3	4.3	20.9	(1.2)	4.5	(16.5)	(9.1)
Bloomberg Grains	(3.9)	(3.9)	(9.4)	(22.4)	(13.1)	(15.3)	(5.3)
Bloomberg Industrial Metals	(3.4)	(3.4)	9.0	(9.6)	7.5	(1.2)	1.1
Bloomberg Livestock	(2.3)	(2.3)	2.2	11.2	1.1	(4.4)	(1.4)
Bloomberg Petroleum	7.1	7.1	34.8	(2.8)	8.9	(13.8)	(2.8)
Bloomberg Precious Metals	(0.9)	(0.9)	(0.9)	(4.7)	(2.4)	(2.1)	2.8
Bloomberg Softs	(2.6)	(2.6)	(2.2)	(15.0)	(10.2)	(13.9)	(3.4)

Source: Morningstar, as of 4/30/19

COMMODITY PERFORMANCE



Source: Bloomberg, as of 4/30/19

Appendix

Periodic table of returns

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	5-Year	10-Year
Large Cap Growth	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	37.3	6.7	21.3	14.5	17.0
Small Cap Growth	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	30.2	1.9	20.7	11.4	15.4
Large Cap Equity	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	25.0	0.0	18.6	10.2	15.2
Small Cap Equity	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	22.2	-1.5	18.5	9.1	14.1
Small Cap Value	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	21.7	-3.5	16.2	8.6	13.8
Large Cap Value	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	17.1	-4.8	15.9	8.3	12.9
International Equity	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	14.6	-6.0	13.1	6.9	8.5
Emerging Markets Equity	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	13.7	-8.3	12.2	4.6	8.0
60/40 Global Portfolio	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	7.8	-9.3	10.2	4.0	8.0
Commodities	-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	7.7	-11.0	5.9	2.6	7.5
Hedge Funds of Funds	-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	7.0	-11.2	5.3	2.6	3.7
US Bonds	-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	3.5	-12.9	3.0	2.5	3.5
Real Estate	-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	1.7	-13.8	1.8	0.8	0.4
Cash	-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	0.9	-14.6	0.8	-9.4	-2.7

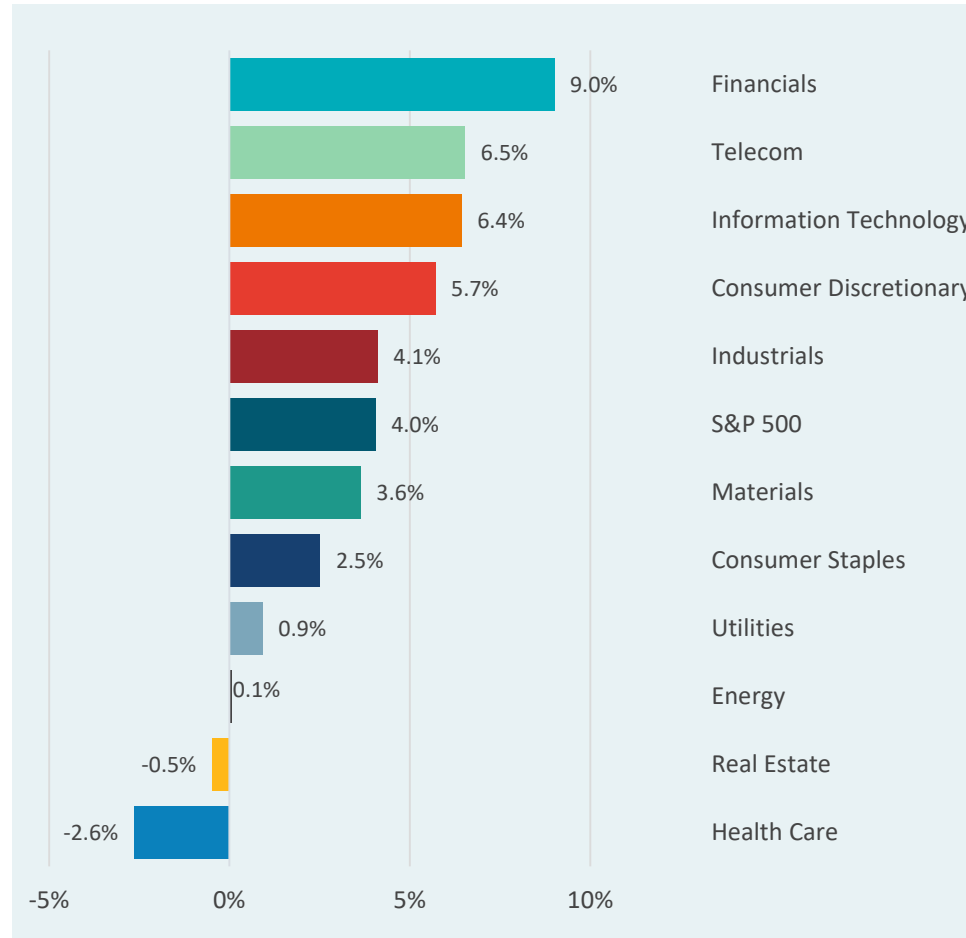
BEST
↑
↓
WORST

- 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% 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 3/31/19.

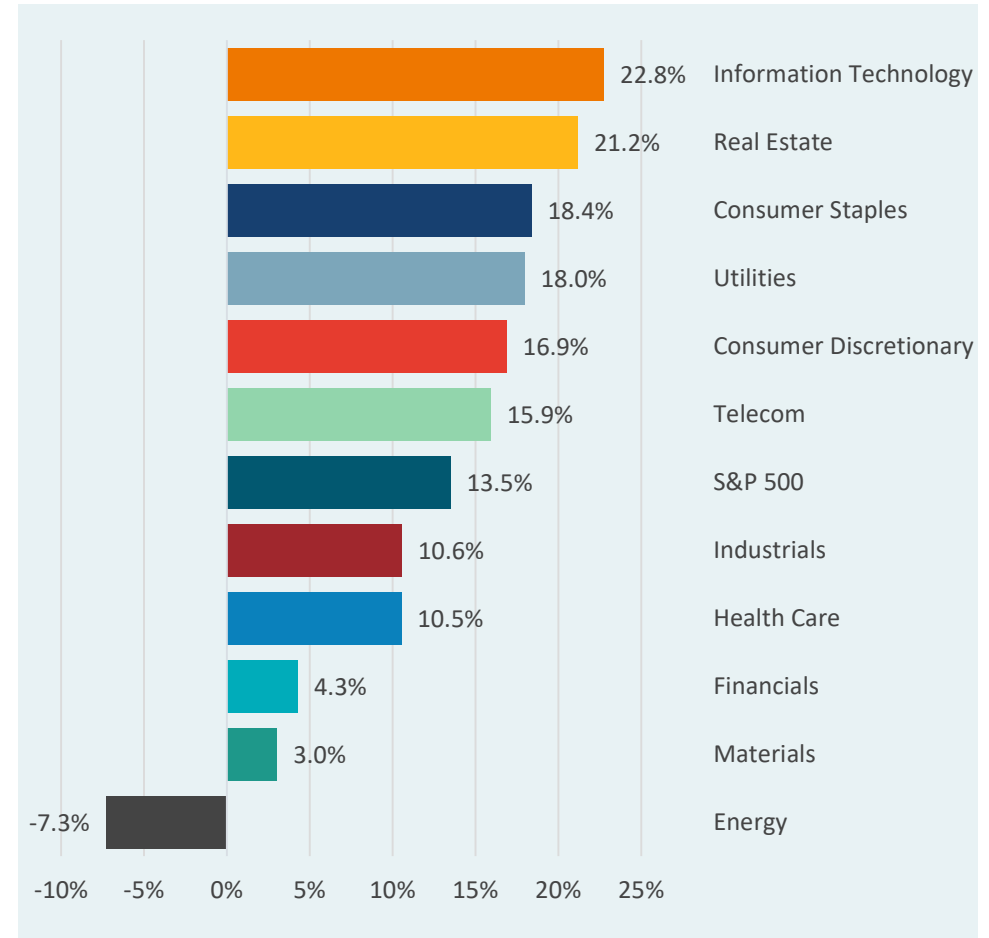
S&P 500 sector returns

QTD



Source: Morningstar, as of 4/30/19

ONE YEAR ENDING APRIL



Source: Morningstar, as of 4/30/19

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	4.0	4.0	18.2	13.5	14.9	11.6	15.3
S&P 500 Equal Weighted	3.6	3.6	19.0	10.6	12.9	10.2	16.2
DJ Industrial Average	2.7	2.7	14.8	12.6	17.2	12.6	15.4
Russell Top 200	4.1	4.1	17.7	14.4	15.6	12.1	15.3
Russell 1000	4.0	4.0	18.6	13.3	14.8	11.4	15.4
Russell 2000	3.4	3.4	18.5	4.6	13.6	8.6	14.1
Russell 3000	4.0	4.0	18.6	12.7	14.7	11.2	15.3
Russell Mid Cap	3.8	3.8	21.0	10.7	12.8	9.7	15.7
Style Index							
Russell 1000 Growth	4.5	4.5	21.3	17.4	18.6	14.5	17.0
Russell 1000 Value	3.5	3.5	15.9	9.1	11.0	8.3	13.8
Russell 2000 Growth	3.0	3.0	20.7	6.9	15.6	10.2	15.2
Russell 2000 Value	3.8	3.8	16.2	2.2	11.5	6.9	12.9

