



Board of Trustees
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Orono, ME 04469

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August 15, 2019

TO: Members of the Investment Committee

FR: Ellen N. Doughty, Clerk of the Board *Ellen N. Doughty*

RE: **August 29, 2019 - Investment Committee Meeting**

The University of Maine

University of Maine
at Augusta

University of Maine
at Farmington

University of Maine
at Fort Kent

University of Maine
at Machias

University of Maine
at Presque Isle

University of
Southern Maine

The Investment Committee will meet from **9:00 am to 12:00 pm on August 29, 2019**. The meeting will be located at the University of Maine System Executive Offices, Rudman Conference Room, 253 Estabrooke Hall, 15 Estabrooke Drive in Orono. In addition to the Estabrooke Hall location, the following Polycom locations and a conference call connection will also be available:

UMA – RM 125, Robinson Hall
UMF – Executive Conference RM 103, Merrill
UMFK – Alumni Conference RM, Nadeau Hall
USM – RM 423/424, Glickman Library

PHONE: 1-800-605-5167 code – 743544#

Refreshments will be provided at the USM and UMS locations. The meeting materials have been posted to the Diligent Board Portal under the Investment Committee section. Also these materials will be posted on the Board of Trustees website: <http://www.maine.edu/about-the-system/board-of-trustees/meeting-agendas/investment-committee/> If you have questions about the meeting arrangements or accessing the meeting materials please call me at 581-5840.

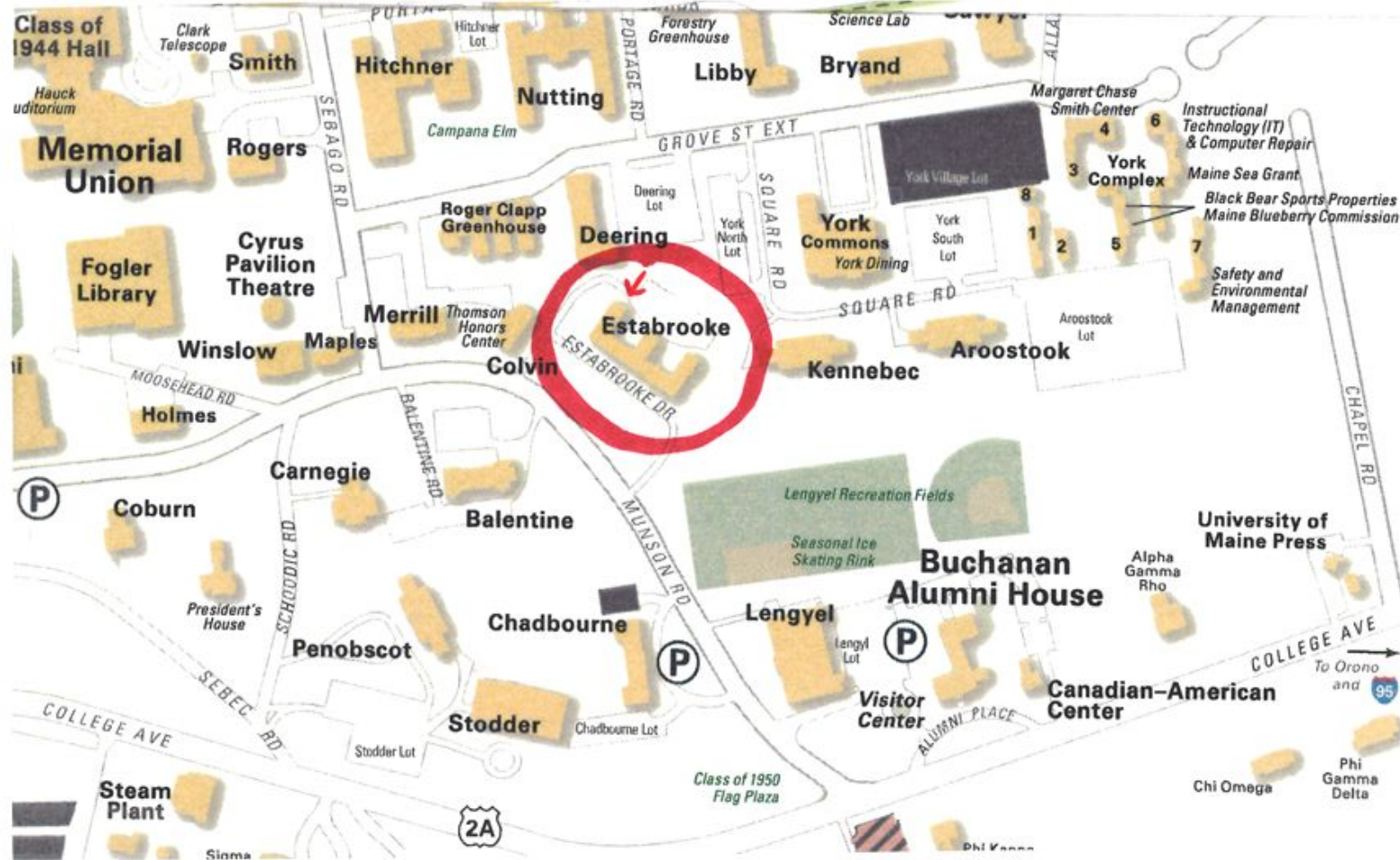
If you have any questions or desire additional information about the agenda items, please call Tracy Elliott at 581-5492.

cc: Chancellor Dannel Malloy
Trustees who are not members of the Committee
Presidents
Ryan Low
Robert Neely
Kay Kimball
Tracy Elliott

University of Maine System

15 Estabrooke Drive, Orono

Rudman Conference Room
253 Estabrooke Hall, 2nd Floor
15 Estabrooke Drive, Orono



Directions to the UMS located on the UMaine Campus

From the South on I-95: take exit 191 to Kelly Road and turn right. Continue on Kelly Road for 1 mile until you reach the traffic light, then turn left onto Route 2 and go through downtown Orono. Cross the river. Turn left at the lights onto College Avenue. Buchanan Alumni House will be the first campus-related building on your right. Right after the Buchanan Alumni House, take a right onto Muson Road. Estabrooke Hall is the building on the right after Lengyel.

From the North on I-95: take exit 191 to Kelly Road and turn left. Continue on Kelly Road for 1 mile until you reach the traffic light, then turn left onto Route 2 and go through downtown Orono. Cross the river. Turn left at the lights onto College Avenue. Buchanan Alumni House will be the first campus-related building on your right. Right after the Buchanan Alumni House, take a right onto Muson Road. Estabrooke Hall is the building on the right after Lengyel.

The UMS is located on the 2nd floor of Estabrooke Hall. Enter Estabrooke Hall from the back of the building, the entrance closes to Deering Hall.

Board of Trustees

Investment Committee

August 29, 2019

9:00 am to 12:00 pm

Rudman Conference Room, 253 Estabrooke Hall, Orono

AGENDA

9:00 am – 9:15 am

TAB 1 [Investment Committee FY2020 Work Plan](#)

9:15 am – 10:15 am

[TAB 2](#) [Defined Contribution – Replacing TIAA Individual Contracts with Group Contracts](#)

TAB 3 [Defined Contribution Plan – Quarterly Review](#)

10:15 am – 12:00 pm

TAB 4 [Review of Portfolio Structure and Investment Managers](#)

TAB 5 [Performance Review Executive Summary](#)

Managed Investment Pool (MIP)

Defined Benefit Pension Fund

Operating Cash Fund

[Action items within the Committee purview are noted in green.](#)

[Items for Committee decisions and recommendations are noted in red.](#)

Note: Times are estimated based upon the anticipated length for presentation or discussion of a particular topic. An item may be brought up earlier or the order of items changed for effective deliberation of matters before the Committee.



AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Investment Committee Fiscal Year 2020 Work Plan
2. **INITIATED BY:** Kelly A. Martin, Chair
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**
 Primary Outcome: Section 709 - Investments
 Enhance fiscal positioning
5. **BACKGROUND:**

Board Committees annually review their Work Plans, which provide an overview of the agendas for the Committee for the fiscal year. The Investment Committee's Fiscal Year 2020 Work Plan is presented for your information. This Plan will also be included in the September 15-16, 2018 Board of Trustees meeting materials as an information item.

In addition, a copy of the Committee Duties and Responsibilities are included for your information.

August 15, 2019



FY2020 INVESTMENT COMMITTEE WORK PLAN

Every meeting includes:

- Portfolio and Manager Performance Reviews for:
 - Pension (closed defined benefit plan)
 - Managed Investment Pool (including endowment, the OPEB Trust, and 3rd party participants)
 - Operating Cash
- Defined Contribution Plan Update

Any of the meetings may include:

- Investment manager presentations as warranted
 - Reasons may include performance reviews, changes in personnel or organizational structure, interview managers for investment consideration, and educational sessions
- Asset allocation and scenario analysis including possible restriction of investment options
- Updating of investment guidelines
- Discussions regarding gift fees
- Oversight of the defined contribution retirement plan including sole recordkeeper relationship, plan economics, employee retirement readiness, employee engagement
- Review of consistent top performers, not currently part of the portfolio, for possible investment
- Request for Proposal Process for investment advisory services

Meetings typically are held during the following months. Anticipated agenda items for FY2020 include:

AUGUST:

- Review of portfolio structure and investment managers

DECEMBER:

- Approve endowment spending rate for FY2021

TO BE DETERMINED

- RFP for investment advisory services - interviews

FEBRUARY:

- Review estimated endowment distributions for FY2021
- Asset allocation study and recommendations

MAY/JUNE:

- Update Investment Policy Statements

Other meetings will be scheduled as needed.

University of Maine System
Board of Trustees

Investment Committee
Duties and Responsibilities

Committee established: 1988

Last revised: 1/25/1999; 8/23/2010; 3/14/2011; 8/28/2012; 9/23/2013; 3/9/2017

Approved by the Board of Trustees: 3/14/2011; 9/23/2013; 3/27/2017

The Investment Committee acknowledges its fiduciary responsibility for the conservation and prudent management of the Managed Investment Pool (including Endowments), Defined Benefit Pension Fund, and Operating Cash Funds. In addition, the Committee acknowledges its fiduciary responsibility for investment matters regarding the Defined Contribution Retirement Plan. The University of Maine System (System) staff will assist the Investment Committee in carrying out their duties.

Committee Authority

Bylaws – Section 3
Board of Trustee Policy Manual
Section 709 - Investments

Duties and Responsibilities

The primary duties and responsibilities of the Committee shall be to exercise prudent stewardship of the financial assets of the System and manage and invest funds in good faith and with the care an ordinary prudent person in a like position would exercise under similar circumstances. For the Defined Contribution (DC) Retirement Plan, the Committee shall exercise similar prudent stewardship regarding investment offerings available to participants.

1. Among those duties are:
 - a. To ensure compliance with the provisions of all pertinent federal and state regulations and rulings.
 - b. To develop investment objectives, asset allocation targets, investment guidelines, and performance measurement standards which are consistent with the needs of the funds.
 - c. To oversee the selection and evaluation of investment managers to invest and manage the funds' assets including taking appropriate action when an investment manager fails to meet mutually accepted performance standards or significantly violates investment guidelines.
 - d. To oversee the selection and evaluation of custodians, investment consultants, and defined contribution record keepers and vendors.

Investment Committee Duties and Responsibilities Continued

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- e. To ensure that investment goals, objectives, and standards are effectively communicated to investment managers, including any material changes that may subsequently occur.
 - f. To ensure that existing assets and new monies are deployed to investment managers.
 - g. To review and evaluate investment results in the context of established standards of performance and adherence to the investment guidelines.
 - h. To oversee the DC Plan investment menu ensuring appropriate asset classes and fund offerings are available. The investment offerings will be of appropriate quality, competitively priced, and reasonable in number to allow for proper diversification by participants and proper fiduciary oversight by administration and the Trustees. The Committee will provide for ongoing monitoring and will replace fund offerings as appropriate.
2. The Vice-Chancellor, Treasurer, or Controller , or a subcommittee will assist the Committee in carrying out tasks associated with performing any of the duties set out above.
 3. The Committee, the Treasurer, the staff or a subcommittee may take whatever action is deemed prudent and appropriate to ensure the fiduciary duties of the Board of Trustees are fully accomplished.
 4. The Investment Committee is authorized to take action within its current Duties and Responsibilities with no requirement for further Board of Trustees approval. The Committee may refer an issue to the full Board when in the Committee's discretion the issue warrants a broader discussion and consideration. The Board is routinely updated about Committee actions through Committee Chair reports.
 5. If a quorum of the Investment Committee is not present at a meeting, those members present will provide direction to the staff without a formal vote. Actions will then be placed on the agenda of a subsequent Investment Committee or Board meeting for formal approval. Staff may take action based on the direction provided at the committee meeting, subject to reversing the actions should the Committee or Board subsequently vote otherwise.

Membership of the Committee

The Investment Committee shall be made up of at least three voting members of the Board of Trustees. The Chair and Vice-Chair of the Board and the Chancellor shall be ex-officio members, but the Chancellor shall have no vote. The Investment Committee may add up to five non-Trustee, non-voting members to the Investment Committee. The initial term will be for three years with the option of an appointment for a second, three year term.

Investment Committee Duties and Responsibilities Continued

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Meetings

Meet as necessary and shall be called by the Committee Chair, but may be called by the Chair of the Board or a majority of the Committee.

Staff to the Committee

The Investment Committee shall be staffed by the Vice Chancellor for Administration and Finance, Treasurer, and Controller.



AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Defined Contribution - Replacing TIAA Individual Contracts with Group Contracts

2. **INITIATED BY:** Kelly A. Martin, Chair

3. **BOARD INFORMATION:** **BOARD ACTION:** X

4. **OUTCOME:** **BOARD POLICY:**
 Primary Outcomes: Section 709 - Investments
 Enhance fiscal positioning

5. **BACKGROUND:**

Michael Pratico and Barry Schmitt, Senior Vice Presidents with CAPTRUST Financial Advisors, will discuss the benefits of replacing the Defined Contribution Plans' current individually owned contracts with institutionally owned contracts.

6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees, acting through the Investment Committee, approves moving:

- from TIAA's Retirement Annuity (RA)/Group Retirement Annuity (GRA) to the Retirement Choice (RC) contract and
- from the Supplemental Retirement Annuity (SRA)/Group Supplemental Retirement Annuity (GSRA) to the Retirement Choice Plus (RCP) contract.

August 15, 2019

TIAA Contract Comparisons

FEATURE/SERVICES	RC/RCP	RA/(G)SRA
Institutional Ownership	Yes	No
Required Investment Options	No	Yes, TIAA Traditional, CREF Stock, and CREF Money Market
Employer mappability for TIAA and CREF Accounts	Yes	No, each employee must make an election to move funds out of annuity accounts.
Employee Portability in TIAA Traditional	Yes	No
Industry Standard 401(k)- style loans (payroll deduction or ACH)	Yes	No
Fee Leveling (debits and credits)	Yes	No
Enhanced online Participant Experience	Yes	No
TIAA Traditional Vintage Structure for both new and old money	Yes	Yes
TIAA Traditional Minimum Crediting Rate during accumulation (and current rate as of July 2019)	Between 1%-3% Rate determined periodically (RC current rate- 3.50%, RCP current rate- 2.75%)	3.00% (RA/GRA current rate- 3.25%, SRA/GSRA current rate- 3.00%)
Participant withdrawals from TIAA Traditional	RC- 84 monthly installments, RCP- full liquidity	RA- 10 annual payments, (G)SRA- full liquidity



AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Defined Contribution Plan – Quarterly Review
2. **INITIATED BY:** Kelly A. Martin, Chair
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**
 Primary Outcome: Section 709 - Investments
 Enhance fiscal positioning
5. **BACKGROUND:**
 Michael Pratico and Barry Schmitt, Senior Vice Presidents with CAPTRUST Financial Advisors, will provide a quarterly update regarding the Defined Contribution Plan at the August 29, 2019 Investment Committee meeting.

August 15, 2019

UNIVERSITY OF MAINE SYSTEM
2ND QUARTER, 2019

**DEFINED CONTRIBUTION
QUARTERLY REVIEW**

CAPTRUST

9030 Stony Point Parkway, Suite 540
Richmond, VA 23235

Our mission is to enrich the lives of our clients, colleagues and communities through sound financial advice, integrity, and a commitment to service beyond expectation.

IN THIS REVIEW

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University of Maine System

3.1

University of Maine System Defined Contribution Plans

2nd Quarter, 2019 Quarterly Review

prepared by:

Michael S. Pratico

Senior Vice President | Financial Advisor

Barron V. Schmitt

Senior Vice President | Financial Advisor

Section 1

RETIREMENT INDUSTRY UPDATES

Section 2

MARKET COMMENTARY AND REVIEW

Section 3

PLAN INVESTMENT REVIEW

Section 4

FUND FACT SHEETS

Appendix

SECTION 1: RETIREMENT INDUSTRY UPDATES

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University of Maine System

SECTION 1: RETIREMENT INDUSTRY UPDATES

Industry Updates.....

INVESTMENT POLICY STATEMENT UPDATE: PEER GROUP CHANGE

On April 30, 2019, Morningstar divided the intermediate-term bond peer group into two individual peer groups: intermediate core bond and intermediate core-plus bond. This change impacts investment policy statements and reporting and scoring for fixed income strategies.

Investment Policy Statement: The division of the intermediate-term bond peer group into intermediate core bond and intermediate core-plus bond will be reflected in CAPTRUST's Investment Policy Monitoring (scoring) System Methodology as depicted below. No plan sponsor action is required if the Monitoring (Scoring) System Methodology document was adopted.

	Broad Asset Class	Asset Class or Strategy	Benchmark Index	Peer Group
Current	Fixed Income	Intermediate Term Bond World Bond	Bloomberg Barclays U.S. Aggregate Bond Index Bloomberg Barclays Global Aggregate Bond Index	Intermediate Term Bond World Bond
Updated	Fixed Income	Intermediate Core Bond Intermediate Core-Plus Bond World Bond	Bloomberg Barclays U.S. Aggregate Bond Index Bloomberg Barclays Global Aggregate Bond Index	Intermediate Core Bond Intermediate Core-Plus Bond World Bond

Reporting & Scoring: CAPTRUST reports now feature intermediate core bond and intermediate core-plus bond rather than intermediate-term bond. Fixed income funds will be classified based on Morningstar's criteria below. Peer group rank for return, risk-adjusted return, and confidence are important components of the CAPTRUST scoring system, which may shift due to the changes in peer group constituents.

INTERMEDIATE CORE BOND

These strategies invest primarily in investment-grade U.S. fixed income issues, including government, corporate, and securitized debt and typically hold less than 5% in below-investment-grade exposure. Their durations (a measure of interest-rate sensitivity) typically range between 75% and 125% of the three-year average of the effective duration of the Morningstar Core Bond Index.

INTERMEDIATE CORE-PLUS BOND

These strategies invest primarily in investment-grade U.S. fixed-income issues, including government, corporate, and securitized debt, but generally have greater flexibility than core offerings to hold non-core sectors such as corporate high yield, bank loan, emerging market debt, and non-U.S. currency exposure. Their durations (a measure of interest-rate sensitivity) typically range between 75% and 125% of the three-year average of the effective duration of the Morningstar Core Bond Index.

DEFINED CONTRIBUTION MARKETPLACE — INDUSTRY UPDATE

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3.1

NEW LIFE FOR LIFETIME INCOME

According to a recent study, only 8% of plan sponsors currently offer an in-plan retirement income product, with two of the top barriers to adoption being fiduciary and portability concerns.¹ Recent bills in Congress are attempting to mitigate these concerns and there is strong bipartisan support to make lifetime income options more accessible to plan participants and more palatable to plan sponsors. Below are two of the biggest obstacles to adoption of lifetime income options by plan sponsors and how legislation might address them.

**PORTABILITY OF LIFETIME INCOME OPTIONS**

Portability from one recordkeeper to another is difficult due to product complexity and technology requirements. Today, the only viable option when a recordkeeper change happens is to allow participants to move guaranteed income investments into an IRA. However, in-service, non-hardship distributions to an IRA are subject to plan-specific provisions, and participants must be over age 59½ to avoid IRS penalties.

**SAFE HARBOR FOR ANNUITY SELECTION**

The current safe harbor for annuity selection within defined contribution plans comes from DOL Interpretive Bulletin 95-1, which was intended for single premium group annuity selection associated with defined benefit pension plans. The bulletin places a burden on the plan sponsor to evaluate whether an insurer can satisfy all future annuity claims under the contract without offering any specific criteria for evaluation.²

**POTENTIAL SOLUTION**

Through updated legislation or a change in regulatory interpretation, the IRS could allow qualified penalty-free distributions of lifetime income products in the form of a qualified plan distribution annuity contract, regardless of age.

**POTENTIAL SOLUTION**

Either provide legislative safe harbor through updated law, or the DOL could provide specific guidelines for defined contribution plan sponsors to satisfy their fiduciary obligations related to the selection and monitoring of an insurer.

Future legislation may put a spotlight on lifetime income options and make them more accessible to plan participants and easier for plan sponsors to select. However, recordkeepers may continue to be the largest barrier to broader adoption. Plan sponsors should stay up to date on this evolving topic and be prepared to address for their participants.

¹ 2017 “Hot Topics in Retirement and Financial Wellbeing,” Aon Hewitt, 2018.

² 29 CFR 2509.95-1

SECTION 2: MARKET COMMENTARY AND REVIEW

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University of Maine System

SECTION 2: MARKET COMMENTARY AND REVIEW	
Market Commentary.....	
Market Review.....	
Asset Class Returns.....	
Index Performance.....	

MARKET COMMENTARY

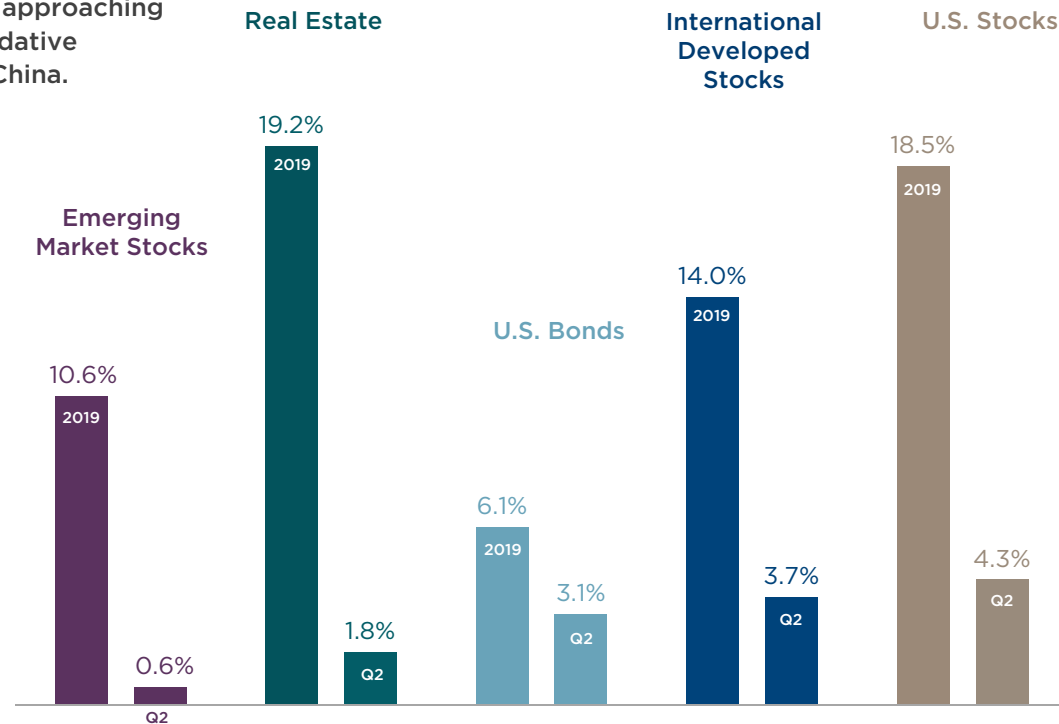
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3.1

STRONG FIRST HALF OF 2019

All asset classes moved higher in the second quarter. Despite a bout of volatility in May, stocks, bonds, and real estate have posted excellent returns this year. U.S. stocks were approaching record highs at quarter end, thanks to an accommodative Federal Reserve and a temporary trade truce with China.

- U.S. stocks rebounded from a difficult May, notching gains as the Federal Reserve signaled it would consider cutting interest rates in response to slower growth. Large-cap stocks had their best first half in more than 20 years.
- While they lag stocks, bonds have had an outstanding 2019 as interest rates hit their lowest levels since late 2016.
- International developed and emerging market stocks also performed well, albeit not at the torrid pace of U.S. stocks. They have been hampered by sluggish growth in Europe and Japan and the strong U.S. dollar.
- Real estate lagged in the second quarter, but remains this year's standout, aided by lower interest rates.



Asset class returns are represented by the following indexes: S&P 500 Index (U.S. large-cap stocks), MSCI EAFE Index (international developed stocks), MSCI Emerging Markets Index (emerging market stocks), Bloomberg Barclays U.S. Aggregate Bond Index (U.S. bonds), and Dow Jones U.S. Real Estate Index (real estate).

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The S&P 500 Index is a market-capitalization-weighted index of U.S. large-cap stocks across a diverse set of industry sectors. The stocks represented in those 11 sectors generated a range of returns in the second quarter and for the year-to-date period.

S&P 500 Index	Technology	Health Care	Financials	Consumer Discretionary	Communication Service	Industrials	Consumer Staples	Energy	Utilities	Real Estate	Materials
4.3%	6.1%	1.4%	8.0%	5.3%	4.5%	3.6%	3.7%	-2.8%	3.5%	2.5%	6.3%
18.5%	27.1%	8.1%	17.2%	21.8%	19.1%	21.4%	16.2%	13.1%	14.7%	20.4%	17.3%
Sector Weight	21.6%	14.1%	13.2%	10.2%	10.2%	9.3%	7.2%	5.1%	3.3%	3.0%	2.8%

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ECONOMIC OUTLOOK

The global economic picture typically consists of favorable attributes (tailwinds) and challenges (headwinds). Here, we provide our perspective on both and offer our view on which side has the upper hand.

TAILWINDS

Turnaround at the Federal Reserve

- The Fed's increasingly accommodative stance has supported stock prices and sparked lower interest rates in anticipation of cuts later this year.
- We expect an interest rate cut in July. Future cuts may depend on how trade negotiations with China develop.



Consumer Strength

- The consumer is enjoying a strong job market with wages rising faster than inflation. Some of the strongest gains have occurred among the lowest wage earners.
- Consumer spending remains healthy, supported by rising savings rates and relatively low debt and interest payments.
- Consumer confidence has been resilient and has not been materially impacted by concern over trade disputes.

Home Improvement

- The housing market is benefiting as bond investors weigh the risks of softening global growth and push down the mortgage rates. This will continue to boost housing demand as shown by the recent pickup in home sales.
- Strong real wage growth and lower mortgage rates offer a tailwind to home sales as housing becomes more affordable.

HEADWINDS

Lingering Trade Uncertainty

- Business confidence suffers from unresolved U.S.-China trade tensions.
- Executives must assess potential impacts on global supply chains and evaluate shifting production to other locations and potentially delay expansion and business investment.



Increasing Political Uncertainty

- With the 2020 presidential campaign underway, business owners feel less certain about future corporate tax rates and regulatory policies. This makes it a challenging environment to make business investment decisions.

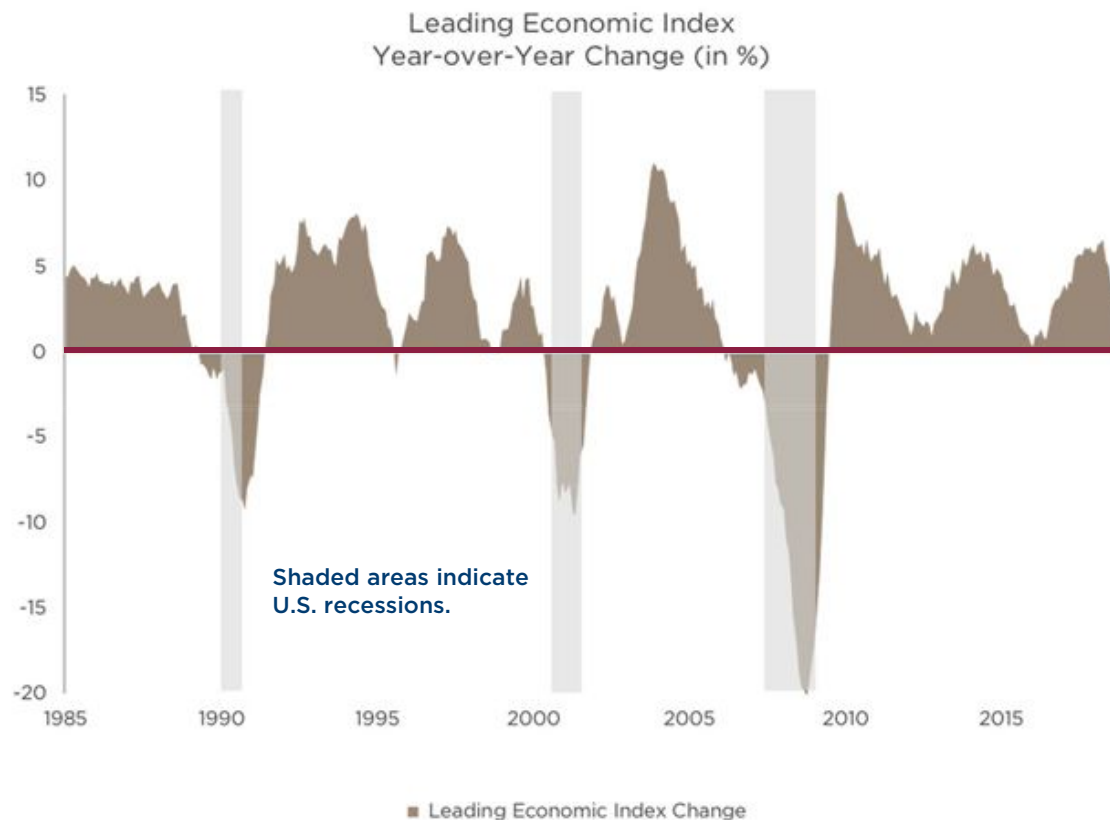
Slowing Global Growth

- The global economy continues to grow, albeit at a slowing pace. Global GDP will slow to 3.2% in 2019, down from 3.5% in 2018.
- The U.S. still enjoys above-historical-average growth, but growth in Europe and Japan continues to be anemic.
- As the declining year-over-year change in Leading Economic Indicators shows, future economic conditions are worsening, but based on historical experience, that does not indicate a near-term recession.

Markets enter the summer with a swirling mix of policy uncertainty—from the Federal Reserve to global trade.

LEADING ECONOMIC INDICATORS AND RECESSIONS

Historically, the U.S. has experienced recessions about one of every seven years—or 15% of the time. Recessions are a normal and healthy, if painful, part of the business cycle. The Conference Board's Leading Economic Index (LEI) is a commonly cited forecast of future conditions. This basket of economic indicators is designed to signal peaks and troughs in the business cycle and includes data across 10 categories, including employment, manufacturing and construction activity, stock prices, lending conditions, and consumer sentiment.



OBSERVATIONS

- 2018 witnessed the best economic growth since 2006, with 4.2% quarter-over-quarter real gross domestic product (GDP) growth in the second quarter. Real GDP growth slowed to 3.1% in the first quarter of 2019, which is above the 10-year average of 2.2%.
- A declining LEI is not always followed by recession. Over the past 10 years, the year-over-year change in the LEI has approached zero four times without a recession.
- For example, in mid-2016, although the LEI index actually declined year over year to 0.3%, real GDP growth remained solid at 2.3%.

Sources: Bloomberg, National Bureau of Economic Research, Federal Reserve Bank of St. Louis, CAPTRUST Research

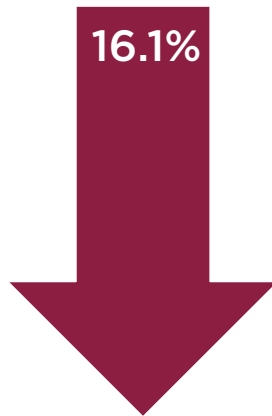
TRADE TENSIONS WEIGH ON BUSINESS CONFIDENCE

Trade tensions between the U.S. and its major trading partners have begun to weigh on business sentiment as firms evaluate potential impacts to supply chains, product demand, and profit margins. The National Association of Manufacturers (NAM) Manufacturers' Outlook Survey has fallen 16% from its all-time high of just a year ago. Although sentiment is a soft economic indicator, it can have a real impact on economic data—such as spending, jobs, and GDP growth—if uncertainty causes businesses to delay or scale back projects, hiring, or investment. Consumer sentiment, supported by strong employment, has held up better, with the University of Michigan's survey of consumer confidence down just 3% from its early-2018 peak.

Business and Consumer Confidence Key Indicators

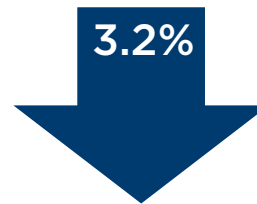
National Association of Manufacturers
Manufacturers' Outlook Survey

2Q 2018 to Q2 2019



University of Michigan
Consumer Sentiment Index

March 2018 to June 2019



Sources: National Association of Manufacturers, Bloomberg

OBSERVATIONS

- Multinational corporations purchase goods and services from across the globe. For example, major components of Boeing's 787 Dreamliner originate from suppliers in nine countries.
- Prolonged trade conflicts can delay business investment, as businesses consider changes such as shifting production to other locations, outsourcing production, and the timing of expansion.
- For example, U.S. toy companies manufacture products in China. As they plan production, they seek a clear decision on tariffs and may move production to another country if tariffs are imposed. Negotiations without resolution impair decision making and reduce business confidence.

TRADE TARIFFS AND CELL PHONE PRICES

The number one category of goods imported to the U.S. from China is cell phones. So far, the U.S. has not imposed tariffs on cell phones, but it remains a possibility. The top three best-selling smartphone brands in the U.S. are Apple, Samsung, and LG. If the U.S. fully implemented tariffs, we would expect increases in cell phone prices for a year or so. Afterward, prices would decline as manufacturers move production away from China to countries without tariffs where they already have manufacturing plants.

Apple iPhone XR



OBSERVATIONS

- The U.S. has a \$375 billion trade deficit with China, which is why the country is a target of President Trump's tariffs. America's appetite for cell phones accounted for \$70 billion of that number.
- A 25% tariff could increase the price of the iPhone XR—Apple's most popular model—by 25% from \$749 to \$936, an increase of \$187.
- Foxconn, the principal manufacturer and assembler of iPhones, stated in June that it could produce all of the iPhones destined for the U.S. market outside of China.
- Samsung and LG manufacture some phones in China, but they also have factories in other countries, including India and Vietnam.

Sources: Counterpoint, Apple, Census Bureau, CAPTRUST Research

ASSET CLASS RETURNS

Period Ending 6.30.19 | Q2 19

3.1

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD 2019
International Equities 26.86%	Large-Cap Growth 11.81%	Fixed Income 5.08%	Mid-Cap Growth 46.29%	Small-Cap Growth 29.09%	Fixed Income 7.84%	Mid-Cap Value 18.51%	Small-Cap Growth 43.30%	Mid-Cap Value 14.75%	Large-Cap Growth 5.67%	Small-Cap Value 31.74%	Large-Cap Growth 30.21%	Cash 1.87%	Mid-Cap Growth 26.08%
Small-Cap Value 23.48%	International Equities 11.63%	Cash 1.51%	Large-Cap Growth 37.21%	Mid-Cap Growth 26.38%	Large-Cap Growth 2.64%	Small-Cap Value 18.05%	Mid-Cap Growth 35.74%	Large-Cap Value 13.45%	Fixed Income 0.55%	Mid-Cap Value 20.00%	International Equities 25.62%	Fixed Income 0.01%	Large-Cap Growth 21.49%
Large-Cap Value 22.25%	Mid-Cap Growth 11.43%	Small-Cap Value -28.92%	Small-Cap Growth 34.47%	Mid-Cap Value 24.75%	Large-Cap Value 0.39%	International Equities 17.90%	Small-Cap Value 34.52%	Large-Cap Growth 13.05%	Cash 0.05%	Large-Cap Value 17.34%	Mid-Cap Growth 25.27%	Large-Cap Growth -1.51%	Small-Cap Growth 20.36%
Mid-Cap Value 20.22%	Fixed Income 7.39%	Large-Cap Value -36.85%	Mid-Cap Value 34.21%	Small-Cap Value 24.50%	Cash 0.10%	Large-Cap Value 17.51%	Large-Cap Growth 33.48%	Mid-Cap Growth 11.90%	Mid-Cap Growth -0.20%	Small-Cap Growth 11.32%	Small-Cap Growth 22.17%	Mid-Cap Growth -4.75%	Mid-Cap Value 18.02%
Small-Cap Growth 13.35%	Small-Cap Growth 7.05%	Mid-Cap Value -38.44%	International Equities 32.46%	Large-Cap Growth 16.71%	Mid-Cap Value -1.38%	Mid-Cap Growth 15.81%	Mid-Cap Value 33.46%	Fixed Income 5.97%	International Equities -0.39%	Mid-Cap Growth 7.33%	Large-Cap Value 13.66%	Large-Cap Value -8.27%	Large-Cap Value 16.24%
Mid-Cap Growth 10.66%	Cash 4.71%	Large-Cap Growth -38.44%	Small-Cap Value 20.58%	Large-Cap Value 15.51%	Mid-Cap Growth -1.65%	Large-Cap Growth 15.26%	Large-Cap Value 32.53%	Small-Cap Growth 5.60%	Small-Cap Growth -1.38%	Large-Cap Growth 7.08%	Mid-Cap Value 13.34%	Small-Cap Growth -9.31%	International Equities 14.49%
Large-Cap Growth 9.07%	Large-Cap Value -0.17%	Small-Cap Growth -38.54%	Large-Cap Value 19.69%	International Equities 8.21%	Small-Cap Growth -2.91%	Small-Cap Growth 14.59%	International Equities 23.29%	Small-Cap Value 4.22%	Large-Cap Value -3.83%	Fixed Income 2.65%	Small-Cap Value 7.84%	Mid-Cap Value -12.29%	Small-Cap Value 13.47%
Cash 5.08%	Mid-Cap Value -1.42%	International Equities -43.06%	Fixed Income 5.24%	Fixed Income 5.89%	Small-Cap Value -5.50%	Fixed Income 4.22%	Cash 0.07%	Cash 0.03%	Mid-Cap Value -4.78%	International Equities 1.51%	Fixed Income 3.54%	Small-Cap Value -12.86%	Fixed Income 6.11%
Fixed Income 4.08%	Small-Cap Value -9.78%	Mid-Cap Growth -44.32%	Cash 0.21%	Cash 0.13%	International Equities -11.73%	Cash 0.11%	Fixed Income -2.02%	International Equities -4.48%	Small-Cap Value -7.47%	Cash 0.33%	Cash 0.86%	International Equities -13.36%	Cash 1.24%

Small-Cap Value Stocks (Russell 2000 Value)	Large-Cap Value Stocks (Russell 1000 Value)	International Equities (MSCI EAFE)
Small-Cap Growth Stocks (Russell 2000 Growth)	Mid-Cap Growth Stocks (Russell Mid-Cap Growth)	Fixed Income (Bloomberg Barclays U.S. Aggregate Bond)
Large-Cap Growth Stocks (Russell 1000 Growth)	Mid-Cap Value Stocks (Russell Mid-Cap Value)	Cash (Merrill Lynch 3-Month Treasury Bill)

Source: Markov Processes, Inc., Bloomberg, Mobius

The information contained in this report is from sources believed to be reliable but not warranted by CAPTRUST Financial Advisors to be accurate or complete.

INDEX PERFORMANCE

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INDEXES	Q2 2019	YTD	2018	2017	2016	2015	2014	1 YEAR	3 YEAR	5 YEAR	10 YEAR
90-Day U.S. Treasury	0.64%	1.24%	1.87%	0.86%	0.33%	0.05%	0.03%	2.31%	1.38%	0.87%	0.49%
Bloomberg Barclays Government 1-3 Year	1.46%	2.47%	1.58%	0.45%	0.87%	0.57%	0.64%	4.02%	1.31%	1.23%	1.23%
Bloomberg Barclays Intermediate Govt	2.34%	3.96%	1.43%	1.14%	1.05%	1.18%	2.52%	6.15%	1.34%	1.94%	2.38%
Bloomberg Barclays Muni Bond	2.14%	5.09%	1.28%	5.45%	0.25%	3.30%	9.05%	6.71%	2.55%	3.64%	4.72%
Bloomberg Barclays Intermediate Govt/Credit	2.59%	4.97%	0.88%	2.14%	2.08%	1.07%	3.13%	6.93%	1.99%	2.39%	3.24%
Bloomberg Barclays Intermediate Credit	2.99%	6.65%	0.01%	3.67%	3.68%	0.90%	4.16%	8.23%	3.01%	3.10%	4.76%
Bloomberg Barclays Aggregate Bond	3.08%	6.11%	0.01%	3.54%	2.65%	0.55%	5.97%	7.87%	2.31%	2.95%	3.90%
Bloomberg Barclays Corporate IG Bond	4.48%	9.85%	-2.51%	6.42%	6.11%	-0.68%	7.46%	10.72%	3.94%	4.08%	6.07%
Bloomberg Barclays High Yield	2.50%	9.94%	-2.08%	7.50%	17.13%	-4.47%	2.45%	7.48%	7.52%	4.70%	9.24%
Bloomberg Barclays Global Aggregate	3.29%	5.57%	-1.20%	7.39%	2.09%	-3.15%	0.59%	5.85%	1.62%	1.20%	2.89%
Bloomberg Barclays U.S. Long Corporate	7.23%	15.77%	-7.24%	12.09%	10.97%	-4.61%	15.73%	15.19%	5.45%	5.80%	8.50%
S&P 500	4.30%	18.54%	-4.38%	21.83%	11.96%	1.38%	13.69%	10.42%	14.19%	10.71%	14.70%
Dow Jones Industrial Average	3.21%	15.40%	-3.48%	28.11%	16.50%	0.21%	10.04%	12.20%	16.80%	12.29%	15.03%
NASDAQ Composite	3.58%	20.66%	-3.88%	28.24%	7.50%	5.73%	13.40%	6.60%	18.24%	12.68%	15.87%
Russell 1000 Value	3.84%	16.24%	-8.27%	13.66%	17.34%	-3.83%	13.45%	8.46%	10.19%	7.46%	13.19%
Russell 1000	4.25%	18.84%	-4.78%	21.69%	12.05%	0.92%	13.24%	10.02%	14.15%	10.45%	14.77%
Russell 1000 Growth	4.64%	21.49%	-1.51%	30.21%	7.08%	5.67%	13.05%	11.56%	18.07%	13.39%	16.28%
Russell Mid-Cap Value Index	3.19%	18.02%	-12.29%	13.34%	20.00%	-4.78%	14.75%	3.68%	8.95%	6.72%	14.56%
Russell Mid-Cap Index	4.13%	21.35%	-9.06%	18.52%	13.80%	-2.44%	13.22%	7.83%	12.16%	8.63%	15.16%
Russell Mid-Cap Growth Index	5.40%	26.08%	-4.75%	25.27%	7.33%	-0.20%	11.90%	13.94%	16.49%	11.10%	16.02%
MSCI EAFE	3.97%	14.49%	-13.36%	25.62%	1.51%	-0.39%	-4.48%	1.60%	9.65%	2.74%	7.40%
MSCI ACWI ex U.S.	3.22%	14.00%	-13.78%	27.77%	5.01%	-5.25%	-3.44%	1.80%	9.91%	2.65%	7.03%
Russell 2000 Value	1.38%	13.47%	-12.86%	7.84%	31.74%	-7.47%	4.22%	-6.24%	9.81%	5.39%	12.40%
Russell 2000	2.10%	16.98%	-11.01%	14.65%	21.31%	-4.41%	4.89%	-3.31%	12.30%	7.06%	13.45%
Russell 2000 Growth	2.75%	20.36%	-9.31%	22.17%	11.32%	-1.38%	5.60%	-0.49%	14.69%	8.63%	14.41%
MSCI Emerging Markets	0.74%	10.78%	-14.25%	37.75%	11.60%	-14.60%	-1.82%	1.61%	11.06%	2.87%	6.17%
Dow Jones U.S. Real Estate Index	1.82%	19.21%	-4.03%	9.84%	7.56%	2.14%	27.24%	12.81%	6.37%	8.57%	15.27%
HFRX Absolute Return Index	1.09%	1.66%	-0.49%	3.39%	0.31%	2.86%	0.79%	0.11%	1.69%	1.33%	0.79%
Consumer Price Index (Inflation)	0.74%	1.93%	1.91%	2.11%	2.07%	0.73%	0.76%	1.63%	2.04%	1.45%	1.73%
BLENDED BENCHMARKS	Q2 2019	YTD	2018	2017	2016	2015	2014	1 YEAR	3 YEAR	5 YEAR	10 YEAR
25% S&P 500/5% MSCI EAFE/70% BB Agg	3.55%	9.69%	-1.55%	8.93%	5.00%	0.92%	7.37%	8.56%	5.71%	5.01%	6.90%
30% S&P 500/10% MSCI EAFE/60% BB Agg	3.66%	10.74%	-2.44%	10.90%	5.43%	0.95%	7.21%	8.41%	6.69%	5.41%	7.65%
35% S&P 500/15% MSCI EAFE/50% BB Agg	3.77%	11.79%	-3.34%	12.90%	5.85%	0.97%	7.04%	8.23%	7.66%	5.80%	8.38%
40% S&P 500/20% MSCI EAFE/40% BB Agg	3.87%	12.82%	-4.25%	14.93%	6.26%	0.96%	6.87%	8.02%	8.63%	6.17%	9.10%
45% S&P 500/25% MSCI EAFE/30% BB Agg	3.96%	13.86%	-5.17%	16.99%	6.65%	0.93%	6.69%	7.78%	9.58%	6.53%	9.80%
60% S&P 500/40% Bloomberg Barclays Agg	3.86%	13.54%	-2.28%	14.25%	8.41%	1.40%	10.75%	9.74%	9.51%	7.81%	10.61%

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SECTION 3: PLAN INVESTMENT REVIEW

Period Ending 6.30.19 | Q2 19

University of Maine System

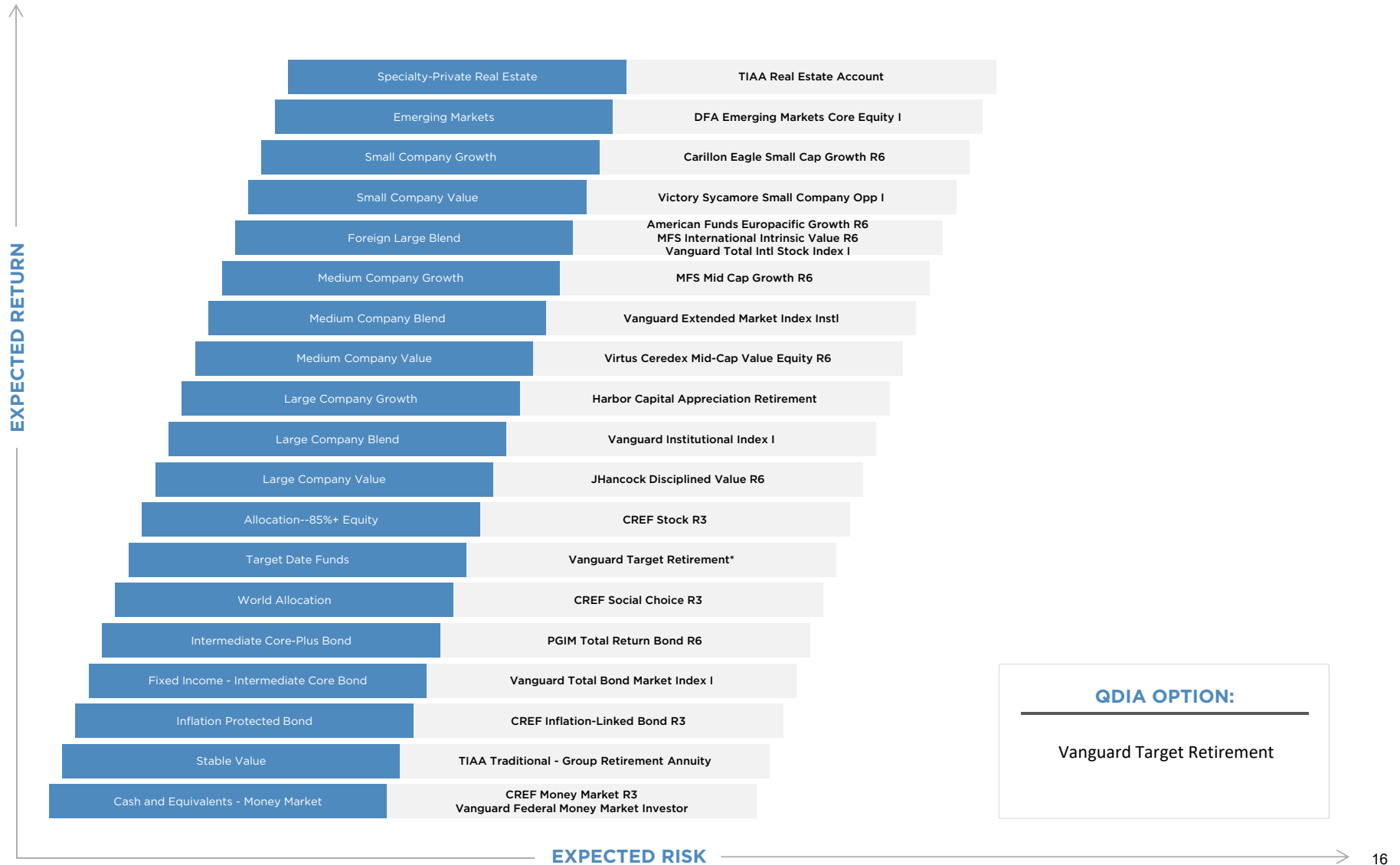
SECTION 3: PLAN INVESTMENT REVIEW	
Plan Investment Menu Review.....	
Plan Assets.....	
Investment Policy Monitor.....	
Investment Review Select Commentary.....	
Investment Performance Summary.....	
Plan Performance Measurement.....	

PLAN INVESTMENT REVIEW | PLAN MENU

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University of Maine System





PLAN INVESTMENT REVIEW | EXECUTIVE ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

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University of Maine System

Plan Name	Plan/Contract Number	Plan Assets
University of Maine System Retirement Plan for Faculty and Professionals 403(b) DC	102965	\$1,273,808,549
University of Maine System Retirement Tax Deferred Annuity Plan 403(b) TDA	102966	\$173,415,585
University of Maine System Optional Retirement Savings 403(b)	102967	\$1,531,091
University of Maine System Optional Retirement Savings 401(a)	102968	\$1,177,317
University of Maine System Basic Retirement Plan for Classified Employees 403(b)	102969	\$39,371,676
University of Maine System Basic Retirement Plan for Classified Employees 401(a)	102970	\$74,618,059
University of Maine System Deferred Compensation Plan 457(b)	102971	\$33,601,442
TOTALS		\$1,597,523,719

 <p>University of Maine System *</p> <p>Alternate Carrier Transfers In</p> <p>Date Range April 1, 2019 - June 30, 2019</p>		 <p><u>Disclosures</u></p> <p>The data provided is for informational purposes only. It is not intended as an offer or solicitation or any similar communication being made for the purchase or sale of any financial instrument / product or as an official confirmation or as an official statement on any transaction.</p>
Alternate Carrier	Amount	<p>Pursuant to your request for information, enclosed you will find data related to the Plan(s) and/or Investments specified. You have solicited this information for fiduciary due diligence and review purposes related to the referenced Plan. This report should not be used for regulatory filings or for benefit statements.</p> <p>Please be advised that neither TIAA, CREF, nor their affiliates, in their satisfaction of your information request, make any representations or warranties, express or implied, as to the accuracy, completeness, or fitness for any purpose or use of this or other data for the Plan(s) that you may request. Teachers Advisors Inc. or its affiliates will not be liable for any direct, indirect, or consequential loss arising from any use of or reliance on the information supplied.</p>
JACKSON	\$ 1,912.09	
LINCOLN FINANCIAL	\$ 20,900.40	
VALIC	\$ 132,237.66	
VOYA	\$ 255,207.20	
Total	\$ 410,257.35	
* 7 plans : 102965, 102966, 102967, 102968, 102969, 102970 & 102971		

These numbers include non-approved assets held at TIAA-CREF that are no longer available for additional investments.