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	3.4	3.4	16.0	5.1	11.4	7.0	11.1
MSCI ACWI ex US	2.6	2.6	13.2	(3.2)	8.1	2.8	7.7
MSCI EAFE	2.8	2.8	13.1	(3.2)	7.2	2.6	8.0
MSCI EM	2.1	2.1	12.2	(5.0)	11.3	4.0	7.5
MSCI EAFE Small Cap	3.0	3.0	14.0	(7.9)	7.8	5.3	11.5
Style Index							
MSCI EAFE Growth	3.3	3.3	15.7	0.4	8.1	4.5	9.2
MSCI EAFE Value	2.3	2.3	10.4	(6.8)	6.3	0.7	6.7
Regional Index							
MSCI UK	2.3	2.3	14.4	(2.5)	5.9	0.2	8.2
MSCI Japan	1.4	1.4	8.1	(7.2)	6.9	6.5	7.1
MSCI Euro	5.1	5.1	15.4	(6.2)	7.7	1.2	6.5
MSCI EM Asia	1.8	1.8	13.1	(5.2)	12.9	6.6	9.3
MSCI EM Latin American	0.4	0.4	8.3	(5.1)	9.1	(0.7)	3.6

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	0.3	0.3	3.5	3.1	1.7	1.7	3.6
BBgBarc US Treasury Bills	0.2	0.2	0.8	2.2	1.2	0.8	0.5
BBgBarc US Agg Bond	0.0	0.0	3.0	5.3	1.9	2.6	3.7
Duration							
BBgBarc US Treasury 1-3 Yr	0.2	0.2	1.2	3.1	1.0	1.0	1.1
BBgBarc US Treasury Long	(1.8)	(1.8)	2.8	6.4	1.0	4.6	5.5
BBgBarc US Treasury	(0.3)	(0.3)	1.8	4.8	1.0	2.0	2.6
Issuer							
BBgBarc US MBS	(0.1)	(0.1)	2.1	4.9	1.7	2.4	3.1
BBgBarc US Corp. High Yield	1.4	1.4	8.8	6.7	7.7	4.8	10.1
BBgBarc US Agency Interm	0.2	0.2	1.5	3.9	1.3	1.5	1.9
BBgBarc US Credit	0.5	0.5	5.4	6.4	3.2	3.5	6.0

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	(0.4)	(0.4)	5.9	(8.0)	(0.7)	(9.4)	(2.7)
Wilshire US REIT	(0.2)	(0.2)	15.8	17.5	6.4	8.2	15.3
CS Leveraged Loans	1.6	1.6	5.4	4.5	5.8	4.1	7.3
Alerian MLP	(1.2)	(1.2)	15.9	7.0	1.5	(5.1)	9.7
Regional Index							
JPM EMBI Global Div	0.2	0.2	7.2	6.0	5.3	5.2	8.0
JPM GBI-EM Global Div	(0.2)	(0.2)	2.7	(4.9)	2.3	(1.0)	3.5
Hedge Funds							
HFRI Composite	1.6	1.6	7.2	1.8	5.2	3.4	5.2
HFRI FOF Composite	0.6	0.6	5.3	0.6	4.0	2.5	3.5
Currency (Spot)							
Euro	(0.2)	(0.2)	(2.0)	(7.2)	(0.7)	(4.2)	(1.7)
Pound	0.0	0.0	2.4	(5.4)	(3.8)	(5.0)	(1.3)
Yen	(0.6)	(0.6)	(1.5)	(1.8)	(1.3)	(1.7)	(1.2)

Source: Morningstar, HFR, as of 4/30/19

Notices & disclosures

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Board of Trustees

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Date: May 20, 2019

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary
Scott Whalen - Verus

Agenda Item 11: Investment Benchmark Review

Recommendation:

Staff and Verus, as the Pension Trust Investment Consultant, recommend revisions to the Pension Trust’s investment benchmarks as shown in the attached exhibits from Verus. Also recommended for approval is the attached revision to Addendum A to the Investment Policy Statement to reflect the recommended benchmark changes.

Discussion:

Scott Whalen of Verus, will make a presentation on the attached materials addressing investment benchmarks.

Properly specified investment benchmarks are a key component of measuring and assessing investment performance. Investment benchmarks should be broadly diversified indices of relevant asset classes that are “investable” on a passive basis to make them a realistic measure of alternatives. Benchmarks are relevant at several levels –

- **Investment Managers** – individual performance benchmarks appropriate for comparison to the specific asset class and investment style of each manager. For example, a domestic equity large cap value manager might be compared to the S&P 500 index. A domestic equity large cap growth manager might be compared to style specific index such as the Russell 1000 growth index. Likewise, international and fixed income investment managers should be benchmarked to comparable indices.

- **Asset Class** – broad performance benchmarks appropriate for comparison to the specific asset class. For example, domestic equity is often compared to the broadly diversified Russell 3000 index. Core fixed income is often compared to the Barclays US Aggregate index of treasury and corporate debt.
- **Total Fund** – A total fund investment benchmark should reflect the approved investment policy of the pension fund. As a result, it should be an average of relevant indices weighted by the Strategic Asset Allocation (SAA) policy targets of the fund. Comparing a pension fund with a lower risk preference consciously adopted by its Trustees (e.g., 40% public equities) to an overly generic index (e.g., the iconic 60/40 stocks/bonds mix) is curious, but not useful for assessing total fund performance.

A key issue in setting an investment benchmark at the total fund level is how to weight illiquid asset classes such as real estate, private equity and private credit that cannot be readily invested in at will. This issue is significant for Verus' presentation and recommendation on this topic.

Respectfully submitted,

Memorandum

To: Board or Trustees, San Luis Obispo County Pension Trust
From: Scott J. Whalen, CFA, CAIA
Date: May 20th, 2019
Re: Portfolio Benchmarking

Policy Index – Impact of Private Markets

Two issues exist with the Policy Index as a result of the Plan’s private markets allocations. The first is that the Policy Index does not account for the time lag between approval of the strategic asset allocation and final implementation. The second is the additional tracking error that comes from comparing private markets investments to public market benchmarks (see attachment). The table below shows the Plan’s target allocation vs. the actual allocation at the end of February.

Asset Class	Target Percentage	Current Percentage*
Domestic Equity	20.0%	21.2%
Non-US Equity	20.0%	21.4%
Domestic Fixed	20.0%	20.7%
International Fixed	10.0%	10.6%
Commodities	5.0%	3.5%
Real Estate	15.0%	14.6%
Private Equity	5.0%	2.4%
Private Credit	5.0%	3.4%
Cash	0.0%	1.6%
Opportunistic	0.0%	0.3%
Total	100.0%	100.0%

*2/28/19; may not sum due to rounding.

Implementation Lag

Currently, more than 4% of total plan assets are allocated to illiquid investments in private equity and private credit, but which have not yet been invested. In the meantime, these assets are invested in public equity, and fixed income as reasonable holding places. This investment mismatch adds to higher tracking error and uncompensated and avoidable benchmark risk.

Therefore, we recommend calculating the Policy Index to eliminate this time lag effect and provide a more accurate measure of the performance expectation for the portfolio as it is invested “today”.

The fundamental principal behind the new calculation is to replace the portion of the Policy Index that represents the private markets allocation awaiting investment with the appropriate public market benchmark reflective of where the assets are actually held.

The table below provides mapping for how the uninvested private market assets would likely be measured.

Illiquid Asset Class	Liquid Asset Class	Benchmark
Private Equity	Public Equity	R3000
Private Credit	Core+ Fixed Income	BC AGG

The Policy Index will adjust over time as uninvested private market assets are committed and invested. To simplify administration, changes to the Policy Index will be made on a quarterly basis and in 1% increments as the assets transition into their respective private market buckets.

Drawbacks of Using Public Market Benchmarks for Measuring Private Market Investments

Historically, SLOCPT has used two methods for evaluating the performance of its private markets investments. The first compares it to a public markets benchmark, and the second uses metrics specifically designed for private markets evaluation (e.g.: IRR, DPI, TVPI). The first approach is arguably of little informational value and can lead to higher tracking error and uncompensated benchmark risk. To eliminate these unintended effects, we propose using the actual time-weighted returns from the private markets investments themselves for the calculation of the Policy Index; continuing to include traditional private markets performance metrics in a dedicated section of the quarterly performance report; and conducting a separate and thorough assessment of the private markets programs on a periodic basis (probably annually).

Recommendation

To improve implementation efficiency and effectiveness, we specifically recommend the Board consider revisions to the SLOCPT Investment Policy Statement that adjusts the Policy Index to reflect the implementation lag of private markets investing and adjust quarterly reporting to reflect these changes.

If the Board agrees with this recommendation, we will work with Staff to adjust Investment Policy language as appropriate, as well as make required adjustments to provided performance reports.

Attachment: Selected sections of 4Q18 Investment Performance Report Executive Summary

	QTD	Rank	1 Yr	Rank
Total Fund	-6.0	14	-3.6	38
<i>Policy Index</i>	-5.6	10	-3.2	26
Total Fund ex Overlay	-6.0	14	-3.6	38
<i>Policy Index</i>	-5.6	10	-3.2	26
Total Domestic Equity	-13.8	23	-5.7	45
<i>Russell 3000</i>	-14.3	39	-5.2	36
Total International Equity	-12.4	53	-12.8	12
<i>MSCI ACWI ex USA Gross</i>	-11.4	30	-13.8	30
Total Domestic Fixed Income	-0.4	92	0.0	68
<i>BBgBarc US Aggregate TR</i>	1.6	23	0.0	69
Total Global Fixed	-0.5	40	-7.2	99
<i>FTSE World Govt Bond Index</i>	1.8	1	-0.8	25
Total Real Estate	1.6	--	7.5	--
<i>NCREIF Property Index</i>	1.4	--	6.7	--
Total Commodities	-13.2	--	-12.4	--
<i>Bloomberg Commodity Index TR USD</i>	-9.4	--	-11.2	--
Total Private Equity	2.4	--	17.1	--
<i>Russell 3000 + 3%</i>	-13.6	--	-2.4	--
Total Private Credit	1.9	--	11.3	--
<i>BBgBarc High Yield +2% (Lagged)</i>	2.9	--	5.1	--
Total Cash	0.6	--	1.5	--
<i>91 Day T-Bills</i>	0.6	--	1.9	--
Total Opportunistic	7.1	--	25.2	--
<i>Russell 3000 + 3%</i>	-13.6	--	-2.4	--

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San Luis Obispo County Pension Trust
Asset Allocation Policy

ADDENDUM A

Asset Allocation Policy Proposed May 20, 2019	2019 Policy	2018		Performance Benchmark	
		Min.	Max.		
Equities - US					
Large Cap US Equity	16%	11%	21%	varies with Mgr.	
Small / Mid Cap US Equity	4%	2%	9%	varies with Mgr.	
Equities - US - Total	20%	15%	30%	Russell 3000	
Equities - International					
International	13%	8%	18%	MSCI EAFE	
International - Emerging Mkt.s	7%	0%	12%		
Equities - Intl. - Total	20%	15%	30%	MSCI ACWI ex. US	
EQUITIES - Total	40%	30%	50%		
Fixed Income					
Bonds - Core+	15%	10%	20%	BC Aggregate Bond	
Bank Loans	5%	0%	10%	S&P LSTA	
Bonds - Global	5%	0%	10%	Citi World Govt. Bond	
Bonds - Emerging Market	5%	0%	10%	JPM GBI EM	
BONDS - Total	30%	25%	45%	BC Aggregate Bond	
Real Estate					
Real Estate - Core	10%	5%	15%	NCREIF	
Real Estate - Value Add	5%	0%	10%	NCREIF	
Real Estate - Directly owned	0%	0%	4%	NCREIF	
REAL ESTATE - Total	15%	5%	20%	NCREIF	
Commodities					
Commodities - Active	5%	0%	10%	DJ UBS Commodities	
COMMODITIES - Total	5%	0%	10%	DJ UBS Commodities	
Alternative Assets					
Private Equity	5%	*	0%	10%	Actual time-wtd return
Private Credit	5%	*	0%	10%	Actual time-wtd return
ALT. ASSETS - Total	10%		0%	20%	Russell 3000 + 3%
Opportunistic					
Opportunistic	varies		0%	10%	Russell 3000 + 3%
Liquidity					
Cash Equivalents	0%	**	0%	5%	* T-Bills
Cash Overlay	0%	**	NA	NA	* Policy Mix
LIQUIDITY - Total	0%		0%	5%	T-Bills
TOTAL	100%				

* The Policy Benchmark uses actual private market asset class weights each rounded to the nearest 1%. The difference in actual weight versus target is allocated to the private market's public market "equivalent" (private equity to equity; private credit to core fixed income).

* Net 0% exposure due to Cash Overlay when activated.
 Policy level of Treasury cash = 3 mth.s benefits = ~2% of total

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Board of Trustees

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Date: May 20, 2019

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary
Scott Whalen - Verus

Agenda Item 12: Strategic Asset Allocation Policy Review

Recommendation:

Staff and Verus, as the Pension Trust Investment Consultant, recommend no revisions to the Pension Trust's investment benchmarks and Strategic Asset Allocation Policy (SAA) as shown in the attached exhibits from Verus.

Discussion:

Scott Whalen of Verus, will make a presentation on the attached materials on Strategic Asset Allocation policy. This is an annual reassessment of the SAA as an important part of exercising the Pension Trust's fiduciary responsibilities. In particular the risk assessment information on pages 12-15 of the exhibits – Mean/Variance analysis, Risk decomposition, Scenario analysis and Stress testing are relevant considerations for maintaining the Pension Trust's somewhat below average risk exposure.

Respectfully submitted,

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**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



MAY 2019

Strategic Asset Allocation Review

San Luis Obispo County Pension Trust

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CMAs **SLIDE 4**

Strategic Asset Allocation
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Executive Summary

Objectives

- Assess SLOCPT's investment strategy in light of Verus' latest 10-year market forecast
- Identify potential improvement opportunities / make appropriate recommendations

Observations

- Return expectations are up across markets in Verus' latest 10-year outlook, but the expected gains have been largely realized since year-end
- Value-added real estate (ARA) remains underfunded and awaiting capital calls, but core real estate has an offsetting overweight
- Current policy allocation provides expected return of 6.7%

Recommendations

- Current allocation remains satisfactory given continued challenging risk/return environment
- Continue implementing the current policy allocation and consider additional private market investments as portfolio nears target allocation

Excerpts from Verus' 2019 Capital Market Assumptions

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 10-year TIPS breakeven rate	-
Cash	Real yield estimate + inflation forecast	Long-term volatility
Bonds	Nominal bonds: current yield; Real bonds: real yield + inflation forecast	Long-term volatility
International Bonds	Current yield	Long-term volatility
Credit	Current option-adjusted spread + U.S. 10-year Treasury – effective default rate	Long-term volatility
International Credit	Current option-adjusted spread + foreign 10-year Treasury – effective default rate	Long-term volatility
Private Credit	Bank loan forecast + 1.75% private credit premium**	Long-term volatility
Equity	Current yield + real earnings growth (historical average) + inflation on earnings (inflation forecast) + expected P/E change	Long-term volatility
Intl Developed Equity	Current yield + real earnings growth (historical average) + inflation on earnings (intl. inflation forecast) + expected P/E change	Long-term volatility
Private Equity	US large cap domestic equity forecast * 1.85 beta adjustment	1.2 * Long-term volatility of U.S. small cap
Commodities	Collateral return (cash) + spot return (inflation forecast) + roll return (assumed to be zero)	Long-term volatility
Hedge Funds	Return coming from traditional betas + 15-year historical idiosyncratic return	Long-term volatility
Core Real Estate	Cap rate + real income growth – capex + inflation forecast	65% 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
Infrastructure	Current yield + real income growth + inflation on earnings (inflation forecast)	Long-term volatility
Risk Parity	Expected Sharpe Ratio * target volatility + cash rate	Target volatility

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

**The private credit premium is generated by illiquidity, issuer size, and lack of credit rating

10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)	10-Year Historical Sharpe Ratio (g)	10-Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
Equities								
U.S. Large	S&P 500	5.8%	6.9%	15.6%	0.24	0.31	0.94	0.95
U.S. Small	Russell 2000	5.4%	7.5%	21.3%	0.15	0.25	0.63	0.69
International Developed	MSCI EAFE	7.7%	9.1%	17.8%	0.31	0.39	0.37	0.43
International Small	MSCI EAFE Small Cap	6.5%	8.8%	22.4%	0.20	0.30	0.61	0.66
Emerging Markets	MSCI EM	8.6%	11.6%	26.1%	0.25	0.36	0.40	0.48
Global Equity	MSCI ACWI	6.8%	8.2%	17.1%	0.27	0.36	0.62	0.67
Private Equity*	Cambridge Private Equity	8.8%	11.7%	25.6%	0.26	0.37	-	-
Fixed Income								
Cash	30 Day T-Bills	2.1%	2.1%	1.2%	-	-	-	-
U.S. TIPS	BBgBarc U.S. TIPS 5-10	3.0%	3.1%	5.5%	0.16	0.18	0.67	0.68
U.S. Treasury	BBgBarc Treasury 7-10 Year	2.7%	2.9%	6.7%	0.09	0.12	0.46	0.48
Global Sovereign ex U.S.	BBgBarc Global Treasury ex U.S.	0.8%	1.3%	9.8%	-0.13	-0.08	0.14	0.18
Core Fixed Income	BBgBarc U.S. Aggregate Bond	3.3%	3.5%	6.4%	0.19	0.22	1.09	1.08
Core Plus Fixed Income	BBgBarc U.S. Corporate IG	4.1%	4.4%	8.4%	0.24	0.27	1.23	1.22
Short-Term Gov't/Credit	BBgBarc U.S. Gov't/Credit 1-3 Year	2.8%	2.9%	3.6%	0.19	0.22	1.38	1.37
Short-Term Credit	BBgBarc Credit 1-3 Year	3.2%	3.2%	3.7%	0.30	0.30	1.66	1.64
Long-Term Credit	BBgBarc Long U.S. Corporate	4.3%	4.7%	9.4%	0.23	0.28	0.88	0.89
High Yield Corp. Credit	BBgBarc U.S. Corporate High Yield	5.7%	6.3%	11.5%	0.31	0.37	1.39	1.36
Bank Loans	S&P/LSTA Leveraged Loan	5.9%	6.4%	10.2%	0.37	0.42	1.50	1.47
Global Credit	BBgBarc Global Credit	2.1%	2.4%	7.5%	0.00	0.04	0.88	0.89
Emerging Markets Debt (Hard)	JPM EMBI Global Diversified	6.7%	7.4%	12.6%	0.37	0.42	1.19	1.18
Emerging Markets Debt (Local)	JPM GBI-EM Global Diversified	6.9%	7.6%	12.1%	0.40	0.45	0.26	0.31
Private Credit	Bank Loans + 175bps	7.7%	8.2%	10.2%	0.55	0.60	-	-
Other								
Commodities	Bloomberg Commodity	4.2%	5.3%	15.7%	0.13	0.20	-0.29	-0.22
Hedge Funds*	HFRI Fund Weighted Composite	4.4%	4.7%	7.8%	0.29	0.33	0.76	0.76
Core Real Estate	NCREIF Property	6.1%	6.9%	12.9%	0.31	0.37	1.28	1.26
Value-Add Real Estate	NCREIF Property + 200bps	8.1%	9.8%	19.4%	0.31	0.40	-	-
Opportunistic Real Estate	NCREIF Property + 400bps	10.1%	13.0%	25.9%	0.31	0.42	-	-
REITs	Wilshire REIT	6.1%	7.8%	19.3%	0.21	0.30	0.55	0.63
Global Infrastructure	S&P Global Infrastructure	7.9%	9.3%	18.2%	0.32	0.40	0.52	0.57
Risk Parity	Risk Parity	7.1%	7.6%	10.0%	0.50	0.55	-	-
Currency Beta	Russell Conscious Currency	2.1%	2.2%	4.1%	0.02	0.02	0.25	0.26
Inflation		2.0%	-	-	-	-	-	-