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Retirement Plan for Faculty and Professionals 403(b) DC - 102965

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$33,741,188	2.87%	\$9,715,653	0.76%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$3,245,798	0.28%	\$2,603,363	0.20%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$433,231,435	36.79%	\$432,090,742	33.92%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$13,977,742	1.19%	\$14,349,639	1.13%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$5,319,901	0.45%	\$6,238,418	0.49%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$21,528,393	1.83%	\$25,899,088	2.03%
World Allocation	CREF Social Choice R3	\$31,116,545	2.64%	\$34,294,837	2.69%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$6,252,363	0.53%	\$7,614,099	0.60%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$4,581,987	0.39%	\$5,054,916	0.40%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$10,668,569	0.91%	\$11,818,185	0.93%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$11,636,300	0.99%	\$14,528,667	1.14%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$9,811,752	0.83%	\$12,614,113	0.99%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$10,491,797	0.89%	\$12,942,584	1.02%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$10,398,259	0.88%	\$12,893,327	1.01%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$8,840,912	0.75%	\$11,557,045	0.91%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$5,836,262	0.50%	\$8,076,731	0.63%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$2,071,139	0.18%	\$2,883,111	0.23%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$244,692	0.02%	\$420,474	0.03%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Retirement Plan for Faculty and Professionals 403(b) DC - 102965

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$0	0.00%	\$0	0.00%
Allocation--85%+ Equity	CREF Stock R3	\$175,595,931	14.91%	\$192,684,293	15.13%
Large Company Value	JHancock Disciplined Value R6	\$16,925,133	1.44%	\$17,791,877	1.40%
Large Company Blend	Vanguard Institutional Index I	\$35,014,254	2.97%	\$77,351,362	6.07%
Large Company Growth	Harbor Capital Appreciation Retirement	\$10,165,637	0.86%	\$15,293,282	1.20%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$9,207,455	0.78%	\$11,694,292	0.92%
Medium Company Blend	Vanguard Extended Market Index Instl	\$14,041,707	1.19%	\$15,684,247	1.23%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$5,113,494	0.43%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$8,056,497	0.63%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$3,898,666	0.31%
Foreign Large Blend	MFS International Intrinsic Value R6	\$19,243,386	1.63%	\$23,764,986	1.87%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$12,831,913	1.09%	\$15,954,428	1.25%
Foreign Large Growth	Oppenheimer International Growth I	\$3,309,664	0.28%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$7,696,760	0.65%	\$9,324,050	0.73%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$3,516,252	0.30%	\$3,614,723	0.28%
Emerging Markets	DFA Emerging Markets Core Equity I	\$12,978,914	1.10%	\$15,251,949	1.20%
Specialty-Private Real Estate	TIAA Real Estate Account	\$52,094,873	4.42%	\$53,812,693	4.22%
Other Assets	Non Approved Funds	\$126,995,957	10.78%	\$139,818,184	10.98%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Retirement Plan for Faculty and Professionals 403(b) DC - 102965

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$49,871,532	4.23%	\$44,201,317	3.47%
Loan	Default Loan	\$16,365	0.00%	\$16,712	0.00%
TOTALS		\$1,177,614,259	100%	\$1,273,808,549	100%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Retirement Tax Deferred Annuity Plan 403(b) TDA- 102966

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$2,776,789	1.77%	\$1,135,434	0.65%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$213,653	0.14%	\$48,149	0.03%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$56,098,968	35.75%	\$57,930,196	33.41%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$2,381,360	1.52%	\$2,538,232	1.46%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$1,339,285	0.85%	\$1,923,655	1.11%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$5,142,723	3.28%	\$6,559,630	3.78%
World Allocation	CREF Social Choice R3	\$5,187,134	3.31%	\$5,774,975	3.33%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$1,672,675	1.07%	\$1,694,502	0.98%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$841,090	0.54%	\$867,156	0.50%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$2,788,232	1.78%	\$3,068,121	1.77%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$3,610,502	2.30%	\$4,329,826	2.50%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$1,721,577	1.10%	\$2,352,245	1.36%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$1,117,230	0.71%	\$1,307,720	0.75%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$980,701	0.62%	\$1,171,179	0.68%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$304,310	0.19%	\$458,846	0.26%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$193,325	0.12%	\$259,278	0.15%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$72,237	0.05%	\$83,913	0.05%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$4,452	0.00%	\$6,033	0.00%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Retirement Tax Deferred Annuity Plan 403(b) TDA- 102966

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$0	0.00%	\$0	0.00%
Allocation--85%+ Equity	CREF Stock R3	\$16,035,834	10.22%	\$18,136,445	10.46%
Large Company Value	JHancock Disciplined Value R6	\$1,802,893	1.15%	\$1,809,369	1.04%
Large Company Blend	Vanguard Institutional Index I	\$9,011,773	5.74%	\$12,547,545	7.24%
Large Company Growth	Harbor Capital Appreciation Retirement	\$1,622,489	1.03%	\$2,164,237	1.25%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$1,000,005	0.64%	\$1,617,483	0.93%
Medium Company Blend	Vanguard Extended Market Index Instl	\$2,393,286	1.53%	\$2,782,116	1.60%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$339,964	0.22%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$726,845	0.42%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$583,336	0.34%
Foreign Large Blend	MFS International Intrinsic Value R6	\$2,816,190	1.79%	\$3,481,391	2.01%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$1,968,499	1.25%	\$2,536,272	1.46%
Foreign Large Growth	Oppenheimer International Growth I	\$373,437	0.24%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$1,550,403	0.99%	\$2,006,570	1.16%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$244,205	0.16%	\$221,212	0.13%
Emerging Markets	DFA Emerging Markets Core Equity I	\$1,566,956	1.00%	\$1,875,137	1.08%
Specialty-Private Real Estate	TIAA Real Estate Account	\$10,567,548	6.73%	\$10,932,273	6.30%
Other Assets	Non Approved Funds	\$16,811,525	10.71%	\$18,576,992	10.71%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

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University of Maine System Retirement Tax Deferred Annuity Plan 403(b) TDA- 102966

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$2,311,384	1.47%	\$1,843,654	1.06%
Loan	Default Loan	\$64,204	0.04%	\$65,621	0.04%
TOTALS		\$156,926,838	100%	\$173,415,586	100%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Optional Retirement Savings 403(b) - 102967

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$10,011	0.69%	\$9,139	0.60%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$0	0.00%	\$0	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$708,840	48.69%	\$769,808	50.28%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$16,036	1.10%	\$16,748	1.09%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$129	0.01%	\$215	0.01%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$10,372	0.71%	\$10,861	0.71%
World Allocation	CREF Social Choice R3	\$33,411	2.29%	\$37,287	2.44%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$270	0.02%	\$294	0.02%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$155	0.01%	\$170	0.01%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$50,294	3.45%	\$54,758	3.58%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$2,218	0.15%	\$6,471	0.42%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$0	0.00%	\$0	0.00%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$0	0.00%	\$3,030	0.20%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$0	0.00%	\$0	0.00%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$0	0.00%	\$0	0.00%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$0	0.00%	\$0	0.00%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$0	0.00%	\$0	0.00%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$0	0.00%	\$0	0.00%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Optional Retirement Savings 403(b) - 102967

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$0	0.00%	\$0	0.00%
Allocation--85%+ Equity	CREF Stock R3	\$202,585	13.92%	\$198,188	12.94%
Large Company Value	JHancock Disciplined Value R6	\$1,643	0.11%	\$1,326	0.09%
Large Company Blend	Vanguard Institutional Index I	\$12,154	0.83%	\$15,386	1.00%
Large Company Growth	Harbor Capital Appreciation Retirement	\$1,306	0.09%	\$1,682	0.11%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$653	0.04%	\$1,270	0.08%
Medium Company Blend	Vanguard Extended Market Index Instl	\$2,301	0.16%	\$2,319	0.15%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$45	0.00%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$388	0.03%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$564	0.04%
Foreign Large Blend	MFS International Intrinsic Value R6	\$3,092	0.21%	\$3,994	0.26%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$2,712	0.19%	\$3,335	0.22%
Foreign Large Growth	Oppenheimer International Growth I	\$481	0.03%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$1,625	0.11%	\$2,198	0.14%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$225	0.02%	\$272	0.02%
Emerging Markets	DFA Emerging Markets Core Equity I	\$1,342	0.09%	\$1,674	0.11%
Specialty-Private Real Estate	TIAA Real Estate Account	\$44,719	3.07%	\$42,122	2.75%
Other Assets	Non Approved Funds	\$349,219	23.99%	\$347,592	22.70%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

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University of Maine System Optional Retirement Savings 403(b) - 102967

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$0	0.00%	\$0	0.00%
TOTALS		\$1,455,840	100%	\$1,531,091	100%

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3.1

University of Maine System Optional Retirement Savings 401(a) - 102968

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$8,004	0.72%	\$6,915	0.59%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$0	0.00%	\$0	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$343,012	31.06%	\$341,956	29.05%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$17,093	1.55%	\$16,824	1.43%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$12,738	1.15%	\$13,447	1.14%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$24,413	2.21%	\$26,029	2.21%
World Allocation	CREF Social Choice R3	\$23,450	2.12%	\$25,907	2.20%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$623	0.06%	\$626	0.05%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$0	0.00%	\$0	0.00%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$40,812	3.70%	\$44,434	3.77%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$1,361	0.12%	\$2,546	0.22%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$0	0.00%	\$0	0.00%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$0	0.00%	\$757	0.06%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$0	0.00%	\$0	0.00%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$0	0.00%	\$0	0.00%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$0	0.00%	\$0	0.00%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$0	0.00%	\$0	0.00%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$0	0.00%	\$0	0.00%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Optional Retirement Savings 401(a) - 102968

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$0	0.00%	\$0	0.00%
Allocation--85%+ Equity	CREF Stock R3	\$119,792	10.85%	\$131,427	11.16%
Large Company Value	JHancock Disciplined Value R6	\$7,768	0.70%	\$8,514	0.72%
Large Company Blend	Vanguard Institutional Index I	\$6,720	0.61%	\$9,132	0.78%
Large Company Growth	Harbor Capital Appreciation Retirement	\$1,077	0.10%	\$1,404	0.12%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$551	0.05%	\$798	0.07%
Medium Company Blend	Vanguard Extended Market Index Instl	\$550	0.05%	\$545	0.05%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$18,314	1.66%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$20,922	1.78%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$233	0.02%
Foreign Large Blend	MFS International Intrinsic Value R6	\$16,797	1.52%	\$17,188	1.46%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$640	0.06%	\$802	0.07%
Foreign Large Growth	Oppenheimer International Growth I	\$200	0.02%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$366	0.03%	\$520	0.04%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$408	0.04%	\$492	0.04%
Emerging Markets	DFA Emerging Markets Core Equity I	\$15,693	1.42%	\$15,181	1.29%
Specialty-Private Real Estate	TIAA Real Estate Account	\$56,699	5.13%	\$61,281	5.21%
Other Assets	Non Approved Funds	\$249,934	22.63%	\$273,359	23.22%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

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University of Maine System Optional Retirement Savings 401(a) - 102968

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$137,233	12.43%	\$156,077	13.26%
TOTALS		\$1,104,249	100%	\$1,177,317	100%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

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3.1

University of Maine System Basic Retirement Plan for Classified Employees 403(b) - 102969

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$1,371,931	3.91%	\$525,928	1.34%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$19,321	0.06%	\$19,049	0.05%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$6,550,622	18.65%	\$6,728,910	17.09%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$518,912	1.48%	\$546,643	1.39%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$115,399	0.33%	\$133,491	0.34%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$851,848	2.43%	\$992,425	2.52%
World Allocation	CREF Social Choice R3	\$910,818	2.59%	\$1,017,265	2.58%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$400,402	1.14%	\$354,321	0.90%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$370,253	1.05%	\$398,699	1.01%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$1,428,448	4.07%	\$1,645,711	4.18%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$1,435,893	4.09%	\$1,681,180	4.27%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$695,804	1.98%	\$903,959	2.30%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$461,102	1.31%	\$672,486	1.71%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$527,090	1.50%	\$639,559	1.62%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$378,277	1.08%	\$479,698	1.22%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$159,959	0.46%	\$210,173	0.53%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$187,988	0.54%	\$257,157	0.65%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$49,443	0.14%	\$79,366	0.20%

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

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3.1

University of Maine System Basic Retirement Plan for Classified Employees 403(b) - 102969

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$1,769	0.01%	\$3,445	0.01%
Allocation--85%+ Equity	CREF Stock R3	\$3,053,369	8.69%	\$3,344,182	8.49%
Large Company Value	JHancock Disciplined Value R6	\$703,713	2.00%	\$740,381	1.88%
Large Company Blend	Vanguard Institutional Index I	\$989,242	2.82%	\$1,322,687	3.36%
Large Company Growth	Harbor Capital Appreciation Retirement	\$447,951	1.28%	\$1,912,475	4.86%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$314,378	0.90%	\$413,110	1.05%
Medium Company Blend	Vanguard Extended Market Index Instl	\$436,113	1.24%	\$481,439	1.22%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$246,048	0.70%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$348,455	0.89%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$88,559	0.22%
Foreign Large Blend	MFS International Intrinsic Value R6	\$846,757	2.41%	\$1,039,250	2.64%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$470,116	1.34%	\$638,800	1.62%
Foreign Large Growth	Oppenheimer International Growth I	\$72,983	0.21%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$213,626	0.61%	\$277,183	0.70%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$162,294	0.46%	\$199,328	0.51%
Emerging Markets	DFA Emerging Markets Core Equity I	\$597,850	1.70%	\$693,180	1.76%
Specialty-Private Real Estate	TIAA Real Estate Account	\$2,054,078	5.85%	\$2,120,454	5.39%
Other Assets	Non Approved Funds	\$5,424,116	15.44%	\$6,004,838	15.25%

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University of Maine System Basic Retirement Plan for Classified Employees 403(b) - 102969

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$2,656,996	7.56%	\$2,457,890	6.24%
TOTALS		\$35,124,910	100%	\$39,371,676	100%

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3.1

University of Maine System Basic Retirement Plan for Classified Employees 401(a) - 102970

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$2,164,846	3.23%	\$1,045,395	1.40%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$103,838	0.15%	\$36,078	0.05%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$14,737,647	22.00%	\$14,935,203	20.02%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$1,059,929	1.58%	\$1,096,043	1.47%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$246,046	0.37%	\$298,232	0.40%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$1,497,133	2.23%	\$1,709,038	2.29%
World Allocation	CREF Social Choice R3	\$2,555,632	3.81%	\$2,784,222	3.73%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$782,154	1.17%	\$787,225	1.06%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$795,796	1.19%	\$883,970	1.18%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$1,971,028	2.94%	\$2,214,635	2.97%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$2,201,354	3.29%	\$2,627,170	3.52%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$1,137,658	1.70%	\$1,533,268	2.05%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$929,292	1.39%	\$1,196,217	1.60%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$809,531	1.21%	\$997,289	1.34%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$613,813	0.92%	\$784,654	1.05%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$290,146	0.43%	\$376,166	0.50%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$173,984	0.26%	\$244,127	0.33%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$45,984	0.07%	\$67,281	0.09%

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3.1

University of Maine System Basic Retirement Plan for Classified Employees 401(a) - 102970

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$1,769	0.00%	\$3,445	0.00%
Allocation--85%+ Equity	CREF Stock R3	\$7,778,316	11.61%	\$8,653,586	11.60%
Large Company Value	JHancock Disciplined Value R6	\$1,025,700	1.53%	\$1,101,322	1.48%
Large Company Blend	Vanguard Institutional Index I	\$1,719,143	2.57%	\$3,827,349	5.13%
Large Company Growth	Harbor Capital Appreciation Retirement	\$1,027,266	1.53%	\$1,462,943	1.96%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$439,521	0.66%	\$610,988	0.82%
Medium Company Blend	Vanguard Extended Market Index Instl	\$736,299	1.10%	\$806,224	1.08%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$412,042	0.61%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$602,717	0.81%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$124,446	0.17%
Foreign Large Blend	MFS International Intrinsic Value R6	\$1,517,269	2.26%	\$1,856,647	2.49%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$728,621	1.09%	\$1,022,362	1.37%
Foreign Large Growth	Oppenheimer International Growth I	\$104,291	0.16%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$340,374	0.51%	\$455,744	0.61%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$198,893	0.30%	\$242,193	0.32%
Emerging Markets	DFA Emerging Markets Core Equity I	\$924,399	1.38%	\$1,092,536	1.46%
Specialty-Private Real Estate	TIAA Real Estate Account	\$3,628,969	5.42%	\$3,755,327	5.03%
Other Assets	Non Approved Funds	\$12,177,225	18.18%	\$13,385,076	17.94%

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3.1

University of Maine System Basic Retirement Plan for Classified Employees 401(a) - 102970

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$2,123,109	3.17%	\$1,998,940	2.68%
TOTALS		\$66,999,016	100%	\$74,618,059	100%

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3.1

University of Maine System Deferred Compensation Plan 457(b) - 102971

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$1,205,273	4.00%	\$415,018	1.24%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$76,407	0.25%	\$78,866	0.23%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$7,899,472	26.22%	\$8,257,207	24.57%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$557,696	1.85%	\$588,607	1.75%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$155,447	0.52%	\$556,100	1.65%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$1,102,632	3.66%	\$1,336,470	3.98%
World Allocation	CREF Social Choice R3	\$1,359,775	4.51%	\$1,568,915	4.67%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$449,876	1.49%	\$502,794	1.50%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$506,383	1.68%	\$579,317	1.72%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$878,160	2.91%	\$1,023,153	3.04%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$971,820	3.23%	\$869,685	2.59%
Target Date 2030 Moderate	Vanguard Target Retirement 2030 Inv	\$548,525	1.82%	\$664,211	1.98%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$367,559	1.22%	\$482,640	1.44%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$314,980	1.05%	\$387,430	1.15%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$157,570	0.52%	\$204,404	0.61%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$37,154	0.12%	\$45,034	0.13%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$288	0.00%	\$1,572	0.00%
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$0	0.00%	\$735	0.00%

CONTINUED...

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Deferred Compensation Plan 457(b) - 102971

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2065 Inv	\$0	0.00%	\$0	0.00%
Allocation--85%+ Equity	CREF Stock R3	\$1,778,279	5.90%	\$2,060,142	6.13%
Large Company Value	JHancock Disciplined Value R6	\$606,838	2.01%	\$659,665	1.96%
Large Company Blend	Vanguard Institutional Index I	\$1,500,515	4.98%	\$2,410,644	7.17%
Large Company Growth	Harbor Capital Appreciation Retirement	\$403,685	1.34%	\$725,162	2.16%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$282,698	0.94%	\$361,691	1.08%
Medium Company Blend	Vanguard Extended Market Index Instl	\$671,538	2.23%	\$784,825	2.34%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	\$149,980	0.50%	-	-
Medium Company Growth	MFS Mid Cap Growth R6	-	-	\$259,065	0.77%
Foreign Large Blend	American Funds Europacific Growth R6	-	-	\$110,652	0.33%
Foreign Large Blend	MFS International Intrinsic Value R6	\$604,312	2.01%	\$754,378	2.25%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$446,512	1.48%	\$603,233	1.80%
Foreign Large Growth	Oppenheimer International Growth I	\$98,030	0.33%	-	-
Small Company Value	Victory Sycamore Small Company Opp I	\$246,682	0.82%	\$325,325	0.97%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$124,423	0.41%	\$150,481	0.45%
Emerging Markets	DFA Emerging Markets Core Equity I	\$500,334	1.66%	\$608,077	1.81%
Specialty-Private Real Estate	TIAA Real Estate Account	\$2,076,757	6.89%	\$2,051,412	6.11%
Other Assets	Non Approved Funds	\$3,116,681	10.34%	\$3,375,303	10.05%

CONTINUED...

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PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System Deferred Compensation Plan 457(b) - 102971

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2018	(%)	CURRENT	(%)
Self-Directed Brokerage	Self Directed Accounts	\$932,610	3.10%	\$799,229	2.38%
TOTALS		\$30,128,891	100%	\$33,601,442	100%

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INVESTMENT REVIEW | INVESTMENT POLICY MONITOR

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

INVESTMENT	QUANTITATIVE								QUALITATIVE		TOTALS	
	Risk-Adjusted Performance		vs. Peers Performance		Style		Confidence		Fund Management	Fund Firm	Overall	Total Score
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr				
Inflation Protected Bond CREF Inflation-Linked Bond R3	●	●	●	●	●	●	●	●	●	●	●	93
Intermediate Core-Plus Bond PGIM Total Return Bond R6	●	●	●	●	●	●	●	●	●	●	●	100
World Allocation CREF Social Choice R3	●	●	●	●	●	●	●	●	●	●	●	100
Large Company Value JHancock Disciplined Value R6	●	▼	●	●	●	●	●	●	●	●	●	88
Large Company Growth Harbor Capital Appreciation Retirement	●	●	●	●	●	●	●	●	●	●	●	97
Medium Company Value Virtus Ceredex Mid-Cap Value Equity R6	●	●	●	●	●	●	●	●	●	●	●	100
Medium Company Growth MFS Mid Cap Growth R6	●	●	●	●	●	●	●	●	●	●	●	100
Foreign Large Blend American Funds Europacific Growth R6	●	●	●	●	●	●	●	●	●	●	●	100

LEGEND

●	IN GOOD STANDING	▼	MARKED FOR REVIEW	●	CONSIDER FOR TERMINATION
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The CAPTRUST Investment Policy Monitor ("Scorecard") is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields for actively managed investment options. Quantitative scoring areas include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Relevant Peer Group; Style Attribution; and Confidence. Qualitative Scoring Areas measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items. Qualitative areas of analysis are subjective in nature. CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. This material is for institutional investor use only and is not intended to be shared with individual investors.

INVESTMENT REVIEW | INVESTMENT POLICY MONITOR

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

INVESTMENT	QUANTITATIVE								QUALITATIVE		TOTALS	
	Risk-Adjusted Performance		vs. Peers Performance		Style		Confidence		Fund Management	Fund Firm	Overall	Total Score
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr				
Foreign Large Blend MFS International Intrinsic Value R6	●	●	●	●	▼	▼	●	●	●	●	●	97
Small Company Value Victory Sycamore Small Company Opp I	●	●	●	●	●	●	●	●	●	●	●	100
Small Company Growth Carillon Eagle Small Cap Growth R6	▼	▼	▼	▼	●	●	▼	▼	●	●	▼	78
Emerging Markets DFA Emerging Markets Core Equity I	●	●	▼	●	●	●	▼	▼	●	●	●	86

LEGEND

●	IN GOOD STANDING	▼	MARKED FOR REVIEW	●	CONSIDER FOR TERMINATION
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INVESTMENT REVIEW | INVESTMENT POLICY MONITOR

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

TARGET DATE INVESTMENTS

INVESTMENT	QUANTITATIVE						QUALITATIVE				TOTALS	
	Risk-Adjusted Performance		vs. Peers Performance		Glidepath		Portfolio Construct.	Underlying Inv. Vehicles	Fund Mgmt	Fund Firm	Overall	Total Score
	3 Yr	5 Yr	3 Yr	5 Yr	% of Equities	Beta to Equities						
Vanguard Target Retirement	●	●	●	●	●	●	●	●	●	●	●	95

CAPITAL PRESERVATION INVESTMENTS

INVESTMENT	Overall	Commentary
CREF Money Market R3	●	This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
Vanguard Federal Money Market Investor	●	This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
TIAA Traditional - Group Retirement Annuity	●	This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.

CONTINUED...

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Relevant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items. Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy. CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as quality and experience of the Management Team and stewardship of the investment option's parent company. Passively Managed options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics and may include quantitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative criteria such as index replication strategy, securities lending practices, and fair value pricing methodology. Distinct investment options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics. This material is for institutional investor use only and is not intended to be shared with individual investors.





INVESTMENT REVIEW | INVESTMENT POLICY MONITOR

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

PASSIVE INVESTMENTS

INVESTMENT	Overall	Commentary
Vanguard Total Bond Market Index I		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Institutional Index I		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Extended Market Index Instl		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Total Intl Stock Index I		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.

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INVESTMENT REVIEW | INVESTMENT POLICY MONITOR

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

INVESTMENTS IN DISTINCT ASSET CLASSES

INVESTMENT	Overall	Commentary
CREF Stock R3		This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.
TIAA Real Estate Account		This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.

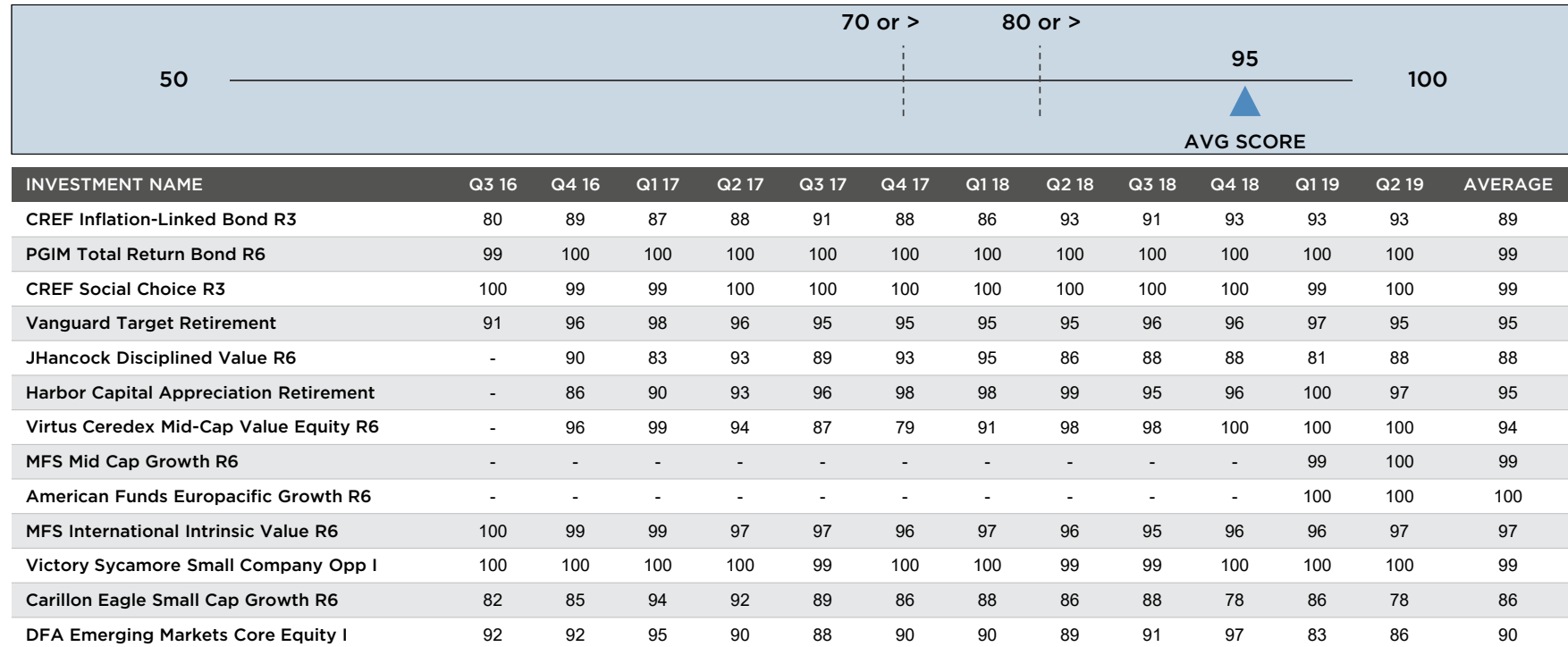
The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Relevant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items. Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy. CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as quality and experience of the Management Team and stewardship of the investment option's parent company. Passively Managed options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics and may include quantitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative criteria such as index replication strategy, securities lending practices, and fair value pricing methodology. Distinct investment options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics. This material is for institutional investor use only and is not intended to be shared with individual investors.

PLAN INVESTMENT REVIEW | PLAN PERFORMANCE MEASUREMENT

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

Plan Performance Success Rate: Average score of plan investments illustrated below**SUMMARY:** Over the previous quarters the plan investment options have averaged a score of 95.

Scores are calculated quarterly using the CAPTRUST Investment Policy Monitoring System ("Scorecard"). In the 4Q2013, our methodology changed utilizing different quantitative statistics than the prior system resulting in a re-categorization of some specific funds as either "passive" (funds designed to track a given benchmark) or "distinct" funds with a limited number of comparable funds, or funds with distinct strategies that do not have an appropriate benchmark. These funds (passive and/or distinct) will no longer be included in the Plan Performance Measurement Report but will continue to be included on the Investment Policy Monitor and be scored by CAPTRUST for their ability to achieve stated goals.

INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

FUND MANAGEMENT ITEMS	COMMENTARY
Harbor Capital App	Blair Boyer and Natasha Kuhlkin have been added as portfolio managers to the Harbor Capital Appreciation Fund alongside Sig Segalas and Kathleen McCarragher. Mr. Boyer and Ms. Kuhlkin have been members of Jennison's large cap growth team since 2003 and 2004, respectively. Additionally, Mr. Boyer was named co-head of Large Cap Growth Equity, alongside Ms. McCarragher.
MFS International Intrinsic Value	The MFS International Value Fund has been renamed the MFS International Intrinsic Value Fund. This is a name-only change in an effort to better describe the distinctive value approach that the fund has taken historically.
FUND FIRM ITEMS	COMMENTARY
Victory Capital Management	Victory Capital Management has acquired USAA Asset Management. USAA will continue to operate under the USAA brand. No changes to USAA's or Victory's investment teams are expected at this time.
Capital Group	<p>Effective July 1, 2019, Capital Group leveled their administrative service fee across all funds to three basis points. As a result, fund shareholders in class R, F, C, and 529 shares, as well as all CIT investors will experience a two-basis point fee reduction. Conversely, investors in class A shares will experience a two-basis point fee increase.</p> <p>Individual strategy CITs for American Funds are now available with the introduction of the CITs for the American Funds Target Date Series.</p>
Vanguard Group, Inc.	Vanguard CEO Tim Buckley has been elected chairman of Vanguard's Board of Directors. He replaces Bill McNabb, who he previously succeeded as CEO at the beginning of 2018.

INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 6.30.19 | Q2 19

University of Maine System

3.1

FUND FIRM ITEMS	COMMENTARY
Dimensional Fund Advisors	<p>Steve Clark has recently rejoined DFA's investment committee after stepping aside in October 2015 to take on additional responsibilities at the firm.</p> <p>Ryan Wiley is now the sole head of global equity trading. John Romiza, previously co-head of global equity trading alongside Ryan, has stepped down from that role to focus on his responsibilities as co-CEO of DFA Ltd.</p> <p>Lastly, Jed Fogdall recently became the sole head of Global Portfolio Management and chair of the investment committee at DFA. Joseph Chi stepped down from his roles as co-head of Global Portfolio Management and chair of the investment committee, but will stay with the firm as an ex-officio member of the investment committee. Mary Phillips, Allen Pu, and Joel Schneider became deputy heads of Portfolio Management, North America.</p> <p>Sam Gilliland, senior advisor and chief operating officer, left the firm to become CEO for a private firm outside of the financial services industry.</p>
MFS Family of Funds	<p>Nola Kopfer recently joined MFS as director of Global Trading.</p>

RECOMMENDED MANAGER UPDATES

Period Ending 6.30.19 | Q2 19

3.1

CARILLON EAGLE SMALL CAP GROWTH

Topic	The strategy's year to date results were slightly ahead of the benchmark but in the third quartile of the peer group.
Attribution	Year to date, the strategy posted positive stock selection in industrials, consumer staples, and consumer discretionary. This was offset by negative selection in financials, technology, and healthcare.
Our View	<p>We continue to recommend this strategy. This is a very experienced investment team that has successfully managed a mid cap growth strategy (also on our recommended list) with the same approach. They have recently faced challenges in small cap growth partially due to the different composition of the benchmarks, with a higher weight to biotech in the small growth index vs. mid growth.</p> <p>When looking at recent performance, it is important to understand the dynamics of the small cap growth asset class. Some of the peer group has likely benefitted from large sector bets and more exposure to higher growth stocks such as biotech. Over a full market cycle, we believe that the more conservative approach used by the team at Eagle should pay off although it has been a headwind recently.</p> <p>Clients should keep in mind the unusual dynamics within small cap growth currently. For example, over the past five years the strategy is slightly ahead of the benchmark but in the third quartile of the peer group. The strategy lagged the benchmark by less than 100 basis points in 2018, but landed in the fourth quartile of the peer group. 2018 was only the second year in the last decade that the strategy landed in the bottom quartile of the peer group, with 2013 being the other year.</p>

This is not a solicitation to invest, but rather a manager update being delivered to CAPTRUST clients whose assets are invested with the manager who is the subject of this report. The opinions expressed are subject to change without notice. Statistics have been obtained from sources deemed reliable but are not guaranteed to be accurate or complete. Any performance illustrated is past performance and is not indicative of future results.

PLAN INVESTMENT REVIEW | TARGET DATE REVIEW

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

VANGUARD TARGET RETIREMENT

MEETING DATE: JULY 22, 2019

FOCUS AREA

Organizational

COMMENTARY

There were no material changes to the target date team during the quarter.

Investments

COMMENTARY

There were no changes made to the underlying investments of the Target Retirement series during the quarter.

Performance and Positioning

COMMENTARY

Vanguard Target Retirement Performance Update

Vanguard Target Retirement performed in line with its benchmark and mostly outperformed peers in the second quarter.

- The series rebounded from a disappointing peer-relative performance in the first quarter as large-cap market benchmarks mostly outperformed active managers
- This aided performance given Vanguard Target Retirement's use of passive strategies and the fact that it holds a larger portion of its equity portfolio in large-cap stocks
- In addition, large-cap stocks outperformed the rest of the market, with the exception of mid-cap growth names, in the second quarter, which further helped Vanguard's peer-relative results
- Somewhat mitigating the series's outperformance was its larger exposure to international and emerging markets equities as the U.S. continues to lead the way
- The series's exposure to China in particular weighed on performance as the Chinese stock market was negative in Q2

There were no changes made to the series's strategic asset allocation during the quarter.

PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

INVESTMENT NAME	Q2 '19	YTD '19	2018	2017	2016	2015	2014	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
CASH AND EQUIVALENTS - MONEY MARKET											
CREF Money Market R3	0.55%	1.10%	1.46%	0.50%	0.13%	0.00%	0.00%	2.06%	1.04%	0.63%	0.32%
Vanguard Federal Money Market Investor	0.58%	1.16%	1.78%	0.81%	0.30%	0.04%	0.01%	2.20%	1.30%	0.82%	0.42%
ICE BofA ML US Treasury Bill 3 Mon USD	0.64%	1.24%	1.87%	0.86%	0.33%	0.05%	0.03%	2.31%	1.38%	0.87%	0.49%
STABLE VALUE											
TIAA Traditional - Group Retirement Annuity	Current rate is 3.25%										
ICE BofA ML US Treasury Bill 3 Mon USD	0.64%	1.24%	1.87%	0.86%	0.33%	0.05%	0.03%	2.31%	1.38%	0.87%	0.49%
Hueler Stable Value Index (gross)	0.60%	1.24%	2.26%	1.95%	1.79%	1.77%	1.69%	2.43%	2.12%	1.98%	2.21%
INFLATION PROTECTED BOND											
CREF Inflation-Linked Bond R3	2.36%	4.98%	-0.49%	1.85%	4.23%	-1.68%	3.34%	4.40%	1.72%	1.28%	3.19%
BBgBarc US Treasury US TIPS TR USD	2.86%	6.15%	-1.26%	3.01%	4.68%	-1.44%	3.64%	4.84%	2.08%	1.76%	3.64%
Inflation Protected Bond Universe	2.34%	5.47%	-1.65%	2.51%	4.51%	-2.22%	1.96%	3.80%	1.88%	1.07%	2.97%
FIXED INCOME - INTERMEDIATE CORE BOND											
Vanguard Total Bond Market Index I	3.08%	6.12%	-0.01%	3.57%	2.61%	0.41%	5.90%	7.87%	2.23%	2.90%	3.84%
BBgBarc Aggregate Bond Index	3.08%	6.11%	0.01%	3.54%	2.65%	0.55%	5.97%	7.87%	2.31%	2.95%	3.90%
Intermediate Core Bond Universe	2.84%	5.82%	-0.39%	3.19%	2.55%	-0.01%	4.95%	7.18%	2.07%	2.51%	3.89%
INTERMEDIATE CORE-PLUS BOND											
PGIM Total Return Bond R6	3.68%	7.85%	-0.63%	6.71%	4.83%	0.09%	7.25%	9.22%	4.00%	4.12%	6.29%
BBgBarc Aggregate Bond Index	3.08%	6.11%	0.01%	3.54%	2.65%	0.55%	5.97%	7.87%	2.31%	2.95%	3.90%
Intermediate Core Plus Bond Universe	2.99%	6.47%	-0.70%	4.26%	3.88%	-0.50%	5.50%	7.38%	2.94%	2.84%	4.87%

*ANNUALIZED

CONTINUED...

This summary is intended for "Institutional (Plan Sponsor) Use Only" and only includes historical performance of the funds currently in the plan's fund lineup as compared to the peer group (universe) maintained/developed by CAPTRUST (using Morningstar open-end mutual fund data), which may include other investment types such as collective investment trusts. Fund and peer group returns are shown net of investment management fees, unless otherwise indicated, but gross of CAPTRUST advisory fees. The plan's overall performance will be reduced by CAPTRUST's advisory fees and other plan level fees not contemplated in this summary. Therefore, each participant's account performance will differ substantially. Past performance is not indicative of future results. Information from sources believed to be reliable, but not warranted by CAPTRUST to be accurate or complete.

PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

INVESTMENT NAME	Q2 '19	YTD '19	2018	2017	2016	2015	2014	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
WORLD ALLOCATION											
CREF Social Choice R3	3.71%	12.76%	-4.29%	14.27%	7.40%	-0.87%	6.83%	7.84%	8.54%	5.83%	9.19%
60% MSCI World 40% BBgBarc Agg Index	3.94%	14.63%	-6.33%	17.99%	6.67%	-0.09%	5.63%	7.15%	9.77%	6.15%	9.10%
World Allocation Universe	2.44%	10.91%	-7.98%	14.14%	6.04%	-4.31%	1.85%	3.43%	6.22%	2.81%	7.22%
TARGET DATE RET INCOME MODERATE											
Vanguard Target Retirement Income Inv	2.97%	8.63%	-1.99%	8.47%	5.25%	-0.17%	5.54%	6.54%	5.24%	4.18%	6.36%
Morningstar Lifetime Moderate Income Index	2.59%	8.78%	-2.20%	8.55%	5.98%	-1.30%	4.09%	5.96%	5.28%	3.68%	6.29%
Retirement Income Moderate	2.84%	8.96%	-3.55%	9.24%	4.86%	-1.30%	4.47%	5.84%	5.03%	3.60%	5.91%
TARGET DATE 2015 MODERATE											
Vanguard Target Retirement 2015 Inv	3.05%	9.74%	-2.97%	11.50%	6.16%	-0.46%	6.56%	6.48%	6.66%	4.89%	8.33%
Morningstar Lifetime Moderate 2015 Index	3.14%	10.81%	-3.54%	11.39%	7.10%	-1.73%	5.55%	6.92%	6.53%	4.52%	8.10%
2015 Moderate	2.82%	10.01%	-4.18%	11.21%	6.15%	-1.38%	4.75%	5.84%	6.23%	4.13%	7.71%
TARGET DATE 2020 MODERATE											
Vanguard Target Retirement 2020 Inv	3.24%	11.32%	-4.24%	14.08%	6.95%	-0.68%	7.11%	6.53%	7.82%	5.55%	9.15%
Morningstar Lifetime Moderate 2020 Index	3.30%	11.71%	-4.16%	12.79%	7.66%	-1.88%	5.87%	7.13%	7.21%	4.89%	8.85%
2020 Moderate	3.01%	10.89%	-4.93%	13.25%	6.10%	-1.33%	5.13%	5.83%	7.08%	4.60%	8.51%
TARGET DATE 2025 MODERATE											
Vanguard Target Retirement 2025 Inv	3.35%	12.46%	-5.15%	15.94%	7.48%	-0.85%	7.17%	6.61%	8.69%	5.94%	9.79%
Morningstar Lifetime Moderate 2025 Index	3.41%	12.68%	-4.90%	14.54%	8.39%	-2.06%	6.04%	7.16%	8.11%	5.32%	9.67%
2025 Moderate	3.18%	11.96%	-5.54%	15.15%	6.78%	-1.38%	5.27%	5.90%	8.00%	5.08%	9.32%

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PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY

Period Ending 6.30.19 | Q2 19

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University of Maine System

INVESTMENT NAME	Q2 '19	YTD '19	2018	2017	2016	2015	2014	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2030 MODERATE											
Vanguard Target Retirement 2030 Inv	3.41%	13.27%	-5.86%	17.52%	7.85%	-1.03%	7.17%	6.42%	9.39%	6.22%	10.35%
Morningstar Lifetime Moderate 2030 Index	3.46%	13.73%	-5.82%	16.59%	9.26%	-2.30%	6.01%	6.95%	9.17%	5.76%	10.40%
2030 Moderate	3.26%	13.28%	-6.43%	17.27%	7.27%	-1.36%	5.47%	5.83%	9.06%	5.68%	10.03%
TARGET DATE 2035 MODERATE											
Vanguard Target Retirement 2035 Inv	3.47%	14.03%	-6.58%	19.12%	8.26%	-1.26%	7.24%	6.27%	10.11%	6.49%	10.88%
Morningstar Lifetime Moderate 2035 Index	3.43%	14.69%	-6.82%	18.52%	10.07%	-2.58%	5.80%	6.52%	10.11%	6.10%	10.88%
2035 Moderate	3.34%	14.24%	-7.33%	19.10%	7.72%	-1.45%	5.58%	5.55%	9.73%	5.98%	10.45%
TARGET DATE 2040 MODERATE											
Vanguard Target Retirement 2040 Inv	3.46%	14.79%	-7.32%	20.71%	8.73%	-1.59%	7.15%	6.00%	10.79%	6.72%	11.17%
Morningstar Lifetime Moderate 2040 Index	3.38%	15.35%	-7.65%	19.87%	10.61%	-2.83%	5.51%	6.07%	10.69%	6.26%	11.08%
2040 Moderate	3.39%	15.02%	-7.90%	20.10%	7.53%	-1.39%	5.73%	5.50%	10.24%	6.25%	10.71%
TARGET DATE 2045 MODERATE											
Vanguard Target Retirement 2045 Inv	3.51%	15.39%	-7.90%	21.42%	8.87%	-1.57%	7.16%	5.90%	11.05%	6.86%	11.24%
Morningstar Lifetime Moderate 2045 Index	3.33%	15.64%	-8.17%	20.53%	10.84%	-3.03%	5.25%	5.75%	10.90%	6.26%	11.08%
2045 Moderate	3.39%	15.38%	-8.42%	20.57%	7.89%	-1.89%	5.27%	5.20%	10.41%	6.15%	10.68%
TARGET DATE 2050 MODERATE											
Vanguard Target Retirement 2050 Inv	3.47%	15.38%	-7.90%	21.39%	8.85%	-1.58%	7.18%	5.86%	11.03%	6.85%	11.23%
Morningstar Lifetime Moderate 2050 Index	3.29%	15.69%	-8.41%	20.78%	10.89%	-3.19%	5.00%	5.58%	10.91%	6.18%	11.00%
2050 Moderate	3.45%	15.53%	-8.33%	20.76%	7.77%	-1.60%	5.55%	5.44%	10.55%	6.31%	10.82%

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University of Maine System

INVESTMENT NAME	Q2 '19	YTD '19	2018	2017	2016	2015	2014	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2055 MODERATE											
Vanguard Target Retirement 2055 Inv	3.48%	15.38%	-7.89%	21.38%	8.88%	-1.72%	7.19%	5.88%	11.04%	6.82%	-
Morningstar Lifetime Moderate 2055 Index	3.27%	15.67%	-8.57%	20.95%	10.90%	-3.34%	4.74%	5.46%	10.89%	6.08%	10.90%
2055 Moderate	3.35%	15.29%	-8.95%	20.73%	8.35%	-1.65%	5.97%	4.85%	10.37%	6.24%	10.57%
TARGET DATE 2060+ MODERATE											
Vanguard Target Retirement 2060 Inv	3.48%	15.36%	-7.87%	21.36%	8.84%	-1.68%	7.16%	5.86%	11.03%	6.81%	-
Vanguard Target Retirement 2065 Inv	3.52%	15.40%	-7.95%	-	-	-	-	5.84%	-	-	-
Morningstar Lifetime Moderate 2060 Index	3.24%	15.61%	-8.69%	21.06%	10.88%	-3.48%	4.53%	5.35%	10.84%	5.99%	-
2060+ Moderate	3.41%	15.77%	-8.56%	20.72%	8.79%	-1.07%	6.35%	5.10%	10.69%	6.66%	-
ALLOCATION--85%+ EQUITY											
CREF Stock R3	3.58%	17.27%	-9.65%	23.45%	9.17%	-0.84%	6.41%	4.97%	12.01%	7.31%	11.87%
85% S&P 500, 15% BBgBarc Agg	4.24%	17.83%	-4.15%	20.67%	11.32%	1.33%	13.12%	10.28%	13.44%	10.22%	13.75%
Allocation--85%+ Equity Universe	3.23%	15.77%	-9.73%	19.37%	8.62%	-2.35%	5.39%	3.73%	10.15%	5.76%	10.74%
LARGE COMPANY VALUE											
JHancock Disciplined Value R6	2.96%	12.54%	-9.47%	19.33%	14.07%	-4.81%	11.04%	4.17%	11.09%	6.89%	12.70%
Russell 1000 Value	3.84%	16.24%	-8.27%	13.66%	17.34%	-3.83%	13.45%	8.46%	10.19%	7.46%	13.19%
Large Value Universe	3.19%	14.85%	-8.87%	15.82%	14.53%	-4.00%	10.59%	5.91%	10.08%	6.72%	12.09%
LARGE COMPANY BLEND											
Vanguard Institutional Index I	4.30%	18.54%	-4.42%	21.79%	11.93%	1.37%	13.65%	10.39%	14.15%	10.68%	14.68%
S&P 500 Index	4.30%	18.54%	-4.38%	21.83%	11.96%	1.38%	13.69%	10.42%	14.19%	10.71%	14.70%
Large Blend Universe	3.87%	17.21%	-6.56%	20.41%	10.42%	-0.67%	11.28%	7.88%	12.47%	8.68%	13.20%

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PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY

Period Ending 6.30.19 | Q2 19

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University of Maine System

INVESTMENT NAME	Q2 '19	YTD '19	2018	2017	2016	2015	2014	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
LARGE COMPANY GROWTH											
Harbor Capital Appreciation Retirement	3.05%	21.17%	-0.96%	36.68%	-1.04%	10.99%	9.93%	8.12%	20.28%	13.65%	15.93%
Russell 1000 Growth	4.64%	21.49%	-1.51%	30.21%	7.08%	5.67%	13.05%	11.56%	18.07%	13.39%	16.28%
Large Growth Universe	4.72%	21.49%	-2.05%	28.25%	3.11%	3.69%	9.98%	10.15%	17.13%	11.45%	14.75%
MEDIUM COMPANY VALUE											
Virtus Ceredex Mid-Cap Value Equity R6	4.43%	19.38%	-7.58%	11.98%	20.53%	-5.63%	11.05%	7.08%	12.35%	7.28%	14.48%
Russell Mid Cap Value	3.19%	18.02%	-12.29%	13.34%	20.00%	-4.78%	14.75%	3.68%	8.95%	6.72%	14.56%
Mid Value Universe	2.91%	16.76%	-13.78%	13.22%	17.95%	-5.06%	9.44%	0.74%	8.75%	5.50%	12.68%
MEDIUM COMPANY BLEND											
Vanguard Extended Market Index Instl	3.04%	19.51%	-9.35%	18.12%	16.15%	-3.24%	7.56%	2.06%	13.18%	7.82%	14.68%
Russell Mid Cap	4.13%	21.35%	-9.06%	18.52%	13.80%	-2.44%	13.22%	7.83%	12.16%	8.63%	15.16%
Mid Blend Universe	3.14%	18.08%	-11.88%	15.56%	14.20%	-4.67%	8.48%	2.42%	9.89%	5.76%	12.64%
MEDIUM COMPANY GROWTH											
MFS Mid Cap Growth R6	9.23%	29.84%	1.21%	26.39%	4.75%	4.60%	8.95%	17.69%	19.70%	14.13%	17.00%
Russell Mid Cap Growth	5.40%	26.08%	-4.75%	25.27%	7.33%	-0.20%	11.90%	13.94%	16.49%	11.10%	16.02%
Mid Growth Universe	6.19%	26.21%	-5.62%	24.94%	5.96%	-0.64%	7.14%	11.41%	16.31%	10.31%	14.82%
FOREIGN LARGE BLEND											
American Funds Europacific Growth R6	3.87%	17.59%	-14.91%	31.17%	1.01%	-0.48%	-2.29%	1.91%	10.84%	4.45%	8.15%
MFS International Intrinsic Value R6	4.35%	17.07%	-8.89%	27.25%	4.31%	6.85%	1.61%	6.96%	10.52%	7.79%	11.35%
Vanguard Total Intl Stock Index I	2.81%	13.36%	-14.39%	27.55%	4.70%	-4.24%	-4.15%	0.68%	9.00%	2.36%	6.63%
MSCI EAFE	3.97%	14.49%	-13.36%	25.62%	1.51%	-0.39%	-4.48%	1.60%	9.65%	2.74%	7.40%
Foreign Large Blend Universe	3.13%	13.95%	-15.53%	25.41%	0.83%	-1.42%	-5.06%	-0.42%	7.95%	1.84%	6.49%

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PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY

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University of Maine System

INVESTMENT NAME	Q2 '19	YTD '19	2018	2017	2016	2015	2014	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
SMALL COMPANY VALUE											
Victory Sycamore Small Company Opp I	5.26%	16.81%	-8.26%	11.88%	30.04%	-0.39%	6.80%	3.34%	13.90%	9.53%	14.69%
Russell 2000 Value	1.38%	13.47%	-12.86%	7.84%	31.74%	-7.47%	4.22%	-6.24%	9.81%	5.39%	12.40%
Small Value Universe	1.24%	13.85%	-15.81%	9.04%	25.42%	-6.85%	3.50%	-7.09%	7.98%	3.98%	11.77%
SMALL COMPANY GROWTH											
Carillon Eagle Small Cap Growth R6	2.59%	20.74%	-10.06%	23.40%	10.45%	-0.39%	5.59%	1.07%	13.56%	8.99%	14.86%
Russell 2000 Growth	2.75%	20.36%	-9.31%	22.17%	11.32%	-1.38%	5.60%	-0.49%	14.69%	8.63%	14.41%
Small Growth Universe	4.42%	22.88%	-5.65%	22.18%	11.24%	-2.44%	2.52%	4.24%	16.57%	9.44%	14.72%
EMERGING MARKETS											
DFA Emerging Markets Core Equity I	0.86%	9.54%	-15.25%	36.55%	12.35%	-14.86%	-0.91%	1.30%	9.11%	2.27%	6.29%
MSCI Emerging Markets	0.74%	10.78%	-14.25%	37.75%	11.60%	-14.60%	-1.82%	1.61%	11.07%	2.87%	6.17%
Emerging Markets Universe	1.86%	12.84%	-16.58%	35.29%	8.21%	-13.54%	-2.75%	1.21%	9.10%	1.87%	5.95%
SPECIALTY-PRIVATE REAL ESTATE											
TIAA Real Estate Account	1.32%	3.06%	4.79%	4.37%	5.20%	8.16%	12.22%	5.26%	4.74%	6.36%	6.91%
NCREIF Property Index	1.51%	3.34%	6.71%	6.98%	7.97%	13.33%	11.81%	6.50%	6.89%	8.83%	9.25%
Specialty-Real Estate Universe	1.97%	18.64%	-6.41%	5.72%	6.65%	2.48%	28.42%	10.64%	4.23%	7.22%	14.55%

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SECTION 4: FUND FACT SHEETS

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University of Maine System

SECTION 4: FUND FACT SHEETS

Fund Fact Sheets.....