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.

*Return expectations differ depending on method of implementation

Correlation assumptions

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

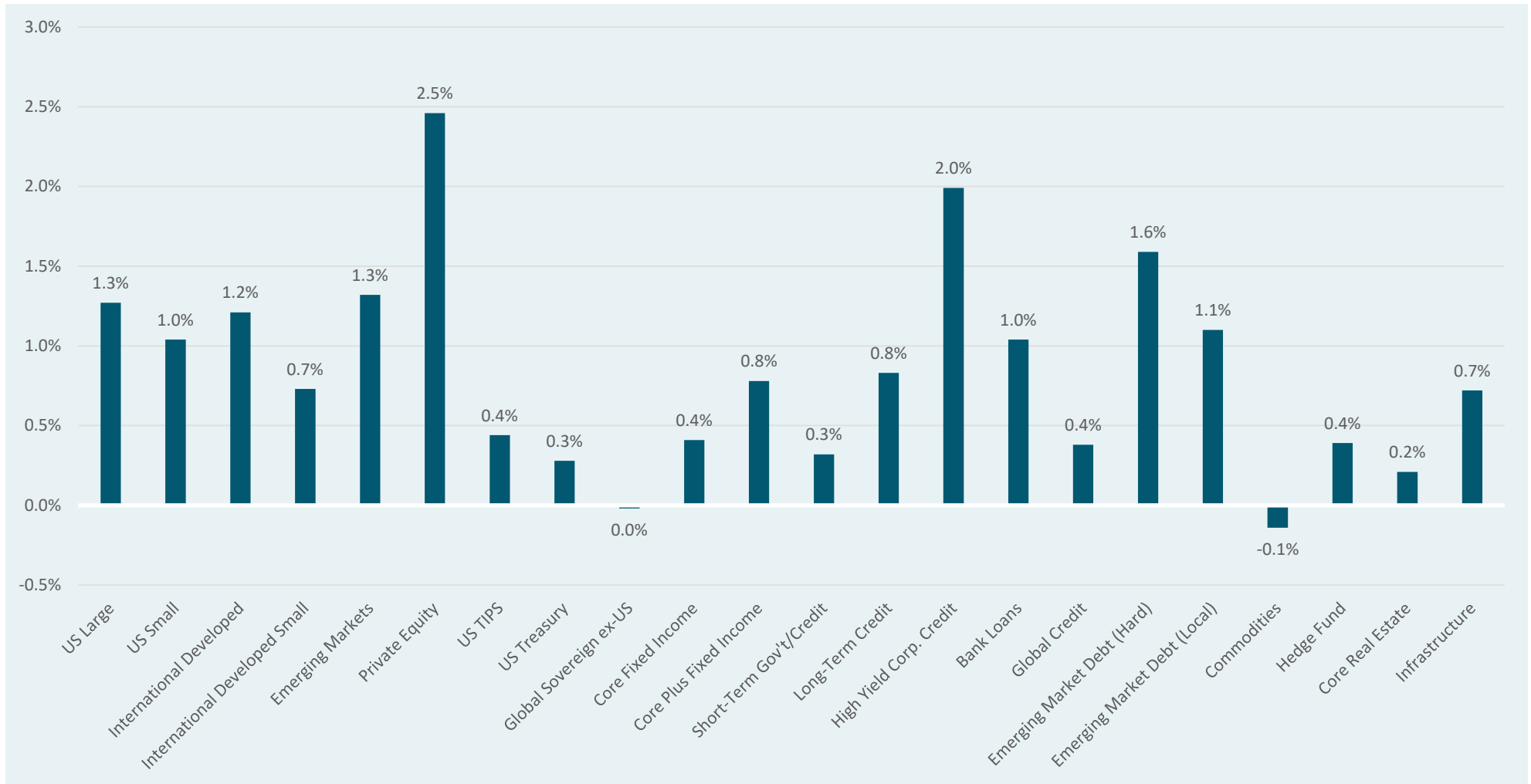
Note: Correlation assumptions are based on the last ten years. Private Equity and Real Estate correlations are especially difficult to model – we have therefore used BarraOne correlation data to strengthen these correlation estimates.

Range of likely 10 year outcomes

10-YEAR RETURN 90% CONFIDENCE INTERVAL



2019 vs. 2018 return forecast



Note: the year-over-year change is based on the 2019 methodology

Relevant forecast changes

- Return expectations increased broadly across most asset classes as bond yields moved higher, prices fell, and valuations became more attractive. This effect was particularly apparent in emerging market equity and debt, where prices suffered in 2018, which led to heightened yields and greater upside return potential.
- Equity valuations fell during the year, resulting in higher return forecast across all regions. In the U.S., large cap P/E multiples returned to more normal levels, and no longer result in a significant drag on expected returns. International developed equity valuations are below average relative to history (26th and 22nd percentile on the Shiller and trailing 12-month P/E ratios, respectively), resulting in a 75 bps increase in the annual return forecast.
- Credit spreads rose significantly in the fourth quarter of 2018, which resulted in improved return forecasts for all credit assets. Core plus fixed income spreads rose from 114 bps to 162 bps, and high yield spreads rose from 356 bps to 529 bps.
- The short end of the yield curve rose as Federal Reserve gradually tightened. The U.S. effective fed funds rate rose from 1.4% at the beginning of the year to 2.4%. The three-month U.S. dollar LIBOR reference rate increased from 1.7% to 2.8%.
- Emerging market hard and local currency debt experienced the greatest improvement in yields. In hard currency-denominated debt, spreads to U.S. Treasury yields increased from 293 bps to 421 bps, while yields of local-denominated debt increased from 6.1% to 7.2%.