CREF MONEY MARKET R3

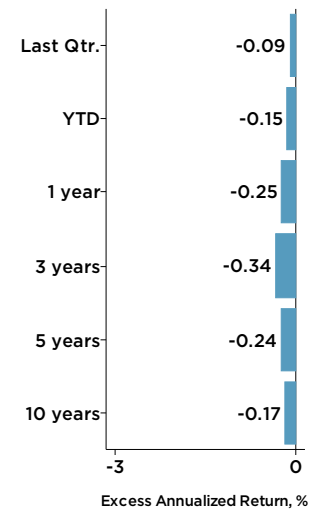
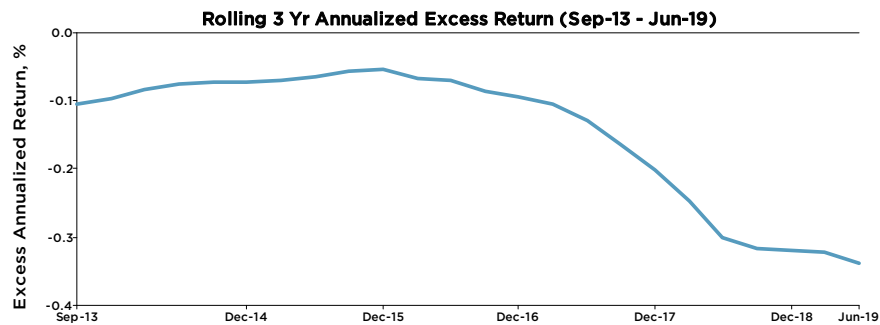
Period Ending 6.30.19 | Q2 19

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INDUSTRY ANALYSIS

Money market reform passed in 2010 imposed new mandates on 2a-7 managers including shorter average maturities, tighter restrictions on allowable securities, increased liquidity mandates and mandatory stress testing by fund managers. In July 2014, the SEC passed further 2a-7 regulations that mandated a floating rate NAV for some products and allowed managers, under certain circumstances, to limit redemptions or charge a fee for withdrawals. The July regulations will have a multi-year phase-in period.

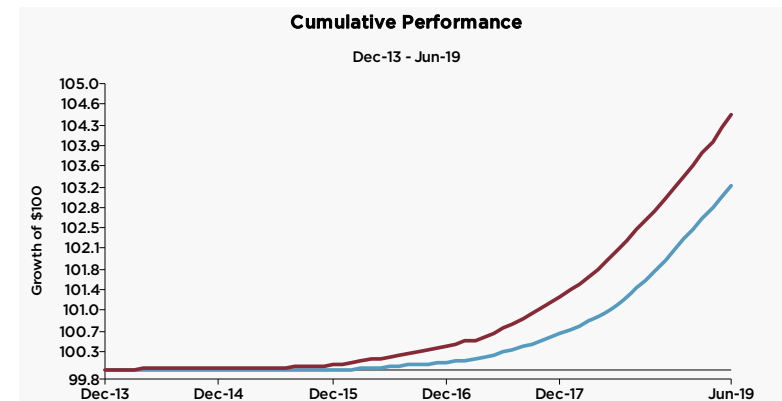
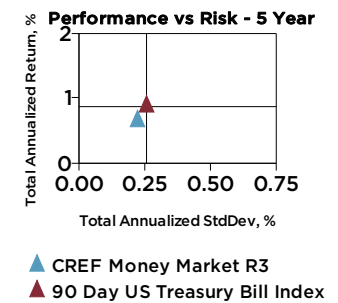
	CREF Money Market R3	90 Day US Treasury Bill Index
TRAILING RETURNS		
Last Qtr.	0.55	0.64
YTD	1.10	1.24
1 Year	2.06	2.31
3 Years	1.04	1.38
5 Years	0.63	0.87
10 Years	0.32	0.49
CALENDAR RETURNS		
2018	1.46	1.87
2017	0.50	0.86
2016	0.13	0.33
2015	0.00	0.05
2014	0.00	0.03
KEY MEASURES / 5 YEAR		
5 Year	0.23	0.26



CREF Money Market R3
■ Excess

INVESTMENT PROFILE

Ticker	-
Strategy Incept Date	-
Prospectus Exp Ratio	-
12 Mo Yield	-



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VANGUARD FEDERAL MONEY MARKET INVESTOR

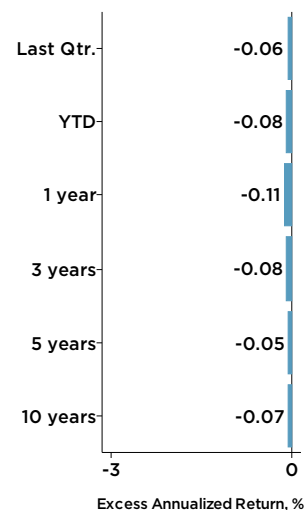
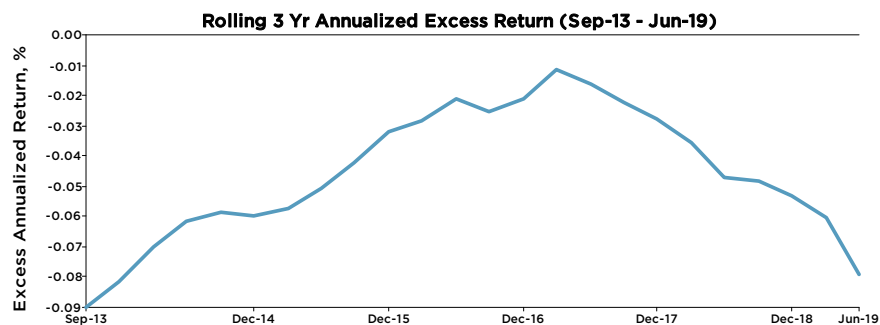
Period Ending 6.30.19 | Q2 19

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INDUSTRY ANALYSIS

Money market reform passed in 2010 imposed new mandates on 2a-7 managers including shorter average maturities, tighter restrictions on allowable securities, increased liquidity mandates and mandatory stress testing by fund managers. In July 2014, the SEC passed further 2a-7 regulations that mandated a floating rate NAV for some products and allowed managers, under certain circumstances, to limit redemptions or charge a fee for withdrawals. The July regulations will have a multi-year phase-in period.

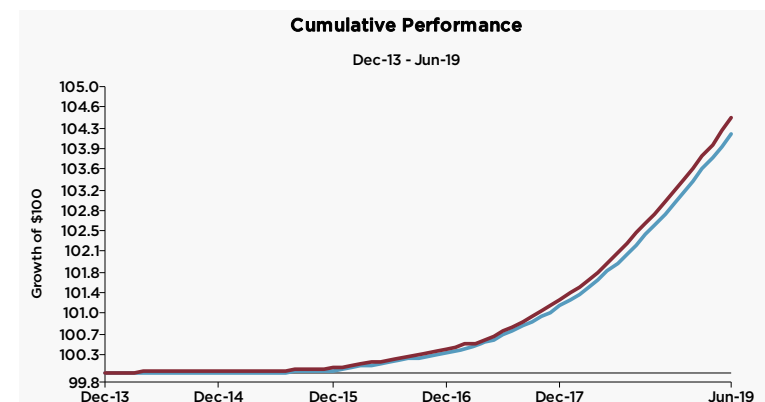
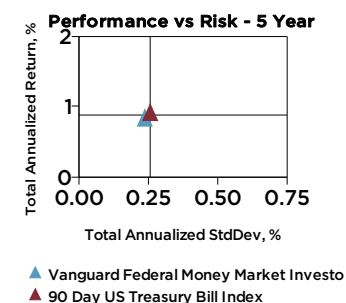
	Vanguard Federal Money Market Investor	90 Day US Treasury Bill Index
TRAILING RETURNS		
Last Qtr.	0.58	0.64
YTD	1.16	1.24
1 Year	2.20	2.31
3 Years	1.30	1.38
5 Years	0.82	0.87
10 Years	0.42	0.49
CALENDAR RETURNS		
2018	1.78	1.87
2017	0.81	0.86
2016	0.30	0.33
2015	0.04	0.05
2014	0.01	0.03
KEY MEASURES / 5 YEAR		
5 Year	0.24	0.26



Vanguard Federal Money Market
■ Excess

INVESTMENT PROFILE

Ticker	VMFXX
Strategy Incept Date	07/13/1981
Prospectus Exp Ratio	0.11%
12 Mo Yield	2.18%



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TIAA TRADITIONAL – GROUP RETIREMENT ANNUITY (GRA)

Period Ending 6.30.19 | Q2 19

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INDUSTRY ANALYSIS

The insurance industry remains strong following a nice recovery from the 2008 financial crisis. Following the recession, many new regulations such as the Dodd-Frank Wall Street Reform and Consumer Protection Act impacted the operations of insurance companies. Although no action has been taken to date, the Trump administration has stated their intention to remove or reform many of these regulations which could again have a large impact on the insurance industry. Late in 2015, the United States Federal Reserve began increasing short-term interest rates for the first time since 2006. The U.S. fixed income marketplace as a whole has seen interest rates rise along with the Fed hikes, which poses a challenge for insurance general account managers. Increases in interest rates means a decline in value for the investments already in general accounts, which could lower the guaranteed rate. Alternatively, increased rates allow for reinvestment of new cash flows at higher levels which could increase the guaranteed rate. Managers are reacting differently to the dichotomy of these forces with some increasing guaranteed rates due to higher reinvestment while others are more reluctant to increase guaranteed rates due to losses on the current portfolio. This merits evaluation as interest rates continue to shift.

CAPTRUST ANALYSIS

Jennifer Dunbar – Senior Manager| Investment Research

The TIAA Traditional Annuity is a guaranteed annuity account (group annuity contract) that is backed by the financial strength and claims-paying ability of TIAA. The product offers participants guaranteed principal and a contractually specified interest rate. The contractually agreed upon minimum annual interest rate is 3%. The TIAA Board of Trustees also reserves the right each year to declare a higher crediting rate to participants which remains effective for a twelve month period that begins each March 1.

The product has a payout structure at the participant level that varies the length of time it takes for a participant to fully redeem. This payout structure is individual contract-specific.

GROSS CREDITING RATES - For Contributions Applied:

4/1/18 - 6/30/18	7/1/18 - 9/30/18	10/1/18 - 12/31/18	1/1/19 - 3/31/19	4/1/19 - 6/30/19
4.00%	4.00%	4.00%	4.00%	3.50%

INVESTMENT DETAILS

Crediting Rate Details:	Current contributions are invested at the new money rate, which can change monthly but is guaranteed until the last day of February. Old Money is grouped by time period into vintages, rate on all vintages are reviewed for reset every March 1 st .
Competing Options:	Allowed.
Minimum Rate:	3.00% during accumulation stage and 2.50% during annuity payout stage, reset annually.

LIQUIDITY PROVISIONS

Plan Sponsor	Participant
Not applicable. Contracts are individually owned by the participant.	Lump Sum withdrawals are available within 120 days of termination of employment with a 2.5% surrender charge. Transfers and withdrawals can be made in 10 annual installments (paid over 9 years and 1 day).

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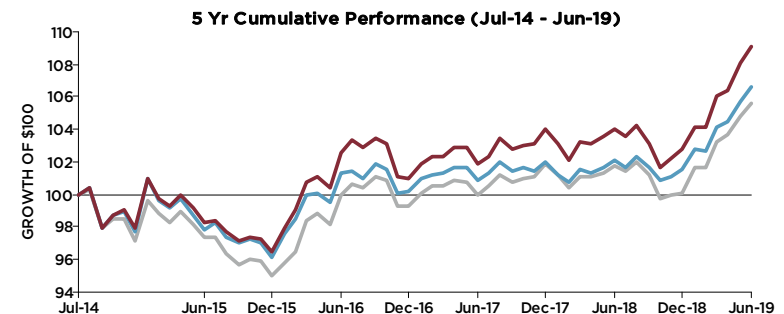
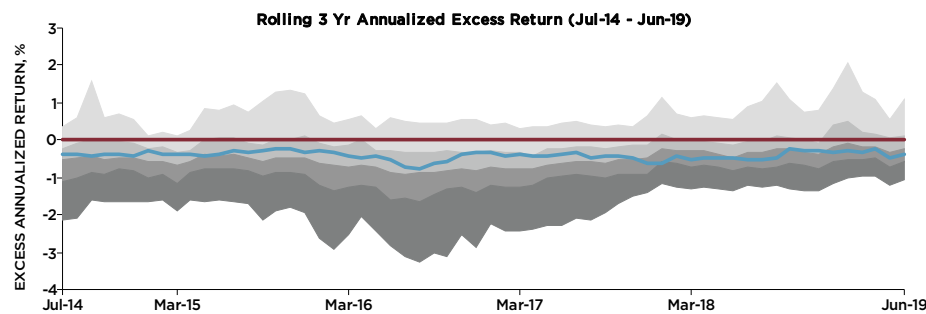
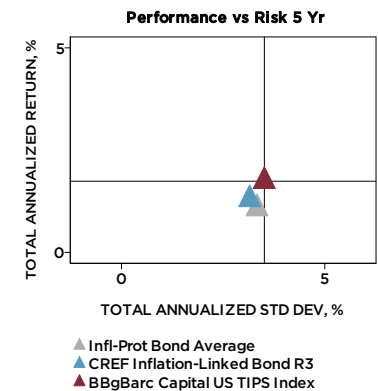
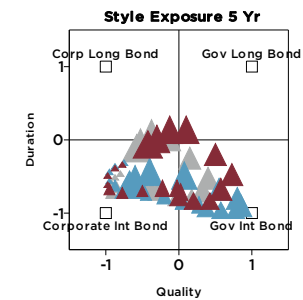
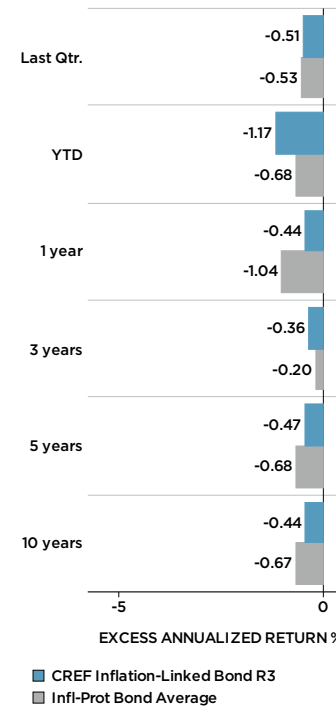
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CREF INFLATION-LINKED BOND R3

Period Ending 6.30.19 | Q2 19

3.1

	CREF Inflation-Linked Bond R3	Peer Group Rank	BBgBarc Capital US TIPS Index	Infl-Prot Bond	# of Funds
KEY MEASURES / 5 YEAR					
Standard Deviation	3.17	34%	3.51	3.32	201
Sharpe Ratio	0.13	36%	0.25	0.06	201
Alpha	-0.36	39%	0.00	-0.54	201
Beta	0.88	60%	1.00	0.83	201
R-Squared	94.61	41%	100.00	82.11	201
Up Mkt Capture	83.05	59%	100.00	79.50	201
Down Mkt Capture	88.16	38%	100.00	87.80	201
Information Ratio	-0.55	55%	NA	-0.77	201
TRAILING RETURNS					
Last Qtr.	2.36	65%	2.87	2.34	213
YTD	4.98	73%	6.15	5.47	213
1 Year	4.40	29%	4.84	3.80	213
3 Years	1.72	58%	2.08	1.88	205
5 Years	1.28	37%	1.76	1.07	201
10 Years	3.19	40%	3.64	2.97	141
CALENDAR RETURNS					
2018	-0.49	14%	-1.26	-1.65	216
2017	1.85	72%	3.01	2.51	236
2016	4.23	52%	4.68	4.51	243
2015	-1.68	37%	-1.44	-2.22	252
2014	3.34	22%	3.64	1.96	257



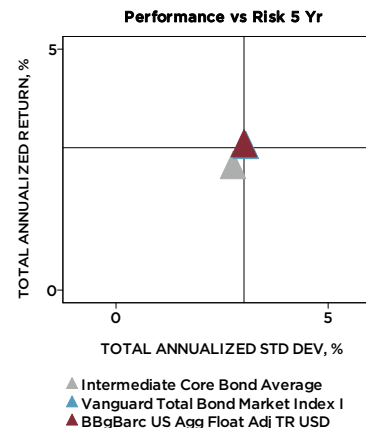
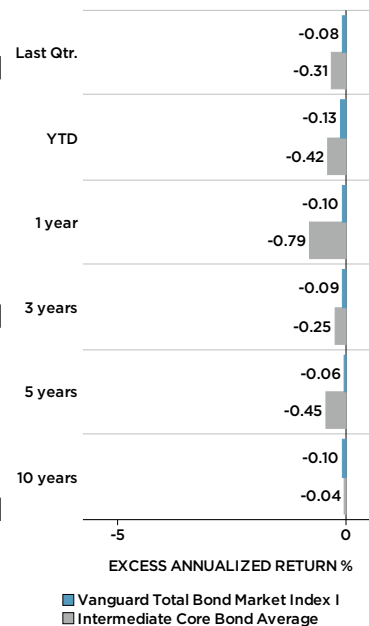
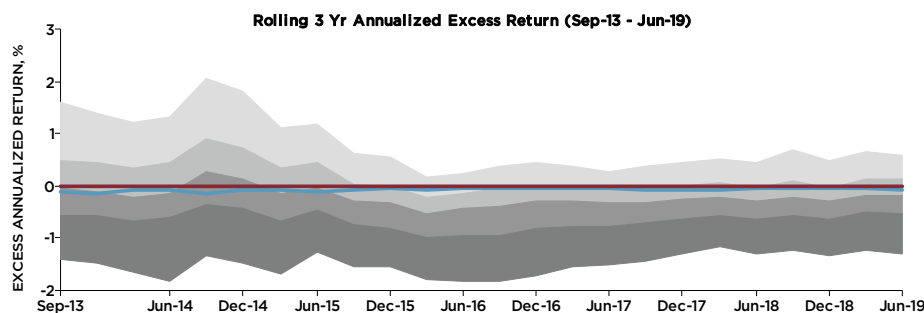
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VANGUARD TOTAL BOND MARKET INDEX I

Period Ending 6.30.19 | Q2 19

3.1

	Vanguard Total Bond Market Index I	Peer Group Rank	BBgBarc US Agg Float Adj TR USD	Intermediate Core Bond	# of Funds
KEY MEASURES / 5 YEAR					
Standard Deviation	3.05	96%	3.00	2.74	351
Sharpe Ratio	0.67	37%	0.70	0.60	351
Alpha	-0.09	42%	0.00	-0.21	351
Beta	1.01	5%	1.00	0.88	351
R-Squared	99.26	10%	100.00	93.60	351
Up Mkt Capture	99.58	9%	100.00	87.08	351
Down Mkt Capture	101.38	75%	100.00	90.22	351
Information Ratio	-0.23	29%	NA	-0.79	351
TRAILING RETURNS					
Last Qtr.	3.08	29%	3.15	2.84	393
YTD	6.12	42%	6.25	5.82	393
1 Year	7.87	21%	7.97	7.18	391
3 Years	2.23	41%	2.32	2.07	367
5 Years	2.90	20%	2.96	2.51	351
10 Years	3.84	55%	3.93	3.89	318
CALENDAR RETURNS					
2018	-0.01	29%	-0.08	-0.39	403
2017	3.57	32%	3.63	3.19	462
2016	2.61	44%	2.75	2.55	495
2015	0.41	35%	0.44	-0.01	523
2014	5.90	25%	5.85	4.95	575

**INVESTMENT PROFILE**

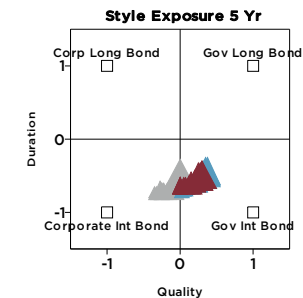
Ticker	VBPIX
CUSIP	921937504
Net Assets \$MM	\$229,333.00
Manager Names	Team Managed
Manager Tenure	6.4 Years
Prospectus Exp Ratio	0.04%
Cat Median Exp Ratio	0.81%
Current 12b-1	N/A
Annld Ret Since Incept	5.12%
Inception Date	09/18/1995
Phone Number	888-809-8102
Sub Advisor	N/A

HOLDINGS OVERVIEW

Total Number of Holdings	17343
% Assets in Top 10 Holdings	3.95%
Avg Mkt Cap \$MM	N/A
Turnover Ratio	54.00%

TOP HOLDINGS

United States Treasury Not	0.43%
United States Treasury Not	0.43%
United States Treasury Not	0.42%
United States Treasury Not	0.42%
United States Treasury Not	0.40%



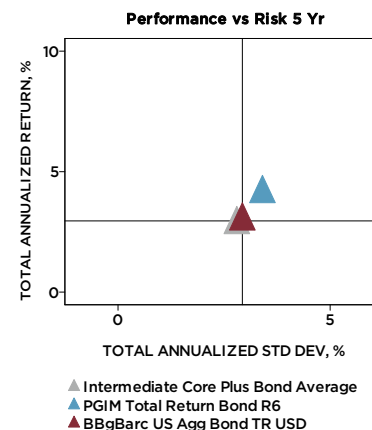
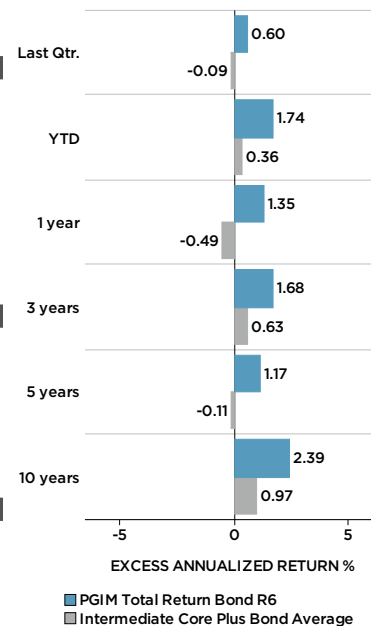
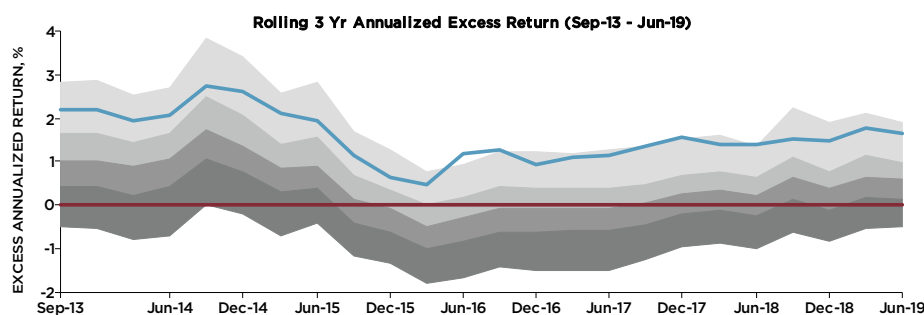
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PGIM TOTAL RETURN BOND R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	PGIM Total Return Bond R6	Peer Group Rank	BBgBarc US Agg Bond TR USD	Intermediate Core Plus Bond	# of Funds
Standard Deviation	3.40	94%	2.94	2.81	533
Sharpe Ratio	0.95	13%	0.71	0.71	533
Alpha	0.94	11%	0.00	0.24	533
Beta	1.11	1%	1.00	0.83	533
R-Squared	91.34	25%	100.00	78.70	533
Up Mkt Capture	122.99	1%	100.00	89.95	533
Down Mkt Capture	103.49	91%	100.00	83.35	533
Information Ratio	1.10	1%	NA	-0.09	533
TRAILING RETURNS					
Last Qtr.	3.68	4%	3.08	2.99	630
YTD	7.85	6%	6.11	6.47	630
1 Year	9.22	3%	7.87	7.38	617
3 Years	4.00	8%	2.31	2.94	581
5 Years	4.12	4%	2.95	2.84	533
10 Years	6.29	7%	3.90	4.87	475
CALENDAR RETURNS					
2018	-0.63	44%	0.01	-0.70	614
2017	6.71	2%	3.54	4.26	603
2016	4.83	21%	2.65	3.88	575
2015	0.09	37%	0.55	-0.50	555
2014	7.25	8%	5.97	5.50	546



INVESTMENT PROFILE

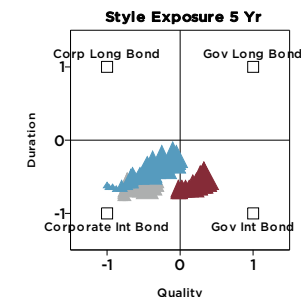
Ticker	PTRQX
CUSIP	74440B884
Net Assets \$MM	\$43,916.00
Manager Names	Team Managed
Manager Tenure	16.7 Years
Prospectus Exp Ratio	0.39%
Cat Median Exp Ratio	0.70%
Current 12b-1	N/A
Annld Ret Since Incept	5.06%
Inception Date	12/27/2010
Phone Number	800-225-1852
Sub Advisor	PGIM Fixed Income

HOLDINGS OVERVIEW

Total Number of Holdings	3788
% Assets in Top 10 Holdings	7.30%
Avg Mkt Cap \$MM	N/A
Turnover Ratio	56.00%

TOP HOLDINGS

Portugal (Republic Of)	5.1%	1.57%
PGIM Core Short-Term Bor		1.08%
Hungary (Republic Of)	6.3	0.72%
Republika Slovenija	5.25%	0.66%
SOFI ALTERNATIVE TRUS		0.66%



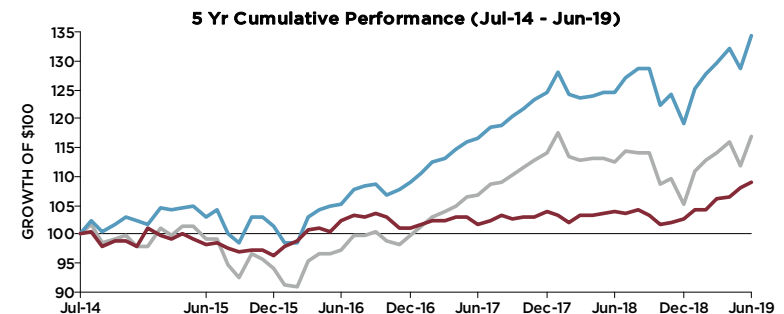
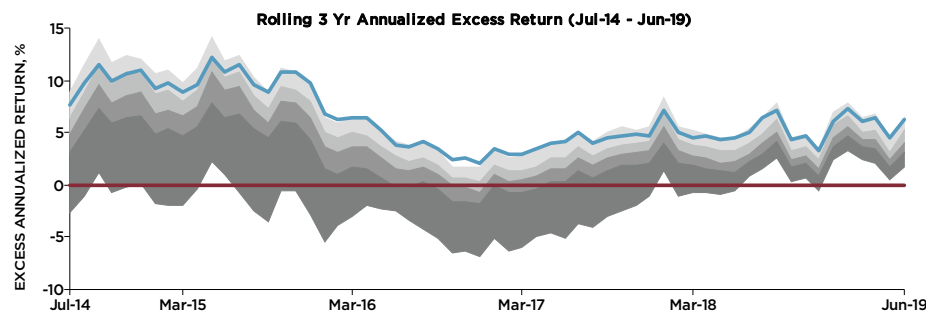
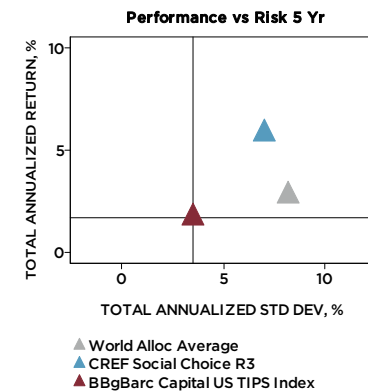
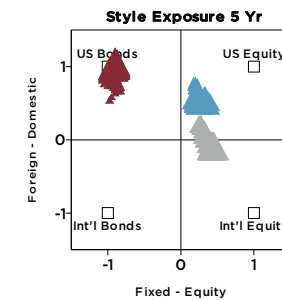
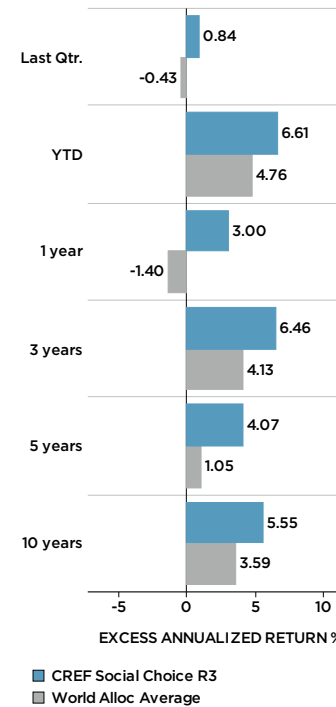
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CREF SOCIAL CHOICE R3

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	CREF Social Choice R3	Peer Group Rank	BBgBarc Capital US TIPS Index	World Alloc	# of Funds
Standard Deviation	6.99	12%	3.51	8.17	380
Sharpe Ratio	0.71	1%	0.25	0.26	380
Alpha	4.52	2%	0.00	1.32	380
Beta	0.50	87%	1.00	0.69	380
R-Squared	6.12	64%	100.00	10.14	380
Up Mkt Capture	117.02	19%	100.00	98.14	380
Down Mkt Capture	23.93	6%	100.00	71.43	380
Information Ratio	0.58	2%	NA	0.15	380
TRAILING RETURNS					
Last Qtr.	3.71	9%	2.87	2.44	474
YTD	12.76	22%	6.15	10.91	474
1 Year	7.84	6%	4.84	3.43	462
3 Years	8.54	6%	2.08	6.22	426
5 Years	5.83	2%	1.76	2.81	380
10 Years	9.19	4%	3.64	7.22	251
CALENDAR RETURNS					
2018	-4.29	3%	-1.26	-7.98	468
2017	14.27	50%	3.01	14.14	508
2016	7.40	26%	4.68	6.04	534
2015	-0.87	19%	-1.44	-4.31	540
2014	6.83	4%	3.64	1.85	534



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VANGUARD TARGET RETIREMENT

Period Ending 6.30.19 | Q2 19

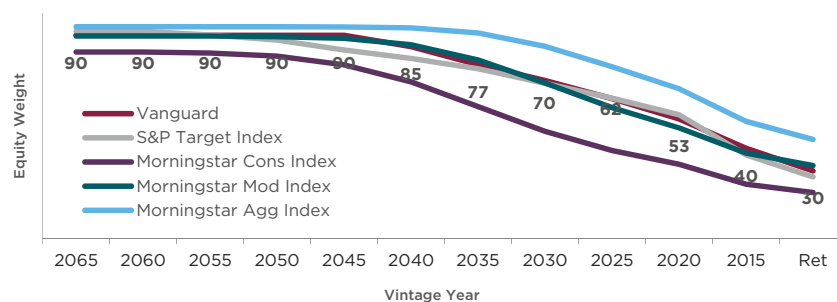
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Investor Assumptions/Glidepath Methodology

Glidepath Management	• Through retirement (assumed at age 65) ending 7 years after retirement
Assumed Investor Savings Rate:	• Contributions start at 5% at age 25 and increase to 10% at age 65. Also includes a 50% employer match up to 3% of salary.
Assumed Investor Income Growth Rate	• 1.1% annual salary growth
Income Replacement	• The portfolios are designed to provide withdrawals in retirement based on multiples of an investor's age 65 salary.
Assumed Accumulated Savings at Retirement	• N/A
Life Expectancy	• Through age 95
Asset Allocation Flexibility	• Strict targets with narrow ranges.
Other Assumptions	• Glidepath was tested against 10,000 potential lifetime return outcomes

Vanguard uses a proprietary capital markets modeling tool to statistically analyze historical data, including interest rates, inflation, and other risk factors for global equities, fixed income, and commodity markets. This tool is used to generate forward-looking distributions of expected returns. Then, by combining these figures with their investor assumptions, Vanguard constructs target portfolios with asset allocations that seek to provide the highest probability of a successful outcome (not outliving retirement savings).

Target Asset Allocation Glidepath per Vintage Year



Investment Profile

% Open Architecture:	0%	Active/Passive:	Passive
Inception Date:	10-27-2003	% Active:	0%
Net Assets \$MM:	\$271,514	Manager Tenure:	6.42 years (longest)
Manager Name:	Team	Expense Range:	0.12% - 0.15%
Avg # of Holdings:	5	Investment Structure:	Mutual Fund

Dedicated Asset Class Granularity/Diversification

	Through Intl Index Fund
Emerging Market Equities	
International/Global Debt	Yes
Inflation-Protected Securities	Yes
High Yield Fixed Income	No
Real Estate	No
Commodities	No

The Vanguard Target Retirement funds allocate to five broad index funds that provide comprehensive exposure to U.S. and non-U.S. equity and bond markets. Using index funds allows Vanguard to provide investment diversification at a low cost while also producing returns in line with equity and fixed income markets. Through its five index funds, the strategies gain exposure to over 25 sub-asset classes, capturing over 90% of the world's investable market.

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VANGUARD TARGET RETIREMENT

Period Ending 6.30.19 | Q2 19

3.1

Material Changes to the Series

2006:

- Increased minimum equity allocation from 20% to 30%
- Added Emerging Markets Equity

Rationale:

- Participant behavior showed lower savings rate
- Decreased costs within the EM space led to increased liquidity

2010:

- Collapsed three international equity index funds (Europe, Pacific, and Emerging Markets) with Vanguard Total International Stock Index

Rationale:

- More cost-effective way to gain international exposure

2013:

- Replaced the broad TIPs fund with a short-term TIPs allocation
- Eliminated the Prime Money Market fund
- Added a 20% International Bond Index Allocation

Rationale:

- Short-Term TIPs provide better inflation exposure with lower interest rate risk
- Deemed to be an unnecessary asset class
- Dedicated exposure to move more in line with the Global fixed income Market Cap; better FI diversification

2015:

- Increased international stock allocation from 30% to 40%
- Increased International bond allocation from 20% to 30%

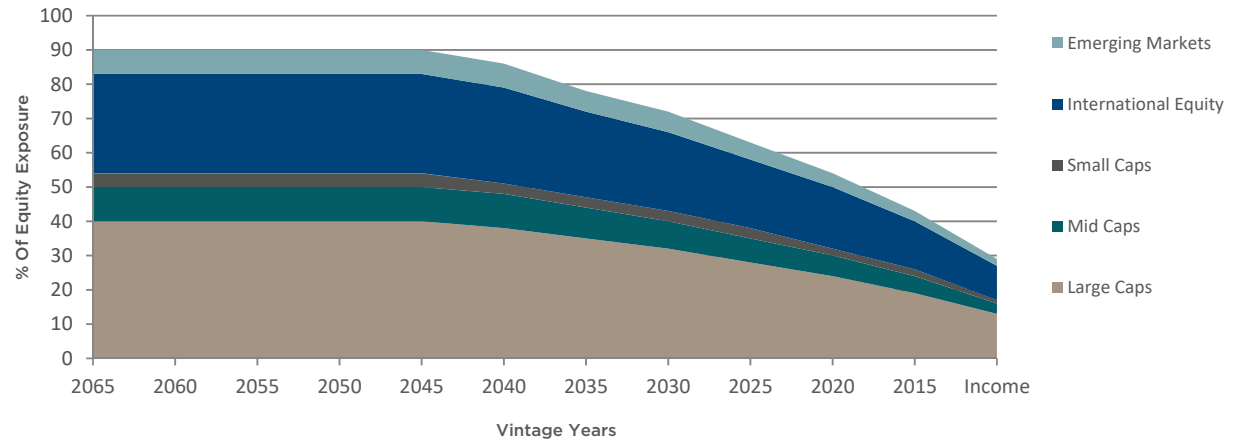
Rationale:

- Move to be more in line with the Global Market Cap

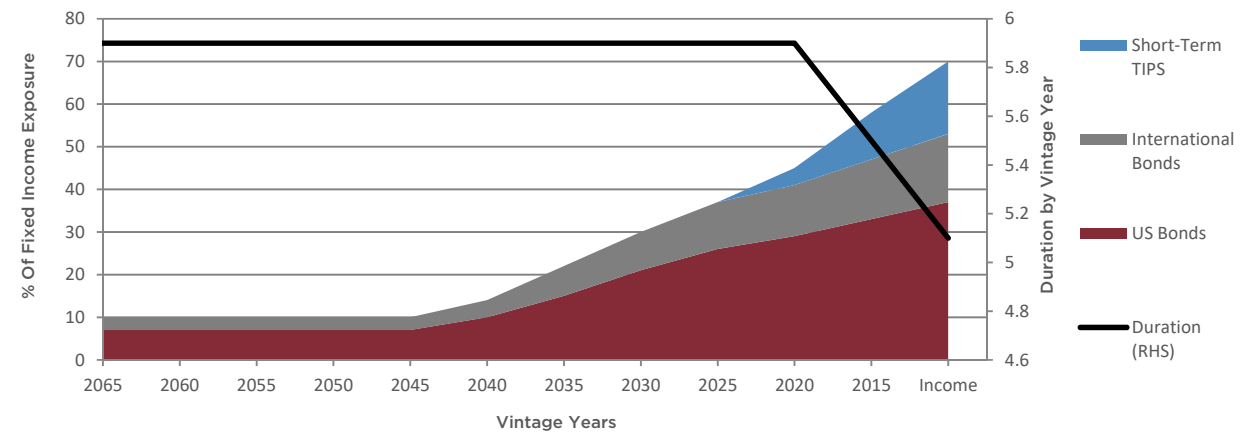
*All information provided by the asset manager, as of 12/31/18. Asset allocations shown are static in nature and do not incorporate any tactical views implemented by the manager.

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Equity Exposure



Fixed Income Exposure



TARGET DATE ANALYSIS

Period Ending 6.30.19 | Q2 19

3.1

	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2015 Inv	0.89	1.09	94.18	84.13	0.93	0.76	95.89	90.71
Morningstar Target Date 2015	0.95	0.96	94.83	92.41	0.96	0.61	93.44	98.57
S&P Target Date 2015 TR	1.00	0.96	100.00	100.00	1.00	0.69	100.00	100.00

	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2025 Inv	1.03	1.01	104.67	100.68	1.02	0.67	104.10	101.23
Morningstar Target Date 2025	0.96	0.96	95.71	94.50	0.98	0.56	95.45	100.36
S&P Target Date 2025 TR	1.00	0.96	100.00	100.00	1.00	0.63	100.00	100.00

	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2045 Inv	1.02	0.94	104.63	101.41	1.03	0.57	103.86	103.29
Morningstar Target Date 2045	1.00	0.90	100.67	99.51	1.02	0.51	99.75	103.53
S&P Target Date 2045 TR	1.00	0.89	100.00	100.00	1.00	0.57	100.00	100.00

*Lowest cost share class shown

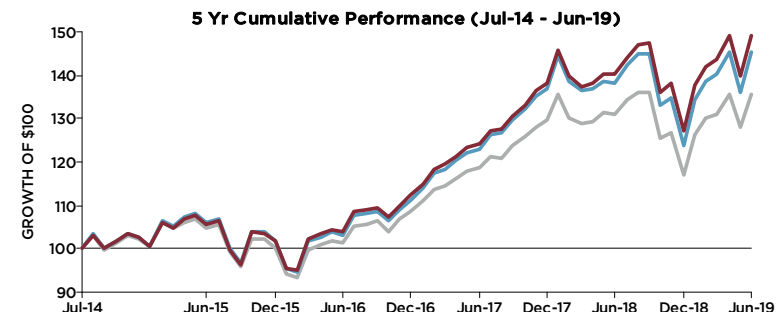
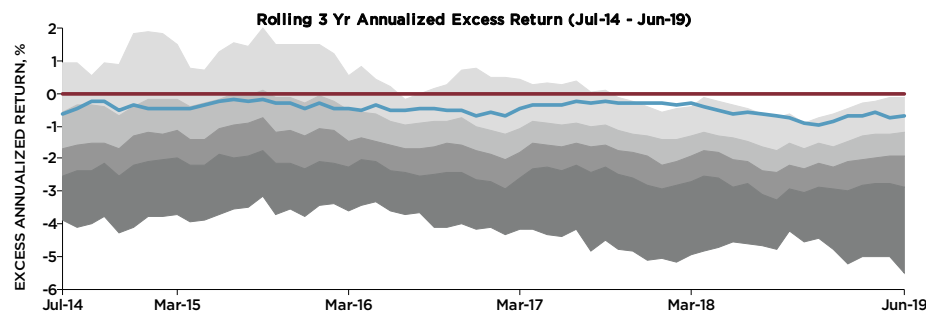
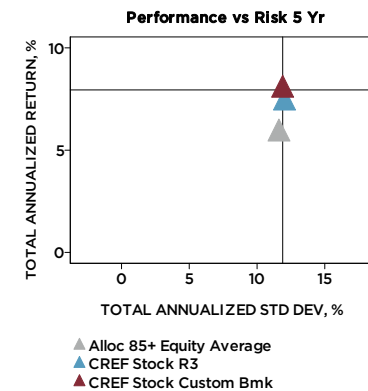
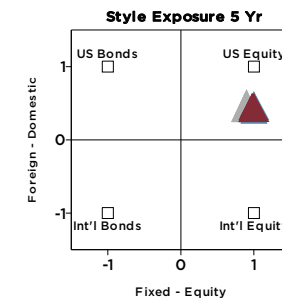
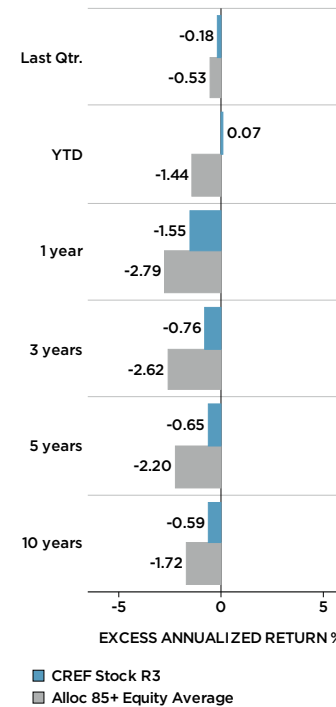
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CREF STOCK R3

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	CREF Stock R3	Peer Group Rank	CREF Stock Custom Bmk	Alloc 85+ Equity	# of Funds
Standard Deviation	12.04	83%	11.88	11.55	175
Sharpe Ratio	0.53	21%	0.60	0.42	175
Alpha	-0.74	22%	0.00	-1.82	175
Beta	1.01	13%	1.00	0.95	175
R-Squared	99.69	1%	100.00	95.26	175
Up Mkt Capture	99.09	9%	100.00	88.18	175
Down Mkt Capture	103.43	74%	100.00	99.31	175
Information Ratio	-0.88	43%	NA	-0.96	175
TRAILING RETURNS					
Last Qtr.	3.58	37%	3.76	3.23	187
YTD	17.27	21%	17.20	15.77	187
1 Year	4.97	34%	6.52	3.73	187
3 Years	12.01	13%	12.77	10.15	181
5 Years	7.31	13%	7.96	5.76	175
10 Years	11.87	10%	12.46	10.74	137
CALENDAR RETURNS					
2018	-9.65	52%	-7.98	-9.73	201
2017	23.45	10%	23.30	19.37	222
2016	9.17	23%	10.41	8.62	232
2015	-0.84	28%	-0.89	-2.35	234
2014	6.41	30%	7.55	5.39	227



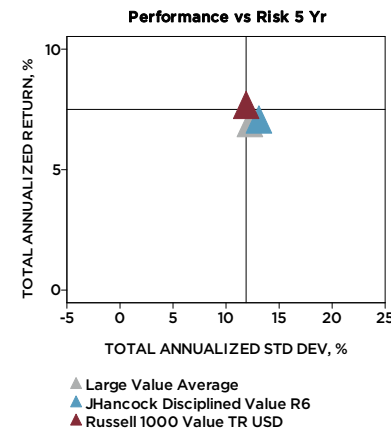
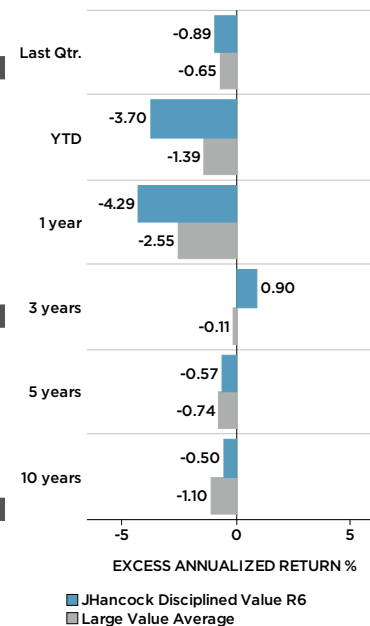
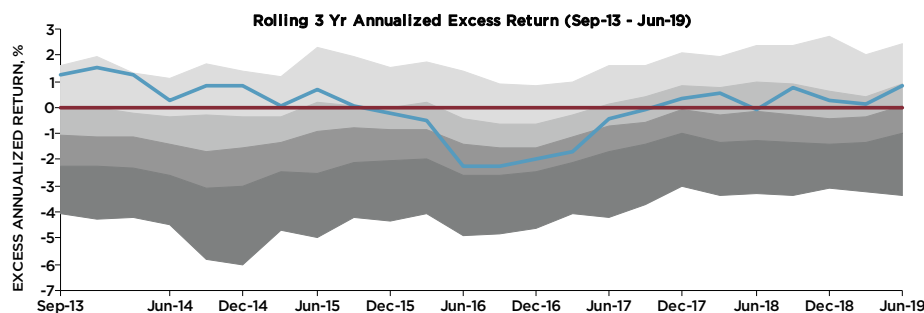
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JHancock Disciplined Value R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	JHancock Disciplined Value R6	Peer Group Rank	Russell 1000 Value TR USD	Large Value	# of Funds
Standard Deviation	13.04	76%	11.93	12.26	1062
Sharpe Ratio	0.46	57%	0.55	0.49	1062
Alpha	-1.03	59%	0.00	-0.65	1062
Beta	1.07	24%	1.00	0.99	1062
R-Squared	95.55	41%	100.00	92.30	1062
Up Mkt Capture	101.55	25%	100.00	95.65	1062
Down Mkt Capture	106.19	68%	100.00	99.21	1062
Information Ratio	-0.19	48%	NA	-0.21	1062
TRAILING RETURNS					
Last Qtr.	2.96	63%	3.84	3.19	1170
YTD	12.54	85%	16.24	14.85	1170
1 Year	4.17	69%	8.46	5.91	1169
3 Years	11.09	28%	10.19	10.08	1130
5 Years	6.89	47%	7.46	6.72	1062
10 Years	12.70	30%	13.19	12.09	943
CALENDAR RETURNS					
2018	-9.47	60%	-8.27	-8.87	1212
2017	19.33	14%	13.66	15.82	1278
2016	14.07	54%	17.34	14.53	1334
2015	-4.81	68%	-3.83	-4.00	1344
2014	11.04	48%	13.45	10.59	1348



INVESTMENT PROFILE

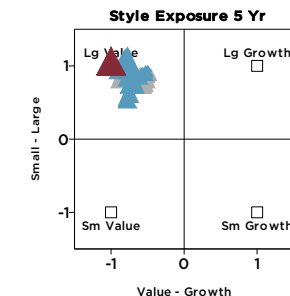
Ticker	JDVWX
CUSIP	47803U418
Net Assets \$MM	\$15,039.00
Manager Names	Team Managed
Manager Tenure	22.5 Years
Prospectus Exp Ratio	0.70%
Cat Median Exp Ratio	1.07%
Current 12b-1	0.00%
Annld Ret Since Incept	12.60%
Inception Date	09/01/2011
Phone Number	888-972-8696
Sub Advisor	Boston Partners Global Investors, Inc

HOLDINGS OVERVIEW

Total Number of Holdings	84
% Assets in Top 10 Holdings	30.85%
Avg Mkt Cap \$MM	\$78,794.30
Turnover Ratio	69.00%

TOP HOLDINGS

Cisco Systems Inc	4.29%
Berkshire Hathaway Inc B	4.29%
Comcast Corp Class A	3.77%
Johnson & Johnson	3.48%
Bank of America Corporal	3.36%



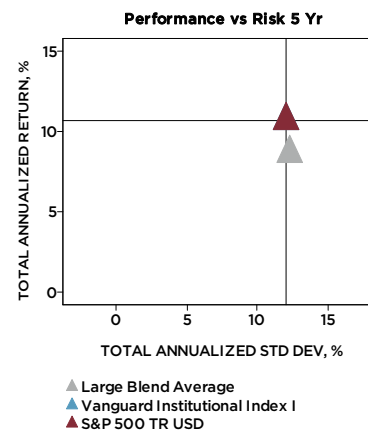
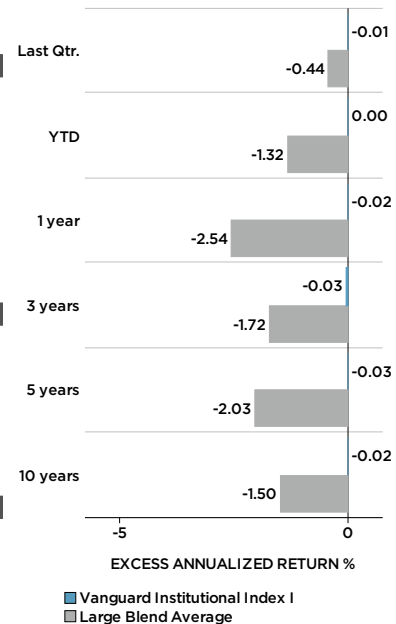
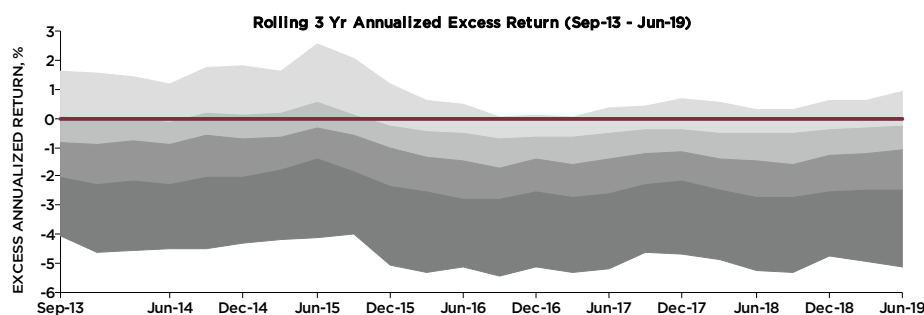
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VANGUARD INSTITUTIONAL INDEX I

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	Vanguard Institutional Index I	Peer Group Rank	S&P 500 TR USD	Large Blend	# of Funds
Standard Deviation	12.03	40%	12.03	12.26	1164
Sharpe Ratio	0.82	11%	0.82	0.64	1164
Alpha	-0.03	13%	0.00	-1.91	1164
Beta	1.00	50%	1.00	0.99	1164
R-Squared	100.00	1%	100.00	94.19	1164
Up Mkt Capture	99.91	14%	100.00	92.65	1164
Down Mkt Capture	100.06	28%	100.00	103.43	1164
Information Ratio	-2.10	92%	NA	-1.23	1164
TRAILING RETURNS					
Last Qtr.	4.30	37%	4.30	3.87	1335
YTD	18.54	30%	18.54	17.21	1328
1 Year	10.39	25%	10.42	7.88	1308
3 Years	14.15	17%	14.19	12.47	1229
5 Years	10.68	8%	10.71	8.68	1164
10 Years	14.68	9%	14.70	13.20	1024
CALENDAR RETURNS					
2018	-4.42	20%	-4.38	-6.56	1323
2017	21.79	29%	21.83	20.41	1377
2016	11.93	27%	11.96	10.42	1447
2015	1.37	21%	1.38	-0.67	1503
2014	13.65	18%	13.69	11.28	1540



INVESTMENT PROFILE

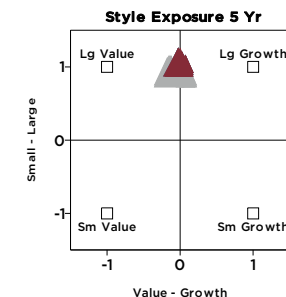
Ticker	VINIX
CUSIP	922040100
Net Assets \$MM	\$228,885.00
Manager Names	Team Managed
Manager Tenure	18.5 Years
Prospectus Exp Ratio	0.04%
Cat Median Exp Ratio	1.07%
Current 12b-1	N/A
Annld Ret Since Incept	9.87%
Inception Date	07/31/1990
Phone Number	888-809-8102
Sub Advisor	N/A

HOLDINGS OVERVIEW

Total Number of Holdings	511
% Assets in Top 10 Holdings	21.49%
Avg Mkt Cap \$MM	\$109,627.41
Turnover Ratio	6.00%

TOP HOLDINGS

Microsoft Corp	4.19%
Apple Inc	3.53%
Amazon.com Inc	3.20%
Facebook Inc A	1.89%
Berkshire Hathaway Inc E	1.69%



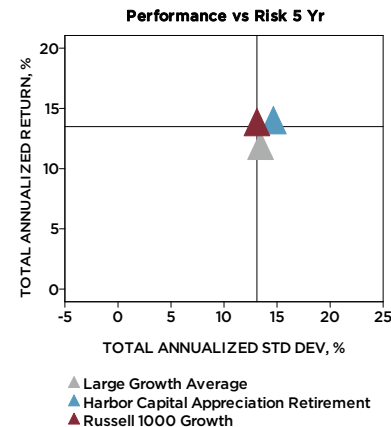
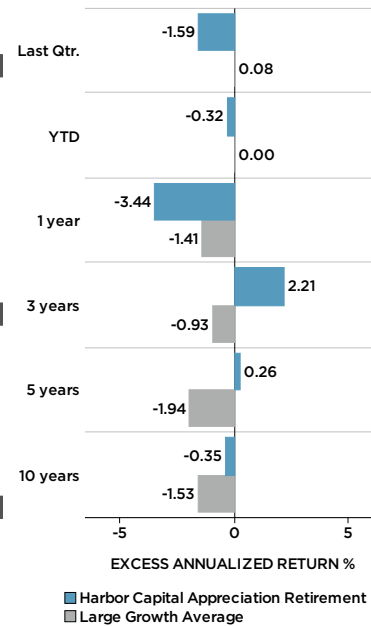
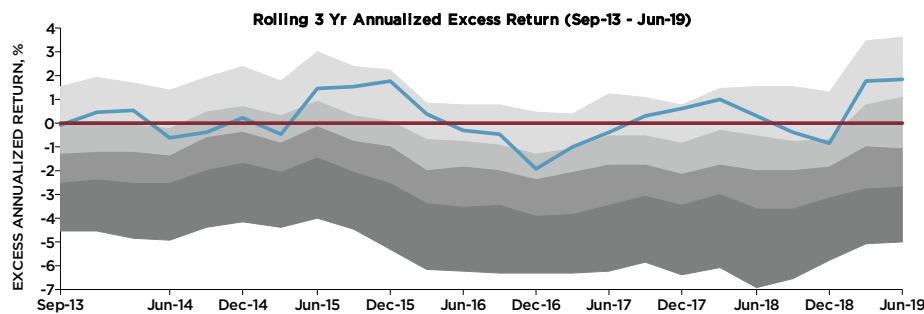
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HARBOR CAPITAL APPRECIATION RETIREMENT

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	Harbor Capital Appreciation Retirement	Peer Group Rank	Russell 1000 Growth	Large Growth	# of Funds
Standard Deviation	14.69	85%	13.03	13.52	1259
Sharpe Ratio	0.87	34%	0.96	0.79	1259
Alpha	-0.82	35%	0.00	-1.81	1259
Beta	1.09	11%	1.00	0.99	1259
R-Squared	92.79	53%	100.00	91.30	1259
Up Mkt Capture	108.47	7%	100.00	94.21	1259
Down Mkt Capture	112.54	85%	100.00	103.62	1259
Information Ratio	0.06	18%	NA	-0.48	1259
TRAILING RETURNS					
Last Qtr.	3.05	87%	4.64	4.72	1368
YTD	21.17	53%	21.49	21.49	1358
1 Year	8.12	70%	11.56	10.15	1353
3 Years	20.28	16%	18.07	17.13	1308
5 Years	13.65	18%	13.39	11.45	1259
10 Years	15.93	22%	16.28	14.75	1101
CALENDAR RETURNS					
2018	-0.96	39%	-1.51	-2.05	1409
2017	36.68	5%	30.21	28.25	1442
2016	-1.04	84%	7.08	3.11	1558
2015	10.99	4%	5.67	3.69	1650
2014	9.93	54%	13.05	9.98	1701



INVESTMENT PROFILE

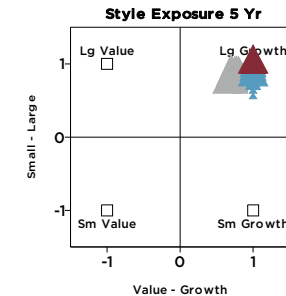
Ticker	HNACX
CUSIP	411512528
Net Assets \$MM	\$30,609.00
Manager Names	Team Managed
Manager Tenure	29.2 Years
Prospectus Exp Ratio	0.58%
Cat Median Exp Ratio	1.15%
Current 12b-1	N/A
Annld Ret Since Incept	18.70%
Inception Date	03/01/2016
Phone Number	800-422-1050
Sub Advisor	Jennison Associates LLC

HOLDINGS OVERVIEW

Total Number of Holdings	56
% Assets in Top 10 Holdings	38.88%
Avg Mkt Cap \$MM	\$151,643.83
Turnover Ratio	40.00%

TOP HOLDINGS

Amazon.com Inc	6.31%
Microsoft Corp	4.66%
Mastercard Inc A	4.09%
Salesforce.com Inc	3.79%
Netflix Inc	3.70%



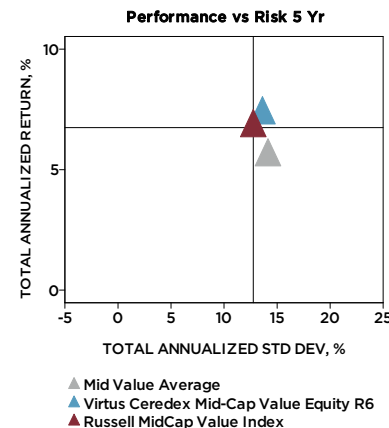
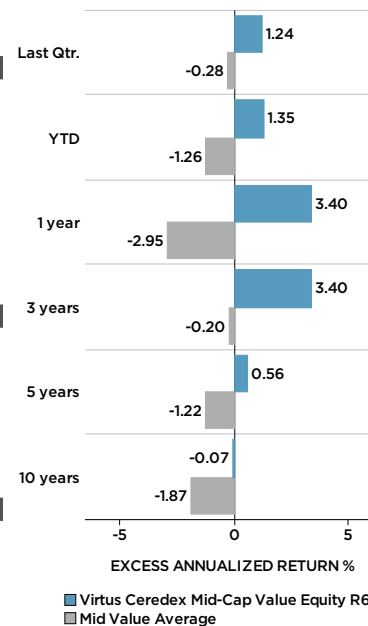
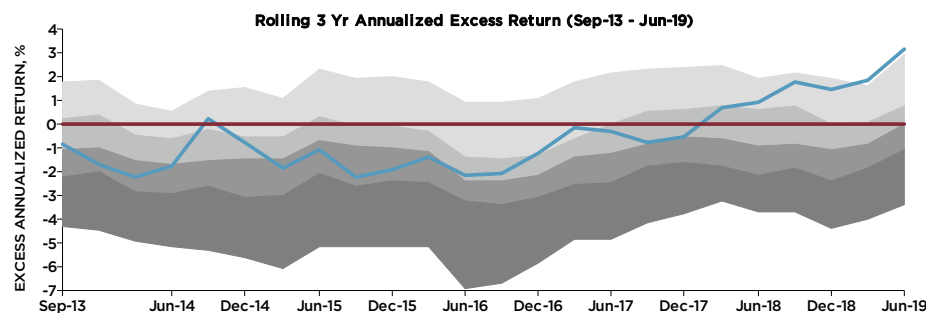
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VIRTUS CEREDEX MID-CAP VALUE EQUITY R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	Virtus Ceredex Mid-Cap Value Equity R6	Peer Group Rank	Russell MidCap Value Index	Mid Value	# of Funds
Standard Deviation	13.55	38%	12.74	14.06	357
Sharpe Ratio	0.47	21%	0.46	0.34	357
Alpha	0.37	21%	0.00	-1.56	357
Beta	1.03	61%	1.00	1.06	357
R-Squared	94.51	39%	100.00	92.31	357
Up Mkt Capture	104.68	23%	100.00	98.79	357
Down Mkt Capture	102.19	39%	100.00	106.42	357
Information Ratio	0.17	16%	NA	-0.27	357
TRAILING RETURNS					
Last Qtr.	4.43	22%	3.19	2.91	395
YTD	19.38	18%	18.02	16.76	395
1 Year	7.08	7%	3.68	0.74	395
3 Years	12.35	4%	8.95	8.75	373
5 Years	7.28	17%	6.72	5.50	357
10 Years	14.48	7%	14.56	12.68	305
CALENDAR RETURNS					
2018	-7.58	7%	-12.29	-13.78	428
2017	11.98	66%	13.34	13.22	432
2016	20.53	32%	20.00	17.95	439
2015	-5.63	60%	-4.78	-5.06	453
2014	11.05	37%	14.75	9.44	438



INVESTMENT PROFILE

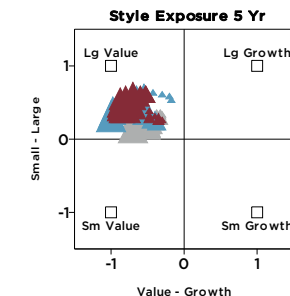
Ticker	SMVZX
CUSIP	92837F441
Net Assets \$MM	\$3,123.00
Manager Names	Don Wordell
Manager Tenure	17.6 Years
Prospectus Exp Ratio	0.79%
Cat Median Exp Ratio	1.15%
Current 12b-1	N/A
Annlzd Ret Since Incept	8.45%
Inception Date	08/01/2014
Phone Number	888-784-3863
Sub Advisor	Ceredex Value Advisors LLC

HOLDINGS OVERVIEW

Total Number of Holdings	57
% Assets in Top 10 Holdings	32.62%
Avg Mkt Cap \$MM	\$13,814.02
Turnover Ratio	N/A

TOP HOLDINGS

Humana Inc	5.31%
Zimmer Biomet Holdings Ir	4.79%
Marathon Petroleum Corp	3.58%
Energizer Holdings Inc	3.03%
Public Service Enterprise C	2.76%



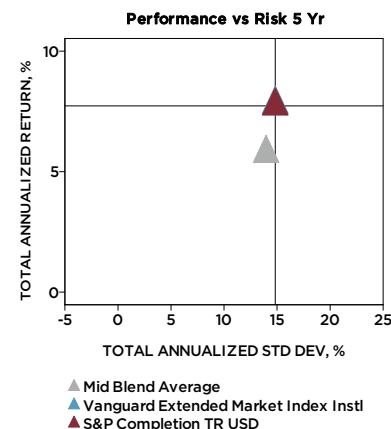
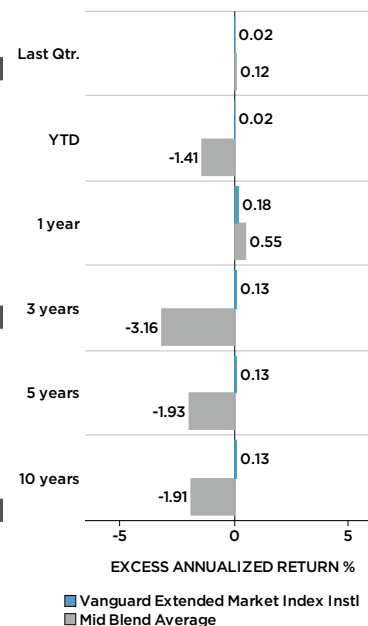
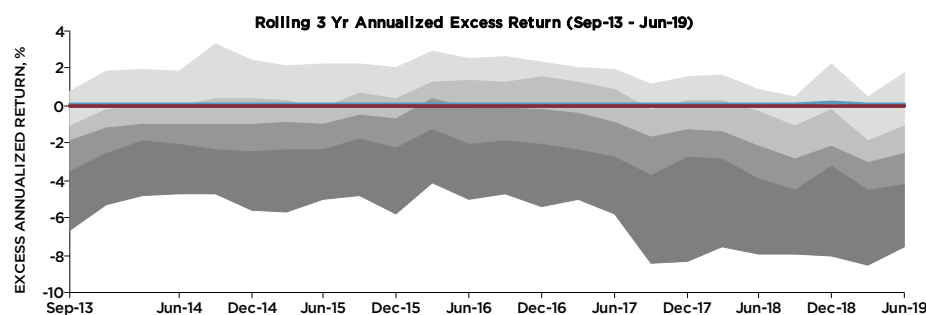
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VANGUARD EXTENDED MARKET INDEX INSTL

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	Vanguard Extended Market Index Instl	Peer Group Rank	S&P Completion TR USD	Mid Blend	# of Funds
Standard Deviation	14.87	85%	14.88	13.91	347
Sharpe Ratio	0.47	33%	0.46	0.36	347
Alpha	0.13	36%	0.00	-1.14	347
Beta	1.00	9%	1.00	0.88	347
R-Squared	100.00	1%	100.00	89.38	347
Up Mkt Capture	100.41	3%	100.00	83.70	347
Down Mkt Capture	99.78	85%	100.00	90.07	347
Information Ratio	1.71	1%	NA	-0.31	347
TRAILING RETURNS					
Last Qtr.	3.04	52%	3.02	3.14	405
YTD	19.51	34%	19.49	18.08	405
1 Year	2.06	52%	1.88	2.42	403
3 Years	13.18	14%	13.05	9.89	371
5 Years	7.82	19%	7.69	5.76	347
10 Years	14.68	8%	14.55	12.64	297
CALENDAR RETURNS					
2018	-9.35	25%	-9.57	-11.88	417
2017	18.12	27%	18.11	15.56	434
2016	16.15	40%	15.95	14.20	424
2015	-3.24	48%	-3.35	-4.67	439
2014	7.56	63%	7.50	8.48	436



INVESTMENT PROFILE

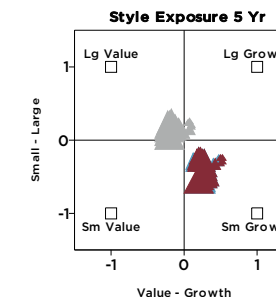
Ticker	VIEIX
CUSIP	922908884
Net Assets \$MM	\$69,501.00
Manager Names	Team Managed
Manager Tenure	21.5 Years
Prospectus Exp Ratio	0.06%
Cat Median Exp Ratio	1.15%
Current 12b-1	N/A
Annld Ret Since Incept	8.68%
Inception Date	07/07/1997
Phone Number	888-809-8102
Sub Advisor	N/A

HOLDINGS OVERVIEW

Total Number of Holdings	3300
% Assets in Top 10 Holdings	5.45%
Avg Mkt Cap \$MM	\$4,665.83
Turnover Ratio	10.00%

TOP HOLDINGS

ServiceNow Inc	0.98%
Worldpay Inc Class A	0.74%
Workday Inc Class A	0.65%
Tesla Inc	0.60%
T-Mobile US Inc	0.45%



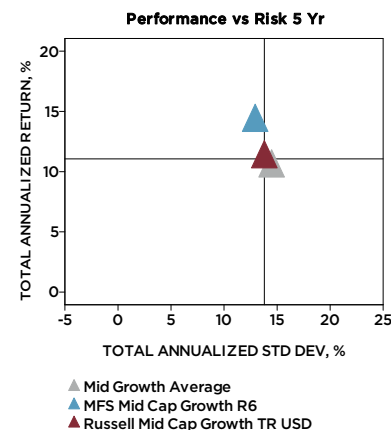
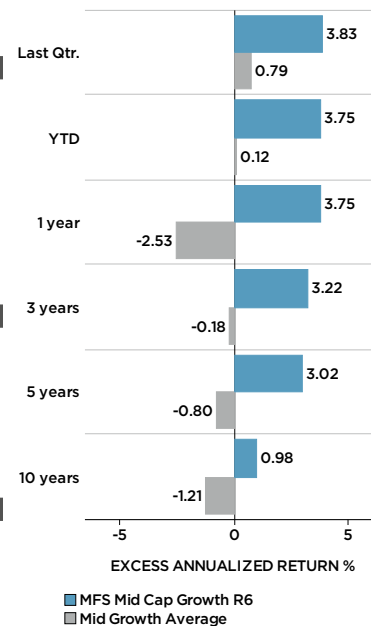
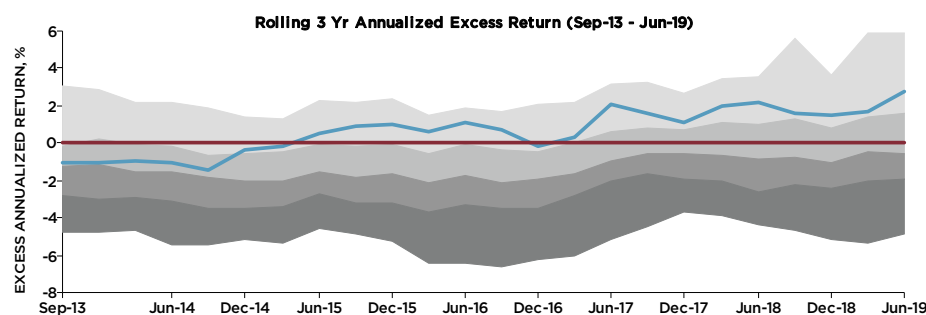
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MFS MID CAP GROWTH R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR					
	MFS Mid Cap Growth R6	Peer Group Rank	Russell Mid Cap Growth TR USD	Mid Growth	# of Funds
Standard Deviation	13.01	13%	13.86	14.48	539
Sharpe Ratio	1.02	4%	0.74	0.66	539
Alpha	3.99	7%	0.00	-0.70	539
Beta	0.91	86%	1.00	0.99	539
R-Squared	93.25	46%	100.00	90.54	539
Up Mkt Capture	101.71	24%	100.00	96.98	539
Down Mkt Capture	83.20	8%	100.00	100.52	539
Information Ratio	0.76	5%	NA	-0.23	539
TRAILING RETURNS					
Last Qtr.	9.23	8%	5.40	6.19	584
YTD	29.84	16%	26.08	26.21	584
1 Year	17.69	10%	13.94	11.41	582
3 Years	19.70	16%	16.49	16.31	562
5 Years	14.13	6%	11.10	10.31	539
10 Years	17.00	9%	16.02	14.82	497
CALENDAR RETURNS					
2018	1.21	9%	-4.75	-5.62	594
2017	26.39	35%	25.27	24.94	617
2016	4.75	56%	7.33	5.96	653
2015	4.60	9%	-0.20	-0.64	673
2014	8.95	32%	11.90	7.14	692



INVESTMENT PROFILE

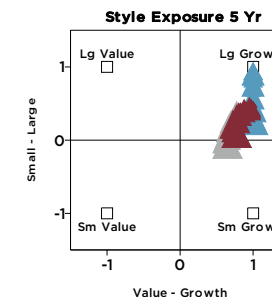
Ticker	OTCKX
CUSIP	552987554
Net Assets \$MM	\$5,618.00
Manager Names	Team Managed
Manager Tenure	10.6 Years
Prospectus Exp Ratio	0.77%
Cat Median Exp Ratio	1.25%
Current 12b-1	N/A
Annld Ret Since Incept	16.22%
Inception Date	01/02/2013
Phone Number	800-225-2606
Sub Advisor	N/A

HOLDINGS OVERVIEW

Total Number of Holdings	101
% Assets in Top 10 Holdings	23.32%
Avg Mkt Cap \$MM	\$15,537.31
Turnover Ratio	33.00%

TOP HOLDINGS

Bright Horizons Family Sol	3.63%
Global Payments Inc	2.62%
PerkinElmer Inc	2.51%
Verisk Analytics Inc	2.20%
Cadence Design Systems I	2.17%



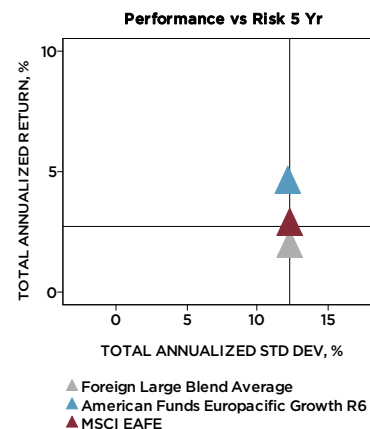
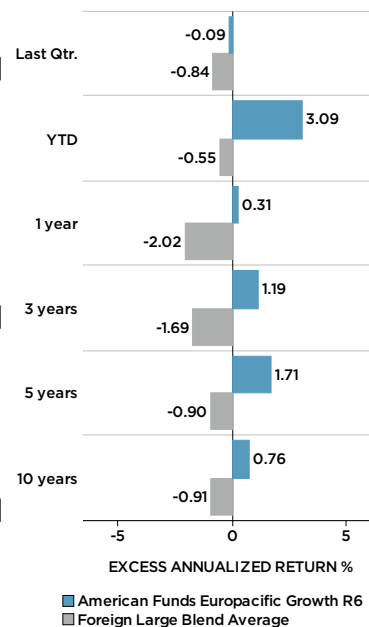
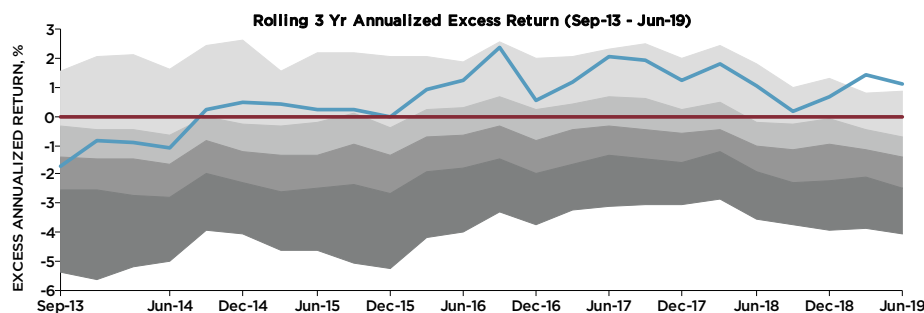
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AMERICAN FUNDS EUROPACIFIC GROWTH R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	American Funds Europacific Growth R6	Peer Group Rank	MSCI EAFE	Foreign Large Blend	# of Funds
Standard Deviation	12.19	58%	12.29	12.29	577
Sharpe Ratio	0.29	4%	0.15	0.08	577
Alpha	1.83	3%	0.00	-0.82	577
Beta	0.94	65%	1.00	0.96	577
R-Squared	89.53	79%	100.00	91.69	577
Up Mkt Capture	94.39	29%	100.00	91.13	577
Down Mkt Capture	84.54	13%	100.00	96.14	577
Information Ratio	0.42	4%	NA	-0.25	577
TRAILING RETURNS					
Last Qtr.	3.87	26%	3.97	3.13	700
YTD	17.59	7%	14.49	13.95	697
1 Year	1.91	23%	1.60	-0.42	688
3 Years	10.84	4%	9.65	7.95	646
5 Years	4.45	3%	2.74	1.84	577
10 Years	8.15	7%	7.40	6.49	498
CALENDAR RETURNS					
2018	-14.91	46%	-13.36	-15.53	693
2017	31.17	4%	25.62	25.41	741
2016	1.01	46%	1.51	0.83	761
2015	-0.48	37%	-0.39	-1.42	739
2014	-2.29	17%	-4.48	-5.06	753



INVESTMENT PROFILE

Ticker	RERGX
CUSIP	298706821
Net Assets \$MM	\$161,594.00
Manager Names	Team Managed
Manager Tenure	27.5 Years
Prospectus Exp Ratio	0.49%
Cat Median Exp Ratio	1.15%
Current 12b-1	N/A
Annld Ret Since Incept	9.05%
Inception Date	05/01/2009
Phone Number	800-421-4225
Sub Advisor	N/A

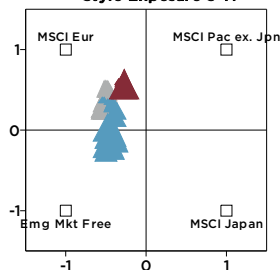
HOLDINGS OVERVIEW

Total Number of Holdings	330
% Assets in Top 10 Holdings	21.49%
Avg Mkt Cap \$MM	\$45,932.60
Turnover Ratio	35.00%

TOP HOLDINGS

AIA Group Ltd	3.04%
Airbus SE	2.89%
HDFC Bank Ltd	2.46%
Alibaba Group Holding Lt	2.38%
Nintendo Co Ltd	2.32%

Style Exposure 5 Yr



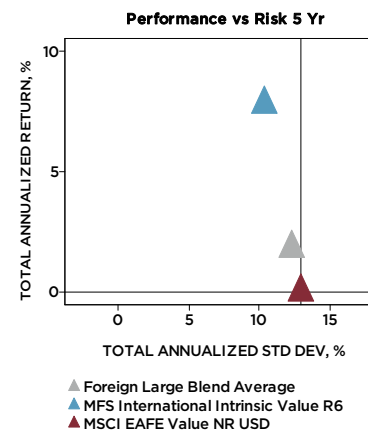
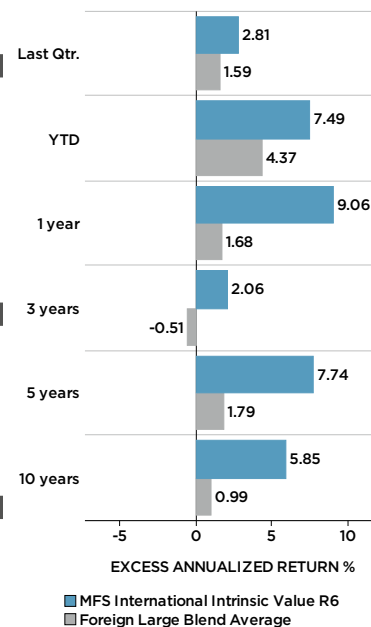
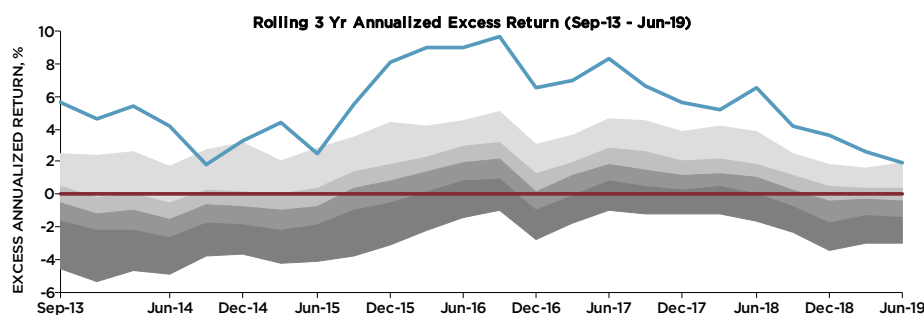
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MFS INTERNATIONAL INTRINSIC VALUE R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	MFS International Intrinsic Value R6	Peer Group Rank	MSCI EAFE Value NR USD	Foreign Large Blend	# of Funds
Standard Deviation	10.36	4%	12.96	12.29	577
Sharpe Ratio	0.67	1%	-0.06	0.08	577
Alpha	7.44	1%	0.00	1.69	577
Beta	0.63	98%	1.00	0.88	577
R-Squared	61.77	100%	100.00	85.37	577
Up Mkt Capture	76.99	91%	100.00	88.32	577
Down Mkt Capture	39.70	1%	100.00	80.73	577
Information Ratio	0.95	1%	NA	0.37	577
TRAILING RETURNS					
Last Qtr.	4.35	12%	1.54	3.13	700
YTD	17.07	9%	9.58	13.95	697
1 Year	6.96	1%	-2.10	-0.42	688
3 Years	10.52	6%	8.46	7.95	646
5 Years	7.79	1%	0.05	1.84	577
10 Years	11.35	1%	5.50	6.49	498
CALENDAR RETURNS					
2018	-8.89	2%	-14.78	-15.53	693
2017	27.25	28%	21.44	25.41	741
2016	4.31	14%	5.02	0.83	761
2015	6.85	1%	-5.68	-1.42	739
2014	1.61	3%	-5.39	-5.06	753



INVESTMENT PROFILE

Ticker	MINJX
CUSIP	552746349
Net Assets \$MM	\$28,593.00
Manager Names	Team Managed
Manager Tenure	10.6 Years
Prospectus Exp Ratio	0.63%
Cat Median Exp Ratio	1.15%
Current 12b-1	N/A
Annld Ret Since Incept	7.05%
Inception Date	05/01/2006
Phone Number	800-225-2606
Sub Advisor	N/A

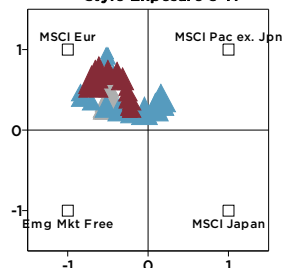
HOLDINGS OVERVIEW

Total Number of Holdings	104
% Assets in Top 10 Holdings	28.36%
Avg Mkt Cap \$MM	\$25,048.14
Turnover Ratio	14.00%

TOP HOLDINGS

Nestle SA	5.16%
Givaudan SA	3.34%
Cadence Design Systems	3.29%
Pernod Ricard SA	2.74%
Diageo PLC	2.65%

Style Exposure 5 Yr



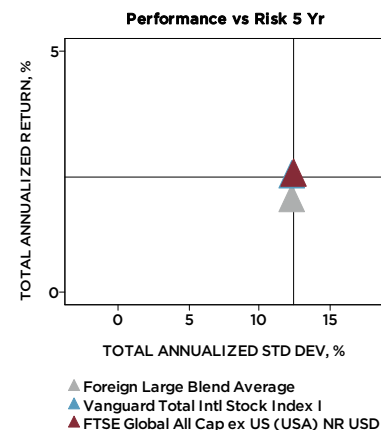
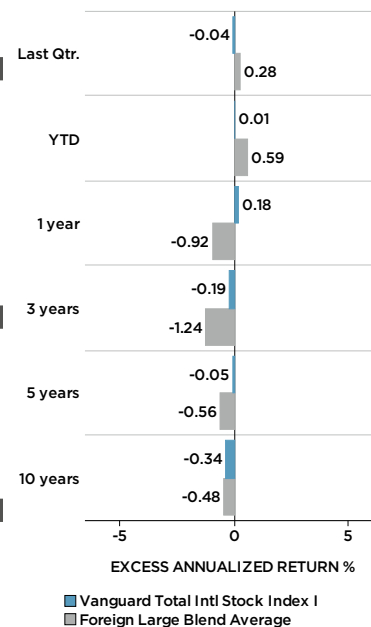
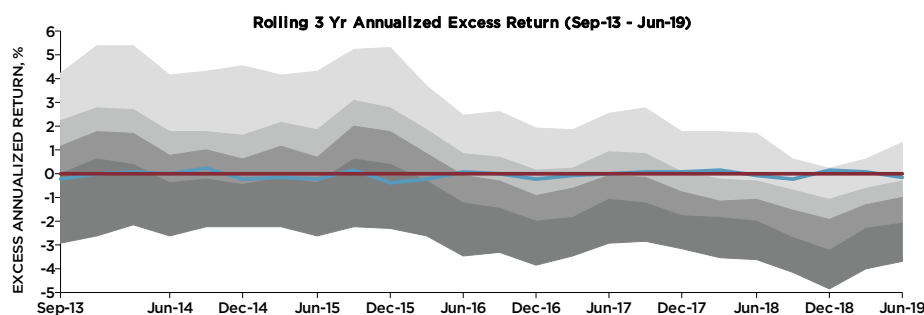
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VANGUARD TOTAL INTL STOCK INDEX I

Period Ending 6.30.19 | Q2 19

3.1

	Vanguard Total Intl Stock Index I	Peer Group Rank	FTSE Global All Cap ex US (USA) NR USD	Foreign Large Blend	# of Funds
KEY MEASURES / 5 YEAR					
Standard Deviation	12.22	60%	12.42	12.29	577
Sharpe Ratio	0.12	32%	0.12	0.08	577
Alpha	-0.01	33%	0.00	-0.47	577
Beta	0.98	27%	1.00	0.94	577
R-Squared	98.40	1%	100.00	90.96	577
Up Mkt Capture	97.48	24%	100.00	92.60	577
Down Mkt Capture	97.82	66%	100.00	95.80	577
Information Ratio	-0.03	33%	NA	-0.14	577
TRAILING RETURNS					
Last Qtr.	2.81	65%	2.85	3.13	700
YTD	13.36	63%	13.36	13.95	697
1 Year	0.68	38%	0.50	-0.42	688
3 Years	9.00	21%	9.19	7.95	646
5 Years	2.36	31%	2.40	1.84	577
10 Years	6.63	49%	6.97	6.49	498
CALENDAR RETURNS					
2018	-14.39	37%	-14.62	-15.53	693
2017	27.55	25%	27.41	25.41	741
2016	4.70	11%	4.72	0.83	761
2015	-4.24	82%	-4.29	-1.42	739
2014	-4.15	31%	-3.39	-5.06	753



INVESTMENT PROFILE

Ticker	VTSNX
CUSIP	921909784
Net Assets \$MM	\$381,622.00
Manager Names	Team Managed
Manager Tenure	10.9 Years
Prospectus Exp Ratio	0.08%
Cat Median Exp Ratio	1.15%
Current 12b-1	N/A
Annlzd Ret Since Incept	4.70%
Inception Date	11/29/2010
Phone Number	800-662-7447
Sub Advisor	N/A

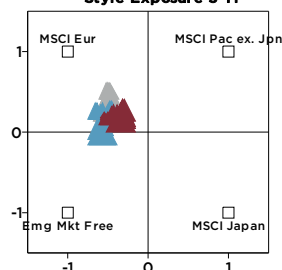
HOLDINGS OVERVIEW

Total Number of Holdings	6368
% Assets in Top 10 Holdings	8.02%
Avg Mkt Cap \$MM	\$21,962.75
Turnover Ratio	3.00%

TOP HOLDINGS

Nestle SA	1.27%
Tencent Holdings Ltd	1.02%
Novartis AG	0.80%
Roche Holding AG Dividen	0.78%
Alibaba Group Holding Ltd	0.77%

Style Exposure 5 Yr



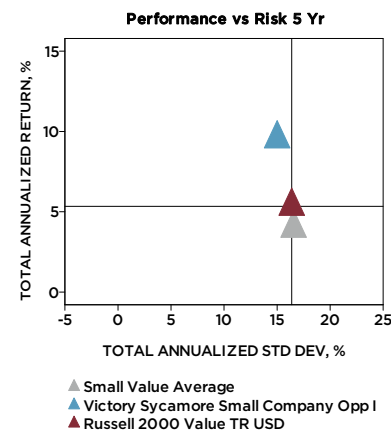
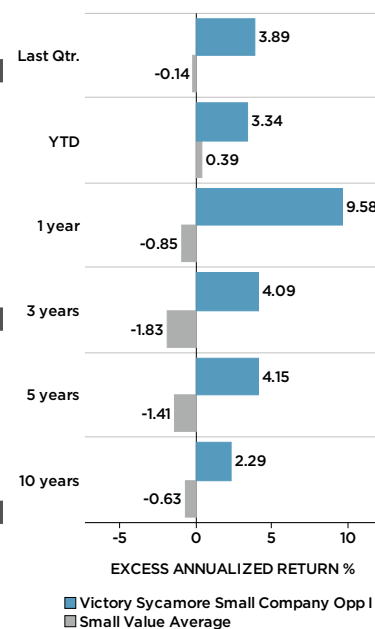
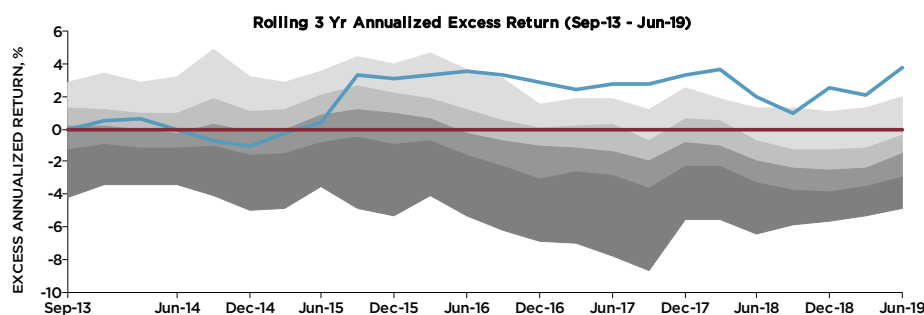
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VICTORY SYCAMORE SMALL COMPANY OPP I

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	Victory Sycamore Small Company Opp I	Peer Group Rank	Russell 2000 Value TR USD	Small Value	# of Funds
Standard Deviation	15.02	16%	16.41	16.50	366
Sharpe Ratio	0.58	1%	0.28	0.20	366
Alpha	4.63	1%	0.00	-1.25	366
Beta	0.89	84%	1.00	0.96	366
R-Squared	95.33	39%	100.00	92.27	366
Up Mkt Capture	101.58	12%	100.00	90.82	366
Down Mkt Capture	83.23	11%	100.00	96.60	366
Information Ratio	1.06	1%	NA	-0.27	366
TRAILING RETURNS					
Last Qtr.	5.26	4%	1.38	1.24	406
YTD	16.81	16%	13.47	13.85	406
1 Year	3.34	1%	-6.24	-7.09	402
3 Years	13.90	1%	9.81	7.98	392
5 Years	9.53	1%	5.39	3.98	366
10 Years	14.69	4%	12.40	11.77	322
CALENDAR RETURNS					
2018	-8.26	3%	-12.86	-15.81	404
2017	11.88	23%	7.84	9.04	415
2016	30.04	17%	31.74	25.42	428
2015	-0.39	4%	-7.47	-6.85	435
2014	6.80	14%	4.22	3.50	433



INVESTMENT PROFILE

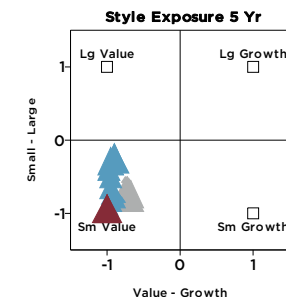
Ticker	VSOIX
CUSIP	92646A815
Net Assets \$MM	\$5,444.00
Manager Names	Team Managed
Manager Tenure	21.1 Years
Prospectus Exp Ratio	0.88%
Cat Median Exp Ratio	1.28%
Current 12b-1	0.00%
Annld Ret Since Incept	9.19%
Inception Date	08/31/2007
Phone Number	800-539-3863
Sub Advisor	N/A

HOLDINGS OVERVIEW

Total Number of Holdings	107
% Assets in Top 10 Holdings	14.66%
Avg Mkt Cap \$MM	\$2,493.86
Turnover Ratio	43.00%

TOP HOLDINGS

EMCOR Group Inc	1.62%
Avanos Medical Inc	1.58%
UniFirst Corp	1.53%
Axis Capital Holdings Ltd	1.46%
Pinnacle Financial Partner	1.45%



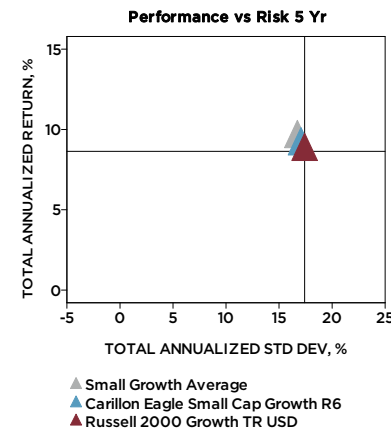
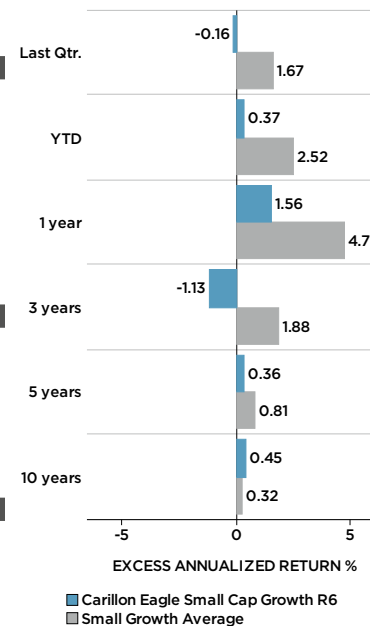
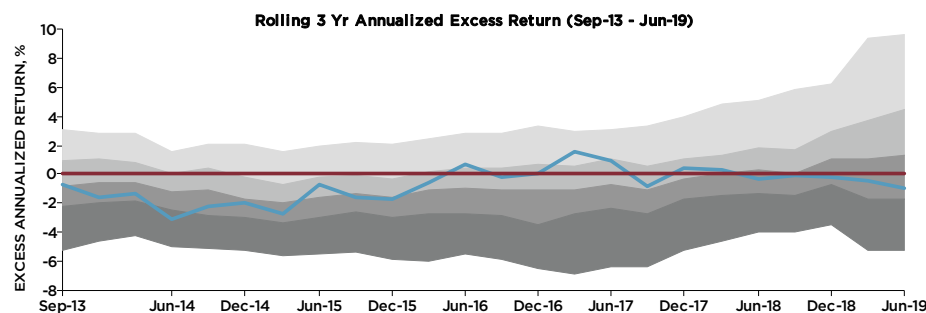
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CARILLON EAGLE SMALL CAP GROWTH R6

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	Carillon Eagle Small Cap Growth R6	Peer Group Rank	Russell 2000 Growth TR USD	Small Growth	# of Funds
Standard Deviation	17.05	59%	17.38	16.80	628
Sharpe Ratio	0.48	60%	0.45	0.51	628
Alpha	0.68	62%	0.00	1.42	628
Beta	0.96	32%	1.00	0.92	628
R-Squared	95.44	26%	100.00	91.21	628
Up Mkt Capture	97.62	34%	100.00	93.56	628
Down Mkt Capture	95.73	77%	100.00	88.97	628
Information Ratio	0.09	56%	NA	0.14	628
TRAILING RETURNS					
Last Qtr.	2.59	75%	2.75	4.42	679
YTD	20.74	59%	20.36	22.88	677
1 Year	1.07	64%	-0.49	4.24	676
3 Years	13.56	70%	14.69	16.57	655
5 Years	8.99	56%	8.63	9.44	628
10 Years	14.86	48%	14.41	14.72	562
CALENDAR RETURNS					
2018	-10.06	78%	-9.31	-5.65	682
2017	23.40	44%	22.17	22.18	726
2016	10.45	52%	11.32	11.24	747
2015	-0.39	27%	-1.38	-2.44	766
2014	5.59	24%	5.60	2.52	780



INVESTMENT PROFILE

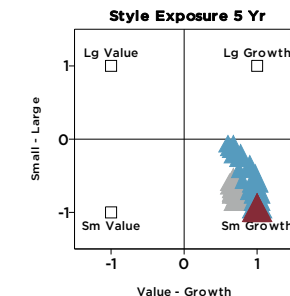
Ticker	HSRUX
CUSIP	14214L452
Net Assets \$MM	\$4,573.00
Manager Names	Team Managed
Manager Tenure	23.5 Years
Prospectus Exp Ratio	0.65%
Cat Median Exp Ratio	1.31%
Current 12b-1	0.00%
Annld Ret Since Incept	11.97%
Inception Date	08/15/2011
Phone Number	800-421-4184
Sub Advisor	Eagle Asset Management, Inc.

HOLDINGS OVERVIEW

Total Number of Holdings	115
% Assets in Top 10 Holdings	20.50%
Avg Mkt Cap \$MM	\$3,368.51
Turnover Ratio	35.00%

TOP HOLDINGS

Quaker Chemical Corp	3.03%
Planet Fitness Inc A	2.38%
Trex Co Inc	1.97%
RealPage Inc	1.94%
Woodward Inc	1.92%



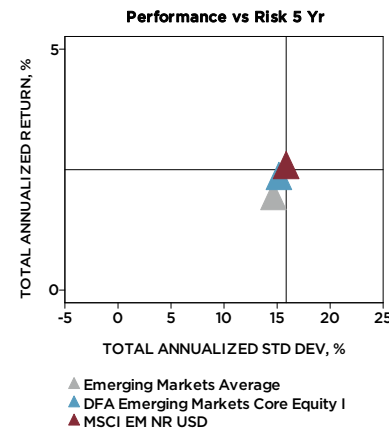
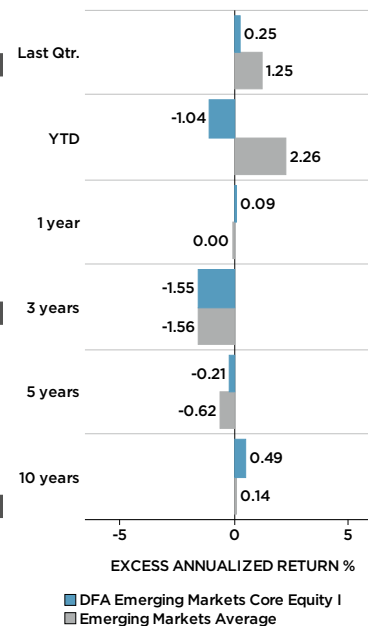
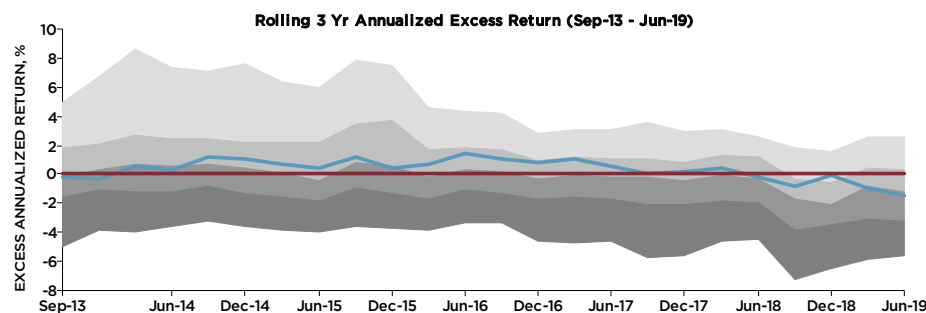
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DFA EMERGING MARKETS CORE EQUITY I

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	DFA Emerging Markets Core Equity I	Peer Group Rank	MSCI EM NR USD	Emerging Markets	# of Funds
Standard Deviation	15.13	54%	15.78	14.72	631
Sharpe Ratio	0.09	47%	0.10	0.07	631
Alpha	-0.13	48%	0.00	-0.42	631
Beta	0.95	35%	1.00	0.88	631
R-Squared	97.30	7%	100.00	88.20	631
Up Mkt Capture	95.80	37%	100.00	88.11	631
Down Mkt Capture	97.11	64%	100.00	91.44	631
Information Ratio	-0.08	51%	NA	-0.12	631
TRAILING RETURNS					
Last Qtr.	0.86	69%	0.61	1.86	813
YTD	9.54	82%	10.58	12.84	809
1 Year	1.30	46%	1.21	1.21	787
3 Years	9.11	53%	10.66	9.10	732
5 Years	2.27	46%	2.49	1.87	631
10 Years	6.29	39%	5.81	5.95	343
CALENDAR RETURNS					
2018	-15.25	37%	-14.57	-16.58	798
2017	36.55	48%	37.28	35.29	822
2016	12.35	19%	11.19	8.21	863
2015	-14.86	60%	-14.92	-13.54	850
2014	-0.91	30%	-2.19	-2.75	795



INVESTMENT PROFILE

Ticker	DFCEX
CUSIP	233203421
Net Assets \$MM	\$28,955.00
Manager Names	Team Managed
Manager Tenure	9.3 Years
Prospectus Exp Ratio	0.52%
Cat Median Exp Ratio	1.39%
Current 12b-1	N/A
Annlzd Ret Since Incept	7.43%
Inception Date	04/05/2005
Phone Number	888-576-1167
Sub Advisor	DFA Australia Limited/ Dimensional Fund Advisors Ltd

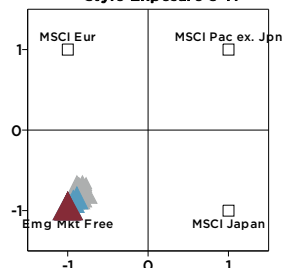
HOLDINGS OVERVIEW

Total Number of Holdings	5006
% Assets in Top 10 Holdings	12.62%
Avg Mkt Cap \$MM	\$8,430.58
Turnover Ratio	4.00%

TOP HOLDINGS

Samsung Electronics Co Ltd	3.80%
Tencent Holdings Ltd	1.64%
Taiwan Semiconductor Mar	1.51%
Taiwan Semiconductor Mar	1.12%
Vale SA	0.88%

Style Exposure 5 Yr



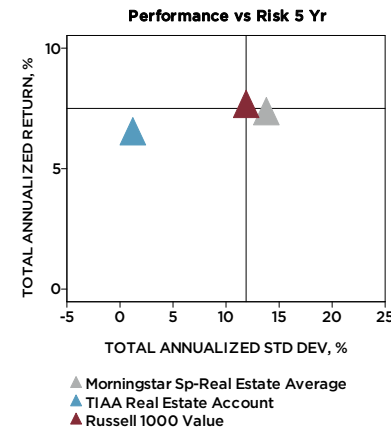
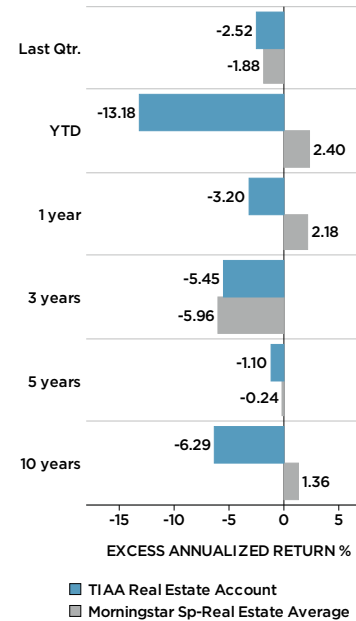
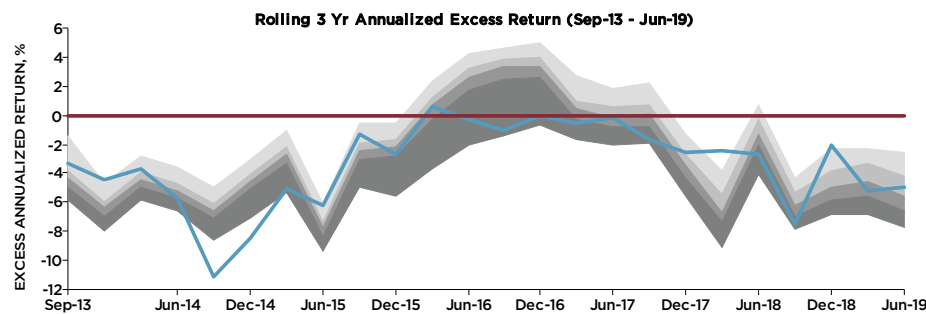
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TIAA REAL ESTATE ACCOUNT

Period Ending 6.30.19 | Q2 19

3.1

KEY MEASURES / 5 YEAR	TIAA Real Estate Account	Peer Group Rank	Russell 1000 Value	Morningstar Sp-Real Estate	# of Funds
Standard Deviation	1.15	1%	11.93	13.80	227
Sharpe Ratio	4.80	1%	0.55	0.47	227
Alpha	5.29	2%	0.00	2.33	227
Beta	0.03	100%	1.00	0.61	227
R-Squared	8.66	100%	100.00	28.25	227
Up Mkt Capture	21.03	100%	100.00	69.64	227
Down Mkt Capture	-15.55	1%	100.00	58.11	227
Information Ratio	-0.09	76%	NA	-0.02	227
TRAILING RETURNS					
Last Qtr.	1.32	75%	3.84	1.97	245
YTD	3.06	100%	16.24	18.64	245
1 Year	5.26	94%	8.46	10.64	241
3 Years	4.74	38%	10.19	4.23	232
5 Years	6.36	74%	7.46	7.22	227
10 Years	6.91	100%	13.19	14.55	191
CALENDAR RETURNS					
2018	4.79	1%	-8.27	-6.41	241
2017	4.37	63%	13.66	5.72	259
2016	5.20	73%	17.34	6.65	279
2015	8.16	1%	-3.83	2.48	283
2014	12.22	99%	13.45	28.42	282



INVESTMENT PROFILE

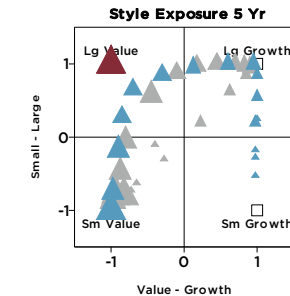
ID VAUSA059TL
 Cusip 878094200
 Net Assets \$ \$26,728,550,538.13
 Manager Name Team Managed
 Manager Start Date 2016-05-01
 Expense Ratio 0.76%
 Cat Median Exp Ratio 1.25%
 Annlzd Ret Since Incept 6.29%
 Inception Date 10-02-1995
 Share Class Incep Date 10/02/1995
 Phone Number 877-518-9161
 Sub Advisor

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings 20.00%
 Avg Mkt Cap \$MM \$15,074.04
 Turnover Ratio 11.80%

TOP HOLDINGS

Fashion Show 2.75%
 1001 Pennsylvania Avenue 2.71%
 The Florida Mall 2.66%
 Ddr Joint Venture 2.26%
 Fourth And Madison 2.04%



Performance Disclosure: For use with CAPTRUST clients only. Mutual fund investing involves risk. Please visit captrustadvisors.com/risk-disclosures/ for a detailed description of the risks associated with investing by asset class. Statistics and data have been derived from Morningstar and are not guaranteed to be accurate or complete. Performance data included here represents past performance and does not guarantee future results. This is not a solicitation to invest. Each mutual fund has a prospectus with a complete description of the risks associated with investing in the specific fund. To request a prospectus on this fund, please call CAPTRUST at (800)216-0645.