All data cited above is as of 12/31/18

Strategic Asset Allocation Review

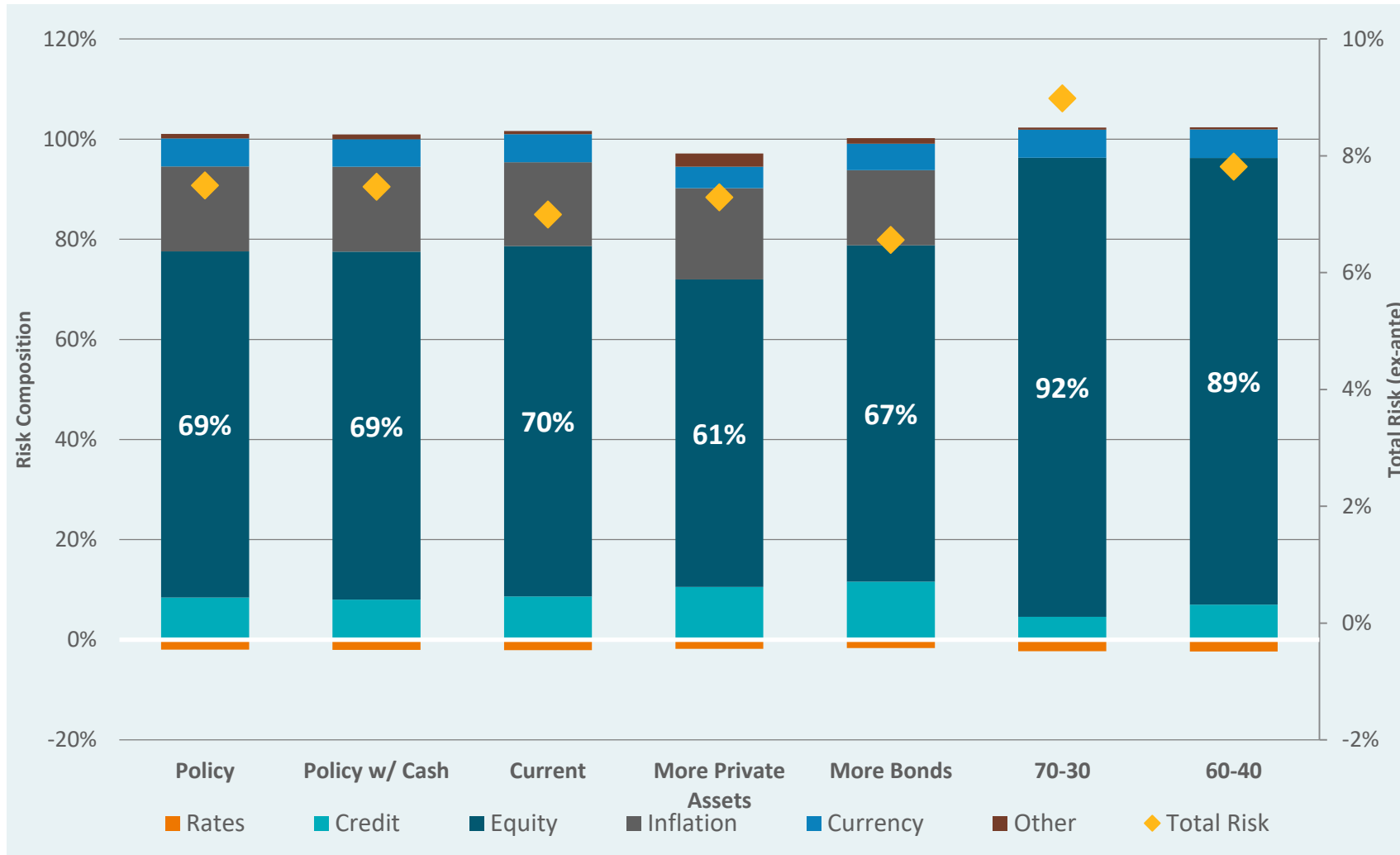
Mean Variance Analysis

	Policy	Policy w/ Cash	Current	More Private				CMA's (10 Yr)			
				Assets	More Bonds	70/30	60/40	Return (g)	Return (a)	Standard Deviation	Sharpe Ratio
US Large	16.0	16.0	15.6	13.0	14.0	0.0	0.0	5.8	6.9	15.6	0.31
US Small	4.0	4.0	4.0	2.0	3.0	0.0	0.0	5.4	7.5	21.3	0.25
Total Domestic Equity	20	20	20	15	17	0	0				
International	13.0	13.0	15.2	11.0	12.0	0.0	0.0	7.7	9.1	17.8	0.39
International	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	8.8	22.4	0.30
Emerging Markets	7.0	7.0	4.9	4.0	5.0	0.0	0.0	8.6	11.6	26.1	0.36
Total Int'l Equity	20	20	20	15	17	0	0				
Global Equity	0.0	0.0	0.0	0.0	0.0	70.0	60.0	6.8	8.2	17.1	0.36
Total Equity	40	40	40	30	34	70	60				
Core Plus Fixed Income	15.0	13.0	15.4	15.0	26.0	30.0	40.0	4.1	4.4	8.4	0.27
Bank Loans	5.0	5.0	5.8	5.0	5.0	0.0	0.0	5.9	6.4	10.2	0.42
Global Credit	5.0	5.0	5.7	5.0	5.0	0.0	0.0	2.1	2.4	7.5	0.04
Emerging Market Debt	5.0	5.0	5.7	5.0	5.0	0.0	0.0	6.9	7.6	12.1	0.45
Total Fixed Income	30	28	33	30	41	30	40				
Commodities	5.0	5.0	3.4	0.0	0.0	0.0	0.0	4.2	5.3	15.7	0.20
Core Real Estate	10.0	10.0	13.2	10.0	10.0	0.0	0.0	6.1	6.9	12.9	0.37
Value Add Real Estate	5.0	5.0	1.7	10.0	5.0	0.0	0.0	8.1	9.8	19.4	0.40
REITs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	7.8	19.3	0.30
Total Real Assets	20	20	18	20	15	0	0				
Private Equity	5.0	5.0	2.8	10.0	5.0	0.0	0.0	8.8	11.7	25.6	0.37
Private Credit	5.0	5.0	3.5	10.0	5.0	0.0	0.0	7.7	8.2	10.2	0.60
Total Non-Public	10	10	6	20	10	0	0				
Cash	0.0	2.0	3.1	0.0	0.0	0.0	0.0	2.1	2.1	1.2	-
Total Allocation	100	100	100	100	100	100	100				

	Policy	Policy w/	Current	More Private	More Bonds	70/30	60/40
Mean Variance Analysis							
Forecast 10 Year	6.7	6.7	6.4	7.1	6.5	6.2	6.0
Standard Deviation	11.4	11.4	10.7	11.0	10.4	13.2	11.9
Return/Std. Deviation	0.6	0.6	0.6	0.6	0.6	0.5	0.5
1st percentile ret. 1	-12.6	-12.6	-12.6	-8.3	-9.5	-22.0	-17.5
Sharpe Ratio	0.45	0.45	0.44	0.49	0.46	0.37	0.37

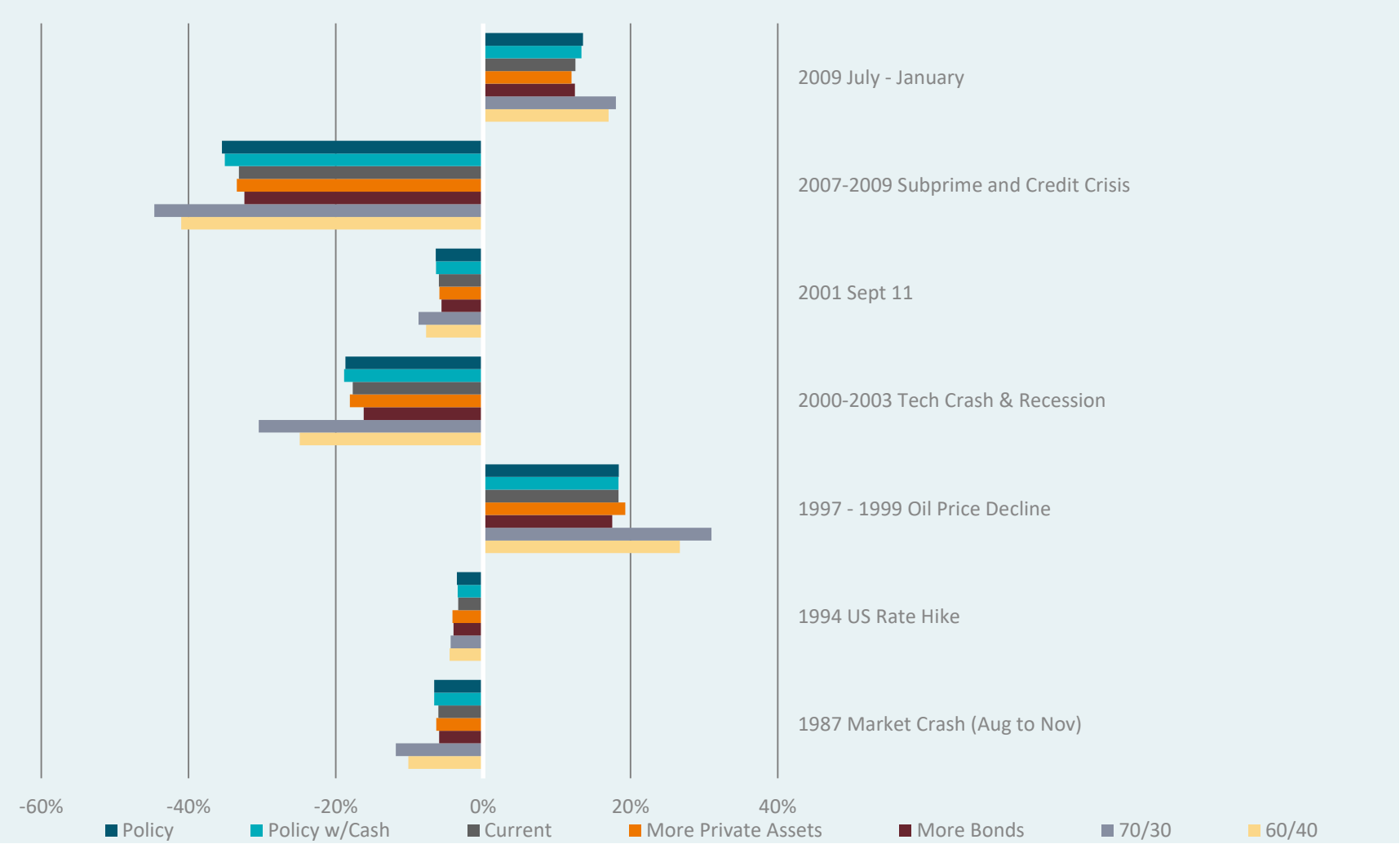
Inputs: Verus' 2019 Capital Market Assumptions