APPENDIX

Period Ending 6.30.19 | Q2 19

University of Maine System

APPENDIX

Your CAPTRUST Service Team.....

Glossary of Terms.....

Evaluation Methodology.....

YOUR CAPTRUST SERVICE TEAM MEMBERS

Period Ending 6.30.19 | Q2 19

3.1

University of Maine System

TEAM MEMBERS	RESPONSIBILITIES
Barron V. Schmitt Senior Vice President Financial Advisor Barry.Schmitt@captrust.com	Account Role: Lead Consultant Our Lead Consultants serve as the primary relationship manager for the fiduciaries of corporate retirement plans. They oversee and ensure quality delivery of comprehensive investment advisory services. They are available to assist with any aspect of clients' accounts, or put them in contact with the appropriate resources here at CAPTRUST.
Michael S. Pratico Senior Vice President Financial Advisor Michael.Pratico@CAPTRUSTAdvisors.com	Account Role: Consultant Our Consultants have responsibility for client project management, client meetings, report preparation, and presentation. Projects involve the establishment of investment policies and objectives, asset allocation modeling, investment manager analyses and searches, fee analysis, performance evaluation, and other specialized projects. In addition, they will provide comprehensive written investment option and plan reviews, as well as monitor overall results and service delivery to ensure complete satisfaction.
Cheryl Walters Client Management Consultant Cheryl.Walters@captrust.com	Account Role: Client Management Consultant The Client Management Consultants are focused on overall client management from initial conversion of new plans to CAPTRUST throughout their 'life' at CAPTRUST. As the primary contact for day-to-day client service needs, the main goal of the Client Management Consultant is to deliver exceptional proactive client service. On a daily basis, the Client Management Consultants are available to assist employees with questions related to plan enrollment and education, available investment options, and other areas.
Andrew Battle Client Relationship Manager Drew.Battle@captrust.com	Account Role: Client Management Consultant The Client Management Consultants are focused on overall client management from initial conversion of new plans to CAPTRUST throughout their 'life' at CAPTRUST. As the primary contact for day-to-day client service needs, the main goal of the Client Management Consultant is to deliver exceptional proactive client service. On a daily basis, the Client Management Consultants are available to assist employees with questions related to plan enrollment and education, available investment options, and other areas.
Scott T. Matheson, CFA, CPA Senior Director Defined Contribution Practice Leader Scott.Matheson@captrust.com	Account Role: Research Analyst Our Investment Analysts conduct investment manager research, asset allocation studies, portfolio monitoring and performance measurement. Some of their specific duties include: evaluating fund lineups and investment options, reporting due diligence findings to clients, and researching the various universes for viable investment options. Our team monitors and evaluates mutual funds, separate account managers and alternative investments for use with current and prospective clients.

GLOSSARY

ALPHA

Alpha measures a manager's rate of return in excess of that which can be explained by its systematic risk, or Beta. It is a result of regressing a manager's returns against those of a benchmark index. A positive alpha implies that a manager has added value relative to its benchmark on a risk-adjusted basis.

BATTING AVERAGE

Batting Average, an indicator of consistency, measures the percentage of time an active manager outperformed the benchmark.

BETA

Beta measures a manager's sensitivity to systematic, or market risk. Beta is a result of the analysis regressing a manager's returns against those of a benchmark Index. A manager with a Beta of 1 should move perfectly with a benchmark. A Beta of less than 1 implies that a manager's returns are less volatile than the market's (i.e., selected benchmarks). A Beta of greater than 1 implies that a manager exhibits greater volatility than the market (i.e., selected benchmark).

CAPTURE RATIO

Up Market Capture is the average return of a manager relative to a benchmark index using only periods where the benchmark return was positive. Down Market Capture is the average return of a manager relative to a benchmark index using only periods where the benchmark return was negative. An Up Market Capture of greater than 100% and a Down Market Capture of less than 100% is considered desirable.

INFORMATION RATIO

The Information Ratio measures a manager's excess return over the passive index divided by the volatility of that excess return, or Tracking Error. To obtain a higher Information Ratio, which is preferable, a manager must demonstrate the ability to generate returns above its benchmark while avoiding large performance swings relative to that same benchmark.

PERCENTILE RANK

Percentile Rankings are based on a manager's performance relative to all other available funds in its universe. Percentiles range from 1, being the best, to 100 being the worst. A ranking in the 50th percentile or above demonstrates that the manager has performed better on a relative basis than at least 50% of its peers.

RISK-ADJUSTED PERFORMANCE

Risk-adjusted Performance, or RAP, measures the level of return that an investment option would generate given a level of risk equivalent to the benchmark index.

R-SQUARED

R-squared measures the portion of a manager's movements that are explained by movements in a benchmark index. R-squared values range from 0 to 100. An R-squared of 100 means that all movements of a manager are completely explained by movements in the index. This measurement is identified as the coefficient of determination from a regression equation. A high R-squared value supports the validity of the Alpha and Beta measures, and it can be used as a measure of style consistency.

SHARPE RATIO

Sharpe ratio measures a manager's return per unit of risk, or standard deviation. It is the ratio of a manager's excess return above the risk-free rate divided by a manager's standard deviation. A higher Sharpe ratio implies greater manager efficiency.

STANDARD DEVIATION

Standard Deviation is a measure of the extent to which observations in a series vary from the arithmetic mean of the series. This measure of volatility or risk allows the estimation of a range of values for a manager's returns. The wider the range, the more uncertainty, and, therefore, the riskier a manager is assumed to be.

TRACKING ERROR

Tracking Error is the standard deviation of the portfolio's residual (i.e. excess) returns. The lower the tracking error, the closer the portfolio returns have been to its risk index. Aggressively managed portfolios would be expected to have higher tracking errors than portfolios with a more conservative investment style.

TREYNOR RATIO


The Treynor Ratio is a measure of reward per unit of risk. With Treynor, the numerator (i.e. reward) is defined as the annualized excess return of the portfolio versus the risk-free rate. The denominator (i.e. risk) is defined as the portfolio beta. The result is a measure of excess return per unit of portfolio systematic risk. As with Sharpe and Sortino, the Treynor Ratio only has value when it is used as the basis of comparison between portfolios. The higher the Treynor Ratio, the better.

INVESTMENT REVIEW | EVALUATION METHODOLOGY

Period Ending 6.30.19 | Q2 19

University of Maine System

3.1

	QUANTITATIVE EVALUATION ITEMS	QUALITATIVE EVALUATION ITEMS
 MARKED FOR REVIEW The following categories of the Investment Policy Monitor appear “Marked For Review” when:	<p>3/5 Year Risk- adjusted Performance</p> <p>The investment option's 3 or 5 Year Annualized Risk Adjusted Performance falls below the 50th percentile of the peer group.</p> <p>3/5 Year Performance vs. Peers</p> <p>The investment option's 3 or 5 Year Annualized Peer Relative Performance falls below the 50th percentile of the peer group.</p> <p>3/5 Year Style</p> <p>The investment option's 3 or 5 Year R-Squared measure falls below the absolute threshold set per asset class.</p> <p>3/5 Year Confidence</p> <p>The investment option's 3 or 5 Year Confidence Rating falls below the 50th percentile of the peer group.</p> <p>Glidepath Assessment</p> <p>% of Equity Exposure: The combined percentage of an investment option's equity exposure ranks in the top 20th percentile or bottom 20th percentile of the peer group.</p> <p>Regression to the Benchmark: The investment option's sensitivity to market risk - as measured by beta relative to a Global Equity Index - is above 0.89.</p>	<p>Fund Management</p> <p>A significant disruption to the investment option's management team has been discovered.</p> <p>Fund Family</p> <p>A significant disruption to the investment option's parent company has been discovered.</p> <p>Portfolio Construction</p> <p>The investment option's combined Portfolio Construction score is 6 or below out of a possible 15 points.</p> <p>Underlying Investment Vehicles</p> <p>The investment option's combined Underlying Investment Vehicles score is 6 or below out of a possible 15 points.</p>

CAPTRUST's Investment Policy Monitoring Methodology

The Investment Policy Monitoring Methodology document describes the systems and procedures CAPTRUST uses to monitor and evaluate the investment vehicles in your plan/account on a quarterly basis.

Our current Investment Policy Monitoring Methodology document can be accessed through the following link:

captrust.com/investmentmonitoring



AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Review of Portfolio Structure and Investment Managers
2. **INITIATED BY:** Kelly A. Martin, Chair
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**
 Primary Outcomes: Section 709 - Investments
 Enhance fiscal positioning
5. **BACKGROUND:**

Kelly Regan and Sarah Samuels from NEPC will review the enclosed information at the August 29, 2019 Investment Committee meeting. The presentation will cover NEPC's market outlook, manager research process and an overview of all three Portfolios (Managed Investment Pool, Pension Fund and Operating Fund).

August 15, 2019

PORTFOLIO OVERVIEW



UNIVERSITY OF MAINE SYSTEM

August 29, 2019

Kelly Regan, Senior Consultant

Jay Roney, CTP, Partner

Sarah Samuels, CFA, CAIA, Partner



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

AGENDA

4.1

NEPC's Market Outlook

NEPC's Manager Research Process

Operating Fund Overview

Pension Fund Overview

Managed Investment Pool (MIP) Overview



SARAH SAMUELS BIOGRAPHY



Sarah Samuels, CFA, CAIA
Partner, Director of Public Markets Research

Joined NEPC in April 2019

Previous Roles

- Managing Director at Wellesley College
- Deputy Chief Investment Officer at Mass PRIM
- Wellington Management Company

Other Accomplishments

- Director of CFA Society Boston
- University of New Hampshire Board
- Girls Who Invest Advisory Board

Education

- Boston University, MBA
- University of New Hampshire, BA

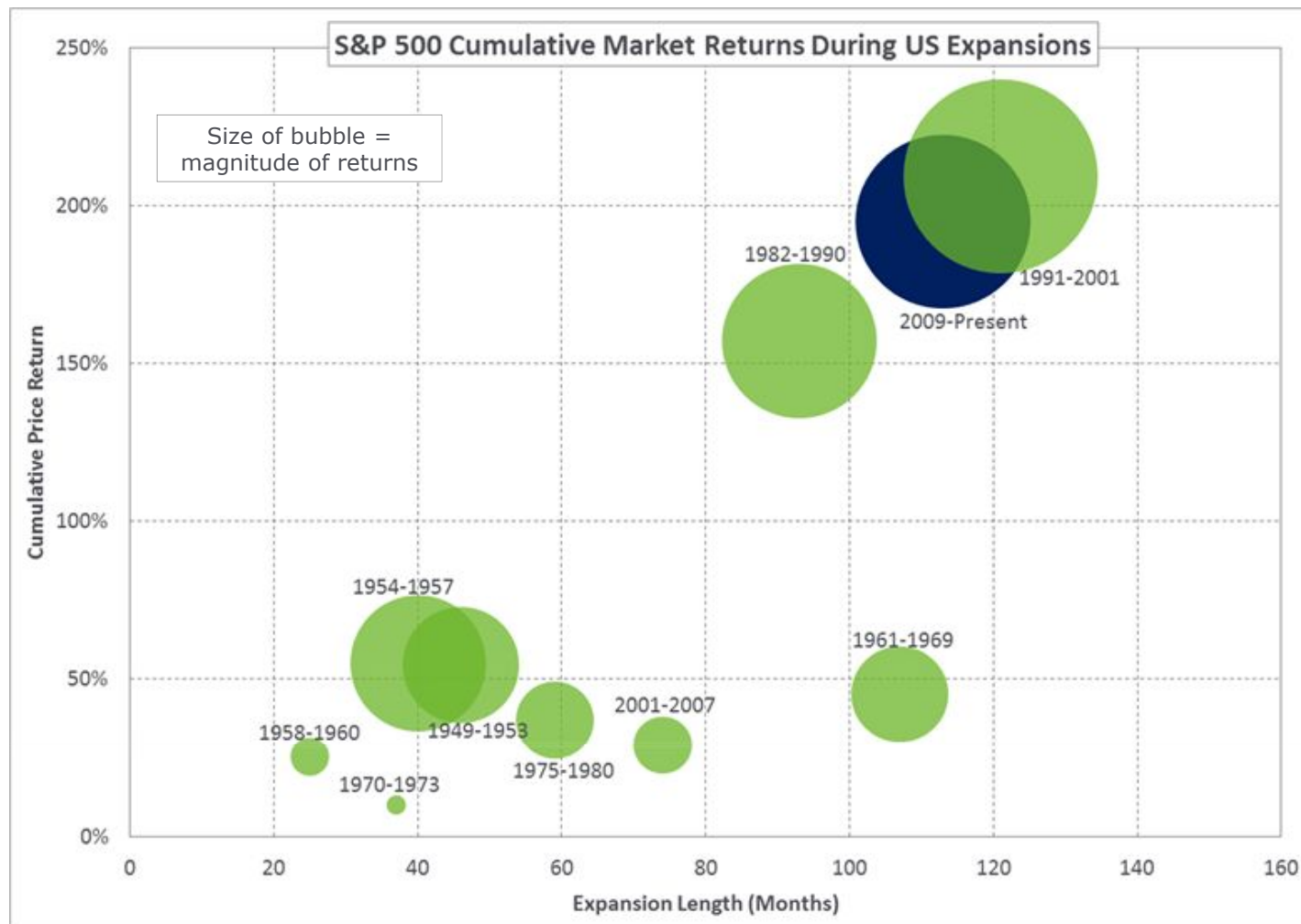


NEPC'S MARKET OUTLOOK

NEPC, LLC

RECENT U.S. EQUITY PERFORMANCE

4.1



Source: S&P, Bloomberg, NEPC



NEPC'S KEY MARKET THEMES

Late Cycle Dynamics

The US economy has transitioned from a mid- to late-cycle environment

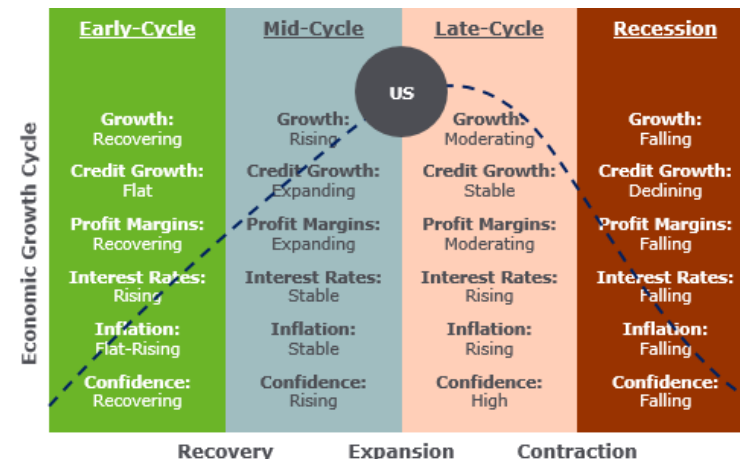
Late-cycle does not mean end of cycle; equity markets can offer strong returns and abandoning risk assets early may detract from long-term results

Despite the recent trend, there is minimal evidence in economic/financial indicators to suggest that a US recession is imminent

However, moving into a late cycle negatively skews the range of outcomes and our investment outlook reflects a more risk-averse posture with a bias toward selling low-quality credit and increasing safe-haven fixed income exposure

We are evaluating market indicators, such as the yield curve, that would lead us to adopt a defensive outlook

A prolonged inversion of the yield curve or weakness in other economic metrics, would lead us to recommend a material increase in safe-haven fixed income and reduction to equity exposure



US Indicators	Late-Cycle Trend	Current Trend*
Fed Funds Rates	Rising	Stable
Yield Curve	Flattening	Flattening
Economic Growth	Moderating	Moderating
Output Gap	Near/Above Potential	Rising
Inflation	Rising	Falling
Unemployment	Falling/Bottoming	Falling
Equities	Peaking	Rising
Credit Spreads	Stable/Rising	Falling

Source: (Top) NEPC

Source: (Bottom) NEPC; *Trend represents changes over the previous two quarters



EXPANSIONS AND RECESSIONS

4.1



GROWTH OUTPERFORMS VALUE MID/LATE CYCLE

4.1



Rolling 1-Yr Return: Russell 1000 Growth - Russell 1000 Value

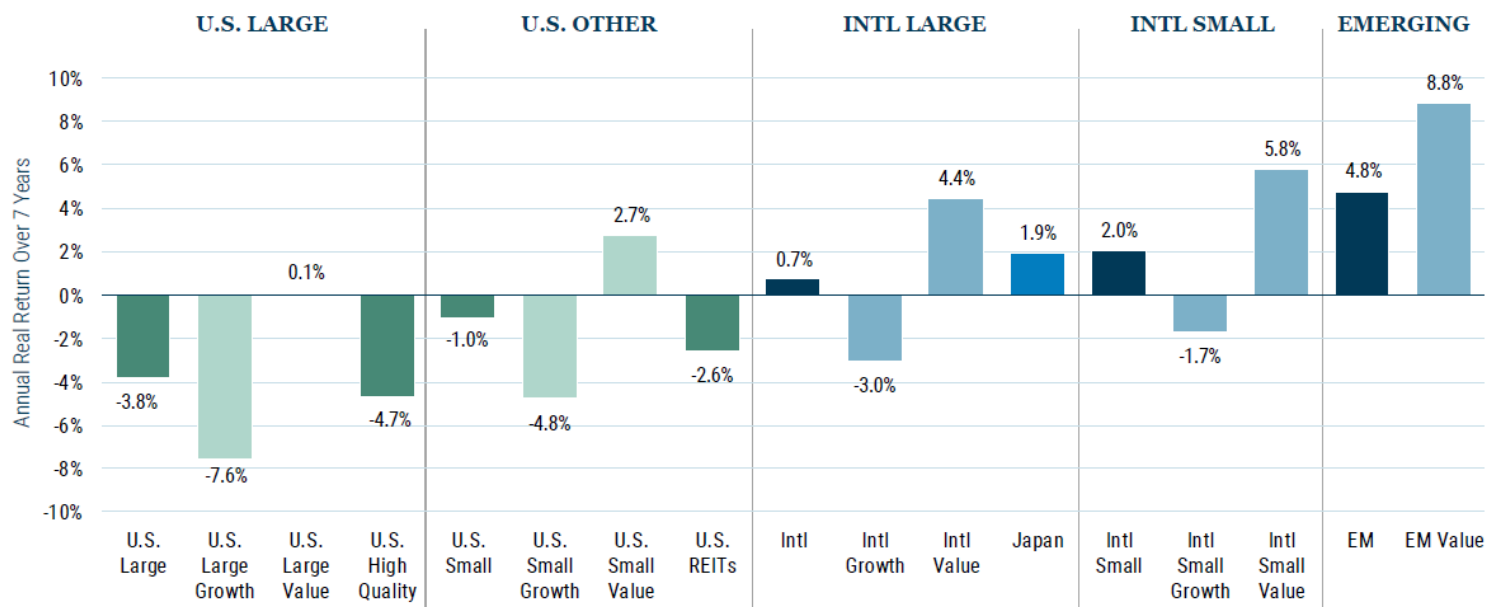
Source: FactSet



FORWARD LOOKING MARKET FORECAST

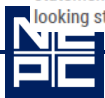
7-YEAR GLOBAL REAL RETURN EQUITY FORECASTS*

Value and growth within large and small stocks, and REITs, as of June 30, 2019



Source: GMO

*The chart represents local, real return forecasts for several asset classes and not for any GMO fund or strategy. These forecasts are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. Forward-looking statements speak only as of the date they are made, and GMO assumes no duty to and does not undertake to update forward-looking statements. Forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results may differ materially from those anticipated in forward-looking statements. U.S. inflation is assumed to mean revert to long-term inflation of 2.2% over 15 years.



ASSET ALLOCATION ACTION LIST

- ✓ • **Evaluate exposure to risk assets in aggregate**
 - After enjoying years of outsized risk asset returns, it may be time to increase exposure to safe-haven assets or those that offer downside protection
 - *What amount of volatility/losses are you comfortable with?*
- ✓ • **Consider increasing portfolio liquidity**
 - *What is your liquidity profile?*
 - *Should liquid markets sell off, are you comfortable with the increase in illiquid exposure resulting from the denominator effect?*
- ✓ • **Rebalancing still plays an important role in the late cycle**
 - Typically, heightened volatility can be a characteristic of the late cycle
 - Rebalancing allows investors to maintain risk, liquidity, and diversification targets while also capture improved pricing opportunities
- **Balance actions to increase defensiveness with tactical opportunities resulting from market dislocation**
- **We believe having portfolio discipline, diversification, and balance can help navigate the extended cycle AND generate better long-term returns when the expansion ends and asset repricing occurs**



University Maine System Investment Committee and NEPC have evaluated these items



WHAT PEERS ARE SAYING....



ENDOWMENTS AND FOUNDATIONS' ECONOMIC CONCERNS TRIPLE IN 2019

BASED ON NEPC'S 2019 Q1 ENDOWMENT & FOUNDATION SURVEY

GREATEST THREAT

60% of respondents say

GLOBAL SLOWDOWN

is the greatest threat to their investment portfolio compared to only 21% last year



ANNUAL GIVING IS EVOLVING



Annual cash donations have
▲ **INCREASED**
to donor-advised funds



Charitable donations
▲ **INCREASED**
overall from 2017 to 2018



Despite the hype,
cash donations via
CRYPTOCURRENCY
are in their infancy

WINNERS AND LOSERS

Endowments & Foundations plan to invest **more** money in:

- ▲ **Private Equity**
41% will increase allocations
- ▲ **Emerging Markets**
28% will increase allocations
- ▲ **Real Estate**
23% will increase allocations



Endowments & Foundations plan to invest **less** money in:

- ▼ **Hedge Funds**
32% will decrease allocations
- ▼ **Domestic Equities**
18% will decrease allocations



NEPC'S MANAGER RESEARCH PROCESS

NEPC, LLC

RESEARCH TEAM - CLIENT FOCUSED

Tim McCusker, FSA, CFA, CAIA
Chief Investment Officer



53 dedicated research employees generate client output



**Strategic/Dynamic
Market View**

**Manager Selection
and Monitoring**

**Optimize
Positioning**

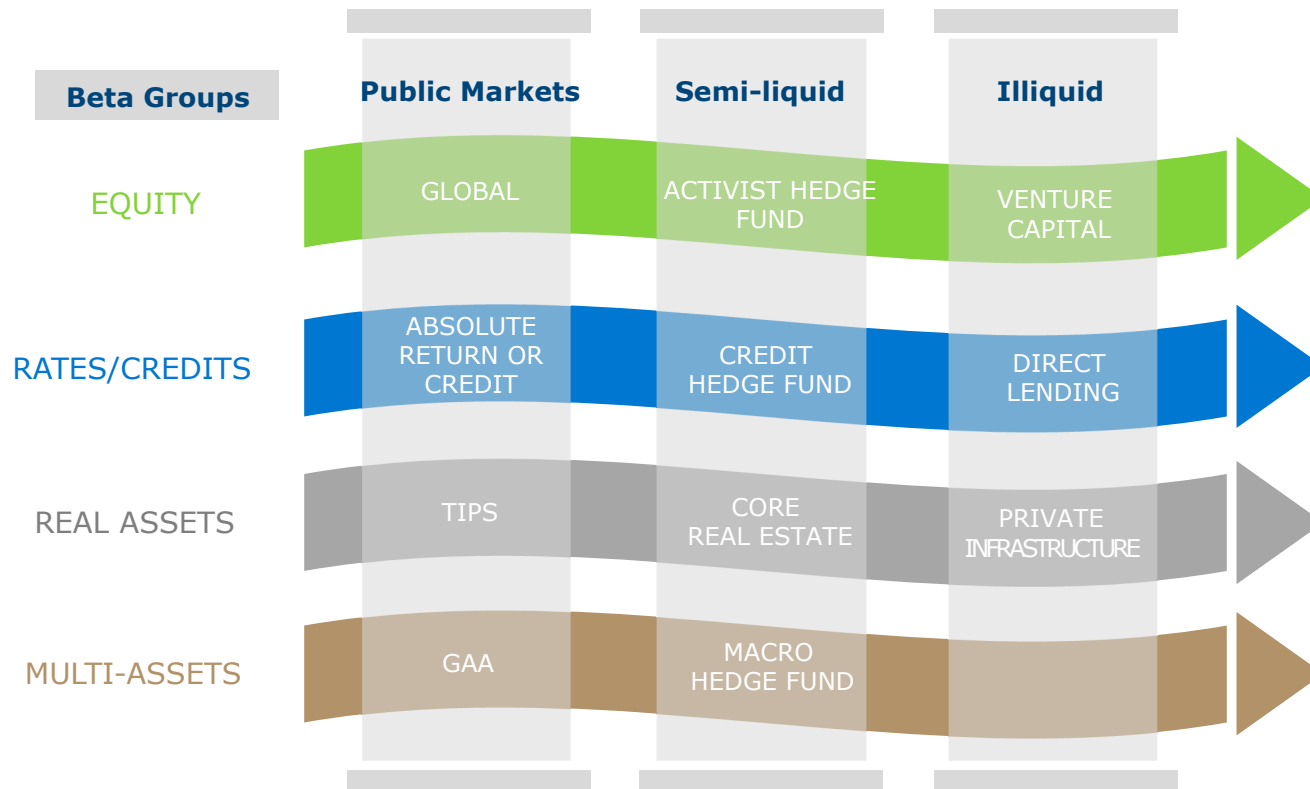
**Accessibility and
Communication**

Education

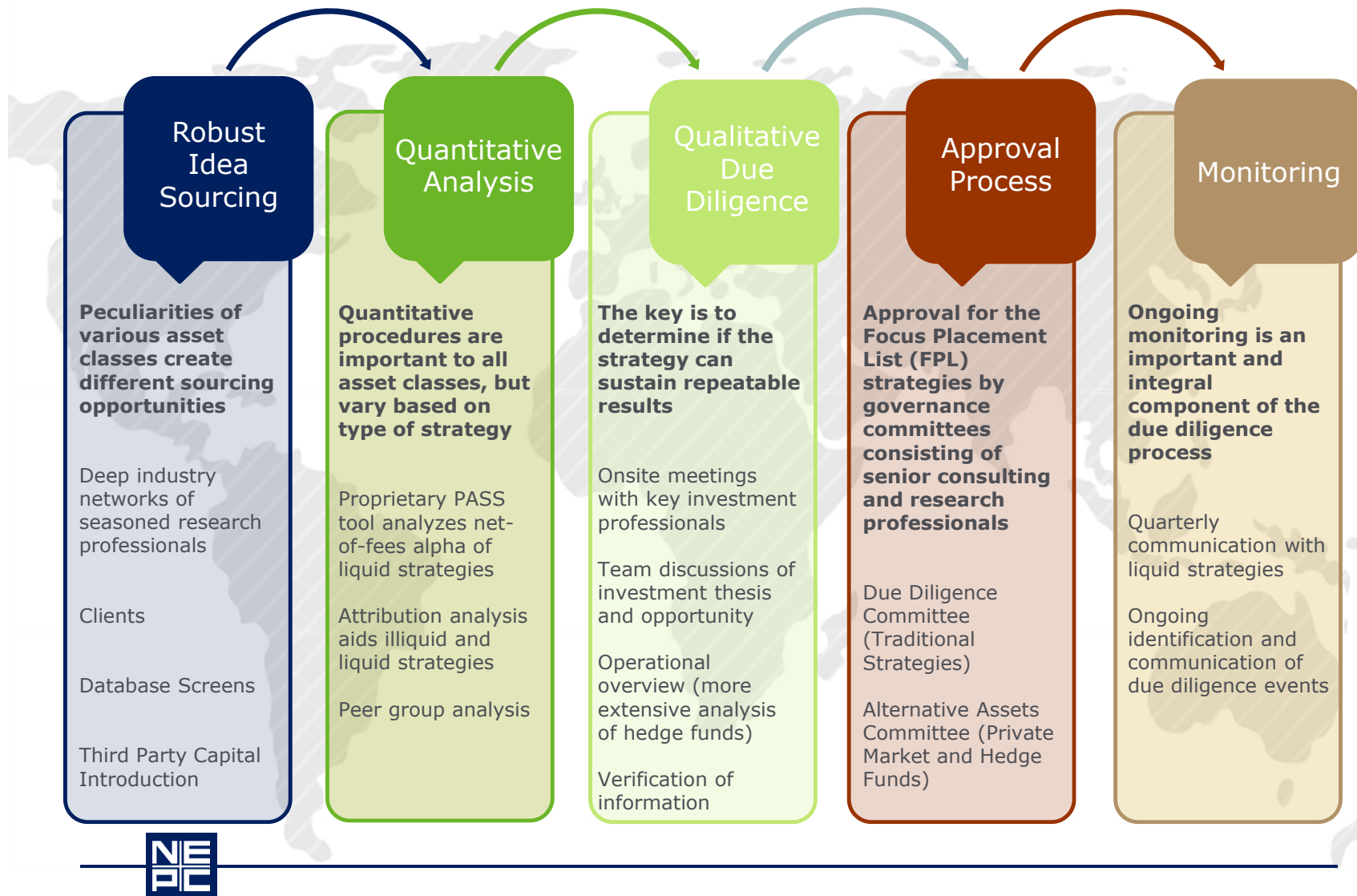
As of 4/1/2019

OUR RESEARCH TEAM

Research is the foundation on which NEPC is built. Combining vertical expertise in asset classes with dynamic market views to provide optimal implementation for each client.



MANAGER RESEARCH PROCESS



MANAGER RESEARCH GLOBAL COVERAGE

*Dedicated research group supplemented
by consulting teams*

7,800+

investment strategies rated
across asset categories¹

3,000

manager meetings in 2018

376

manager site visits in 2018

56

average number of meetings outside
the U.S. annually²

640

searches in 2018

\$25.0 billion

total search assets in 2018



¹Includes all unique products and strategies tracked in NEPC's database on which NEPC has developed an opinion and assigned a rating of 1-5. Does not include products that are flagged as Not Rated. Private equity, real estate and real assets categories include all products/strategies tracked in NEPC's internal database.

²Three year average as of 12/31/2018

UNIVERSITY OF MAINE SYSTEM & NEPC – MANAGER RESEARCH PROCESS

4.1

- **NEPC and the University of Maine System have followed the below process to select investment managers over the last ten years**
- **NEPC compiles an investment manager search book**
 - Investment managers profile are 1-rated at NEPC and have been vetted through NEPC's Manager Research & Due Diligence process
 - Typically 5-10 investment managers are profiled depending on the asset class
- **NEPC reviews all candidates with the System**
 - System Staff and at times, select individuals from the Investment Committee have attended the review meetings
 - NEPC consulting team and at times, select NEPC Researchers have attended the review meetings
- **Based on the review of the search book, typically two investment managers are invited to the Investment Committee meetings for finalist presentations**
 - The Investment Committee and NEPC discuss the manager interviews and review the pros and cons of each strategy as well as their fit into the portfolio
 - After review and discussion, the Investment Committee selects the investment manager for further investment



OPERATING FUND OVERVIEW

NEPC, LLC

OPERATING FUND OVERVIEW

4.1

- **Purpose: To supplement revenue received from tuition and state appropriations to support the System's budget**
- **A summary of the goals and objectives stated in the IPS are:**
 - To enable the UMS to meet its financial obligations
 - Provide liquidity
 - Preserve capital
 - Produce an acceptable yield to meet budget goals
 - Provide a total return opportunity set
 - Build a Budget Stabilization Fund that enables UMS to smooth the financial impact of adverse markets, economic conditions, and address other financial challenges.

Management budgeted roughly \$4.3m for FY19, FY19 returns were 4.1% equating to roughly \$10.5m



RESULTS FROM 2018 ASSET ALLOCATION STUDY

Met most goals & objectives over the last 10 years in a low interest rate environment

Learnings	In Compliance	Data
<p>We need to consider drawdowns and liquidity as the top priorities.</p> <p>Over a 1 year period, we could reasonably withstand no more than a 5-10% drawdown on assets.</p>		<ul style="list-style-type: none"> Two out of the last ten fiscal years had a 1 year drawdown ranging between -0.3% and -1.6% 88% of the Fund has daily liquidity (12% is monthly or quarterly)
<p>Our expected return should meet our long-term requirements net of inflation. We are acutely sensitive to volatility.</p>		<ul style="list-style-type: none"> Long-term return is 3.0% over 10 years on an annualized basis, falling short of the 4% long-term target as short-term interest rates remained around 0% until 2017
<p>Downside protection is primary focus with a preference towards index funds.</p>		<ul style="list-style-type: none"> Aggregate manager performance has been in-line with benchmarks 47% of the portfolio is invested in index funds
<p>Total Fund peer rankings good to gauge performance, but not the only measure</p>		<ul style="list-style-type: none"> Peer rankings are less applicable given the Fund's asset allocation



PENSION FUND OVERVIEW

NEPC, LLC

PENSION FUND OVERVIEW

- **A summary of the goals and objectives stated in the IPS are:**
 - Maximum total return, consistent with prudent investment management, is the primary goal of the Pool
 - In addition, assets of the Pool shall be invested to ensure that principal is preserved and enhanced over time, both in real and nominal terms
 - To achieve a minimum long-term return of 6.25%

The portfolio is cash flow negative and underfunded which results in a balance between total return and drawdown mitigation

Funded Status	Plan Type	Discount Rate	Participants	Benefit Payments	Contributions
75.3%	Closed – 1998	6.25%	1,067 – Average Age is 73	\$4.3 million/year, 15% of Portfolio Assets	Annual - \$750k



RESULTS FROM 2018 ASSET ALLOCATION STUDY

Met most goals & objectives in a 10 year bull market with a more conservative investment approach

Learnings	In Compliance	Data
Want only the amount of risk necessary to ensure that the portfolio meets the return target		<ul style="list-style-type: none"> Standard deviation (risk) is lower than the Total Fund universe and policy benchmarks
Need expected return to meet our long-term requirements, net of inflation		<ul style="list-style-type: none"> Long-term return is 6.9% over 10 years on an annualized basis
Can't withstand a 10% drawdown on assets over 1 year		<ul style="list-style-type: none"> One out of the last ten fiscal years had a 1 year drawdown at -1%
Want managers to be benchmark aware and provide reasonable protection		<ul style="list-style-type: none"> Long and intermediate term manager results have been disappointing due to value lean which helps mitigate drawdowns
Peer rankings good to gauge performance, but not the only measure		<ul style="list-style-type: none"> Peer rankings are less applicable given goals & objectives and asset allocation



RETURN SEEKING MANAGER SUMMARY

Investment Managers selected based on ability to do well over a full market cycle and to protect in adverse conditions

Active Managers	Asset Class	Style	Downside Capture Ratio (%)	Upside Capture Ratio (%)
Walter Scott	Global Equity	Quality Growth	73	91
Mondrian	Emerging Small Cap	Value	78	83
Newton	GAA	Absolute Return	31	49
Lighthouse	Hedge Fund	Long/Short Equity	22	37

Source: eVestment, capture ratios are based on since inception for each product

Note: Upside/Downside Capture Ratio is a measure of what percentage of a market's return is "captured" by an investment product. For example, if the market declines 10% over a period and the investment product declines 9%, then the downside capture ratio is 90%. In down markets, the lowest capture ratio is advantageous and in up markets the higher the capture ratio is better.



PEER COMPARISON

Asset allocation diversified compared to traditional 60/40 perspective

Risk allocations spread across a number of asset classes

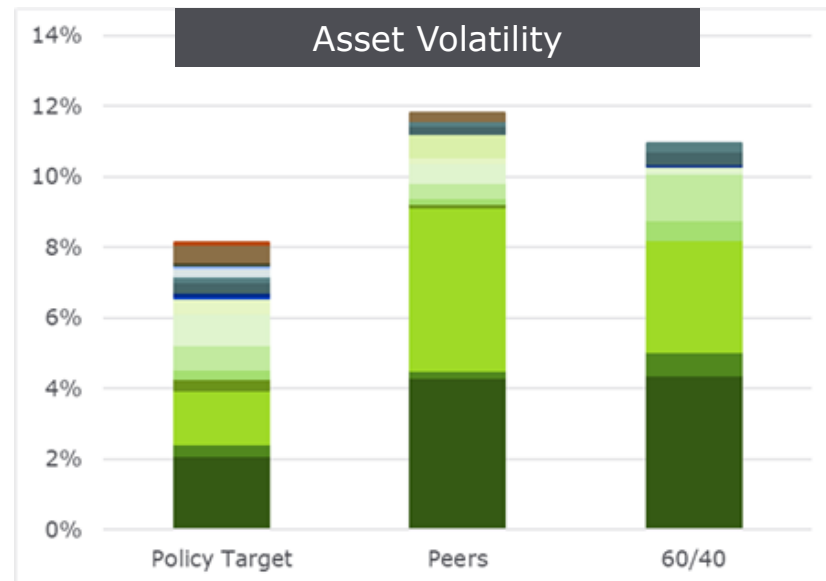
Conservative asset allocation compared to other public pension plans

UMS Pension is closed, most public plans are open

UMS Pension has a 6.25% actuarial return on asset assumption, most public plans are higher

	Policy Target	Peers	60/40
Total Cash	3%	2%	0%
Total Public Equity	33%	59%	60%
Total Fixed Income	43%	28%	40%
Total Hedge Funds	5%	2%	0%
Total Multi-Asset	8%	2%	0%
Total Private Markets	0%	3%	0%
Total Real Estate	8%	4%	0%

<i>Expected Return 5-7 years</i>	5.4%	6.0%	5.7%
<i>Expected Return 30 years</i>	6.4%	7.2%	7.0%
<i>Standard Dev</i>	8.1%	11.8%	10.9%
<i>Sharpe Ratio 5-7 years</i>	0.36	0.29	0.29



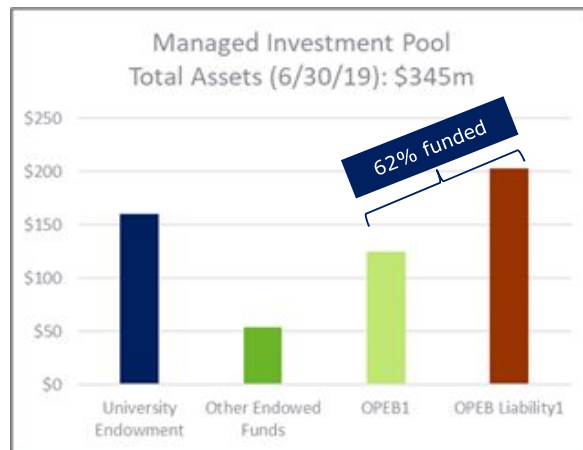
Note: Peer information based on data from InvestorForce of Public DB Pension Plans with <\$50m

MANAGED INVESTMENT POOL (MIP) OVERVIEW

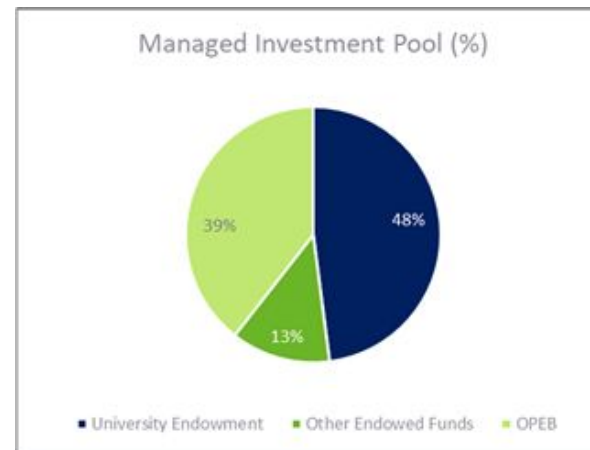
NEPC, LLC

MIP OVERVIEW

- **Total MIP assets are made up of three components**



¹ OPEB values as of 6/30/18



- **A summary of the goals and objectives stated in the IPS are:**
 - Maximum total return, consistent with prudent investment management, is the primary goal of the Pool
 - In addition, assets of the Pool shall be invested to ensure that principal is preserved and enhanced over time, both in real and nominal terms
 - To achieve a minimum long-term return of 7.5%
 - The Committee will consider ESG principles and incorporate ESG analysis into investment decisions such as asset allocation and manager selection



RESULTS FROM 2018 ASSET ALLOCATION STUDY

Met most goals & objectives in a 10 year bull market with a more conservative investment approach

Learnings	In Compliance	Data
Want only the amount of risk necessary to ensure that the portfolio meets the return target	✓	<ul style="list-style-type: none"> Standard deviation (risk) has been in-line with E&F Universe (\$100-\$500m) and policy benchmarks
Need expected return to meet our long-term requirements, net of inflation	✓	<ul style="list-style-type: none"> Long-term return is 7.5% over 10 years on an annualized basis
Can't withstand a 10% drawdown on assets over 1 year	✓	<ul style="list-style-type: none"> Three out of the last ten fiscal years had a 1 year drawdown ranging between -1% and -2%
Want managers to be benchmark aware and provide reasonable protection	✓	<ul style="list-style-type: none"> Over ten years, managers in aggregate are in-line with benchmarks Intermediate term manager results have been disappointing due to value bias
Peer rankings good to gauge performance, but not only measure	✗	<ul style="list-style-type: none"> Peer rankings are median from an asset allocation perspective which includes the headwind of not allocating to alternatives, but fall short at the Total Fund level due to manager underperformance



RETURN SEEKING MANAGER SUMMARY

Investment Managers selected based on ability to do well over a full market cycle and to protect in adverse conditions

Active Managers	Asset Class	Style	Downside Capture Ratio (%)	Upside Capture Ratio (%)
Westfield	SMID Cap Growth	Growth at a Reasonable Price (GARP)	83	92
DFA	Small Cap Value	Value	102	109
Morgan Stanley	Int'l Dev.	Value	71	86
Globeflex	Int'l Dev.	Quantitative with Value, Growth and Quality factors	98	104
Kabouter	Int'l Dev. Small Cap	Value	77	93
Aberdeen	Emerging	Core with a Quality bias	93	100
Mondrian	Emerging Small Cap	Value	78	83
GMO	GAA	Value	67	70
Newton	GAA	Absolute Return	31	49
Lighthouse	Hedge Fund	Long/Short Equity	22	37

Source: eVestment, capture ratios are based on since inception for each product

Note: Upside/Downside Capture Ratio is a measure of what percentage of a market's return is "captured" by an investment product. For example, if the market declines 10% over a period and the investment product declines 9%, then the downside capture ratio is 90%. In down markets, the lowest capture ratio is advantageous and in up markets the higher the capture ratio is better.



PEER COMPARISON

Asset allocation diversified compared to traditional 60/40

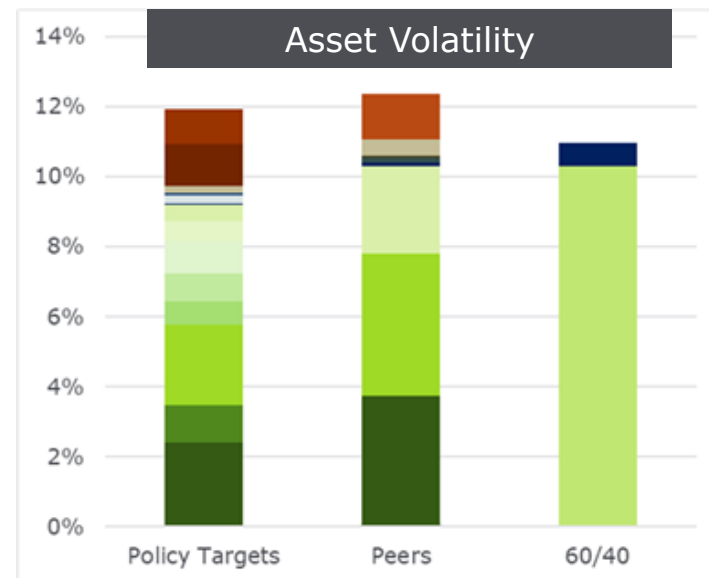
Risk allocations spread across a number of asset classes

Asset allocation different from University peers

System has the desire to reduce illiquidity risk, complexity and fees

	Policy Targets	Peers	60/40
Total Cash	0.0%	4.0%	0.0%
Total Public Equity	55.0%	46.0%	60.0%
Total Fixed Income	24.0%	12.0%	40.0%
Total Hedge Funds	6.0%	18.0%	0.0%
Total Multi-Asset	15.0%	0.0%	0.0%
Total Private Markets	0.0%	20.0%	0.0%

Expected Return 5-7 years	6.2%	6.5%	5.7%
Expected Return 30 years	7.3%	7.6%	7.0%
Standard Dev	11.9%	12.4%	10.9%
Sharpe Ratio (5-7 years)	0.3%	0.3%	0.3%



Note: 2018 NACUBO-TIAA Study of Endowments, Peer allocation based on \$251-500m in University assets

ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG)

4.1

- **The University of Maine System has completed a number of items with regards to impact investing**
 - Divested from coal securities in all separate account mandates in 2015
 - Incorporated ESG language into the Managed Investment Pool (MIP) investment policy statement in September 2016
 - Periodically monitors fossil fuel exposure in the MIP
 - Contracted with MSCI to complete an annual report to evaluate the MIP's equity and fixed income holdings with regards to ESG factors
 - Overall the MIP's ESG scores have improved as a result of the Committee's work, changes to managers' holdings and improvements to MSCI's ESG score assessments
 - Evaluated managers who incorporate ESG considerations into their investment process during manager search review process
 - Bain Bank Loans and Kabouter International Small Cap are new managers that evaluate ESG in their investment process
 - Sixteen out of 19 investment managers in the MIP are PRI signatories



DISCLAIMERS

4.1

- **Past performance is no guarantee of future results.**
- **The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
- **Data used to prepare this report was obtained directly from the investment manager(s). While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **This report may contain confidential or proprietary information and is intended only for the designated recipient(s). If you are not a designated recipient, you may not copy or distribute this document.**
- **NEPC may provide background information on fund structures or the impact of taxes but you should contact your legal counsel or tax professional for specific advice on such matters.**





AGENDA ITEM SUMMARY

- | | | |
|----|--|--|
| 1. | NAME OF ITEM: | Performance Review– Managed Investment Pool, Pension Fund and Operating Fund |
| 2. | INITIATED BY: | Kelly A. Martin, Chair |
| 3. | BOARD INFORMATION: | X BOARD ACTION: |
| 4. | OUTCOME:
Primary Outcomes:
Enhance fiscal positioning | BOARD POLICY:
Section 709 - Investments |
| 5. | BACKGROUND: | |

Kelly Regan of NEPC will provide a brief overview of performance for all three portfolios for the quarter ended June 30, 2019.

NEPC will refer to the enclosed executive summary performance report during the August 29, 2019 Investment Committee meeting. The supplemental performance materials for the quarter ended June 30, 2019 are for reference purposes only and will not be reviewed during the meeting.