Risk decomposition



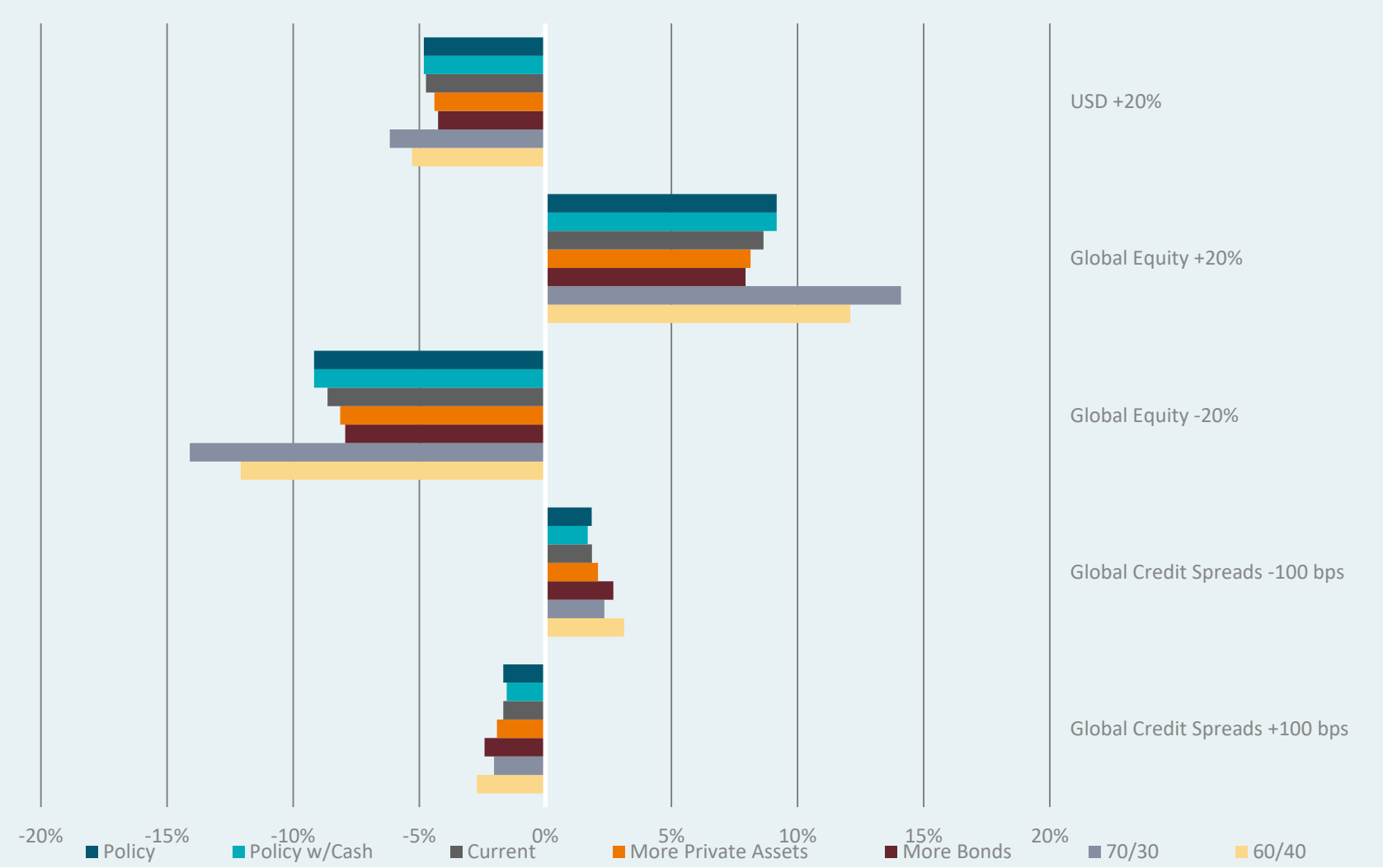
Source: Barra

Scenario analysis



Source: Barra

Stress tests



Source: Barra

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Board of Trustees

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Date: May 20, 2018

To: Board of Trustees

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

Agenda Item 13: Retirement Plan Peer Comparisons – Asset Allocation

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

Asset Allocation Peer Comparisons – For the 2018 comparison of investment policies to other California peer retirement systems we have simplified the presentation of the data to average fund allocations. The source of the investment policy data for the 20 County Retirement Systems that make up the State Association of County Retirement Systems (SACRS) is an annual survey done by R.V. Kuhns and last performed in 2017. The SACRS survey by R.V. Kuhns also includes a broader universe of 79 public sector retirement systems. Also presented are asset allocation policies for the Wilshire universe of City & County funds, the NEPC average of all public funds and CalPERS & CalSTRS.

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.

It should also be noted that asset allocation policies change over time. The data presented below is as of 2018, for preceding years all the funds included in these surveys have modified their asset allocation policies several times over the last ten years.

Investment Comparisons – The general points of comparison from the following table can be summarized as – **the Pension Trust follows a somewhat lower risk Strategic Asset Allocation (SAA) policy than the funds surveyed here.**

	SLOCPT Policy 2018	SACRS 2017 RVK Survey	RV Kuhns 2017 Fund Universe	Wilshire 2018 City & County	NEPC 2018 Large Plan	CalPERS 2018 Policy	CalSTRS 2019 Policy
Global Equity	40%	50%	50%	52%	44%	50%	51%
Private Equity	5%			6%	10%	8%	9%
Equity Alternatives		14%	13%		11%		
Fixed Income	30%	23%	24%	25%	20%	28%	13%
Private Credit	5%				2%		
Real Estate	15%	8%	8%	7%	7%	11%	13%
Real Assets	5%					2%	3%
Risk Mitigating							9%
Liquidity		1%	2%		1%	1%	2%
Other		4%	3%	11%	5%		
Total	100%	100%	100%	100%	100%	100%	100%

Respectfully Submitted

Board of Trustees

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Date: May 20, 2019

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary
Scott Whalen - Verus

Agenda Item 14: ESG Investing Update - Verus

Scott Whalen of Verus, will make a presentation “Environmental / Social / Governance” (ESG) investment criteria and practices. This is an educational presentation and no action is recommended.

By way of review, the Investment Policy Statement (IPS) of the Pension Trust contains the following section on ESG investing –

“Environmental / Social / Governance:

The Pension Trust recognizes that the economic value of its investments may be impacted by Environmental / Social / Governance issues. In its capacity as fiduciaries, the Board of Trustees in the interests of prudent diversification may evaluate potential Environmental / Social / Governance issues at the investment manager level as being a reasonable factor when other expected investment alternatives are estimated to be equal in merit (i.e., all else being equal). The Pension Trust delegates consideration of the merits of any such Environmental / Social / Governance issues at the individual investment level to investment managers employed by the Pension Trust. Investment managers employed by the Pension Trust may consider Environmental / Social / Governance factors (e.g., environmentally sustainable business practices, responsible corporate governance and transparency) in the context of their positive impacts on expected investment returns. The Pension Trust expects its investment managers to be aware of Environmental / Social / Governance issues and consider their impact on diversification and risk in their portfolios.”

Respectfully submitted,

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**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



MAY 2019

ESG/SRI Education

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

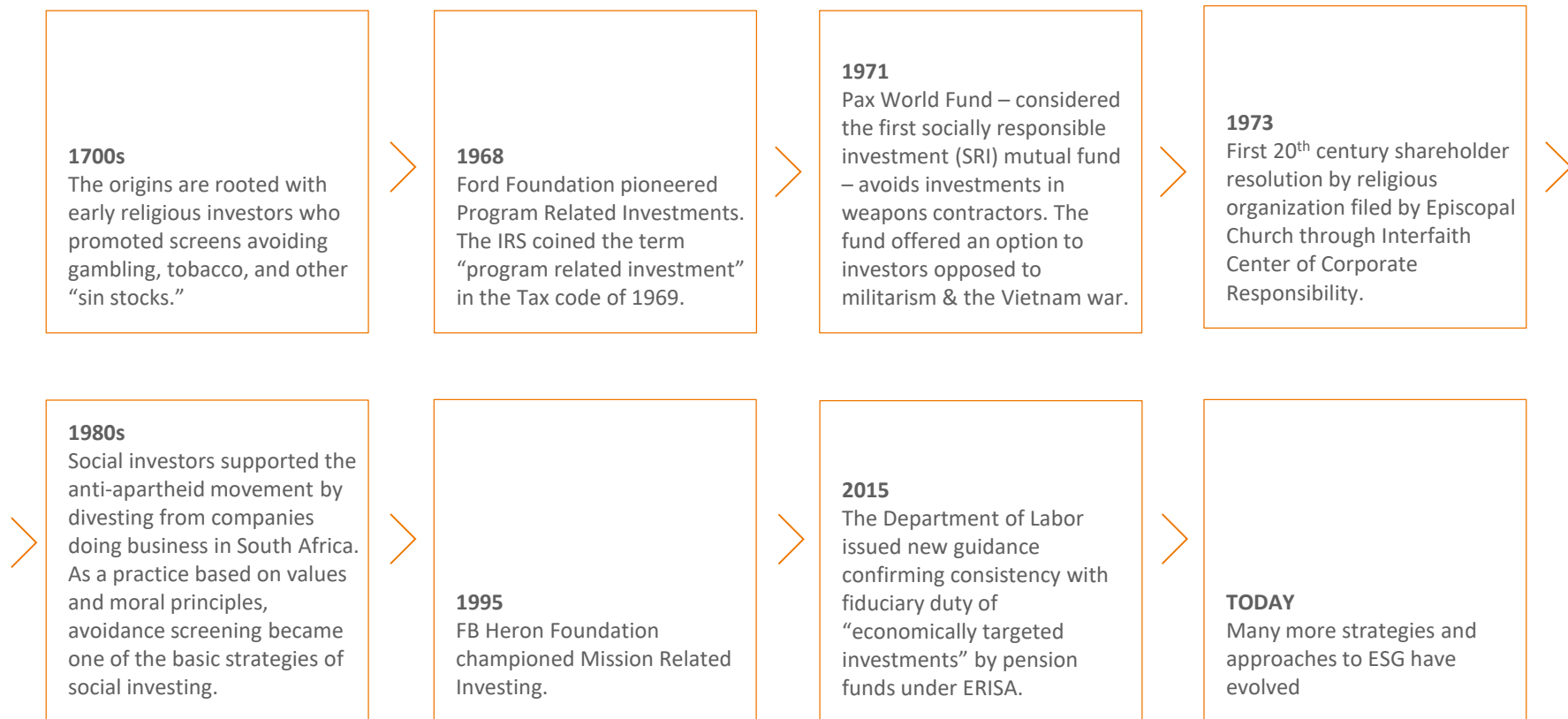
Overview **PAGE 3**

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Implementation
considerations **PAGE 8**

An abbreviated history

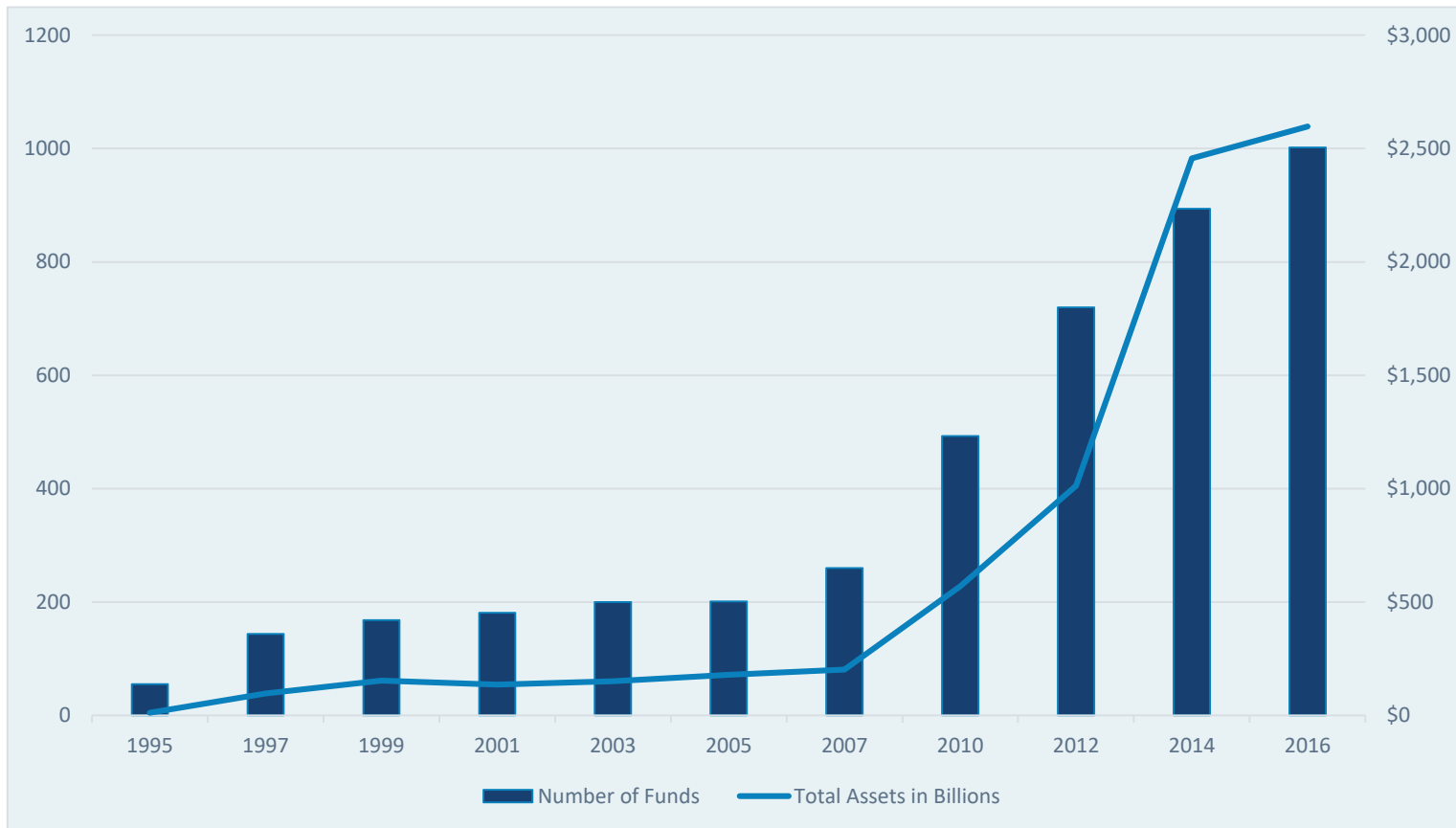
Events, people and interest have all contributed to the current environment



Growth of ESG

ESG has seen growth in the recent years in Assets and number of Funds available

ESG FUND UNIVERSE



Source: Social Investment Forum Foundation

Key terms

Socially Responsible Investing (SRI)

SRI is investing with one's values, screening out or not investing in certain companies or industries (negative screens), or only investing in particular companies because they exhibit desirable traits (positive screens).

Environmental, Social and/or Governance (ESG)

ESG investments are made with the goal of positively impacting the environment, the social order and the company's own governance issues, such as executive compensation, board structures and actions that affect the interests of shareholders (e.g. proxy votes, shareholder activism).

Active Ownership

Investing with the purpose of encouraging companies to manage non-financial risks and run sustainable businesses in order to create long-term shareholder value. This can be exercised through shareholder advocacy or shareholder engagement, proxy voting and corporate resolutions.

Economically Targeted Investing

ETIs target a financial return to the fund as well as economic growth or some other ancillary benefit in areas related to beneficiaries.

Impact Investing

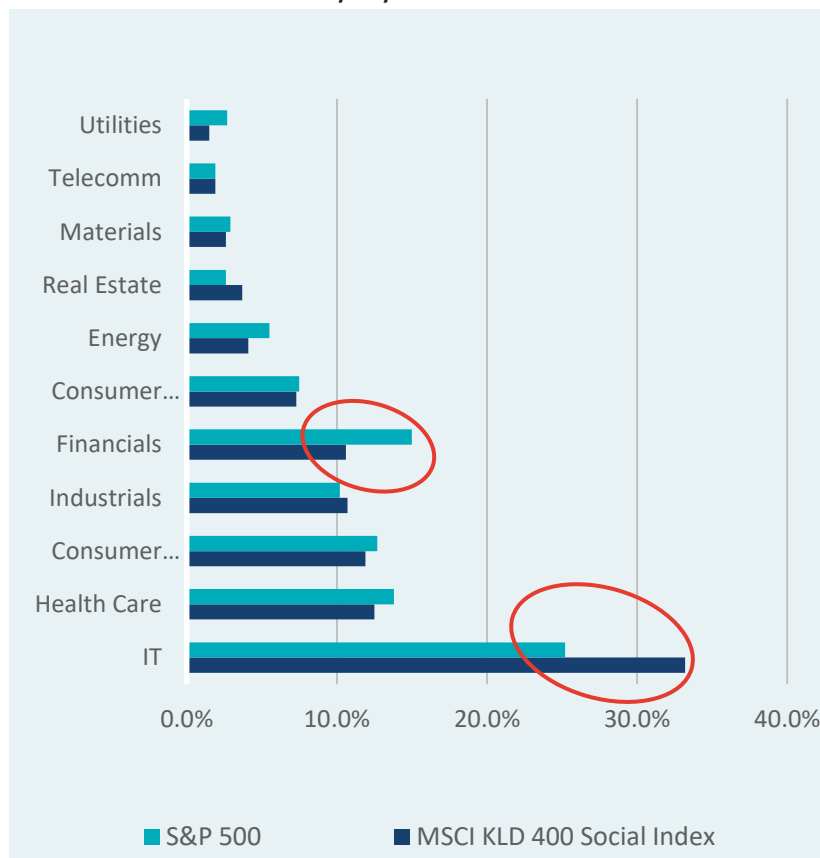
Investing with the intent to create measurable social or environmental benefit in addition to financial return.

While there are multiple ways to implement a responsible investment strategy, there is overlap amongst the various approaches

Exclusionary screening

- The most common social screens (alcohol, tobacco, weapons, and environmental) cause portfolios to be biased toward technology and consumer products. More cyclical, or value-oriented, sectors are significantly underweighted.
- The MSCI KLD 400 Social Index is based on the methodology used by MSCI for index construction and maintenance.
- The index first screens out companies involved in Nuclear Power, Tobacco, Alcohol, Gambling, Military Weapons, Civilian Firearms, GMOs and Adult Entertainment. Then additions are made from the list of eligible companies based on considerations of ESG performance, sector alignment and size representation. The MSCI KLD 400 Social Index is designed to maintain similar sector weights as the MSCI USA Index and targets a minimum of 200 large and mid-cap constituents. Companies that are not existing constituents of The MSCI KLD 400 Social Index must have an MSCI ESG Rating above 'BB' and an Impact Monitor Score greater than 2 to be eligible.