August 15, 2019

SECOND QUARTER 2019 INVESTMENT REVIEW

UNIVERSITY OF MAINE SYSTEM

August 28, 2019

Jay E. Roney, Partner

Kelly Regan, Senior Consultant



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

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Operating Fund Performance Review	2
Pension Fund Performance Review	3
Managed Investment Pool Performance Review	4
Investment Manager Due Diligence	5
Appendix & Disclaimers	6

5.1













SECOND QUARTER 2019 MARKET ENVIRONMENT

NEPC, LLC

PERFORMANCE OVERVIEW

Q2 Market Summary

5.1

Macro			Equity			Credit			Real Assets		
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
											
-1.2%	1.4	-42 bps	4.3%	3.7%	0.6%	3.1%	2.5%	4.1%	-3.3%	9.0%	1.7%

Global equities broadly increased during the quarter as the market perceived a more dovish policy stance from the Fed

Market expectations for several rate cuts from the Fed reached a fever pitch as investors assessed low inflation data, a weaker global growth outlook, and uncertainties of US-China trade tensions

The spread between the 10-year Treasury Note and 3-month Treasury Bill remained negative through the end of the quarter as yields for longer duration bonds shifted materially lower

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



June 30, 2019

INDEX PERFORMANCE SUMMARY AS OF JUNE 30, 2019

5.1

Domestic Equity Benchmarks		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Large Core	S&P 500	4.3%	18.5%	10.4%	14.2%	10.7%	14.7%
Small Core	Russell 2000	2.1%	17.0%	-3.3%	12.3%	7.1%	13.4%
Small Growth	Russell 2000 Growth	2.7%	20.4%	-0.5%	14.7%	8.6%	14.4%
Small Value	Russell 2000 Value	1.4%	13.5%	-6.2%	9.8%	5.4%	12.4%
Large Core	Russell 1000	4.2%	18.8%	10.0%	14.1%	10.5%	14.8%
Large Growth	Russell 1000 Growth	4.6%	21.5%	11.6%	18.1%	13.4%	16.3%
Large Value	Russell 1000 Value	3.8%	16.2%	8.5%	10.2%	7.5%	13.2%
Mid Core	S&P Mid Cap 400	3.0%	18.0%	1.4%	10.9%	8.0%	14.6%
REIT	NAREIT Composite	1.7%	18.7%	12.6%	6.2%	8.7%	15.6%
Int'l Equity Benchmarks		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
International Developed	MSCI EAFE	3.7%	14.0%	1.1%	9.1%	2.2%	6.9%
Emerging Equity	MSCI EM	0.6%	10.6%	1.2%	10.7%	2.5%	5.8%
Small Cap Int'l	S&P EPAC SmallCap	2.6%	12.9%	-6.0%	9.0%	4.5%	9.7%
World ex-US	MSCI ACWI ex-US	3.0%	13.6%	1.3%	9.4%	2.2%	6.5%
Domestic FI Benchmarks		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Core Bonds	Barclays Aggregate	3.1%	6.1%	7.9%	2.3%	2.9%	3.9%
Municipal Bond	Barclays Municipal	2.1%	5.1%	6.7%	2.6%	3.6%	4.7%
High Yield	Barclays US High Yield	2.5%	9.9%	7.5%	7.5%	4.7%	9.2%
Intermediate Gov/Cred	Barclays Intern. Gov/Credit	2.6%	5.0%	6.9%	2.0%	2.4%	3.2%
Long Gov/Credit	Barclays Long Gov/Credit	6.6%	13.5%	13.8%	3.8%	5.7%	7.6%
Long Credit	Barclays Long Credit	7.0%	15.4%	15.0%	5.3%	5.8%	8.4%
Long Treasuries	Barclays US 20+ Yr Treas	6.1%	11.1%	12.3%	1.3%	5.9%	6.7%
Cash	BofA ML US 3-Month T-Bill	0.6%	1.2%	2.3%	1.4%	0.9%	0.5%
Inflation	Barclays US TIPS 1-10 Yr	2.5%	5.2%	4.7%	1.9%	1.4%	2.9%
STRIPS	Barclays 20+ Yr STRIPS	7.9%	14.7%	14.3%	1.3%	8.0%	9.1%
Global FI Benchmarks		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Gov. Bonds	FTSE WGBI	3.6%	5.4%	5.5%	1.0%	0.8%	2.2%
Em. Mkt. Bonds (Local)	JPM GBI-EM Glob. Div.	5.6%	8.7%	9.0%	4.2%	-0.5%	3.4%
Global Inflation	Barclays Global ILB	2.2%	6.2%	3.6%	2.6%	1.2%	3.6%
Diversified Benchmark		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Diversified	Diversified*	3.3%	13.4%	6.6%	8.8%	6.2%	9.8%
Alternative Benchmarks		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Commodities	Bloomberg Commodity Index	-1.2%	5.1%	-6.8%	-2.2%	-9.1%	-3.7%
Real Estate	NCREIF Property Index**	1.8%	1.8%	6.8%	7.1%	9.1%	8.5%

* 35% LC, 10% SC, 12% Int'l, 3% Emerging, 25% FI, 5% HY, 5% Global FI, 5% REITS

**As of 3/31/2019



June 30, 2019

CURRENT INDICATORS SUMMARY

5.1

Key Indicator	Expected Late Cycle Behavior	Current Trend*
Fed Funds Rates	Rising	Stable
Yield Curve	Flattening	Flattening
Economic Growth	Moderating	Moderating
Output Gap	Near/Above Potential	Rising
Inflation	Rising	Falling
Unemployment	Falling/Bottoming	Falling
Equities	Peaking	Rising
Credit Spreads	Stable/Rising	Falling

Source: NEPC; *Trend represents changes over the previous two quarters



June 30, 2019

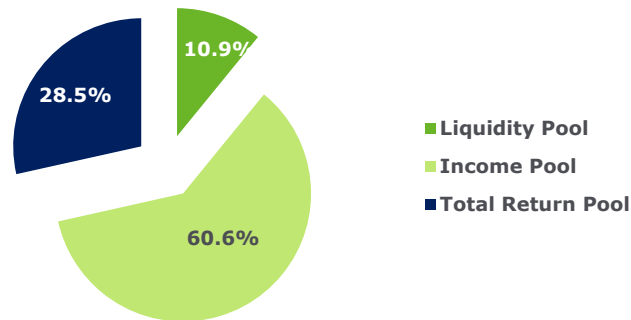
OPERATING FUND PERFORMANCE REVIEW

NEPC, LLC

EXECUTIVE SUMMARY

ASSET ALLOCATION

Plan Assets: \$256.6 Million



PLAN COMMENTS

Asset Allocation

The Fund's assets as of June 30, 2019 were \$256.6 million. This represents a \$37.2 million decrease from the previous quarter.

The Liquidity Pool (10.9% vs. 30.0%), Income Pool (60.6% vs. 47.5.0%) and Total Return Pool (28.5% vs. 22.5%). The Income Pool is slightly over policy ranges and a rebalancing recommendation was provided in July. Throughout the year, asset allocation will change based on cash inflows and outflows. NEPC reviews this on a monthly basis.

Performance (Net of Fees)

The Fund returned 2.6% during the 1st quarter and 2.1% fiscal year-to-date.

FUND PERFORMANCE: NET OF FEES

	QTR (%)	YTD (%)	FYTD (%)	3 YR (%)	5 YR (%)	10 YR (%)
--	---------	---------	----------	----------	----------	-----------

COMPOSITE	1.9	4.6	4.1	3.3	2.1	3.0
ALLOCATION INDEX	1.7	4.6	4.2	3.4	2.4	2.8

RECENT ACTIONS/RECOMMENDATIONS

Recent Actions

Rebalancing was provided during the quarter to move towards the new asset allocation.

Investment policy statement was approved and the last meeting and the new policy targets and ranges were effective May 1, 2019.

Recommendations

There are no recommendations at this time.

Investment Manager Updates

Manager updates are detailed in the due diligence section of the report.



June 30, 2019

OPERATING FUND PERFORMANCE REVIEW

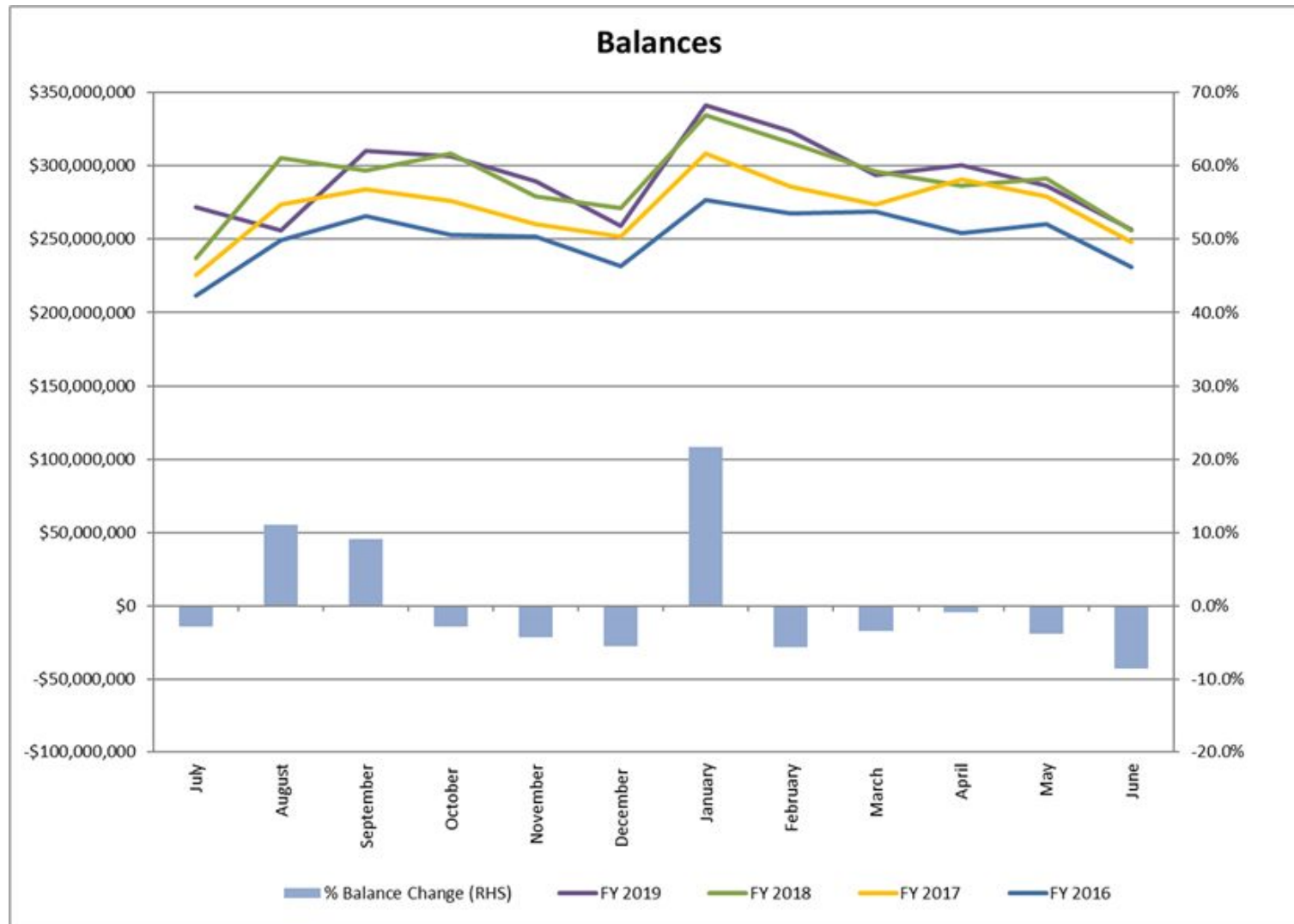
Ending June 30, 2019

	Market Value (\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Operating Funds Composite	\$256,614,428	100.0%	100.0%		1.9		4.6		4.1		3.3		2.1		3.0	
Allocation Index					1.7		4.6		4.2		3.4		2.4		2.8	
Liquidity Pool Composite	\$28,040,574	10.9%	30.0%		0.6		1.1		2.1		1.3		0.9		0.5	
State Pool	\$3,019,680	1.2%			0.6		1.1		2.1		1.3		0.9		0.6	
BOA General Fund	\$6,714,085	2.6%			0.3		0.5		1.1		0.4		0.3			
Federated Gov't Obligations	\$6,914,417	2.7%			0.6		1.2		2.1							
JP Morgan US Gov't Money Market Fund	\$11,392,392	4.4%			0.6		1.2		2.2							
FTSE T-Bill 3 Months TR					0.6		1.2		2.3		1.4		0.8		0.5	
Income Pool Composite	\$155,460,635	60.6%	47.5%		1.9		4.0		4.6		2.5		2.0		3.7	
Income Research + Management	\$85,722,027	33.4%	26.0%	eV US Short Duration Fixed Inc	1.5	55	2.8	64	4.3	51	1.6	68	1.5	69		
BBgBarc US Govt/Credit 1-3 Yr. TR					1.5		2.7		4.3		1.6		1.5		1.6	
BlackRock Strategic Income Opportunities	\$22,280,674	8.7%	7.0%	eV US Enh Fixed Inc	2.6	63	5.2	65	5.1	74	4.1	1				
3-Month Libor Total Return USD					0.6		1.3		2.6		1.8		1.2		0.8	
Loomis Sayles Bank Loans	\$22,379,499	8.7%	7.0%	eV US Bank Loan Fixed Inc	1.6	47	5.4	52	3.6	46	4.0	95	3.2	77	4.8	93
Loomis Bank Loans Custom Index					1.8		6.2		4.1		4.3		3.7		6.2	
Vanguard Total Bond Market Instl' Fund	\$25,078,435	9.8%	7.5%	eV All US Fixed Inc	3.1	30	6.1	46	7.9	29	2.2	62	2.9	52		
BBgBarc US Aggregate TR					3.1		6.1		7.9		2.3		2.9		3.9	
Total Return Pool Composite	\$73,113,219	28.5%	22.5%		3.1		10.1		4.7		7.0		3.7		6.1	
Lighthouse	\$14,622,427	5.7%	5.0%	eV Alt - Long/Short Equity	2.6	42	7.6	59	-1.3	57	4.8	71				
Credit Suisse Long Shrt Eqt USD					1.2		6.7		1.1		5.5		3.4		5.7	
Newton Global Real Return	\$14,153,321	5.5%	4.0%	eV Global TAA	4.2	16	9.0	64	9.7	8						
60% MSCI ACWI (Net)/ 40% BBgBarc Global Ag					3.6		12.0		6.1		7.7		4.3		7.4	
PIMCO All Asset	\$13,365,149	5.2%	4.0%	eV Global TAA	2.7	45	8.2	68	5.0	36	6.6	41	2.7	62	6.4	61
Blended Index					3.2		7.9		7.7		4.1		3.6		5.6	
Vanguard Total World Stock Index	\$30,972,322	12.1%	9.5%	eV Global All Cap Equity	3.5	55	16.3	46	5.1	41	11.6	41	6.3	38		
FTSE Global All Cap Index					3.4		16.2		5.1		11.2		5.1		8.7	



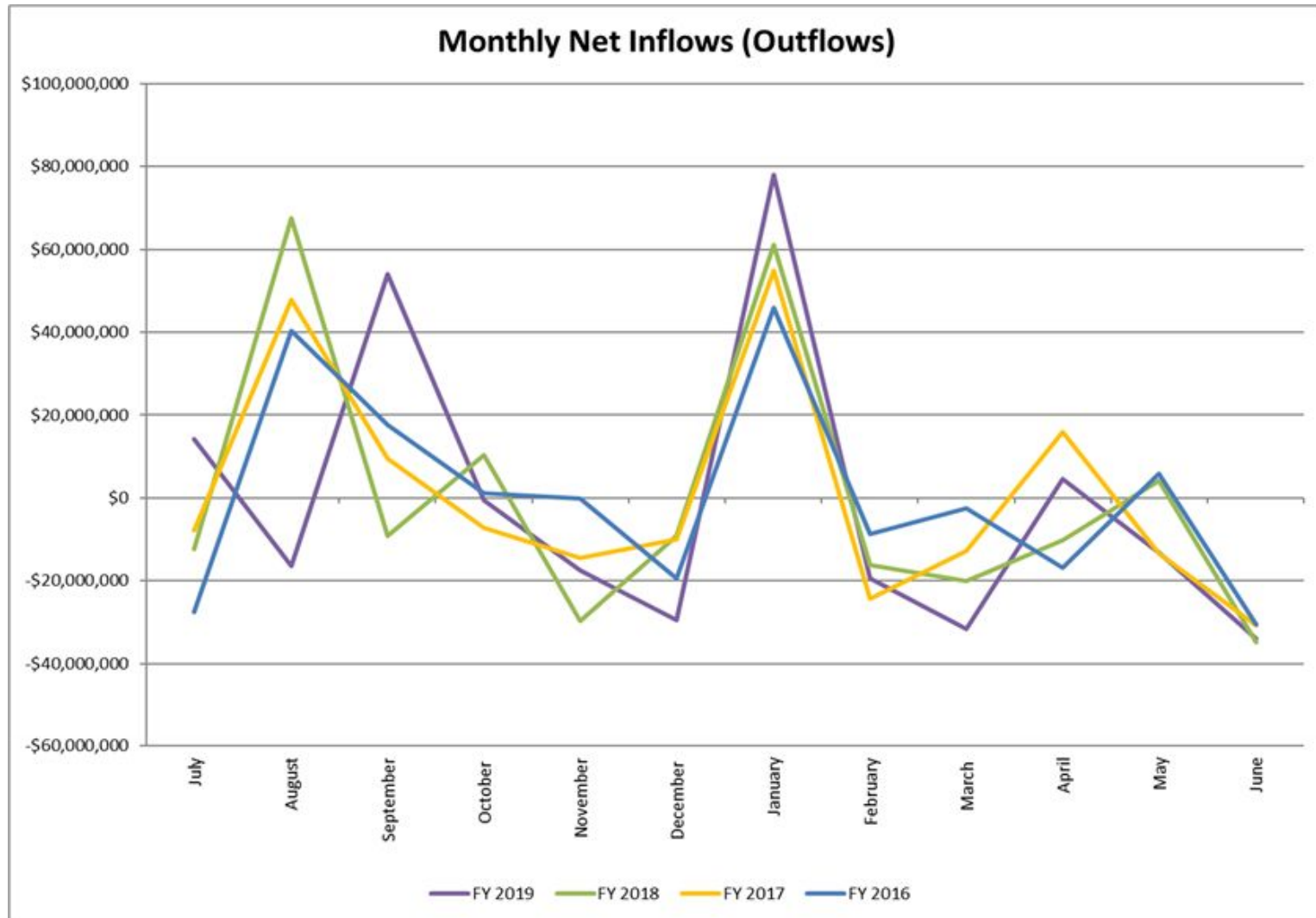
June 30, 2019

BALANCES AND MONTHLY CHANGES



June 30, 2019

MONTHLY NET INFLOWS (OUTFLOWS)



5.1



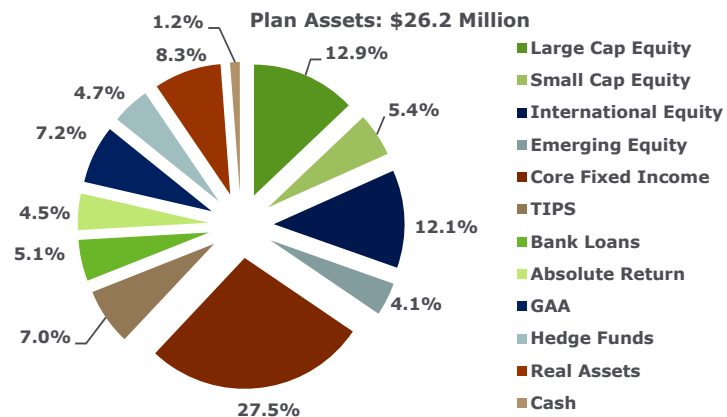
June 30, 2019

PENSION FUND PERFORMANCE REVIEW

NEPC, LLC

EXECUTIVE SUMMARY

ASSET ALLOCATION



PLAN COMMENTS

Asset Allocation

The Plan's assets were \$26.2 million as of June 30, 2019 and a \$700 thousand decrease during the second quarter. During the 2nd quarter there was a net cash outflow of \$1.4 million and investment gains of \$700 thousand. NEPC and staff are working towards rebalancing to the newly approved targets.

Performance (Net of Fees)

The Fund returned 2.7% in the 2nd quarter and 4.6% fiscal year-to-date.

Domestic equity managers were the top contributors to Fund's performance.

PLAN PERFORMANCE: NET OF FEES

	QTR (%)	YTD (%)	FYTD (%)	3 YR (%)	5 YR (%)	10 YR (%)
COMPOSITE	2.7	8.4	4.6	5.4	3.3	6.9
ALLOC. INDEX	2.5	8.8	4.9	6.3	4.4	7.3
POLICY INDEX	3.0	9.5	5.7	6.6	4.7	7.7

RECENT ACTIONS/RECOMMENDATIONS

Recent Actions

Rebalancing was provided over the quarter to cover benefit payments, expenses and to move towards the new asset allocation.

Walter Scott was selected as the new global equity manager and was funded in July 2019.

Investment policy statement was approved at the last meeting. Target changes will be effective July 1, 2019.

Recommendations

There are no recommendations at this time.

Investment Manager Updates

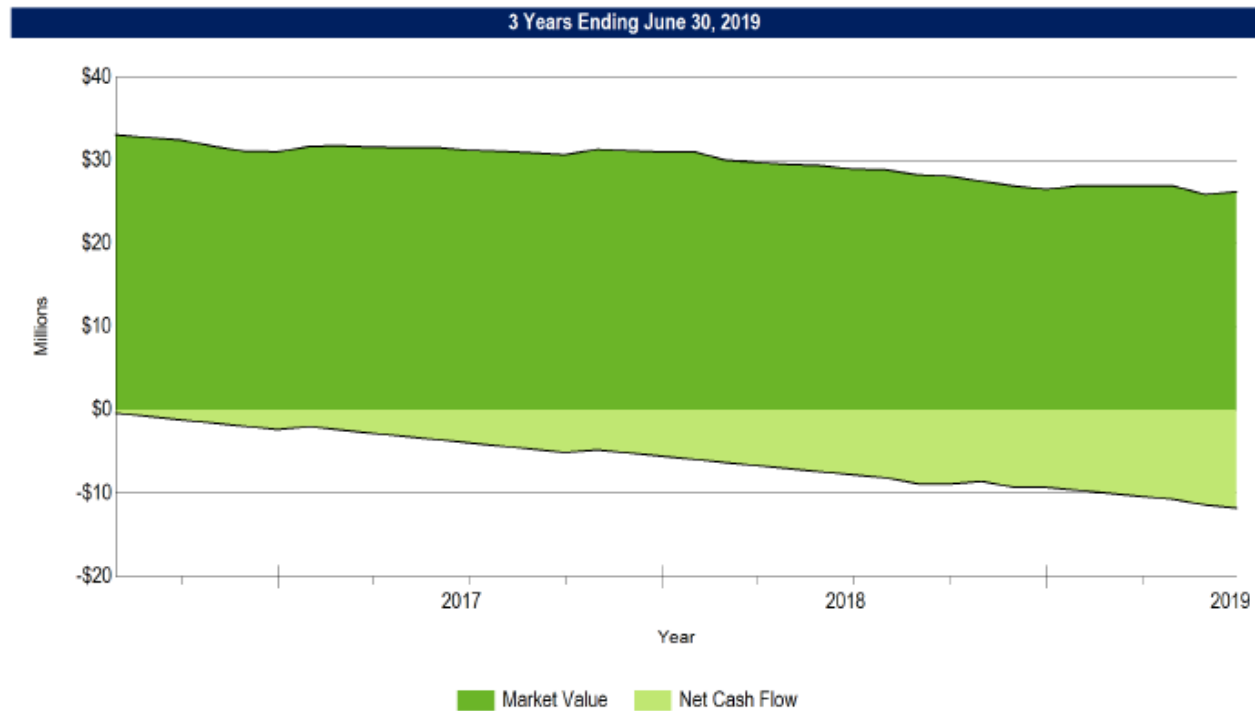
Manager updates are detailed in the due diligence section of the report.



June 30, 2019

ASSET GROWTH SUMMARY

5.1



	Quarter-To-Date	Year-To-Date	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$26,926,834	\$26,520,627	\$28,930,221	\$28,930,221	\$32,763,516
Net Cash Flow	-\$1,407,160	-\$2,482,870	-\$3,996,661	-\$3,996,661	-\$11,780,183
Net Investment Change	\$711,541	\$2,193,458	\$1,297,655	\$1,297,655	\$5,247,881
Ending Market Value	\$26,231,215	\$26,231,215	\$26,231,215	\$26,231,215	\$26,231,215



June 30, 2019

PENSION PERFORMANCE OVERVIEW

Ending June 30, 2019

	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Pension Composite	\$26,231,215	100.0%	100.0%		2.7		8.4		4.6		5.4		3.3		6.9	
Allocation Index					2.5		8.8		4.9		6.3		4.4		7.3	
Policy Index					3.0		9.5		5.7		6.6		4.7		7.7	
Total Domestic Large Cap	\$3,393,247	12.9%	8.0%	eV US Large Cap Equity	4.3	46	18.5	43	10.4	38	14.2	36	10.7	29	13.7	52
S&P 500					4.3		18.5		10.4		14.2		10.7		14.7	
Vanguard S&P 500 Index	\$3,393,247	12.9%	8.0%	eV US Large Cap Core Equity	4.3	47	18.5	42	10.4	40	14.2	40	10.7	35		
S&P 500					4.3		18.5		10.4		14.2		10.7		14.7	
Total Small Cap Composite	\$1,409,414	5.4%	4.0%	eV US Small Cap Equity Net Median	2.1	63	17.0	50	-3.4	54	12.3	42	6.9	49	13.2	58
Russell 2000					2.1		17.0		-3.3		12.3		7.1		13.4	
SSgA R2000 Index Fund Non Lending	\$1,409,414	5.4%	4.0%	eV US Small Cap Equity	2.1	63	17.0	50	-3.4	54	12.3	42	7.0	49	13.2	59
Russell 2000					2.1		17.0		-3.3		12.3		7.1		13.4	
Total International Equity (including emerging markets)	\$4,264,535	16.3%	10.0%	eV All ACWI ex-US Equity Net Median	1.0	85	10.9	83	-1.9	67	5.1	92	0.5	87	5.3	94
MSCI EAFE					3.7		14.0		1.1		9.1		2.2		6.9	
Morgan Stanley Int'l	\$3,184,622	12.1%	7.0%	eV All EAFE Equity	2.5	58	14.0	44	-0.1	39	7.2	76	1.8	74	6.7	85
MSCI EAFE					3.7		14.0		1.1		9.1		2.2		6.9	
Emerging Markets Equity	\$1,079,913	4.1%	3.0%	eV Emg Mkts Equity Net Median	-3.2	99	3.3	99	-7.0	96	0.3	99	-2.8	99		
MSCI Emerging Markets					0.6		10.6		1.2		10.7		2.5		5.8	
Mondrian EM Small Cap	\$1,079,913	4.1%	3.0%	eV Emg Mkts Equity	-3.2	99	3.3	99	-7.0	96	0.3	99	-2.8	99	--	--
MSCI Emerging Markets Small Cap					-1.0		6.7		-5.1		5.5		0.5		5.9	

5.1



June 30, 2019

PENSION PERFORMANCE OVERVIEW

Ending June 30, 2019

	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fixed Income	\$11,555,962	44.1%	35.0%	eV All US Fixed Inc Net Median	2.7	42	5.9	49	6.5	53	2.5	54	2.6	61	4.5	49
<i>BBgBarc US Aggregate TR</i>					<i>3.1</i>		<i>6.1</i>		<i>7.9</i>		<i>2.3</i>		<i>2.9</i>		<i>3.9</i>	
Vanguard Total Bond Market Index	\$7,221,076	27.5%	20.0%	eV US Core Fixed Inc	3.1	55	6.1	69	7.9	49	2.2	76				
<i>BBgBarc US Aggregate TR</i>					<i>3.1</i>		<i>6.1</i>		<i>7.9</i>		<i>2.3</i>		<i>2.9</i>		<i>3.9</i>	
Vanguard Inflation-Protected Securities	\$924,171	3.5%	7.0%	eV US TIPS / Inflation Fixed Inc	2.8	47	6.1	65	4.7	38						
<i>BBgBarc US TIPS TR</i>					<i>2.9</i>		<i>6.2</i>		<i>4.8</i>		<i>2.1</i>		<i>1.8</i>		<i>3.6</i>	
Vanguard Short-Term Inflation-Protected Securities	\$908,662	3.5%		eV US TIPS / Inflation Fixed Inc												
<i>BBgBarc US TIPS 1-5 Yr TR</i>					<i>1.8</i>		<i>3.6</i>		<i>3.4</i>		<i>1.6</i>		<i>0.9</i>		<i>2.0</i>	
BlackRock Strategic Income Opportunities	\$1,169,633	4.5%	3.0%	eV US Enh Fixed Inc	2.6	63	5.2	65	5.2	73						
<i>3-Month Libor Total Return USD</i>					<i>0.6</i>		<i>1.3</i>		<i>2.6</i>		<i>1.8</i>		<i>1.2</i>		<i>0.8</i>	
Bain Capital Senior Loan Fund	\$1,332,420	5.1%	5.0%	eV US Bank Loan Fixed Inc	1.6	46	5.7	28								
<i>Credit Suisse Leveraged Loans</i>					<i>1.6</i>		<i>5.4</i>		<i>4.1</i>		<i>5.4</i>		<i>3.9</i>		<i>6.3</i>	
Total GAA	\$1,895,111	7.2%	27.5%	eV Global TAA Net Median	5.0	13	10.9	45	6.0	23	5.3	61	2.1	74	5.8	66
<i>65% MSCI ACWI (Net) / 35% BBgBarc Global Agg</i>					<i>3.6</i>		<i>12.6</i>		<i>6.1</i>		<i>8.2</i>		<i>4.6</i>			
Newton Global Real Return	\$1,895,111	7.2%	13.8%	eV Global TAA	4.2	17	8.9	65	9.6	9	3.0	85				
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>					<i>3.7</i>		<i>12.0</i>		<i>6.0</i>		<i>7.4</i>		<i>4.2</i>			
Total Hedge Funds	\$1,222,647	4.7%	4.5%		2.6	42	7.6	59	-1.3	57	3.8	76	1.5	81	3.0	93
<i>HFRI Fund of Funds Composite Index</i>					<i>1.5</i>		<i>6.2</i>		<i>1.2</i>		<i>4.3</i>		<i>2.2</i>		<i>3.2</i>	
Lighthouse	\$1,222,647	4.7%	4.5%	eV Alt - Long/Short Equity	2.6	42	7.6	59	-1.3	57	4.8	71				
<i>Credit Suisse Long Shrt Eqt USD</i>					<i>1.2</i>		<i>6.7</i>		<i>1.1</i>		<i>5.5</i>		<i>3.4</i>		<i>5.7</i>	
Total Real Assets	\$2,166,571	8.3%	8.0%													
Principal	\$2,166,571	8.3%	8.0%		1.3		2.9		6.7		7.9		9.7		9.4	
<i>NCREIF ODCE</i>					<i>1.0</i>		<i>2.4</i>		<i>6.4</i>		<i>7.6</i>		<i>9.8</i>		<i>9.9</i>	
Total Cash	\$323,729	1.2%	3.0%													
Distribution Account	\$323,729	1.2%	3.0%		0.5		1.1		2.0		1.1		0.7		0.4	
<i>91 Day T-Bills</i>					<i>0.6</i>		<i>1.2</i>		<i>2.3</i>		<i>1.4</i>		<i>0.9</i>		<i>0.5</i>	



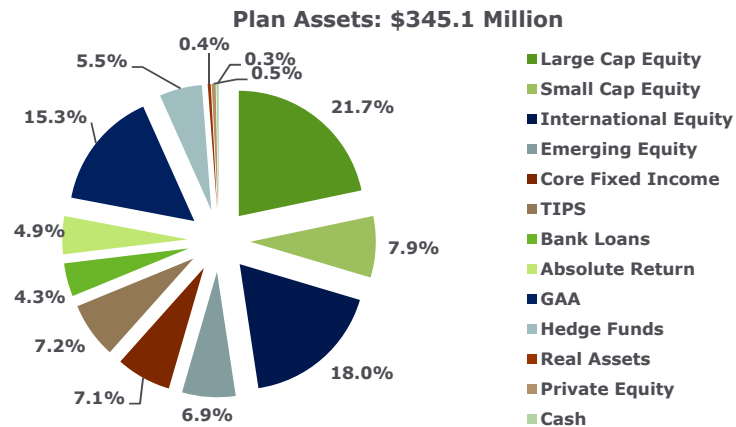
June 30, 2019

MANAGED INVESTMENT POOL PERFORMANCE REVIEW

NEPC, LLC

EXECUTIVE SUMMARY

ASSET ALLOCATION



PLAN COMMENTS

Asset Allocation

MIP assets were \$345.1 million as of June 30, 2019, a \$10.3 million increase over the quarter. During the 2nd quarter there was a \$0.7 million net cash inflow and investment gains of \$9.6 million. All asset classes are within policy ranges.

Performance (Net of Fees)

The Plan returned 2.6% in the 2nd quarter and 2.7% fiscal year-to-date, ranking in the 70th and 94th percentiles, respectively.

All asset classes posted positive returns over the quarter. Domestic equity and fixed income managers were the top contributors to Plan's performance.

MIP PERFORMANCE: NET OF FEES

	QTR (%)	YTD (%)	FYTD (%)	3 YR (%)	5 YR (%)	10 YR (%)
COMPOSITE	2.6	10.4	2.7	6.9	3.5	7.5
ALLOC. INDEX	2.8	11.2	4.4	7.9	4.5	7.6
POLICY INDEX	2.9	11.3	4.7	8.4	5.0	7.8
RANK (E&F \$100-500M)	70	68	94	94	95	90

RECENT ACTIONS/RECOMMENDATIONS

Recent Actions

Rebalancing was provided over the quarter to invest contributions and move towards the new asset allocation.

Investment policy statement was approved and the last meeting and the new policy targets and ranges were effective May 1, 2019.

Recommendations

There are no recommendations at this time.

Investment Manager Updates

Manager updates are detailed in the due diligence section of the report.



June 30, 2019

PRIVATE MARKETS UPDATE

5.1

- **The System invests in a number of private markets assets, committing capital for longer time periods to obtain illiquidity premiums and exposure to alternative markets**
- **Landmark Equity Partners XV**
 - Secondary Private Equity fund, purchasing interests in venture capital, growth equity and buyout funds, and to a lesser extent, special situation and energy funds
 - Strategy is diversified, investing in ~200 partnerships
 - Fund has a 4 year investment period and 10 year term
 - The System committed \$5 million in 2014 and has a remaining commitment of \$1.8 million
 - Since inception, the strategy has an IRR of 13.5%, net of fees (12/31/18)
- **Hancock Timberland VII**
 - Private Real Asset Timber Fund structured for the purpose of making direct and indirect investments in commercial timberland
 - The System has been invested in the strategy since 2005
 - Fund has a 3 year acquisition period, 8 year investment period, 2 year wind up period and 2 year extension period (estimated)
 - The System committed \$5 million in 2005 and there are no remaining commitments, the Fund is winding up
 - Since inception, the strategy has an IRR of 1.2%, net of fees (6/30/19)



June 30, 2019

MIP PERFORMANCE OVERVIEW

As of June 30, 2019

	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
MIP Composite	\$345,075,161	100.0%	100.0%		2.6	70	10.4	68	2.7	94	6.9	94	3.5	95	7.5	90
<i>Allocation Index</i>					2.8	54	11.2	53	4.4	66	7.9	79	4.5	72	7.6	89
<i>Policy Index</i>					2.9	46	11.3	50	4.7	51	8.4	58	5.0	53	7.8	81
<i>InvMetrics All E&F \$100mm - \$500mm Net Median</i>					2.8		11.3		4.7		8.6		5.0		8.6	
Total Domestic Large Cap	\$74,947,334	21.7%	22.0%	eV US Large Cap Core Equity	4.3	43	18.5	36	10.3	38	14.1	26	10.6	20	14.6	20
<i>S&P 500</i>					4.3		18.5		10.4		14.2		10.7		14.7	
<i>SSgA S&P 500</i>	\$74,947,334	21.7%	22.0%	eV US Large Cap Core Equity	4.3	43	18.5	36	10.3	38	14.1	26	10.6	20	14.6	16
<i>S&P 500</i>					4.3		18.5		10.4		14.2		10.7		14.7	
Total Domestic Small/Mid Cap	\$27,248,303	7.9%	8.0%	eV US Small-Mid Cap Equity	2.4	71	17.0	70	-3.5	78	12.8	41	6.5	60	14.0	44
<i>Russell 2500</i>					3.0		19.2		1.8		12.3		7.7		14.4	
<i>Westfield Capital</i>	\$14,008,285	4.1%	4.0%	eV US Small-Mid Cap Growth Eq	3.9	74	20.7	78	1.4	83	16.3	49	8.5	65	15.6	31
<i>Russell 2500 Growth</i>					4.1		23.9		6.1		16.1		10.0		15.7	
<i>DFA</i>	\$13,240,018	3.8%	4.0%	eV US Small Cap Value Equity	0.9	73	13.2	69	-8.1	69	8.4	57	4.1	69		
<i>Russell 2000 Value</i>					1.4		13.5		-6.2		9.8		5.4		12.4	
Total International Equity (including emerging markets)	\$85,747,017	24.8%	25.0%	eV All ACWI ex-US Equity	1.7	76	11.1	82	-3.4	74	6.3	89	1.0	83	6.6	84
<i>MSCI EAFE</i>					3.7		14.0		1.1		9.1		2.2		6.9	
<i>Morgan Stanley</i>	\$21,999,116	6.4%	6.5%	eV All EAFE Equity	2.5	58	14.0	44	0.0	39	7.1	77	1.7	77	6.6	86
<i>Globeflex</i>	\$21,751,939	6.3%	6.5%	eV All EAFE Equity	0.3	94	9.8	89	-9.0	91	7.1	78	1.1	89	6.8	82
<i>MSCI EAFE</i>					3.7		14.0		1.1		9.1		2.2		6.9	
<i>Kabouter International Opportunities Offshore Fund I</i>	\$18,214,826	5.3%	5.0%	eV EAFE Small Cap Equity	6.0	9	12.3	59	-7.9	58						
<i>MSCI EAFE Small Cap</i>					1.7		12.5		-6.3		9.1		4.4		9.7	
Emerging Markets Equity	\$23,781,136	6.9%	7.0%	eV Emg Mkts Equity	0.3	79	9.1	83	1.4	45	4.4	96	-0.2	95		
<i>MSCI Emerging Markets</i>					0.6		10.6		1.2		10.7		2.5		5.8	
<i>Aberdeen Emerging Mkts</i>	\$12,638,783	3.7%	3.5%	eV Emg Mkts Equity	3.6	10	14.8	21	10.2	2	8.2	69	2.3	57	7.6	26
<i>MSCI Emerging Markets</i>					0.6		10.6		1.2		10.7		2.5		5.8	
<i>Mondrian EM Small Cap</i>	\$11,142,353	3.2%	3.5%	eV Emg Mkts Equity	-3.2	99	3.3	99	-7.0	96	0.3	99	-2.8	99		
<i>MSCI Emerging Markets Small Cap</i>					-1.0		6.7		-5.1		5.5		0.5		5.9	



June 30, 2019

MIP PERFORMANCE OVERVIEW

As of June 30, 2019

	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	YTD (%)	Rank	Fiscal YTD (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fixed Income	\$80,862,804	23.4%	24.0%	eV All US Fixed Inc	2.4	52	5.6	52	5.1	68	3.3	41	2.6	60	5.6	36
<i>BBGBarc US Aggregate TR</i>					3.1		6.1		7.9		2.3		2.9		3.9	
Commonfund	\$24,469,825	7.1%	7.0%	eV US Core Fixed Inc	3.1	59	6.3	60	7.5	80	3.3	10	3.1	38	5.3	14
<i>BBGBarc US Aggregate TR</i>					3.1		6.1		7.9		2.3		2.9		3.9	
Vanguard Inflation-Protected Securities	\$12,596,586	3.7%	3.5%	eV US TIPS / Inflation Fixed Inc	2.8	47	6.1	65	4.7	40	1.9	75				
<i>BBGBarc US TIPS TR</i>					2.9		6.2		4.8		2.1		1.8		3.6	
Vanguard Short-Term Inflation-Protected Securities	\$12,194,837	3.5%	3.5%	eV US TIPS / Inflation Fixed Inc	1.6	91										
<i>BBGBarc US TIPS 1-5 Yr TR</i>					1.8		3.6		3.4		1.6		0.9		2.0	
Blackrock Strategic Income Opportunities	\$16,757,086	4.9%	5.0%	eV US Enh Fixed Inc	2.6	62	5.2	66	5.1	74						
<i>3-Month Libor Total Return USD</i>					0.6		1.3		2.6		1.8		1.2		0.8	
Bain Capital Senior Loan Fund	\$14,844,470	4.3%	5.0%	eV US Bank Loan Fixed Inc	1.6	46	5.7	28								
<i>Credit Suisse Leveraged Loans</i>					1.6		5.4		4.1		5.4		3.9		6.3	
Total GAA	\$52,789,180	15.3%	15.0%	eV Global TAA	3.0	29	8.8	65	3.9	50	5.1	62	1.8	77	5.2	73
<i>65% MSCI ACWI (Net) / 35% BBGBarc Global Agg</i>					3.6		12.6		6.1		8.2		4.6		7.7	
GMO Global Absolute Return	\$26,007,598	7.5%	7.5%	eV Global TAA	1.5	82	6.8	78	2.3	67	5.1	62	2.0	74	5.1	76
<i>Blended Index</i>					3.2		7.9		7.7		4.1		3.6		5.6	
Newton Global Real Return	\$26,781,582	7.8%	7.5%	eV Global TAA	4.2	17	8.9	64	9.6	9	3.0	86				
<i>60% MSCI ACWI (Net)/ 40% BBGBarc Global Agg</i>					3.6		12.0		6.1		7.7		4.3		7.4	
Total Hedge Funds	\$18,915,957	5.5%	6.0%		2.6	42	7.6	59	-1.3	57	3.8	76	0.9	83	2.7	94
<i>HFRI Fund of Funds Composite Index</i>					1.5		6.2		1.2		4.3		2.2		3.2	
Lighthouse	\$18,915,957	5.5%	6.0%	eV Alt - Long/Short Equity	2.6	42	7.6	59	-1.3	57	4.8	71				
<i>Credit Suisse Long Shrt Eqt USD</i>					1.2		6.7		1.1		5.5		3.4		5.7	
Total Real Assets	\$1,523,353	0.4%	0.0%		0.0		-1.0		-6.7		-3.5		-0.3			
John Hancock Timber Fund	\$1,523,353	0.4%	0.0%		0.0		-1.0		-6.7		-3.5		-0.3		0.0	
<i>NCREIF Timberland Index</i>					1.0		1.2		2.9		3.3		4.6		4.0	
Private Equity	\$1,841,634	0.5%	0.0%		0.0		-0.8		-2.2		11.2		8.4			
Landmark Equity Partners XV	\$1,841,634	0.5%	0.0%		0.0		-0.8		-2.2		11.2		8.4			
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>					6.5		4.7		14.5		16.0		12.2		14.8	
Total Cash	\$1,199,579	0.3%	0.0%													
Distribution Account	\$1,199,579	0.3%	0.0%		0.6		1.1		2.0		1.1		0.7		0.4	
<i>91 Day T-Bills</i>					0.6		1.2		2.3		1.4		0.9		0.5	



June 30, 2019

INVESTMENT MANAGER DUE DILIGENCE

NEPC, LLC

DUE DILIGENCE MONITOR

The items below summarize the recent quarter's performance and any changes or announcements from your Plan managers/funds. A "-" indicates there were no material announcements. A "Yes" indicates there was an announcement and a summary is provided separately. NEPC's Due Diligence Committee meets every two weeks to review events as they relate to investment managers and determines if any action should be taken by NEPC and/or by our clients. They rate events: No Action, Watch, Hold, Client Review or Terminate. With respect to Performance, a "-" indicates the manager/fund performed in line with the majority of managers/funds in the category; only outliers (placement in the Top or Bottom Quartile) are highlighted. Your Consultant's Recommendation is refreshed quarterly in view of the recent quarter's developments (performance, manager events, and any of the longer-term trending data). NEPC considers ourselves to be a fiduciary, as ERISA defines the term in Section 3(21).

Fund	Portfolio	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
Aberdeen	MIP & Pension	No	Maintain Hold
Lighthouse	MIP, Pension & Operating	No	Maintain Watch
Blackrock	MIP, Pension & Operating	No	Maintain Watch
Westfield	MIP	Yes	No Action
Newton	MIP, Pension & Operating	Yes	No Action

NEPC Due Diligence Committee Recommendation Key	
No Action	Informational items have surfaced; no action is recommended.
Watch	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
Hold	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.



June 30, 2019

APPENDIX & DISCLAIMERS

NEPC, LLC

HIGHLIGHTS OF 2019 SECOND QUARTER HAPPENINGS AT NEPC

5.1

NEPC INSIGHTS

- NEPC's Investor Governance Pulse: Data Show Investors Value Collaborative, Long-Term Consultant Relationship
- Direct Investing (Part II): What Do the Numbers Say?
- Taking Stock: An Overview of the 2019 Indian Election
- Taking Stock: A Sneak Preview of NEPC's 24th Annual Investment Conference
- NEPC's 2019 Q1 Endowments & Foundations Survey Results and Infographic
- Defined Contribution: My Guide to Retirement
- Direct Investing (Part III): Tips for Setting a Program up for Success
- 2019 First Quarter Market Thoughts
- Taking Stock: Updates to Corporate Pension Plan Rules and Q1 Liability Performance
- NEPC's 24th Annual Investment Conference Recap: Infographics
- Taking Stock: One Corporate Plan's Journey of Terminating its Pension
- Taking Stock: A Recap of NEPC's 24th Annual Investment Conference
- The ABC of Family Partnerships
- Not So Taxing: Tax Reform and Giving

WEBINAR REPLAYS

- NEPC's 2019 Q1 Quarterly Market Thoughts Call
- 9th Annual Investment Manager Webinar Replay
- Insurance Asset Management: Insurance Companies Transitioning Into Asset Management Webinar Replay

To download NEPC's recent insights and webinar replays, visit: www.NEPC.com/insights

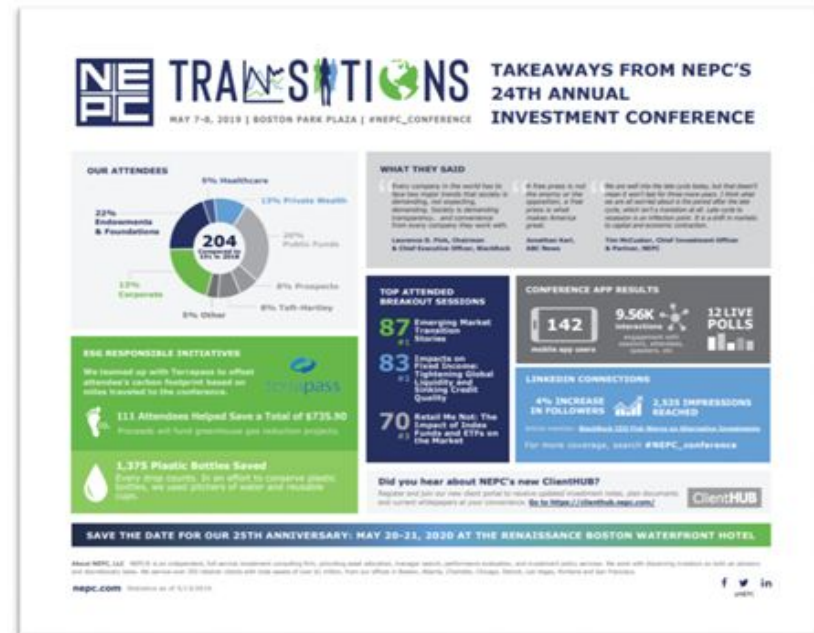


June 30, 2019

HIGHLIGHTS OF 2019 SECOND QUARTER HAPPENINGS AT NEPC

RECENT UPDATES

- NEPC's 24th Annual Investment Conference in May 2019 at Boston's iconic Park Plaza Hotel — with a record turnout of over 200 attendees — saw some industry heavyweights come together. The event featured speakers such as Larry Fink, founder, chairman and CEO of BlackRock, the world's largest asset manager, Karen Karniol-Tambour, head of investment research at Bridgewater Associates, and Jonathan Karl, chief White House correspondent for ABC News.
- As we draw the curtain on yet another successful conference, we thank everyone who attended and look forward to seeing you next year! Be sure to mark your calendars for NEPC's 25th annual conference on May 20-21, 2020 at the Renaissance Boston Waterfront Hotel.



To view materials from NEPC's 24th Annual Investment Conference visit:

<https://info.nepc.com/2019-client-conference-follow-up>



June 30, 2019

GLOSSARY OF TERMS

Alpha - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

Alpha Jensen - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

Annualized Excess Return over Benchmark - Annualized fund return minus the annualized benchmark return for the calculated return.

Annualized Return - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

Beta - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio.