SECTOR COMPARISON 12/31/2015



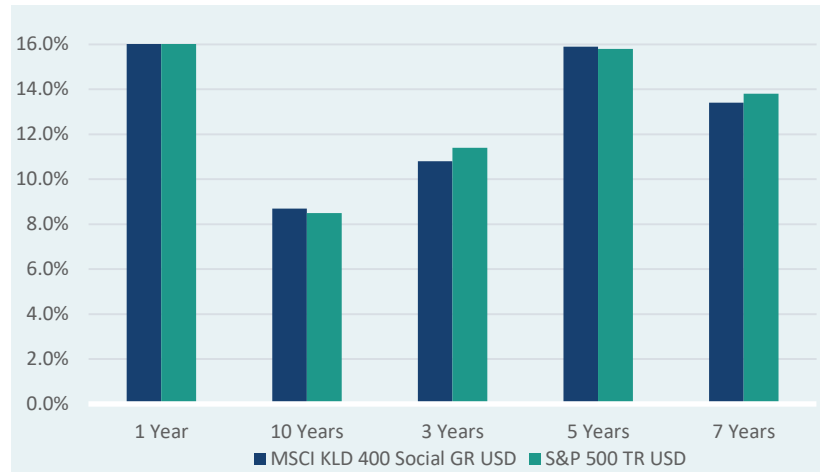
The performance impact will be most observable during periods of strong positive or negative sector performance where the greatest over and under weights exist.

On September 1, 2010 the FTSE KLD indexes transitioned to the MSCI ESG Indexes. The former KLD indexes had multiple third party index calculators over time. Consequently the MSCI ESG index histories have been aggregated and compiled to create a continuous time series from a variety of sources—sources which may have followed different index calculation methodologies in some instances. The MSCI ESG Indexes use ratings and other data supplied by MSCI ESG Research Inc, a subsidiary of MSCI Inc.

Performance impact of SRI screens

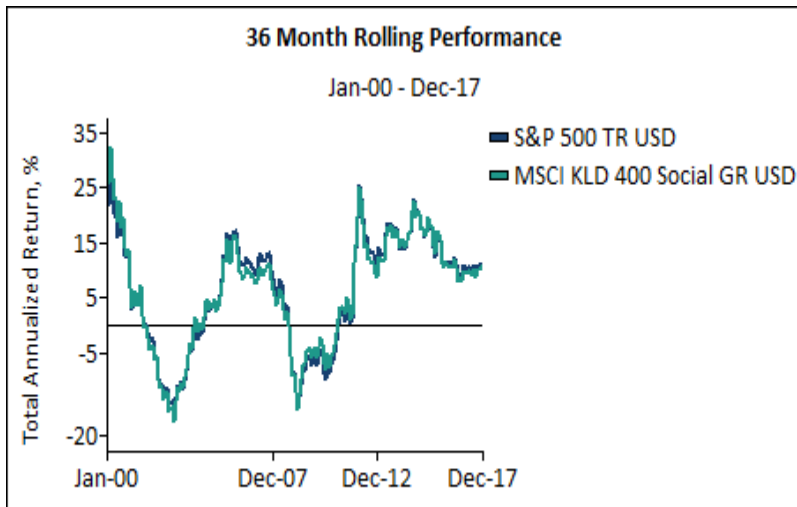
- Over the long-term, social screens should have minimal impact on performance. However, the performance may differ significantly over short time frames, primarily due to sector differences.
- In an adequately diversified portfolio, social screens are not a key driver of performance.
- Whether pursuing Impact Investing or not, the primary drivers of return are asset allocation, security selection and other essential elements of financial risk management and portfolio construction.

ANNUALIZED PERFORMANCE AS OF 12/31/2017



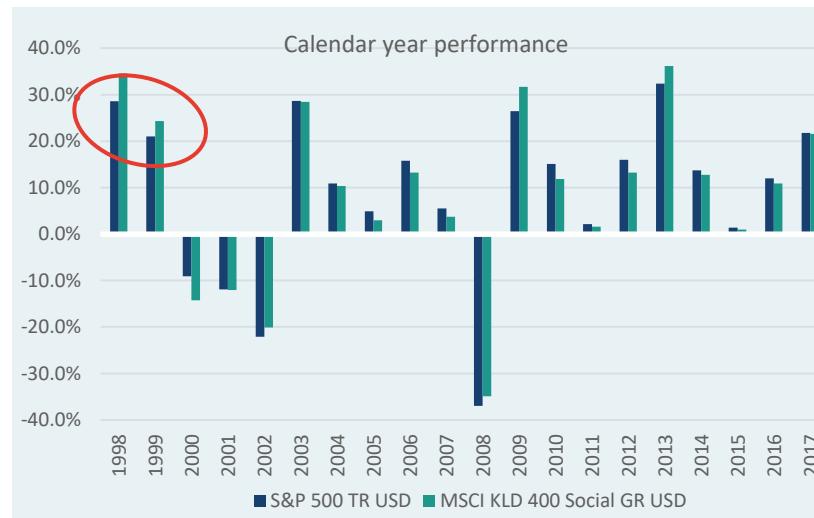
Depending on the market environment, social screens may have a positive or negative impact. For example, look at the late 90's where the screened index had an overweight in the technology sector.

3 YEAR ROLLING PERFORMANCE



Created with MPI Analytics

CALENDAR YEAR PERFORMANCE

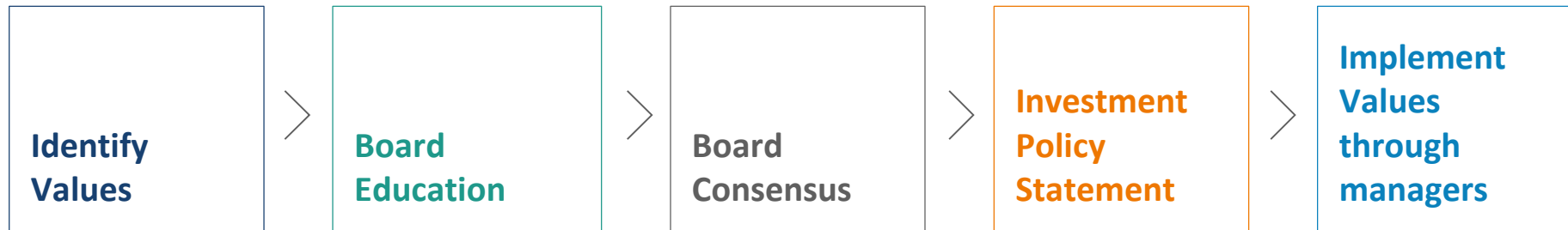


Comparison of different approaches

	Socially Responsible Investing	ESG Integration	Active Ownership	ETI and Impact Investing
Level of impact	Lowest impact on the mission relative to other approaches	Medium to high impact on the mission relative to other approaches	Higher (direct) impact in terms of change; for a small equity share, investors can effect big changes	Higher impact relative to screening, although this comes with higher risk
Cost considerations	Least resource-intensive in terms of staff and expertise required to implement and monitor	Less resource-intensive in terms of staff and expertise required to implement and monitor	Higher resource requirements in order to actively follow and engage with companies' management	Highest in cost in terms of resources, oversight and due diligence
Implementation considerations	Difficult to implement in mutual funds or commingled funds, unless the investment manager has a screened product	For mutual funds, commingled funds and separate accounts, the onus is on the investment manager(s) to integrate ESG in the investment decision making process	For mutual funds, commingled funds and separate accounts, onus is on the investment manager to exercise active ownership on behalf of investors	Hardest to implement relative to other approaches, and often requires finding a specialist provider or partners to seek social-investment opportunities
	Easier to implement in direct investments and/or separate accounts	For direct investments, onus is on asset owner to incorporate ESG in the investment decision making process	For direct investments, asset owner can directly engage with investee companies	Similar to positive/best in class screening
				Limited implementation due to limited albeit growing corporate sustainability disclosure by companies

Uncovering the enterprise's core values

We need to gauge the Board's understanding of Values-Based Investing, and create a consensus of values for the Plan. In order to accomplish this we suggest going through the following process



The spectrum of investment manager ESG implementation

Integration of partial ESG

- Partial integration of ESG reflects that the investment manager integrates one or two of the ESG components into their investment process and decision-making.
- An example of this is when a manager states that they consider governance in their evaluation process but does not consider specific environmental or social criteria.

Integration of broad ESG

- Integration of broad ESG reflects that the investment manager integrates each of the ESG components into their investment process and decision-making.

ESG-specific product

- For ESG-specific products, the investment manager identifies the product as an ESG product.
- Examples: Low carbon emissions, sustainable energy etc.



Public pension plans

- Portfolio screening is still the conventional approach
 - Eg: Anti-terror investing, genocide divestment, fossil fuel divestment
- Shareholder advocacy on the rise¹
- SRI/ESG pressure may come from the general public or from government officials
- Geographically targeted and economically targeted investment issues come up
- A public fund Trustee's obligation is to make decisions on behalf of the beneficiaries of the pension

1. <https://www.bnymellon.com/us/en/newsroom/news/press-releases/public-pension-plans-more-than-twice-as-likely-to-implement-sriesg-strategies-than-corporate-plans-says-bny-mellon.jsp>

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Board of Trustees

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Date: May 20, 2019

To: Board of Trustees

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

Agenda 15: Asset Allocation May 2019

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.

Staff will report on routine liquidity management and asset mix rebalancing transactions undertaken as administrative matters.

No Board action is planned at this point.

Respectfully submitted

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