Formula:

(Annualized Return of Portfolio - Annualized Return of Benchmark)/Annualized Standard Deviation(Period Portfolio Return - Period Benchmark Return). To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

R-Squared - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

Sharpe Ratio - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

Sortino Ratio - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

Formula:

*Calculation Average (X-Y)/Downside Deviation (X-Y) * 2
Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)*

Standard Deviation - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

Formula:

(Annualized Return of Portfolio - Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)

Tracking Error - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Formula:

*Tracking Error = Standard Deviation (X-Y) * $\sqrt{(\# \text{ of periods per year})}$*

Where X = periods portfolio return and Y = the period's benchmark return

For monthly returns, the periods per year = 12

For quarterly returns, the periods per year = 4

Treynor Ratio - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

Formula:

(Portfolio Average Return - Average Return of Risk-Free Rate)/Portfolio Beta

Up/Down Capture Ratio - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is >= 0

DownsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Benchmark < 0

Data Source: InvestorForce



June 30, 2019

INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may not be available from the source or may be preliminary and subject to change.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodial bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This report is provided as a management aid for the client's internal use only. Performance contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

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



SECOND QUARTER 2019 SUPPLEMENTAL PERFORMANCE



UNIVERSITY OF MAINE SYSTEM MANAGED INVESTMENT POOL

August 28, 2019

Jay E. Roney, Partner

Kelly Regan, Senior Consultant



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

ASSET GROWTH SUMMARY



	Last Three Months	Year-To-Date	Fiscal Year-To-Date	Three Years
Beginning Market Value	\$334,811,139	\$305,625,905	\$317,888,826	\$265,886,418
Net Cash Flow	\$676,333	\$5,444,766	\$13,570,737	\$10,978,646
Net Investment Change	\$9,587,688	\$34,004,489	\$13,615,598	\$68,210,097
Ending Market Value	\$345,075,161	\$345,075,161	\$345,075,161	\$345,075,161



June 30, 2019

CASH FLOW SUMMARY

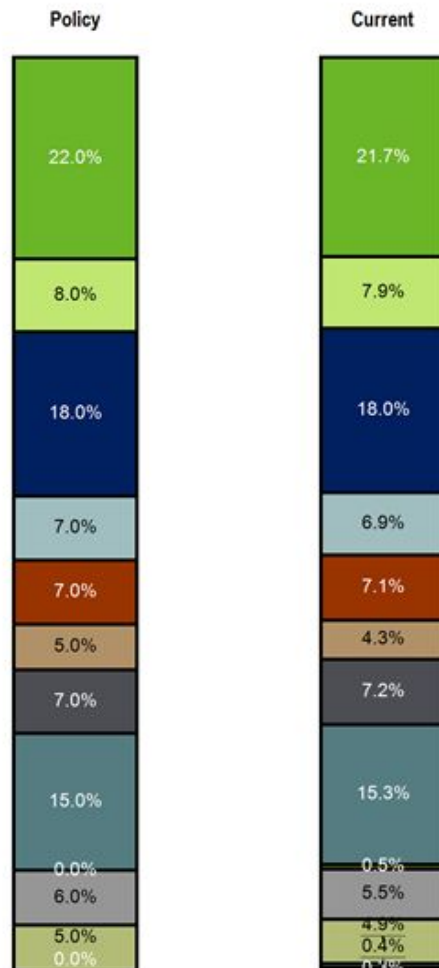
5.2

	Beginning Market Value	3 Months Ending June 30, 2019			Net Investment Change	Ending Market Value
		Contributions	Withdrawals	Net Cash Flow		
Aberdeen Emerging Mkts	\$12,200,444	\$0	-\$34,005	-\$34,005	\$472,344	\$12,638,783
Bain Capital Senior Loan Fund	\$14,613,902	\$0	-\$18,392	-\$18,392	\$248,960	\$14,844,470
Blackrock Strategic Income Opportunities	\$13,337,958	\$3,000,000	-\$21,504	\$2,978,496	\$440,632	\$16,757,086
Commonfund	\$18,826,451	\$5,000,000	-\$9,003	\$4,990,997	\$652,377	\$24,469,825
DFA	\$10,275,572	\$3,000,000	-\$12,392	\$2,987,608	-\$23,162	\$13,240,018
Distribution Account	\$1,119,550	\$29,004,979	-\$28,961,780	\$43,200	\$36,829	\$1,199,579
Globeflex	\$20,521,735	\$1,112,075	-\$39,317	\$1,072,758	\$157,445	\$21,751,939
GMO Global Absolute Return	\$25,553,905	\$0	-\$64,348	-\$64,348	\$518,041	\$26,007,598
Guggenheim US Bank Loans	\$1,599,052	\$0	-\$1,599,052	-\$1,599,052	\$0	--
John Hancock Timber Fund	\$1,523,286	\$0	-\$2,313	-\$2,313	\$2,379	\$1,523,353
Kabouter International Opportunities Offshore Fund II	\$11,267,254	\$6,000,000	-\$34,461	\$5,965,539	\$982,033	\$18,214,826
Landmark Equity Partners XV	\$1,799,091	\$83,082	-\$40,539	\$42,543	\$0	\$1,841,634
Lighthouse	\$18,440,608	\$0	\$0	\$0	\$475,349	\$18,915,957
Mondrian EM Small Cap	\$11,514,780	\$0	-\$54,159	-\$54,159	-\$318,268	\$11,142,353
Morgan Stanley	\$21,455,575	\$0	-\$51,172	-\$51,172	\$594,713	\$21,999,116
Newton Global Real Return	\$25,712,422	\$0	-\$52,500	-\$52,500	\$1,121,660	\$26,781,582
SSgA S&P 500	\$64,527,551	\$7,641,000	-\$15,756	\$7,625,244	\$2,794,539	\$74,947,334
Vanguard Inflation-Protected Securities	\$12,254,562	\$0	-\$2,180	-\$2,180	\$344,204	\$12,596,586
Vanguard Short-Term Inflation-Protected Securities	\$12,000,000	\$0	-\$810	-\$810	\$195,647	\$12,194,837
Wellington	\$25,678,072	\$0	-\$26,106,071	-\$26,106,071	\$427,998	--
Westfield Capital	\$10,589,367	\$3,013,050	-\$58,098	\$2,954,952	\$463,966	\$14,008,285
Total	\$334,811,139	\$57,854,186	-\$57,177,853	\$676,333	\$9,587,688	\$345,075,161



June 30, 2019

ASSET CLASS ALLOCATIONS



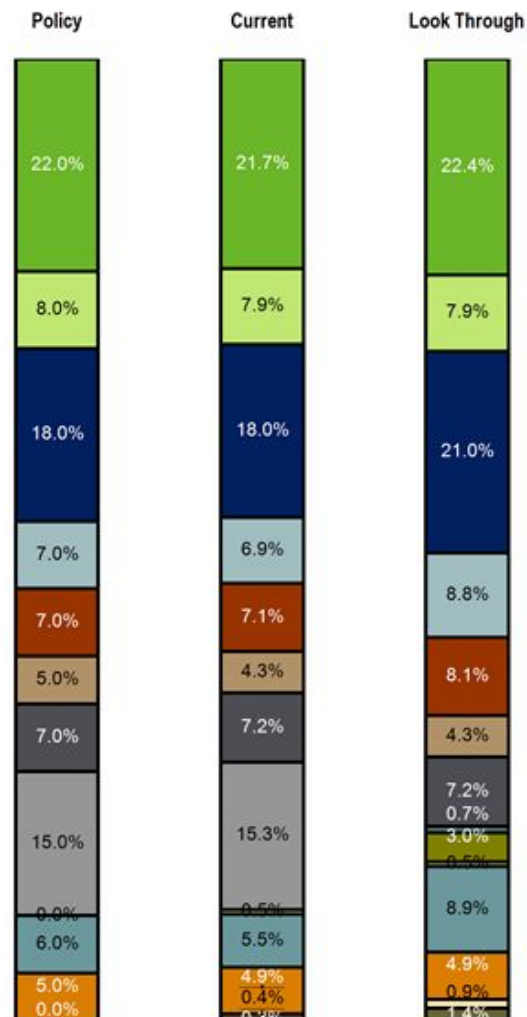
Asset Allocation vs. Target							
	Current	Policy	Current	Difference	Policy Range	Within Range	
Large Cap Equity	\$74,947,334	22.0%	21.7%	-0.3%	17.0% - 27.0%	Yes	
Small/Mid Cap Equity	\$27,248,303	8.0%	7.9%	-0.1%	3.0% - 13.0%	Yes	
International Equity	\$61,965,880	18.0%	18.0%	0.0%	8.0% - 28.0%	Yes	
Emerging Markets Equity	\$23,781,136	7.0%	6.9%	-0.1%	0.0% - 14.0%	Yes	
Core Bonds	\$24,469,825	7.0%	7.1%	0.1%	2.0% - 12.0%	Yes	
Bank Loans	\$14,844,470	5.0%	4.3%	-0.7%	0.0% - 10.0%	Yes	
TIPS	\$24,791,423	7.0%	7.2%	0.2%	0.0% - 14.0%	Yes	
Global Asset Allocation	\$52,789,180	15.0%	15.3%	0.3%	10.0% - 20.0%	Yes	
Private Equity	\$1,841,634	0.0%	0.5%	0.5%	0.0% - 5.0%	Yes	
Hedge Funds	\$18,915,957	6.0%	5.5%	-0.5%	0.0% - 10.0%	Yes	
Absolute Return	\$16,757,086	5.0%	4.9%	-0.1%	0.0% - 10.0%	Yes	
Real Assets	\$1,523,353	0.0%	0.4%	0.4%	0.0% - 6.0%	Yes	
Cash	\$1,199,579	0.0%	0.3%	0.3%	0.0% - 10.0%	Yes	
Total	\$345,075,161	100.0%	100.0%				

Note: International Equity policy targets and ranges include International small cap equity. Emerging market equity policy targets and ranges include emerging market small cap equity. TIPS policy targets and ranges include short-term TIPS.



June 30, 2019

ASSET CLASS ALLOCATIONS



Asset Allocation			
	Policy	Current	Look Through
Large Cap Equity	22.0%	21.7%	22.4%
Small/Mid Cap Equity	8.0%	7.9%	7.9%
International Equity	18.0%	18.0%	21.0%
Emerging Markets Equity	7.0%	6.9%	8.8%
Core Bonds	7.0%	7.1%	8.1%
Bank Loans	5.0%	4.3%	4.3%
TIPS	7.0%	7.2%	7.2%
Fixed Income - Emerging	--	--	0.7%
Global Bonds	--	--	3.0%
Global Asset Allocation	15.0%	15.3%	--
Private Equity	0.0%	0.5%	0.5%
Hedge Funds	6.0%	5.5%	8.9%
Absolute Return	5.0%	4.9%	4.9%
Real Assets	0.0%	0.4%	0.9%
Cash	0.0%	0.3%	1.4%
Total	100.0%	100.0%	100.0%

Net Asset Allocation breaks out the exposure of GAA managers.

Asset class weights may not add up to 100%.

The 60% MSCI ACWI/40% FTSE WGBI Index is broken down into the following categories: 33.2% Domestic Equities, 19.8% Int'l Equities, 7.1% Emerging Equities, 15.2% US Treasury Bonds, 12.6% European Government Bonds, 7.5% Japanese Debt, 2.6% United Kingdom Bonds and 2.1% Developing Market Bonds.

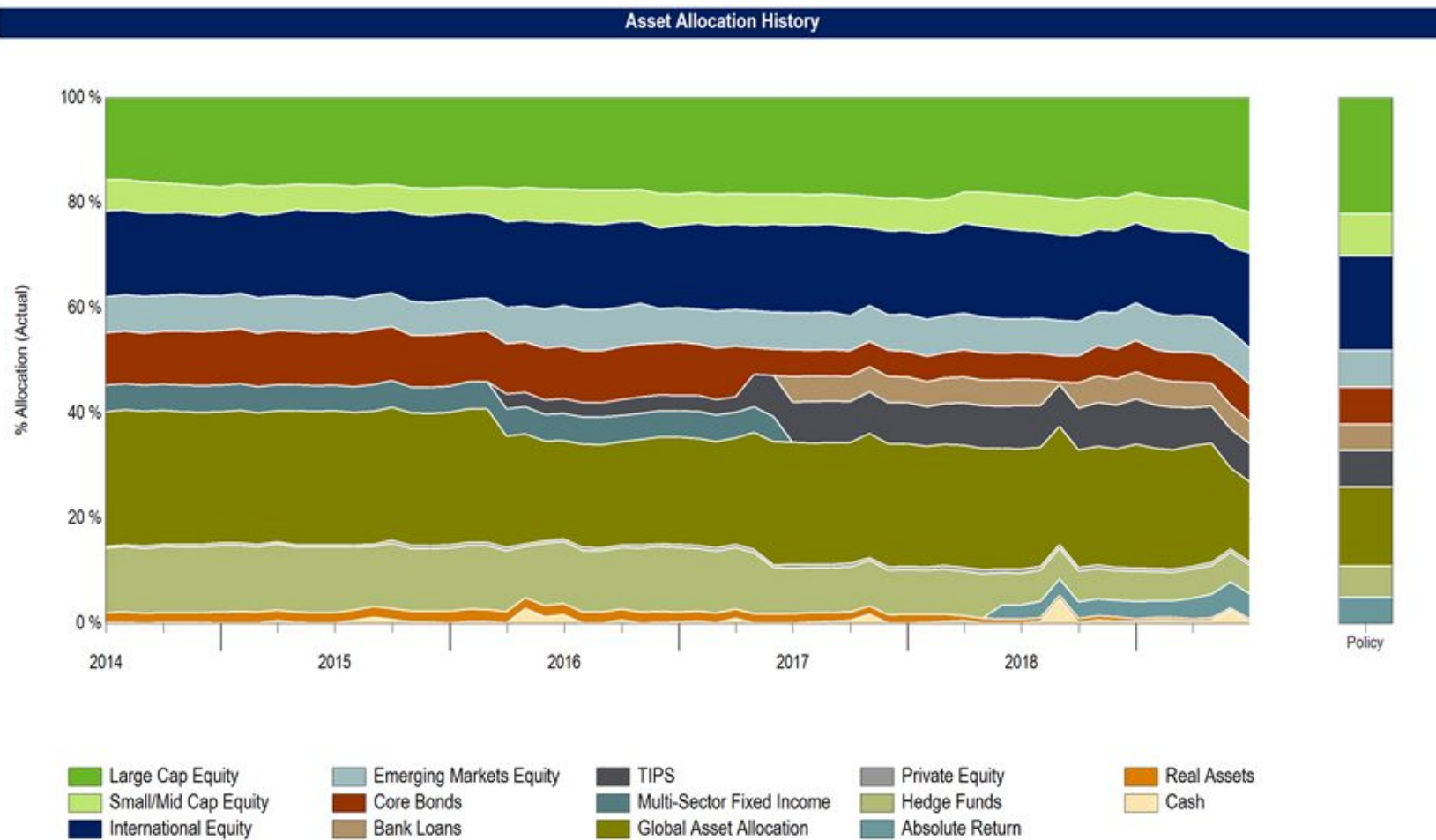
Note: International Equity policy targets include International small cap equity. Emerging market equity policy targets include emerging market small cap equity. TIPS policy targets and ranges include short-term TIPS.



June 30, 2019

ASSET ALLOCATION HISTORY

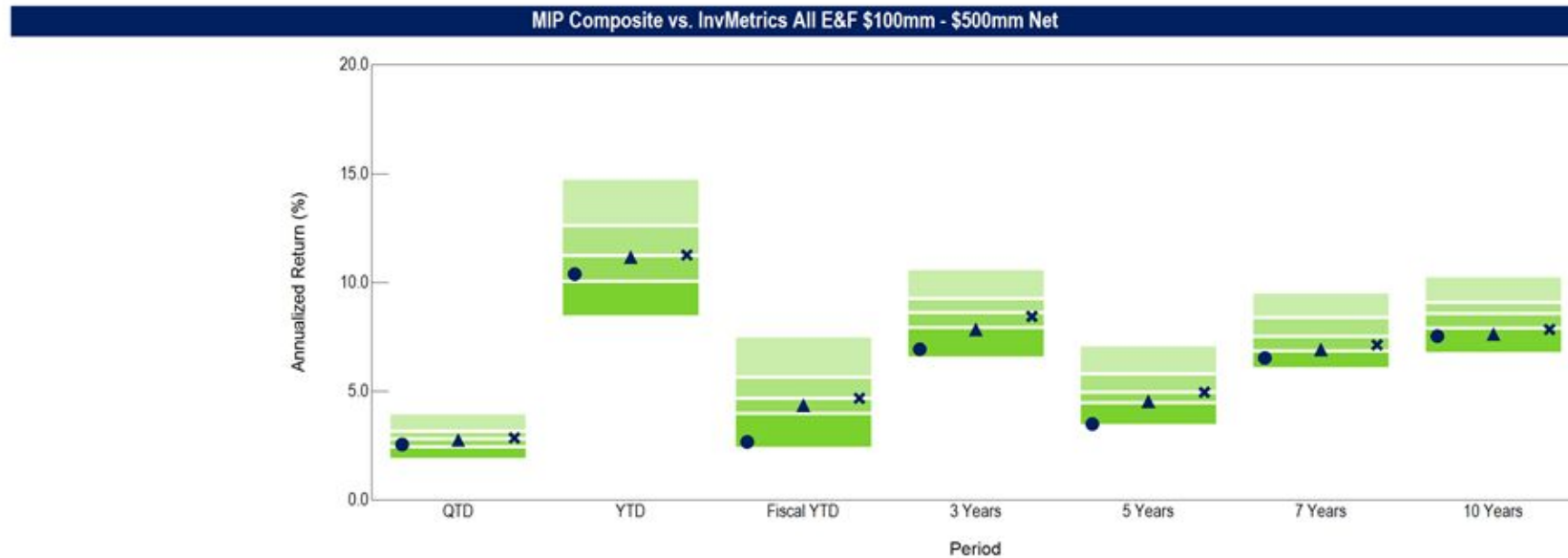
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June 30, 2019

RETURNS VS. PEER UNIVERSE

5.2



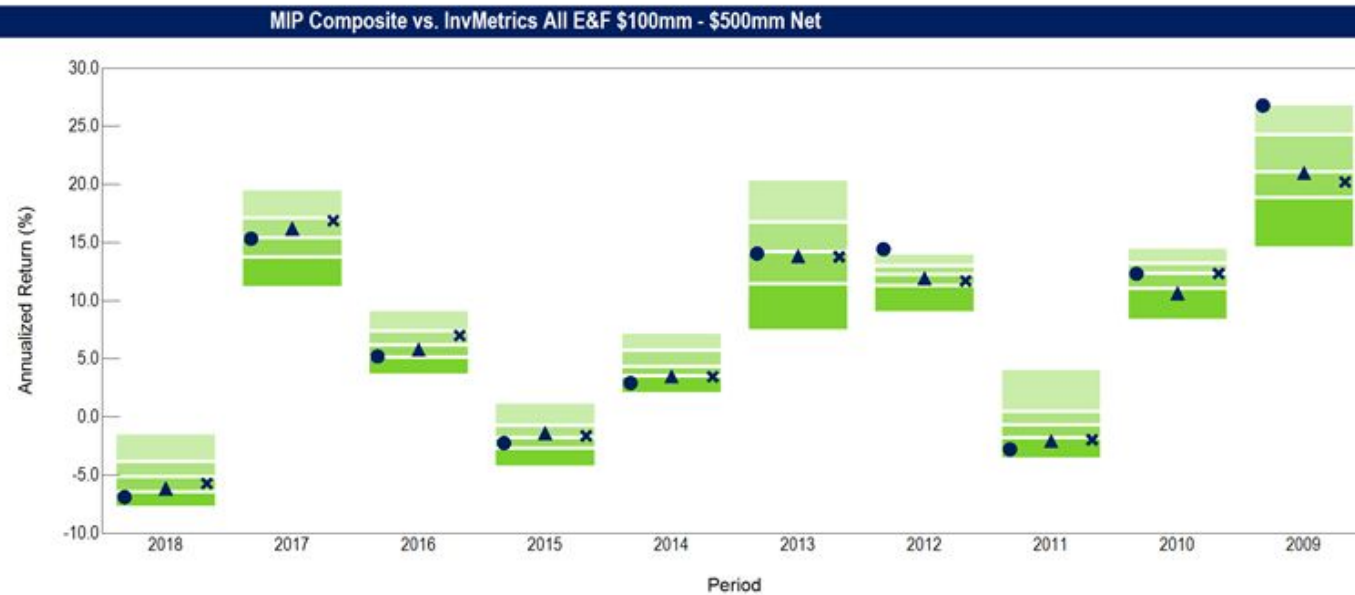
		Return (Rank)													
5th Percentile		4.0	14.8	7.5	10.6	7.1	9.6	10.3							
25th Percentile		3.2	12.6	5.7	9.3	5.8	8.4	9.1							
Median		2.8	11.3	4.7	8.6	5.0	7.5	8.6							
75th Percentile		2.5	10.1	4.0	8.0	4.5	6.9	7.9							
95th Percentile		1.9	8.4	2.4	6.5	3.4	6.0	6.7							
# of Portfolios		209	209	208	193	185	172	150							
●	MIP Composite	2.6	(70)	10.4	(68)	2.7	(94)	6.9	(94)	3.5	(95)	6.5	(91)	7.5	(90)
▲	Allocation Index	2.8	(54)	11.2	(53)	4.4	(66)	7.9	(79)	4.5	(72)	6.9	(73)	7.6	(89)
×	Policy Index	2.9	(46)	11.3	(50)	4.7	(52)	8.4	(58)	5.0	(54)	7.1	(65)	7.8	(81)



June 30, 2019

RETURNS VS. PEER UNIVERSE

5.2



	Return (Rank)									
5th Percentile	-1.4	19.6	9.2	1.3	7.3	20.5	14.1	4.2	14.6	26.9
25th Percentile	-3.8	17.2	7.4	-0.7	5.7	16.8	13.0	0.5	13.3	24.3
Median	-5.1	15.4	6.2	-1.7	4.4	14.2	12.3	-0.6	12.4	21.1
75th Percentile	-6.4	13.8	5.2	-2.7	3.6	11.5	11.3	-1.8	11.1	18.9
95th Percentile	-7.8	11.1	3.6	-4.3	2.0	7.4	9.0	-3.6	8.3	14.6
# of Portfolios	231	177	186	142	98	75	78	75	70	69
● MIP Composite	-6.9 (86)	15.3 (53)	5.2 (75)	-2.2 (64)	2.9 (86)	14.1 (54)	14.4 (3)	-2.8 (90)	12.3 (53)	26.8 (9)
▲ Allocation Index	-6.1 (71)	16.2 (37)	5.8 (58)	-1.4 (44)	3.5 (77)	13.9 (57)	11.9 (58)	-2.1 (79)	10.7 (83)	21.0 (52)
× Policy Index	-5.7 (61)	16.9 (29)	7.0 (36)	-1.6 (48)	3.5 (78)	13.8 (57)	11.7 (64)	-2.0 (78)	12.3 (51)	20.2 (66)

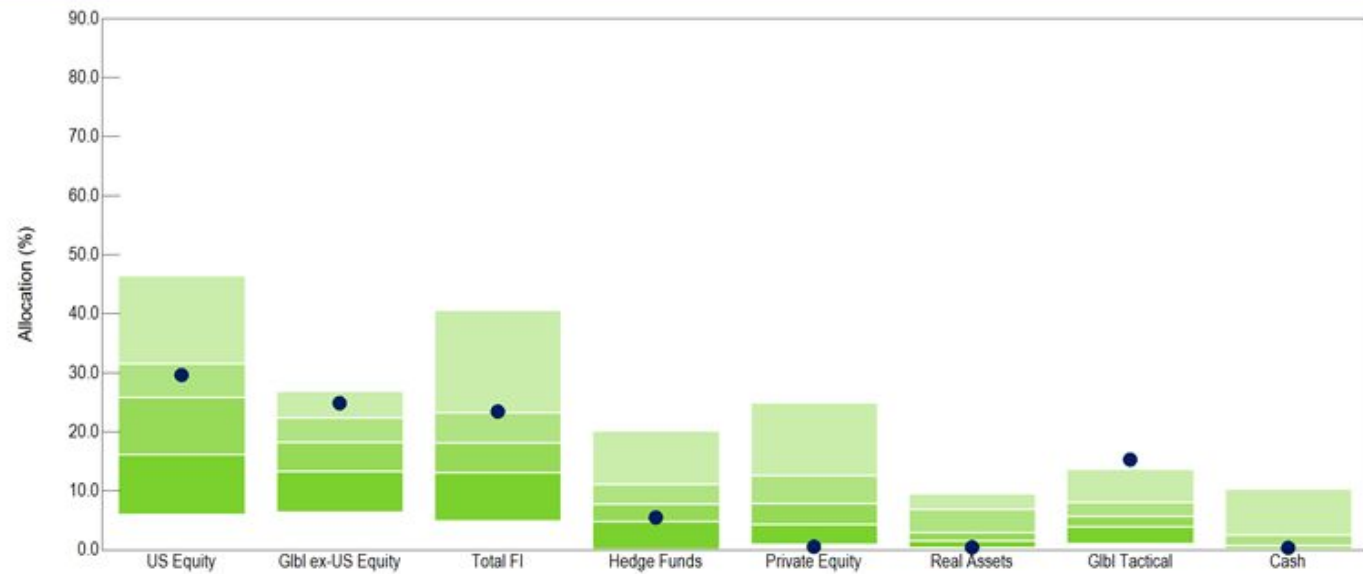


June 30, 2019

ALLOCATIONS VS. PEER UNIVERSE

5.2

Total Plan Allocation vs. InvMetrics All E&F \$100mm - \$500mm Net



	Allocation (Rank)															
5th Percentile	46.5	26.9	40.6	20.2	24.9	9.5	13.7	10.3								
25th Percentile	31.6	22.5	23.4	11.3	12.7	7.0	8.1	2.6								
Median	25.9	18.4	18.3	7.8	7.9	3.0	5.8	0.9								
75th Percentile	16.3	13.4	13.2	4.9	4.4	1.6	4.0	0.2								
95th Percentile	6.1	6.5	4.9	0.1	1.0	0.4	1.1	0.0								
# of Portfolios	92	114	123	73	95	41	23	110								
• MIP Composite	29.6	(32)	24.8	(12)	23.4	(25)	5.5	(71)	0.5	(98)	0.4	(95)	15.3	(1)	0.3	(69)



June 30, 2019

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	Fiscal YTD (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
MIP Composite	345,075,161	100.0	100.0	2.6	10.4	2.7	6.9	3.5	6.5	7.5
Allocation Index				2.8	11.2	4.4	7.9	4.5	6.9	7.6
Policy Index				2.9	11.3	4.7	8.4	5.0	7.1	7.8
Total Domestic Large Cap	74,947,334	21.7	22.0	4.3	18.5	10.3	14.1	10.6	13.8	14.6
S&P 500				4.3	18.5	10.4	14.2	10.7	14.0	14.7
SSgA S&P 500	74,947,334	21.7	22.0	4.3	18.5	10.3	14.1	10.6	13.9	14.6
S&P 500				4.3	18.5	10.4	14.2	10.7	14.0	14.7
Total Domestic Small/Mid Cap	27,248,303	7.9	8.0	2.4	17.0	-3.5	12.8	6.5	12.6	14.0
Russell 2500				3.0	19.2	1.8	12.3	7.7	12.5	14.4
Westfield Capital	14,008,285	4.1	4.0	3.9	20.7	1.4	16.3	8.5	13.7	15.6
Russell 2500 Growth				4.1	23.9	6.1	16.1	10.0	14.1	15.7
DFA	13,240,018	3.8	4.0	0.9	13.2	-8.1	8.4	4.1	10.9	--
Russell 2000 Value				1.4	13.5	-6.2	9.8	5.4	10.3	12.4
Total International Equity (including emerging markets)	85,747,017	24.8	25.0	1.7	11.1	-3.4	6.3	1.0	5.2	6.6
MSCI EAFE				3.7	14.0	1.1	9.1	2.2	7.3	6.9
Morgan Stanley	21,999,116	6.4	6.5	2.5	14.0	0.0	7.1	1.7	6.3	6.6
Globeflex	21,751,939	6.3	6.5	0.3	9.8	-9.0	7.1	1.1	7.2	6.8
MSCI EAFE				3.7	14.0	1.1	9.1	2.2	7.3	6.9
Kabouter International Opportunities Offshore Fund II	18,214,826	5.3	5.0	6.0	12.3	-7.9	--	--	--	--
MSCI EAFE Small Cap				1.7	12.5	-6.3	9.1	4.4	9.9	9.7
Emerging Markets Equity	23,781,136	6.9	7.0	0.3	9.1	1.4	4.4	-0.2	1.7	--
MSCI Emerging Markets				0.6	10.6	1.2	10.7	2.5	4.2	5.8
Aberdeen Emerging Mkts	12,638,783	3.7	3.5	3.6	14.8	10.2	8.2	2.3	3.5	7.6
MSCI Emerging Markets				0.6	10.6	1.2	10.7	2.5	4.2	5.8
Mondrian EM Small Cap	11,142,353	3.2	3.5	-3.2	3.3	-7.0	0.3	-2.8	--	--
MSCI Emerging Markets Small Cap				-1.0	6.7	-5.1	5.5	0.5	3.7	5.9
Total Fixed Income	80,862,804	23.4	24.0	2.4	5.6	5.1	3.3	2.6	4.0	5.6
BBgBarc US Aggregate TR				3.1	6.1	7.9	2.3	2.9	2.6	3.9
Commonfund	24,469,825	7.1	7.0	3.1	6.3	7.5	3.3	3.1	3.6	5.3
BBgBarc US Aggregate TR				3.1	6.1	7.9	2.3	2.9	2.6	3.9
Vanguard Inflation-Protected Securities	12,596,586	3.7	3.5	2.8	6.1	4.7	1.9	--	--	--
BBgBarc US TIPS TR				2.9	6.2	4.8	2.1	1.8	1.2	3.6
Vanguard Short-Term Inflation-Protected Securities	12,194,837	3.5	3.5	1.6	--	--	--	--	--	--
BBgBarc US TIPS 1-5 Yr TR				1.8	3.6	3.4	1.6	0.9	0.9	2.0
Blackrock Strategic Income Opportunities	16,757,086	4.9	5.0	2.6	5.2	5.1	--	--	--	--
3-Month Libor Total Return USD				0.6	1.3	2.6	1.8	1.2	1.0	0.8
Bain Capital Senior Loan Fund	14,844,470	4.3	5.0	1.6	5.7	--	--	--	--	--
Credit Suisse Leveraged Loans				1.6	5.4	4.1	5.4	3.9	4.7	6.3

5.2



June 30, 2019

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	Fiscal YTD (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	52,789,180	15.3	15.0	3.0	8.8	3.9	5.1	1.8	4.2	5.2
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				3.6	12.6	6.1	8.2	4.6	7.0	7.7
GMO Global Absolute Return	26,007,598	7.5	7.5	1.5	6.8	2.3	5.1	2.0	4.2	5.1
Blended Index				3.2	7.9	7.7	4.1	3.6	3.9	5.6
Newton Global Real Return	26,781,582	7.8	7.5	4.2	8.9	9.6	3.0	--	--	--
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				3.6	12.0	6.1	7.7	4.3	6.6	7.4
Total Hedge Funds	18,915,957	5.5	6.0	2.6	7.6	-1.3	3.8	0.9	2.7	2.7
HFRI Fund of Funds Composite Index				1.5	6.1	1.1	4.2	2.2	3.7	3.2
Lighthouse	18,915,957	5.5	6.0	2.6	7.6	-1.3	4.8	--	--	--
Credit Suisse Long Shrt Eqt USD				1.2	6.7	1.1	5.5	3.4	6.1	5.7
Total Real Assets	1,523,353	0.4	0.0	0.0	-1.0	-6.7	-3.5	-0.3	3.9	--
NCREIF Timberland Index				1.0	1.2	2.9	3.3	4.6	6.0	4.0
John Hancock Timber Fund	1,523,353	0.4	0.0	0.0	-1.0	-6.7	-3.5	-0.3	3.9	0.0
NCREIF Timberland Index				1.0	1.2	2.9	3.3	4.6	6.0	4.0
Private Equity	1,841,634	0.5	0.0	0.0	-0.8	-2.2	11.2	8.4	--	--
Landmark Equity Partners XV	1,841,634	0.5	0.0	0.0	-0.8	-2.2	11.2	8.4	--	--
Cambridge Associates US All PE (1 Qtr Lag)				6.5	4.7	14.5	16.0	12.2	13.4	14.8
Total Cash	1,199,579	0.3	0.0							
Distribution Account	1,199,579	0.3	0.0	0.6	1.1	2.0	1.1	0.7	0.5	0.4
91 Day T-Bills				0.6	1.2	2.3	1.4	0.9	0.6	0.5

Notes:

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate, 30% BC U.S. TIPS 1-10YR, 10% S&P 500, 10% BC High Yield, 10% JPM EMBI+

Returns are net of manager fees

John Hancock Timber market value estimated as of 06/30/19

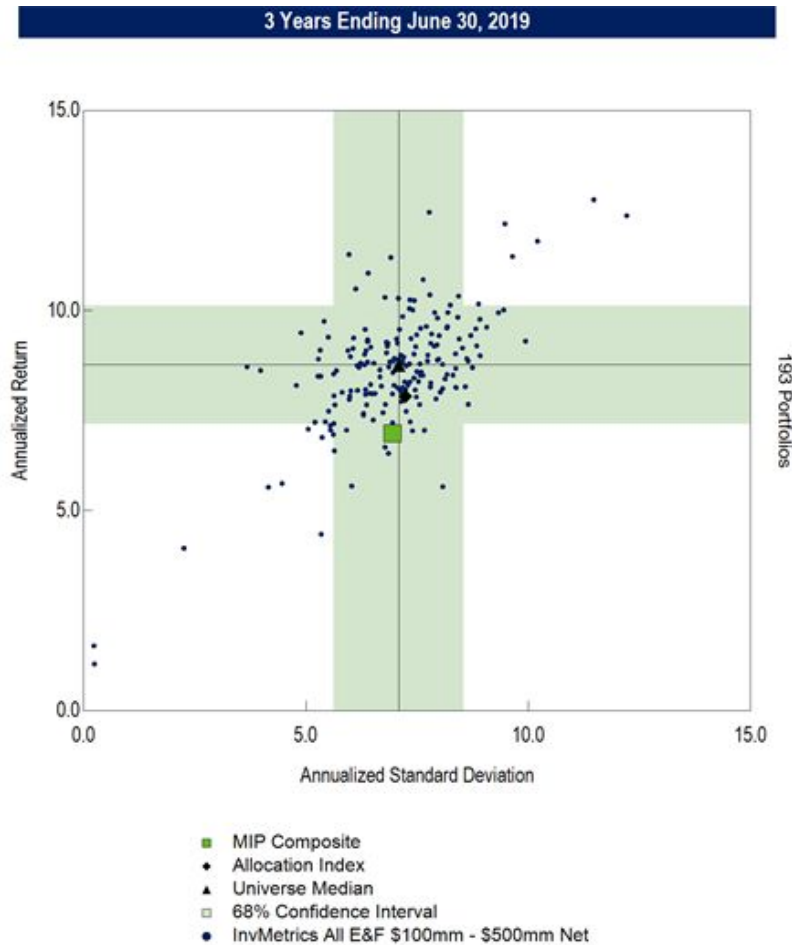
Landmark market value estimated as of 06/30/19

5.2

June 30, 2019

TOTAL PLAN RISK/RETURN - 3 YEAR

5.2



3 Years Ending June 30, 2019				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
MIP Composite	6.9%	94	6.9%	45
Allocation Index	7.9%	79	7.2%	56
Policy Index	8.4%	58	7.4%	62
InvMetrics All E&F \$100mm - \$500mm Net Median	8.6%	--	7.1%	--

3 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.8	94	0.9	87
Allocation Index	0.9	82	1.0	68
Policy Index	0.9	65	1.0	60
InvMetrics All E&F \$100mm - \$500mm Net Median	1.0	--	1.1	--

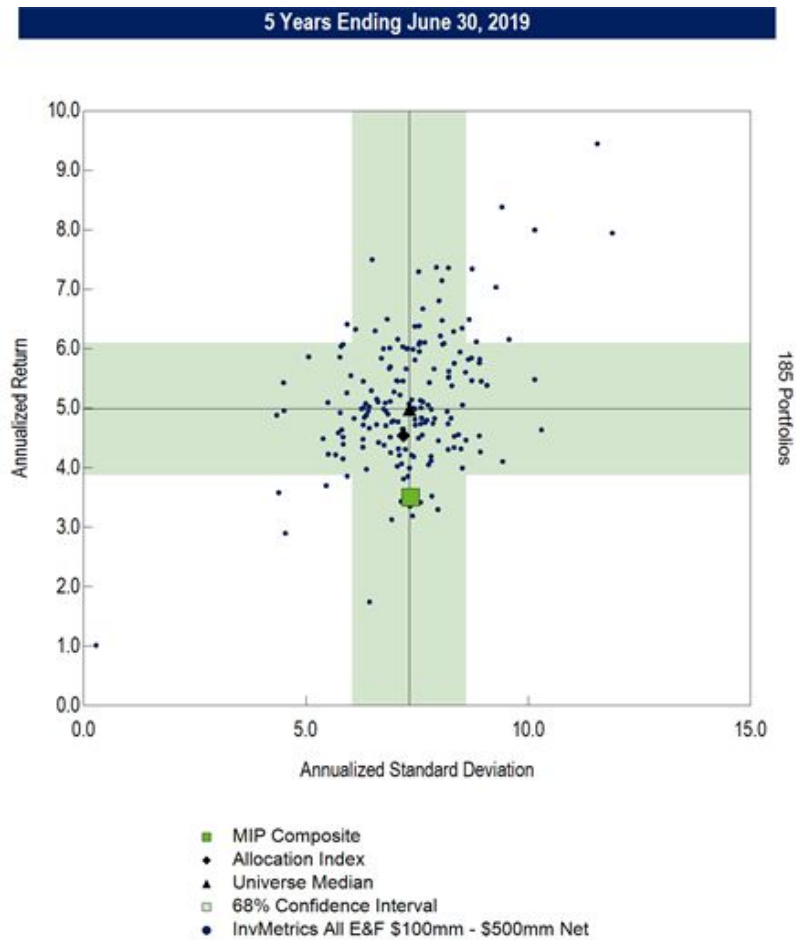
*Returns are net of fees.



June 30, 2019

TOTAL PLAN RISK/RETURN - 5 YEAR

5.2



5 Years Ending June 30, 2019				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
MIP Composite	3.5%	95	7.4%	51
Allocation Index	4.5%	72	7.2%	44
Policy Index	5.0%	53	7.3%	50
InvMetrics All E&F \$100mm - \$500mm Net Median	5.0%	--	7.3%	--

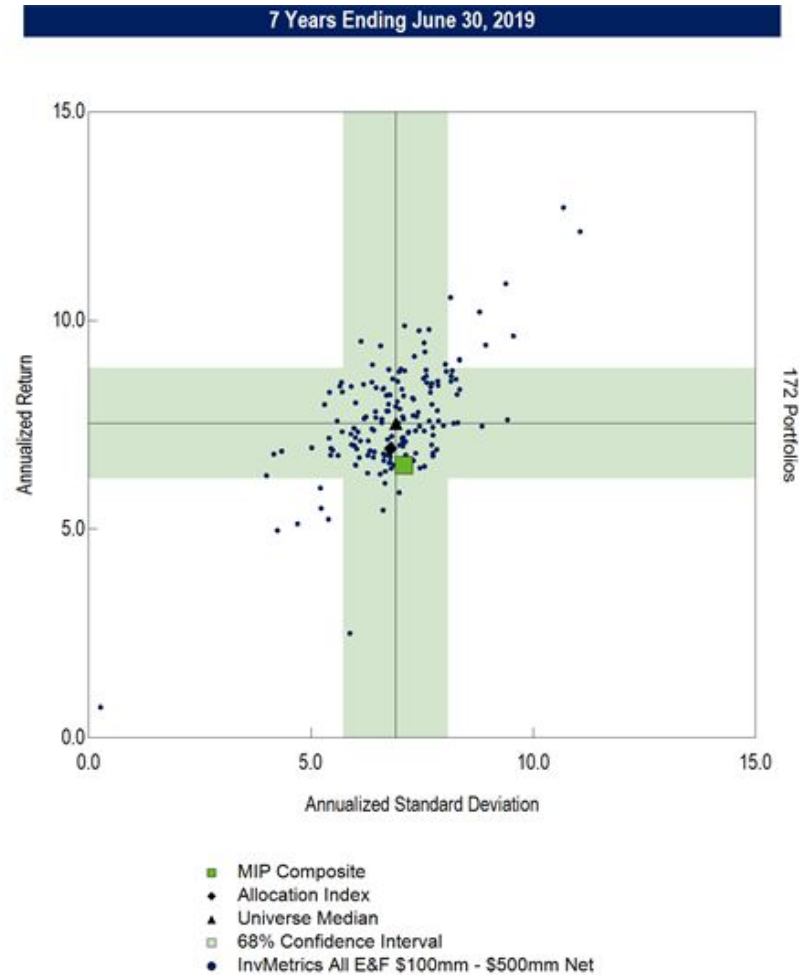
5 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.4	96	0.5	95
Allocation Index	0.5	71	0.7	71
Policy Index	0.6	57	0.8	55
InvMetrics All E&F \$100mm - \$500mm Net Median	0.6	--	0.8	--

*Returns are net of fees.



June 30, 2019

TOTAL PLAN RISK/RETURN - 7 YEAR



7 Years Ending June 30, 2019				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
MIP Composite	6.5%	91	7.1%	63
Allocation Index	6.9%	73	6.8%	47
Policy Index	7.1%	65	6.8%	49
InvMetrics All E&F \$100mm - \$500mm Net Median	7.5%	--	6.9%	--

7 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.8	92	1.2	85
Allocation Index	0.9	72	1.3	65
Policy Index	0.9	67	1.3	58
InvMetrics All E&F \$100mm - \$500mm Net Median	1.0	--	1.4	--

*Returns are net of fees.

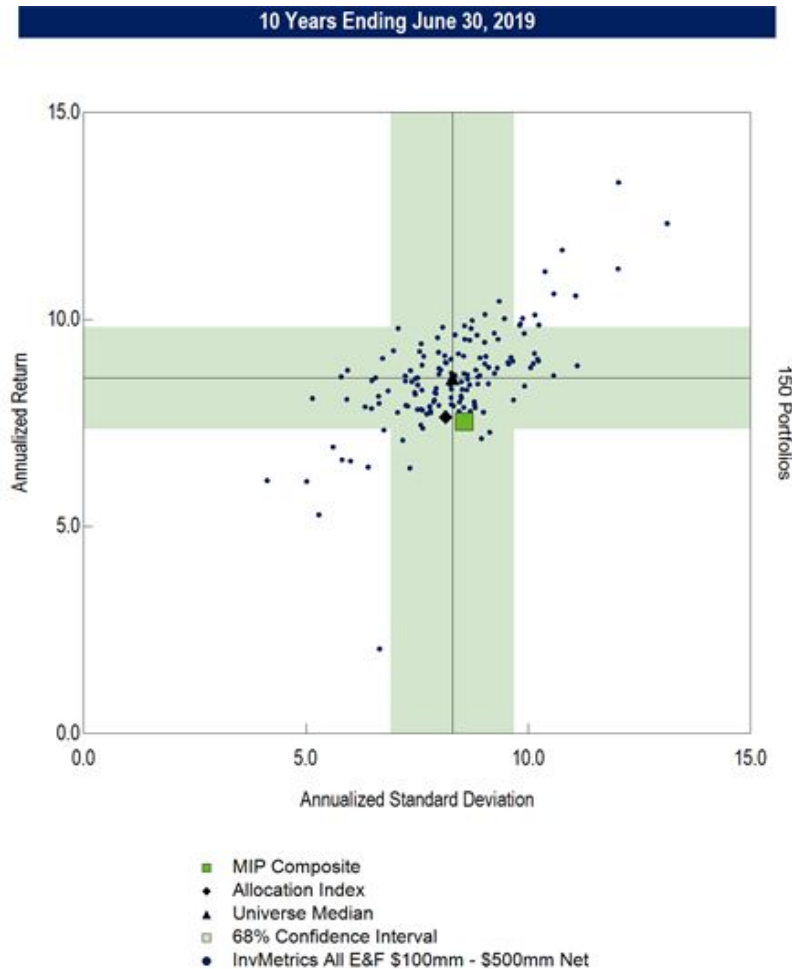


June 30, 2019

5.2

TOTAL PLAN RISK/RETURN - 10 YEAR

5.2



10 Years Ending June 30, 2019				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
MIP Composite	7.5%	90	8.6%	60
Allocation Index	7.6%	89	8.1%	44
Policy Index	7.8%	81	8.1%	42
InvMetrics All E&F \$100mm - \$500mm Net Median	8.6%	--	8.3%	--

10 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.8	94	1.2	90
Allocation Index	0.9	85	1.3	76
Policy Index	0.9	72	1.4	58
InvMetrics All E&F \$100mm - \$500mm Net Median	1.0	--	1.4	--

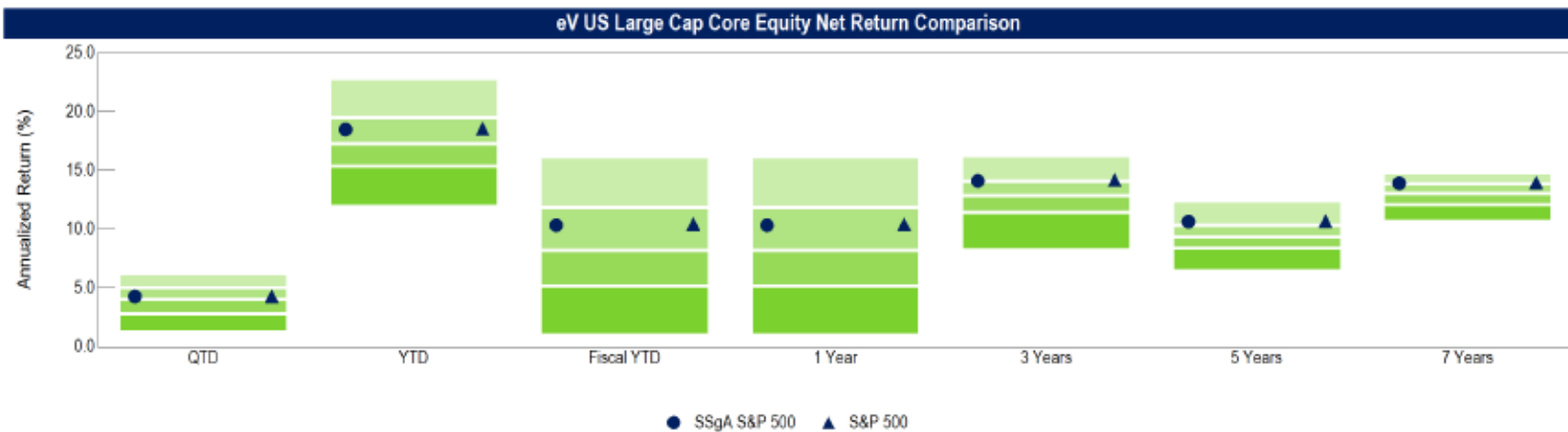
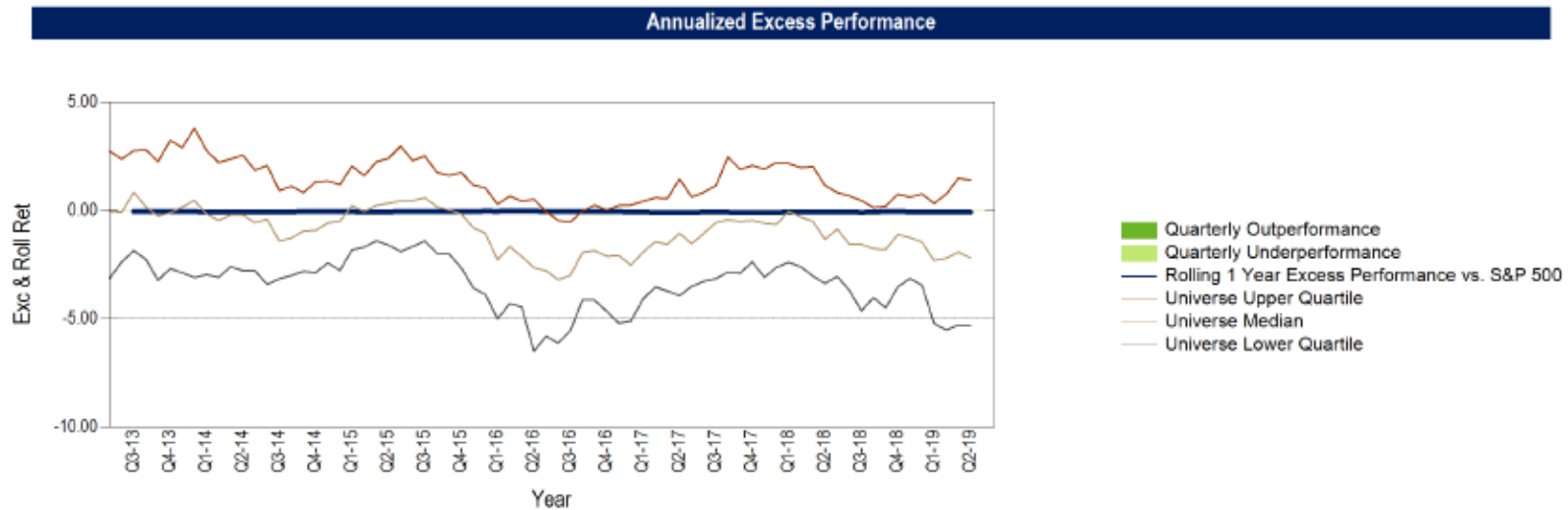
*Returns are net of fees.



June 30, 2019

SSGA S&P 500

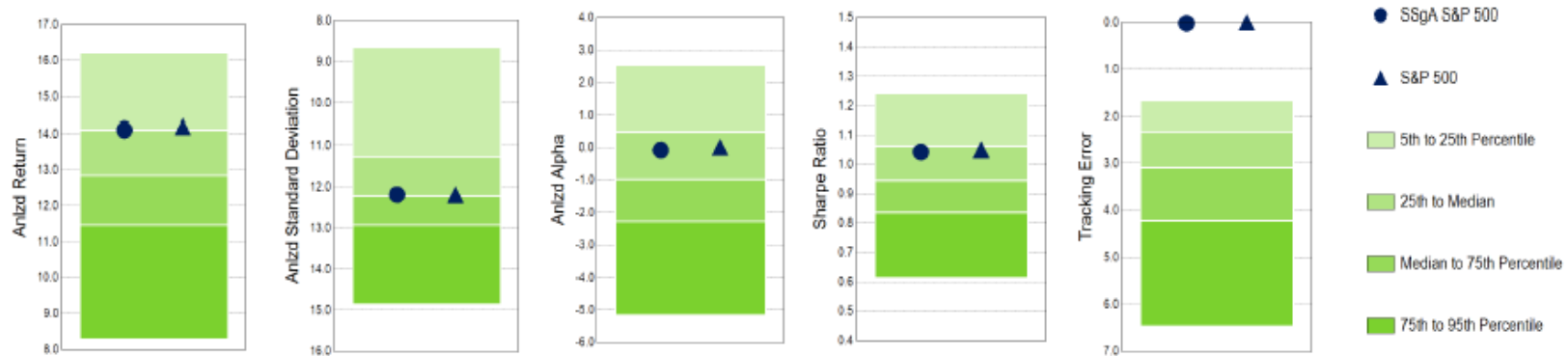
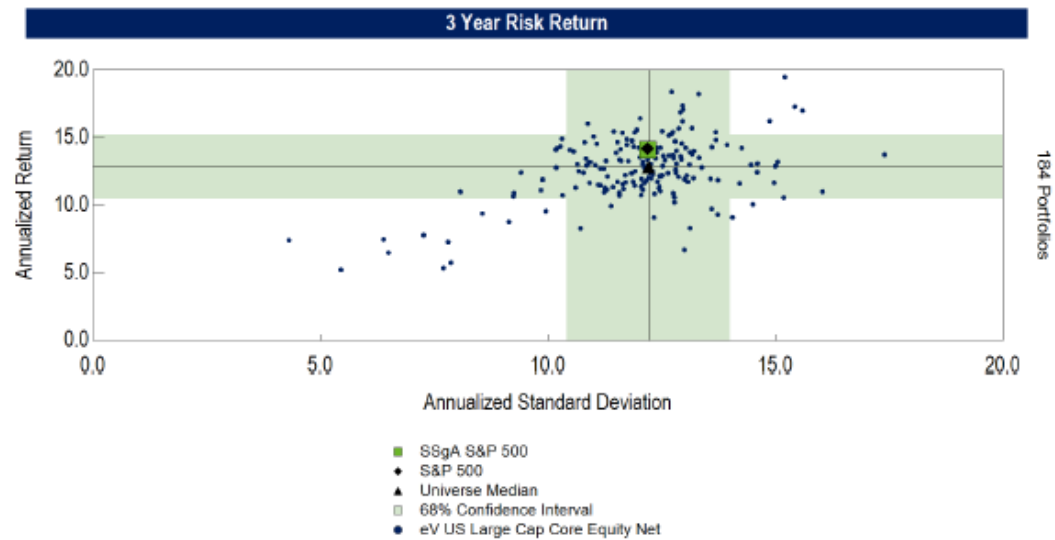
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June 30, 2019

SSGA S&P 500

5.2



June 30, 2019

SSGA S&P 500

5.2

Characteristics		
	Portfolio	S&P 500
Number of Holdings	506	505
Weighted Avg. Market Cap. (\$B)	225.1	225.0
Median Market Cap. (\$B)	22.1	22.1
Price To Earnings	20.6	20.6
Price To Book	3.6	3.6
Price To Sales	2.1	2.1
Return on Equity (%)	26.9	26.9
Yield (%)	2.0	2.0
Beta		1.0
R-Squared		1.0

Equity Sector Attribution									
	Total Effects	Selection Effect	Attribution Effects		Interaction Effects	Returns		Ending Sector Weights	
			Allocation Effect			Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0%	0.0%	0.0%		0.0%	-2.8%	-2.8%	4.9%	5.1%
Materials	0.0%	0.0%	0.0%		0.0%	6.5%	6.6%	2.7%	2.7%
Industrials	0.0%	0.0%	0.0%		0.0%	3.6%	3.6%	9.2%	9.4%
Consumer Discretionary	0.0%	0.0%	0.0%		0.0%	5.4%	5.3%	10.0%	10.2%
Consumer Staples	0.0%	0.0%	0.0%		0.0%	3.8%	3.7%	7.1%	7.3%
Health Care	0.0%	0.0%	0.0%		0.0%	1.4%	1.4%	13.9%	14.2%
Financials	0.0%	0.0%	0.0%		0.0%	8.0%	8.0%	12.9%	13.1%
Information Technology	0.0%	0.0%	0.0%		0.0%	6.1%	6.1%	21.1%	21.5%
Communication Services	0.0%	0.0%	0.0%		0.0%	4.5%	4.5%	10.0%	10.2%
Utilities	0.0%	0.0%	0.0%		0.0%	3.5%	3.5%	3.2%	3.3%
Real Estate	0.0%	0.0%	0.0%		0.0%	2.5%	2.5%	3.0%	3.1%
Cash	0.0%	--	--		--	--	--	2.0%	0.0%
Unclassified	0.0%	0.0%	0.0%		0.0%	2.7%	--	0.0%	0.0%
Portfolio	0.0%	=	0.0%	+	0.0%	+	0.0%	4.3%	4.3%
								100.0%	100.0%

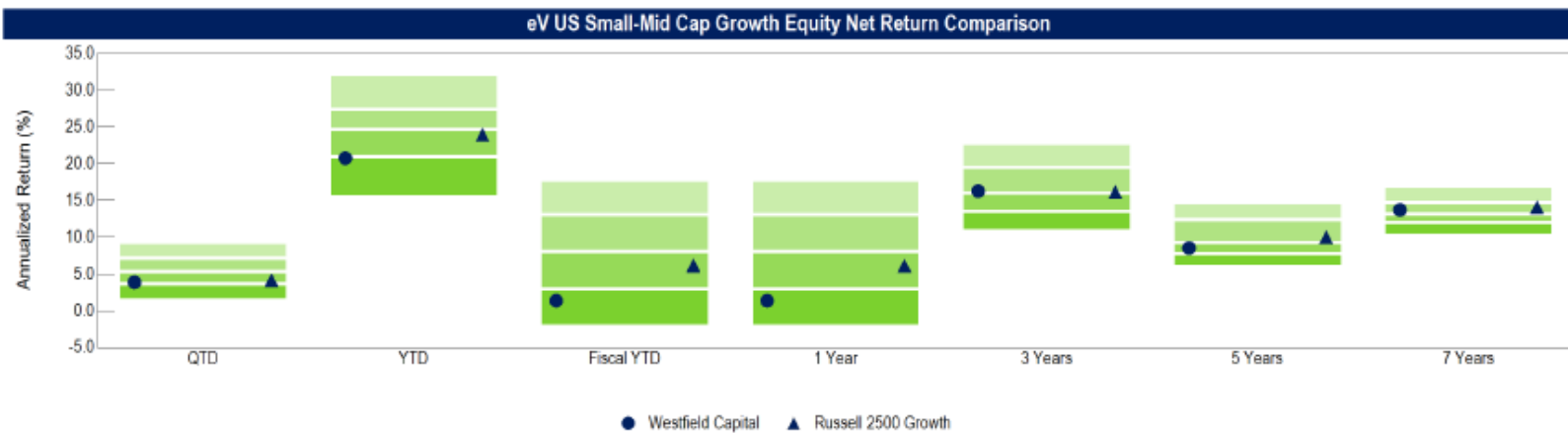
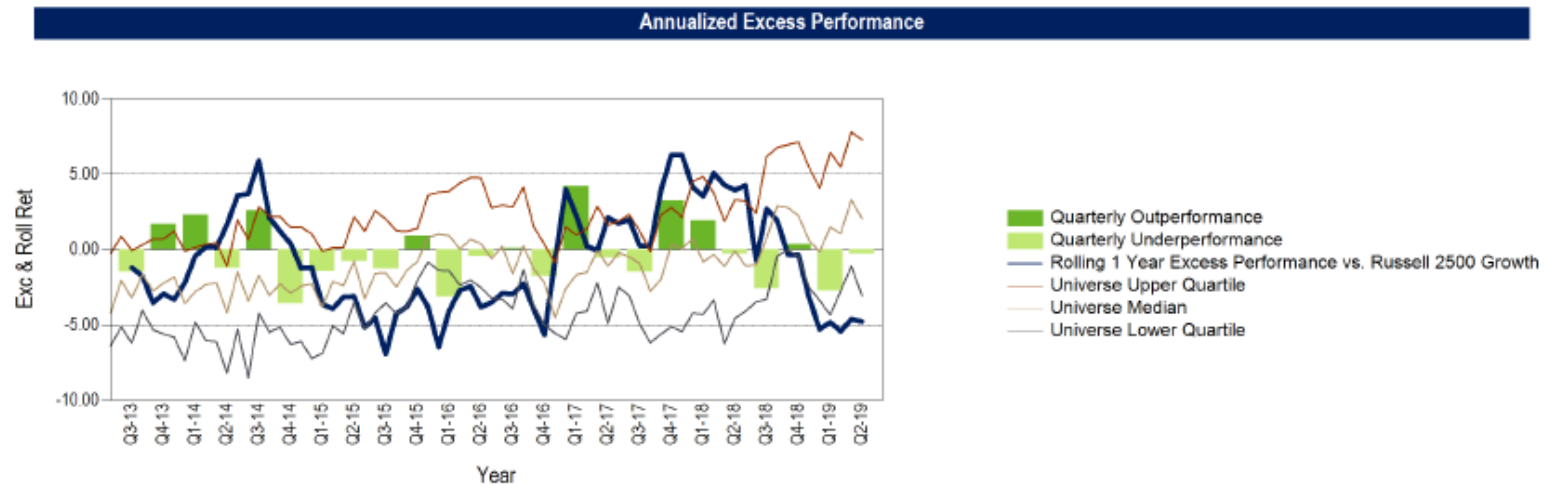
*Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of period portfolio. Results may differ from actual performance. Returns are net of fees.



June 30, 2019

WESTFIELD CAPITAL

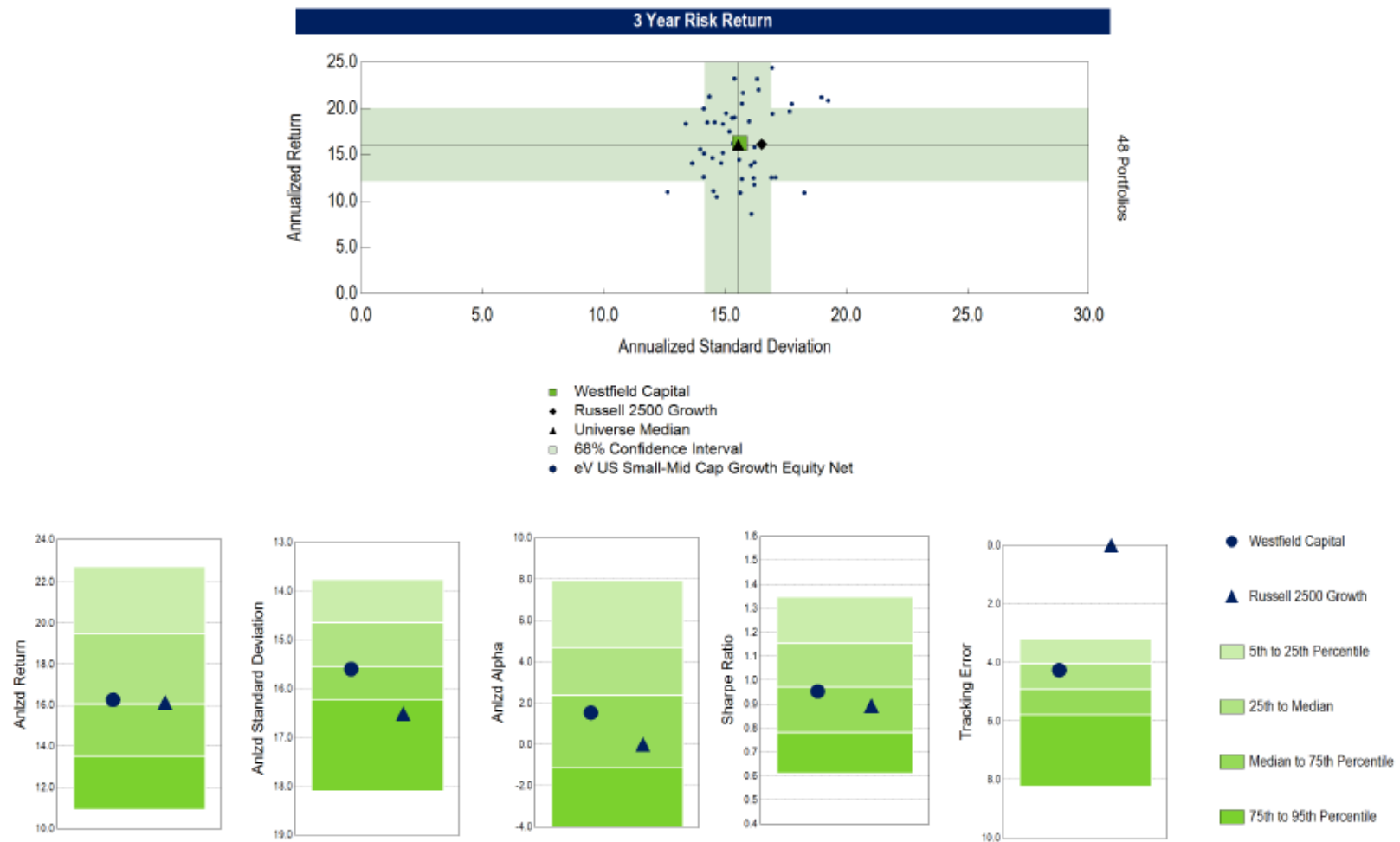
5.2



June 30, 2019

WESTFIELD CAPITAL

5.2



June 30, 2019

WESTFIELD CAPITAL

5.2

Characteristics		
	Portfolio	Russell 2500 Growth
Number of Holdings	68	1,477
Weighted Avg. Market Cap. (\$B)	8.7	6.3
Median Market Cap. (\$B)	6.8	1.2
Price To Earnings	27.4	24.8
Price To Book	4.3	4.9
Price To Sales	2.2	1.8
Return on Equity (%)	11.0	10.3
Yield (%)	0.7	0.7
Beta		1.0
R-Squared		1.0

Top Positive Contributors		
	Relative Contribution %	Return %
TOTAL SYSTEM SERVICES	1.0%	35.1%
MEDICINES COMPANY	0.6%	30.5%
HAEMONETICS	0.4%	37.6%
SAREPTA THERAPEUTICS	0.3%	27.5%
STERIS	0.3%	16.6%
COSTAR GP.	0.3%	18.8%
GLOBAL PAYMENTS	0.3%	17.3%
TELEDYNE TECHS.	0.3%	15.6%
METTLER TOLEDO INTL.	0.3%	16.2%
ARTHUR J GALLAGHER	0.3%	12.7%

Top Negative Contributors		
	Relative Contribution %	Return %
CLOVIS ONCOLOGY	-0.3%	-40.1%
PURE STORAGE CLA	-0.3%	-29.9%
AGIOS PHARMACEUTICALS	-0.2%	-26.0%
ALNYLAM PHARMACEUTICALS	-0.2%	-22.4%
ACCELERON PHARMA	-0.2%	-11.8%
EXACT SCIS.	-0.2%	36.3%
HUNT JB TRANSPORT SVS.	-0.2%	-9.5%
WPX ENERGY	-0.1%	-12.2%
FORTINET	-0.1%	-8.5%
NEW RELIC	-0.1%	-12.4%

Equity Sector Attribution								
	Total Effects	Selection Effect	Attribution Effects		Returns		Ending Sector Weights	
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0%	0.1%	-0.4%	0.3%	-0.1%	-9.7%	3.9%	1.0%
Materials	0.3%	0.3%	0.0%	0.1%	5.8%	-0.4%	5.3%	4.3%
Industrials	0.0%	0.1%	0.0%	0.0%	7.8%	7.5%	14.0%	16.7%
Consumer Discretionary	-0.1%	-0.3%	0.0%	0.1%	2.2%	4.0%	8.8%	14.7%
Consumer Staples	0.1%	0.1%	0.1%	0.0%	1.0%	-1.6%	1.3%	1.9%
Health Care	0.8%	0.9%	0.0%	-0.1%	6.3%	2.5%	21.8%	22.1%
Financials	0.1%	0.0%	0.1%	0.0%	8.3%	8.7%	8.1%	7.1%
Information Technology	-0.3%	-0.2%	0.0%	0.0%	3.9%	4.8%	27.0%	25.9%
Communication Services	-0.2%	-0.3%	0.0%	0.1%	-5.0%	2.9%	1.9%	3.3%
Utilities	0.0%	--	0.0%	--	--	4.3%	0.0%	0.3%
Real Estate	0.2%	0.2%	-0.1%	0.1%	6.7%	1.1%	5.0%	2.8%
Cash	0.0%	0.0%	0.0%	0.0%	0.6%	--	3.0%	0.0%
Portfolio	0.0%	=	0.7%	+	-0.3%	+	0.5%	
					5.1%	4.2%	100.0%	100.0%

*Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of period portfolio. Results may differ from actual performance. Returns are net of fees.

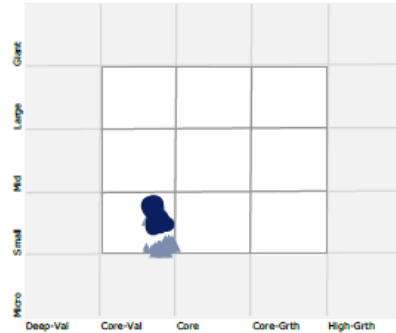


June 30, 2019

DFA US TARGETED VALUE I

Holdings Based Style Trail (5 Years)

Time Period: 7/31/2014 to 6/30/2019



• DFA US Targeted Value I • Russell 2000 Value TR USD

Portfolio Statistics

	Fund	Index
# of Holdings	1,524	1,347
% Asset in Top 10 Holdings	6.2	5.3
Turnover Ratio %	23.0	
P/E Ratio	12.7	15.2
P/B Ratio	1.2	1.4
LT Eam Growth	10.8	9.2
Hist Eam Growth	8.3	10.5
12 Mo Yield	1.2	

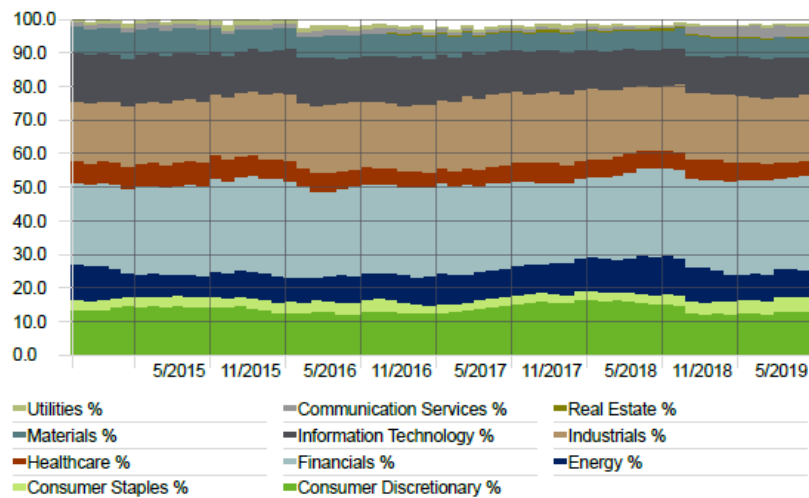
Market Capitalization Breakdown

	Fund	Index
Market Cap Giant %	0.0	0.0
Market Cap Large %	0.2	0.0
Market Cap Mid %	34.0	16.9
Market Cap Small %	55.2	69.2
Market Cap Micro %	10.7	13.9
Average Market Cap (mil)	2,110.9	1,604.6

Top 10 Holdings

	Portf Weight %	3 Month Ret %
S+p500 Emini Fut Jun19 Xome 20190621	0.76	
Post Holdings Inc	0.64	-4.98
Reliance Steel & Aluminum Co	0.64	5.44
Arrow Electronics Inc	0.63	-7.51
People's United Financial Inc	0.62	3.15
Toll Brothers Inc	0.61	1.48
Avnet Inc	0.59	4.84
Assured Guaranty Ltd	0.57	-4.88
Quanta Services Inc	0.57	1.40
Assurant Inc	0.55	12.72

Historical Sector Allocations (5 Years)



Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Communication Services	3.33	3.19	-6.73	-7.63	-0.02	0.03	0.01
Consumer Discretionary	13.01	8.84	-2.41	-4.72	-0.28	0.32	0.04
Consumer Staples	4.36	2.54	-2.17	-8.15	-0.19	0.28	0.09
Energy	8.18	5.33	-11.86	-8.62	-0.30	-0.29	-0.59
Financials	27.53	28.89	5.68	5.26	-0.03	0.11	0.08
Health Care	4.61	4.04	-3.04	-5.02	-0.03	0.09	0.06
Industrials	19.29	11.12	6.30	6.34	0.43	-0.01	0.42
Information Technology	11.64	11.95	1.80	2.10	0.00	-0.03	-0.03
Materials	5.76	4.14	-1.93	-1.57	-0.02	-0.02	-0.04
Real Estate	0.23	12.42	-2.42	1.47	-0.03	-0.01	-0.04
Utilities	0.15	7.40	14.63	5.32	-0.30	0.01	-0.29
Attribution Total	98.08	99.85	1.06	1.36	-0.78	0.48	-0.30
Cash	0.90	0.00					
Other	0.74	0.00					
Total	100.00	100.00					
Expense Ratio			0.09	0.00			
Residual(Reported - Attribution + Expense)			-0.02	0.02			



Source: Morningstar

June 30, 2019

DFA US TARGETED VALUE I

5.2

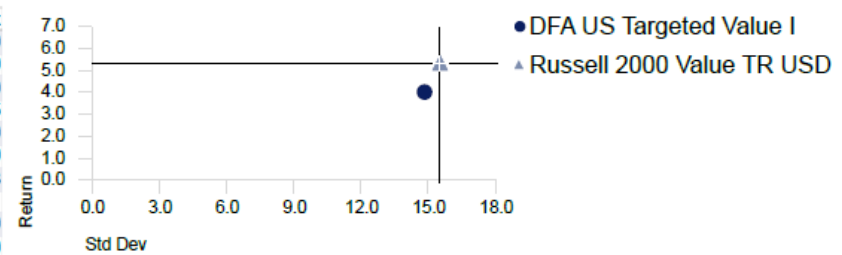
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	94.1	100.0
Alpha	-1.0	0.0
Beta	0.9	1.0
Std Dev	14.9	15.5
Up Capture Ratio	86.8	100.0
Down Capture Ratio	94.2	100.0
Sharpe Ratio (geo)	0.2	0.3
Information Ratio (geo)	-0.3	
Tracking Error	3.8	0.0
Correlation	1.0	1.0

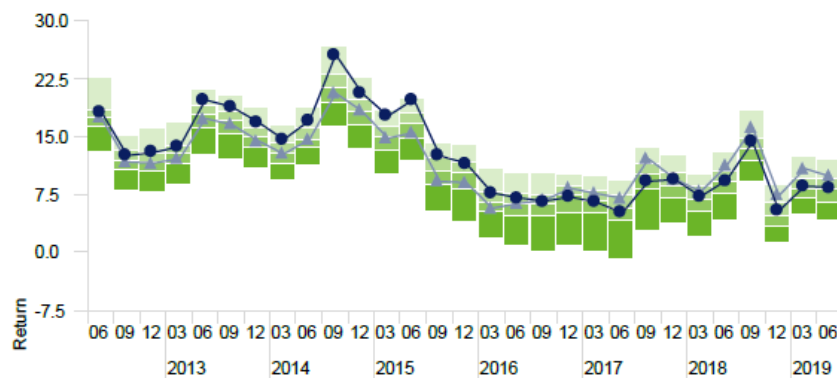
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Return (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

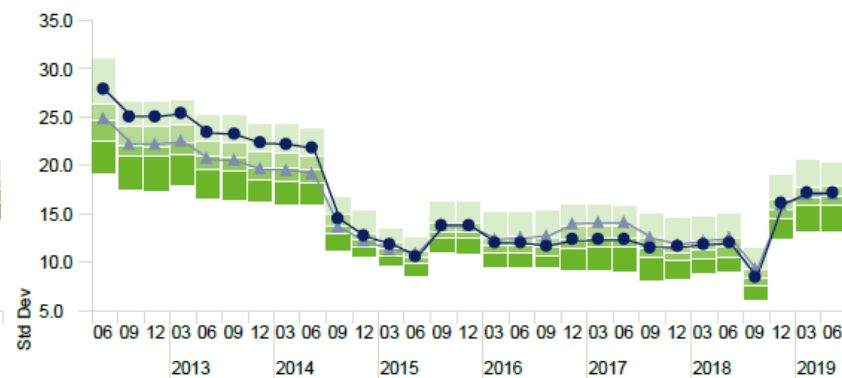


—DFA US Targeted Value I

—Russell 2000 Value TR USD

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—DFA US Targeted Value I

—Russell 2000 Value TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
DFA US Targeted Value I	31.9	37	29.0	24	-6.3	72	19.2	23	43.0	10	2.9	65	-5.7	46	26.9	40	9.6	40	-15.8	55
Russell 2000 Value TR USD	20.6		24.5		-5.5		18.1		34.5		4.2		-7.5		31.7		7.8		-12.9	



Source: Morningstar

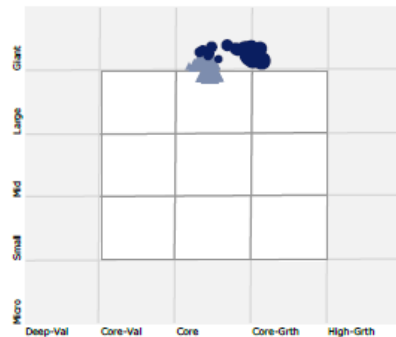
June 30, 2019

MORGAN STANLEY INTERNATIONAL EQUITY I

5.2

Holdings Based Style Trail (5 Years)

Time Period: 7/31/2014 to 6/30/2019



Morgan Stanley Int'l International Eq I MSCI EAFE NR USD

Portfolio Statistics

	Fund	Index
# of Holdings	59	923
% Asset in Top 10 Holdings	34.7	12.2
Turnover Ratio %	34.0	
P/E Ratio	17.6	15.4
P/B Ratio	2.3	1.5
LT Eam Growth	8.4	8.4
Hist Eam Growth	8.1	5.4
12 Mo Yield	2.3	

Market Capitalization Breakdown

	Fund	Index
Market Cap Giant %	61.0	50.0
Market Cap Large %	34.1	36.7
Market Cap Mid %	4.9	13.3
Market Cap Small %	0.0	0.0
Market Cap Micro %	0.0	0.0
Average Market Cap	52,550.6	35,266.1
Equity Region Developed %	95.7	99.2
Equity Region Emerging %	4.3	0.8

Top Ten Holdings

	Port Weight %	3 Month Return
Reckitt Benckiser Group PLC	4.59	-3.37
Unilever NV DR	4.34	5.36
SAP SE	3.59	20.38
Novartis AG	3.52	5.74
Kirin Holdings Co Ltd	3.38	-8.44
GlaxoSmithKline PLC	3.27	-2.40
RELX PLC	3.08	15.38
Pernod Ricard SA	3.02	2.72
Sanofi SA	3.02	1.73
AIA Group Ltd	2.91	9.53

Sector Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Communication Services	3.31	5.46	-5.77	4.15	0.01	-0.36	-0.35
Consumer Discretionary	2.51	11.01	0.94	6.16	-0.19	-0.13	-0.32
Consumer Staples	32.40	11.80	-2.55	2.17	-0.35	-1.61	-1.96
Energy	5.29	5.61	-3.80	0.67	0.01	-0.25	-0.25
Financials	14.57	19.09	5.39	4.65	-0.04	0.11	0.07
Health Care	15.90	11.01	2.85	1.96	-0.09	0.14	0.05
Industrials	13.10	14.57	10.80	6.07	-0.03	0.61	0.58
Information Technology	7.66	6.50	13.66	6.39	0.03	0.55	0.58
Materials	3.44	7.37	11.14	4.08	-0.01	0.26	0.25
Real Estate	0.00	3.75		-2.10	0.23	0.00	0.23
Utilities	0.00	3.78		1.66	0.08	0.00	0.08
Attribution Total	98.17	99.96	2.83	3.87	-0.35	-0.69	-1.04
Cash	1.83	0.00					
Missing Performance	0.00	0.04					
Total	100.00	100.00					

Region Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Asia - Developed	5.11	5.67	1.68	4.00	0.00	-0.12	-0.12
Asia - Emerging	4.15	0.71	-5.81	3.20	-0.02	-0.39	-0.41
Australasia	0.00	6.92		7.51	-0.25	0.00	-0.25
Canada	4.81	0.00	10.92		0.36	0.00	0.36
Europe - ex Euro	5.49	14.18	3.89	6.47	-0.22	-0.14	-0.36
Eurozone	39.84	29.65	5.39	5.91	0.23	-0.21	0.02
Japan	13.30	23.93	-1.38	0.98	0.31	-0.33	-0.03
Latin America	0.00	0.05		-3.55	0.00	0.00	0.00
Middle East	0.00	0.44		-2.28	0.03	0.00	0.03
United Kingdom	23.94	16.92	0.11	1.08	-0.21	-0.24	-0.45
United States	1.53	1.49	14.93	2.78	0.00	0.18	0.17
Attribution Total	98.17	99.96	2.83	3.87	0.21	-1.25	-1.04
Cash	1.83	0.00					
Missing Performance	0.00	0.04					
Total	100.00	100.00					



Source: Morningstar

June 30, 2019

MORGAN STANLEY INTERNATIONAL EQUITY I

5.2

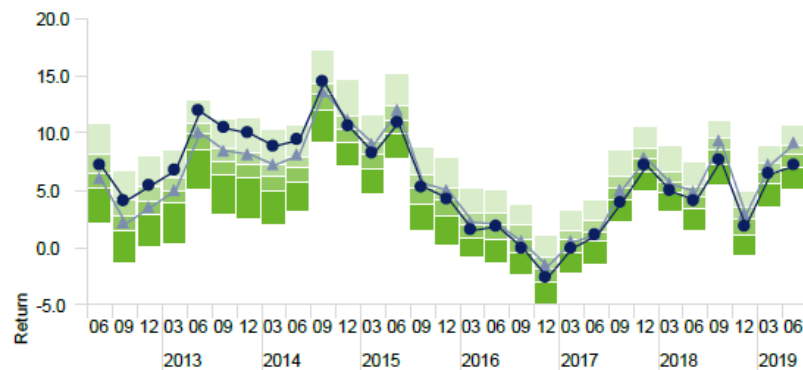
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	93.1	100.0
Alpha	-0.5	0.0
Beta	1.0	1.0
Std Dev	11.6	11.7
Up Capture Ratio	90.9	100.0
Down Capture Ratio	95.2	100.0
Sharpe Ratio (geo)	0.1	0.1
Information Ratio (geo)	-0.2	
Tracking Error	3.1	0.0
Correlation	1.0	1.0

Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



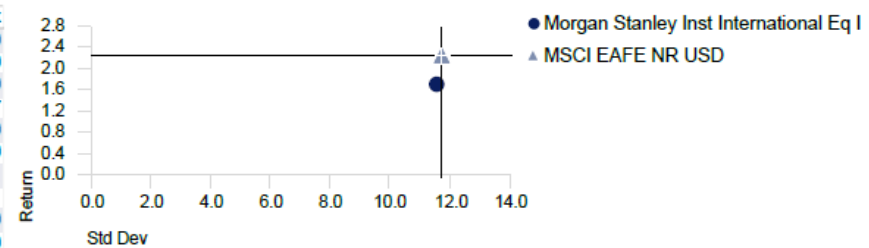
—Morgan Stanley Inst International Eq I —MSCI EAFE NR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Morgan Stanley Inst International Eq I	21.6	85	6.1	87	-7.6	5	19.6	26	20.4	43	-6.1	64	0.4	30	-2.0	82	25.2	53	-13.8	37
MSCI EAFE NR USD	31.8		7.8		-12.1		17.3		22.8		-4.9		-0.8		1.0		25.0		-13.8	

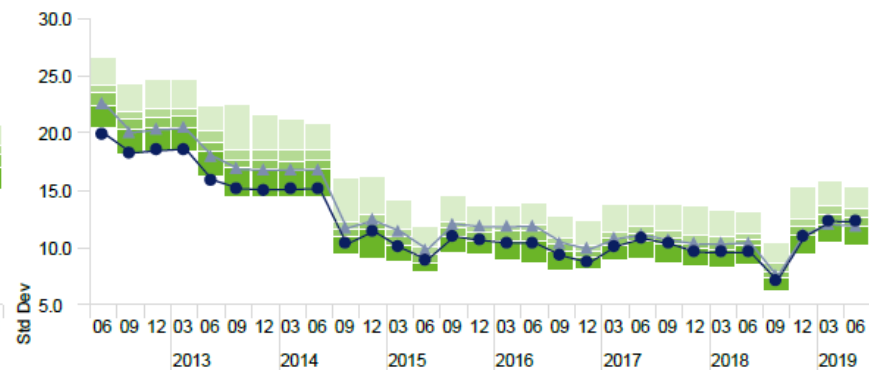
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Morgan Stanley Inst International Eq I —MSCI EAFE NR USD

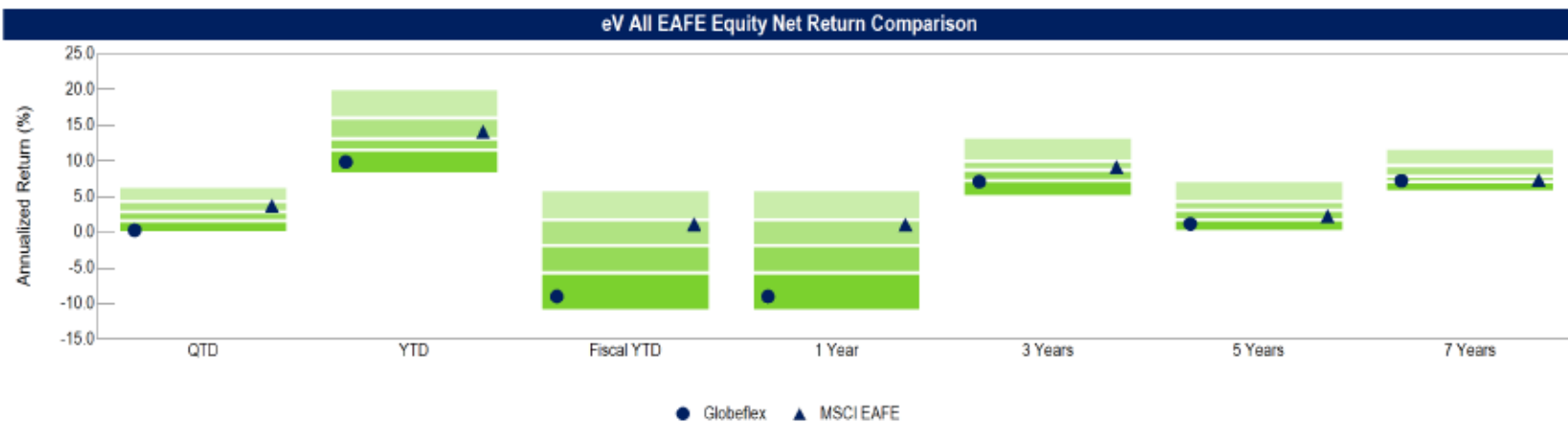
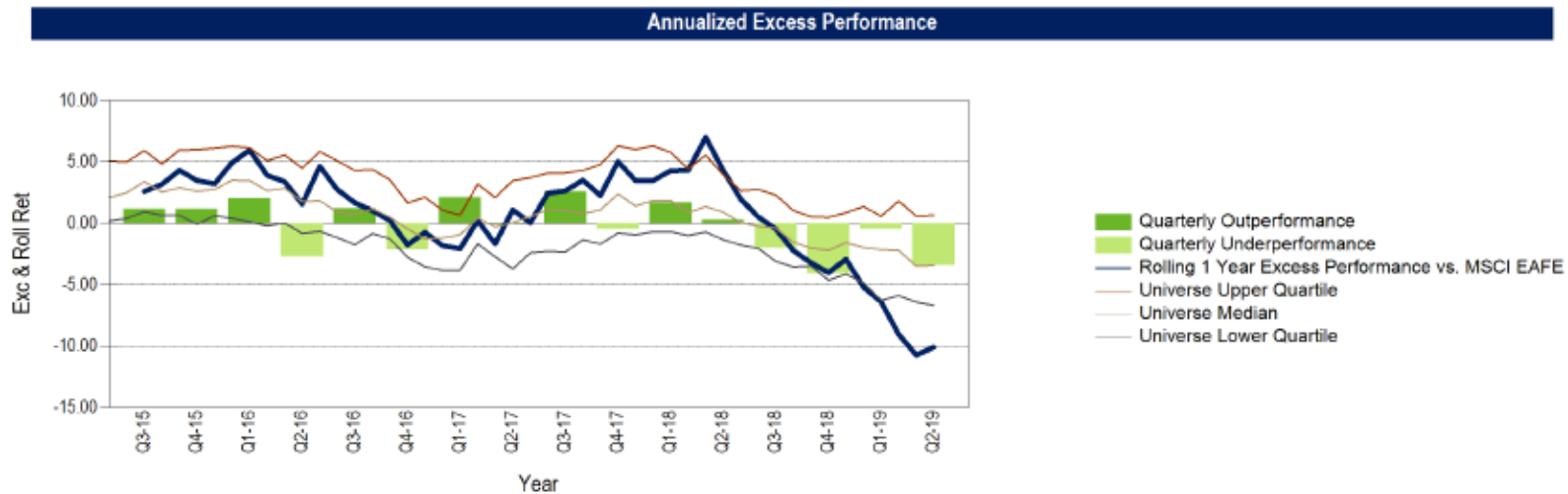


Source: Morningstar

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GLOBEFLEX

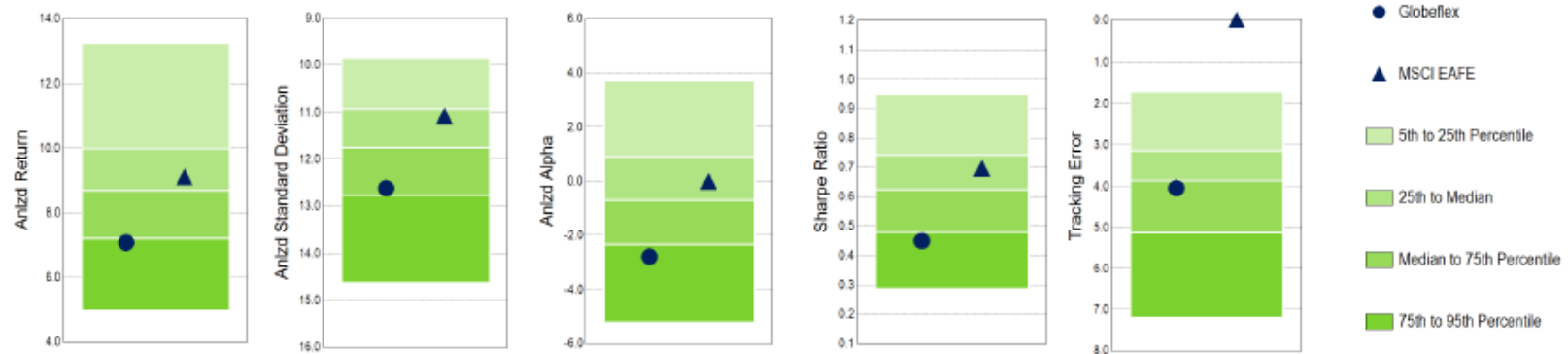
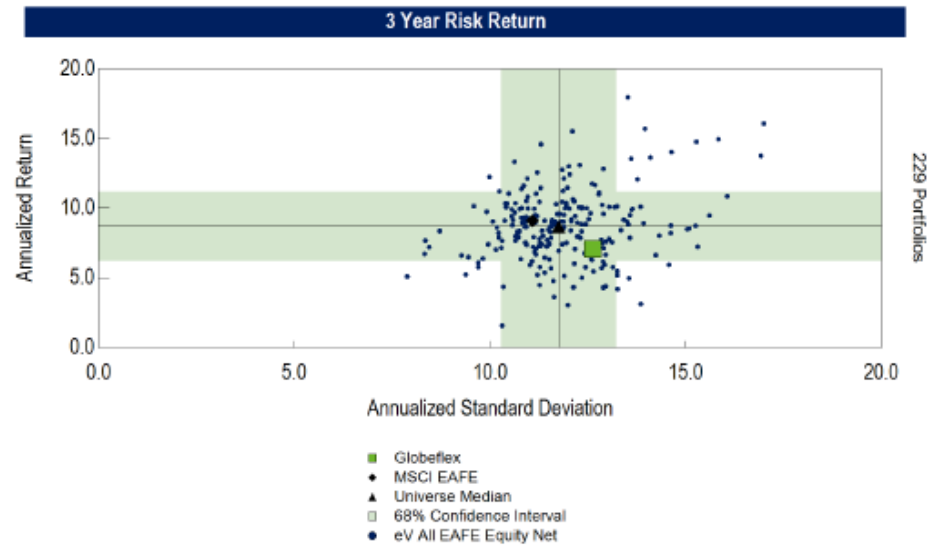
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June 30, 2019

GLOBEFLEX

5.2

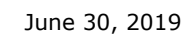


June 30, 2019

Characteristics	Portfolio	MSCI EAFE
Number of Holdings	122	922
Weighted Avg. Market Cap. (\$B)	29.4	61.2
Median Market Cap. (\$B)	9.1	10.1
Price To Earnings	12.7	15.5
Price To Book	2.0	2.3
Price To Sales	0.8	1.1
Return on Equity (%)	18.9	14.6
Yield (%)	3.6	3.4
Beta		1.0
R-Squared		1.0

Top Negative Contributors		
	Relative Contribution %	Return %
STAFFLINE GROUP	-0.5%	-85.7%
BLUESCOPE STEEL	-0.3%	-14.7%
DRAX GROUP	-0.2%	-31.2%
UNITEST	-0.2%	-24.1%
NICHI-KO PHARM.	-0.1%	-17.6%
OMV	-0.1%	-6.6%
IMPERIAL BRANDS	-0.1%	-30.2%
HYUNDAI MARINE & FIRE IN.	-0.1%	-26.2%
JW PHARMACEUTICAL	-0.1%	-19.3%
MERCK KGAA	-0.1%	-7.1%

*Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of period portfolio. Results may differ from actual performance. Returns are net of fees.



GLOBEFLEX

Country Allocation				
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)	Manager Return (USD)	Index Return (USD)
Americas				
Canada	11.4%	0.0%	10.1%	5.0%
United States	0.5%	0.0%	3.1%	4.2%
Total-Americas	11.9%	0.0%	9.7%	—
Europe				
Austria	2.5%	0.2%	-8.8%	1.2%
Denmark	0.7%	1.7%	-2.6%	1.9%
France	8.1%	11.3%	1.9%	7.3%
Germany	5.3%	8.7%	1.5%	7.8%
Italy	5.4%	2.3%	5.9%	3.5%
Netherlands	3.8%	3.6%	2.3%	6.0%
Norway	1.4%	0.7%	-9.1%	2.9%
Portugal	1.2%	0.2%	-1.5%	2.6%
Spain	2.2%	3.0%	-2.6%	2.5%
Sweden	2.9%	2.7%	1.3%	5.4%
Switzerland	4.1%	9.3%	5.9%	8.9%
United Kingdom	12.2%	16.7%	-1.8%	0.9%
Total-Europe	50.1%	62.8%	0.2%	4.8%

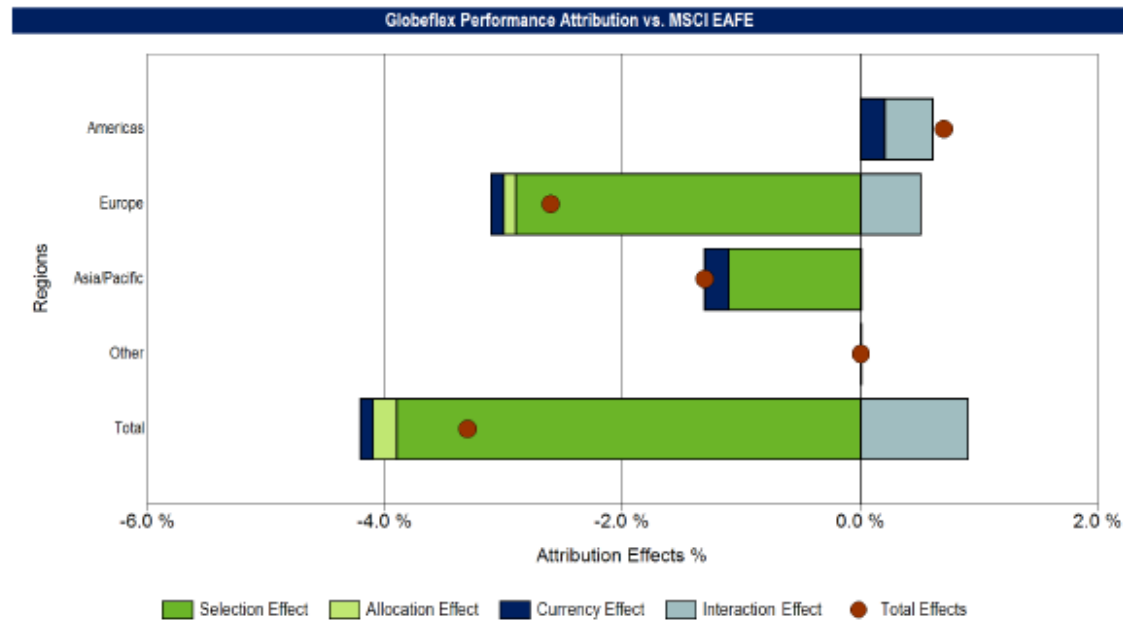
Country Allocation				
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)	Manager Return (USD)	Index Return (USD)
AsiaPacific				
Australia	10.3%	7.2%	-2.5%	7.4%
Hong Kong	3.0%	4.0%	2.4%	1.0%
Japan	19.8%	23.8%	1.0%	1.0%
Korea*	3.2%	0.0%	-10.5%	-1.2%
New Zealand	0.3%	0.2%	5.4%	4.0%
Total-AsiaPacific	36.9%	36.6%	-1.1%	2.4%
Other				
Israel	1.1%	0.6%	-0.3%	-3.4%
Total-Other	1.1%	0.6%	-0.3%	-3.4%
Totals				
Developed	96.8%	100.0%	1.2%	3.9%
Emerging*	3.2%	0.0%	-10.5%	—



June 30, 2019

GLOBEFLEX

5.2



	Returns and Ending Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Totals									
Americas	9.7%	—	11.9%	0.0%	0.0%	0.0%	0.2%	0.4%	0.7%
Europe	0.2%	4.8%	50.1%	62.8%	-2.9%	-0.1%	-0.1%	0.5%	-2.6%
Asia/Pacific	-1.1%	2.4%	36.9%	36.6%	-1.1%	0.0%	-0.2%	0.0%	-1.3%
Other	-0.3%	-3.4%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0.7%	3.9%	100.0%	100.0%	-3.9%	-0.2%	-0.1%	0.9%	-3.3%
Totals									
Developed	1.2%	3.9%	96.8%	100.0%	-2.8%	0.0%	0.0%	0.1%	-2.7%
Emerging*	-10.5%	—	3.2%	0.0%	0.0%	0.0%	-0.1%	-0.5%	-0.6%



June 30, 2019

KABOUTER INT'L OPPS OFFSHORE FUND II

5.2

SECTOR ATTRIBUTION W/CURRENCY													
	Average Weight			Contribution to Return			Total R		Attribution Analysis				
	Port. Average Weight	Bench. Average Weight	Variation in Average Weight	Port. Contrib. To Return	Bench. Contrib. To Return	Variation in Contribution To Return	Port. Total Return	Bench. Total Return	total Effect	Allocation Effect (Local)	Selection Effect (Local)	Total Currency Effect	
Total	100.00	100.00	--	6.43	2.08	4.35	6.43	2.08	4.35	0.88	2.94	0.53	
Communication Services	--	5.10	-5.10	--	0.11	-0.11	--	2.40	-0.02	-0.03	--	0.01	
Consumer Discretionary	3.67	12.63	-8.96	0.67	-0.22	0.89	18.71	-1.63	1.07	0.32	0.69	0.06	
Consumer Staples	1.83	6.42	-4.59	0.28	-0.16	0.44	15.78	-2.33	0.54	0.24	0.30	0.00	
Energy	--	2.72	-2.72	--	-0.11	0.11	--	-3.92	0.17	0.15	--	0.02	
Etf	2.04	--	2.04	0.01	--	0.01	1.60	--	-0.01	0.01	--	-0.02	
Financials	7.87	11.12	-3.25	0.40	0.22	0.18	4.89	1.86	0.25	-0.01	0.32	-0.06	
Health Care	21.74	7.52	14.22	1.86	0.24	1.62	8.61	3.16	1.33	0.15	1.15	0.03	
Industrials	28.61	21.44	7.17	1.75	0.54	1.21	6.02	2.59	1.03	0.06	0.80	0.17	
Information Technology	10.80	9.54	1.26	0.75	0.78	-0.03	7.33	8.16	-0.08	0.03	-0.16	0.04	
Materials	11.14	8.35	2.79	-0.03	0.23	-0.26	-0.24	2.61	-0.31	0.01	-0.52	0.20	
Real Estate	3.92	12.75	-8.83	0.66	0.36	0.30	17.77	2.64	0.50	-0.05	0.57	-0.02	
Utilities	6.87	2.34	4.53	0.07	0.09	-0.02	1.47	3.29	-0.11	0.03	-0.22	0.08	
[Cash]	1.51	--	1.51	0.01	--	0.01	0.60	--	-0.02	-0.02	--	-0.00	

*Returns are gross of fees



Source: Kabouter

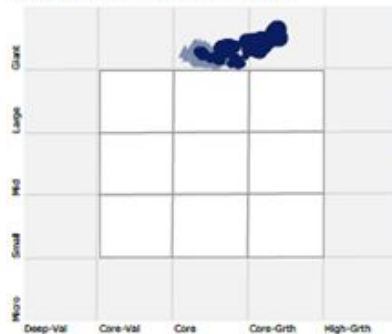
June 30, 2019

ABERDEEN EMERGING MARKET EQUITY

5.2

Holdings Based Style Trail (5 Years)

Time Period: 7/31/2014 to 6/30/2019



Aberdeen Emerging Markets Instl - MSCI EM NR USD

Portfolio Statistics

	Fund	Index
# of Holdings	64	1,193
% Asset in Top 10 Holdings	37.3	23.5
Turnover Ratio %	20.4	
P/E Ratio	15.5	13.0
P/B Ratio	2.4	1.6
LT Earn Growth	13.1	10.9
Hist Earn Growth	16.5	10.8
12 Mo Yield	1.2	

Market Capitalization Breakdown

	Fund	Index
Market Cap Giant %	76.2	54.8
Market Cap Large %	18.7	32.5
Market Cap Mid %	4.3	11.9
Market Cap Small %	0.8	0.8
Market Cap Micro %	0.0	0.0
Average Market Cap	42,647.0	28,717.7
Equity Region Developed %	21.3	27.1
Equity Region Emerging %	78.7	72.9

Top Ten Holdings

	Port Weight %	3 Month Return
Tencent Holdings Ltd	5.68	-1.58
Samsung Electronics Co Ltd Participating Preferred	4.96	3.73
Taiwan Semiconductor Manufacturing Co Ltd	4.89	-0.16
Housing Development Finance Corp Ltd	4.21	11.77
Ping An Insurance (Group) Co. of China Ltd Class H	3.86	8.69
Bank Bradesco SA ADR	3.72	8.17
AIA Group Ltd	2.76	9.53
Kweichow Moutai Co Ltd	2.50	14.41
Naspers Ltd Class N	2.42	4.95
Vale SA ADR	2.29	2.91

Sector Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Communication Services	11.50	12.09	-4.26	-2.31	0.02	-0.19	-0.17
Consumer Discretionary	13.05	13.34	5.51	-0.93	0.04	0.82	0.86
Consumer Staples	11.39	6.52	5.86	3.48	0.16	0.26	0.42
Energy	3.96	6.56	-4.38	-1.71	0.06	-0.10	-0.04
Financials	26.38	24.54	8.50	4.54	0.09	1.05	1.14
Health Care	0.63	2.67	-7.68	-6.57	0.15	-0.01	0.15
Industrials	3.29	5.44	16.24	0.10	0.01	0.52	0.53
Information Technology	13.63	14.35	0.68	-0.06	0.02	0.10	0.12
Materials	9.14	7.35	2.90	-0.83	-0.03	0.37	0.34
Real Estate	5.38	3.08	6.10	0.31	0.00	0.32	0.31
Utilities	0.00	2.64		3.03	-0.06	0.00	-0.06
Attribution Total	98.34	98.57	4.23	0.64	0.45	3.14	3.59
Cash	1.66	0.01					
Missing Performance	0.00	1.42					
Total	100.00	100.00					

Region Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Africa	4.11	5.99	6.79	7.04	-0.14	-0.02	-0.16
Asia - Developed	17.89	24.88	0.86	-0.24	0.08	0.22	0.30
Asia - Emerging	53.14	48.57	4.30	-1.42	-0.10	3.15	3.04
Europe - Emerging	2.21	4.55	9.39	9.67	-0.20	-0.01	-0.21
Europe - ex Euro	1.98	0.00	-5.78		-0.16	0.00	-0.16
Eurozone	0.92	0.30	-4.98	11.76	0.08	-0.16	-0.09
Latin America	17.47	11.79	8.39	4.66	0.26	0.62	0.88
Middle East	0.00	2.18		1.41	0.05	0.00	0.05
United Kingdom	0.00	0.07		44.34	-0.03	0.00	-0.03
United States	0.63	0.25	-7.68	-3.43	-0.02	-0.03	-0.04
Attribution Total	98.34	98.57	4.23	0.64	-0.17	3.76	3.59
Cash	1.66	0.01					
Missing Performance	0.00	1.42					
Total	100.00	100.00					

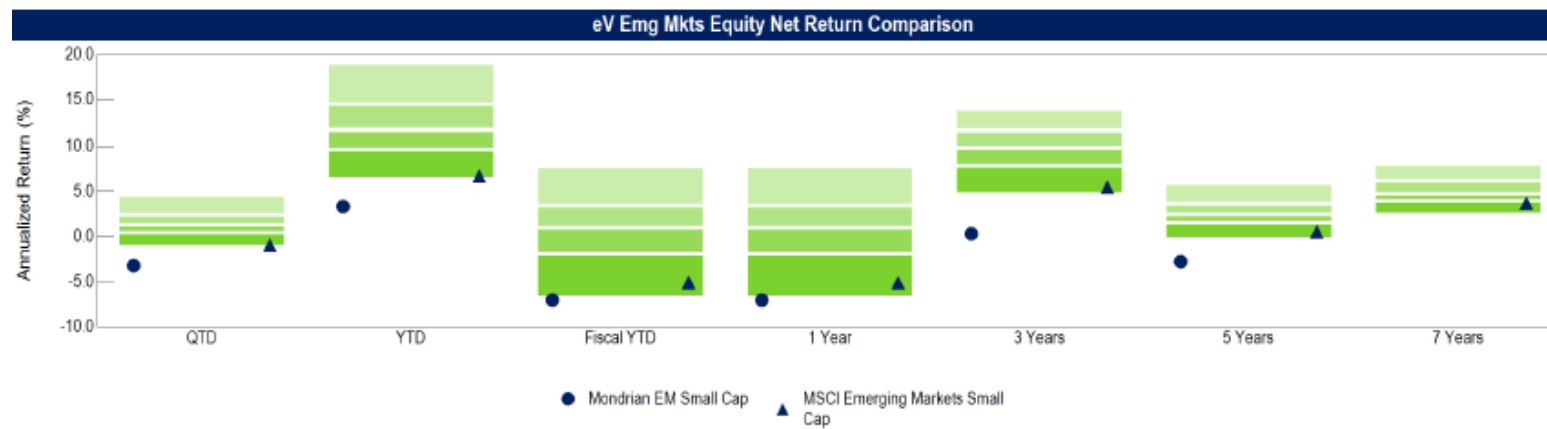


Source: Morningstar

June 30, 2019

MONDRIAN EM SMALL CAP

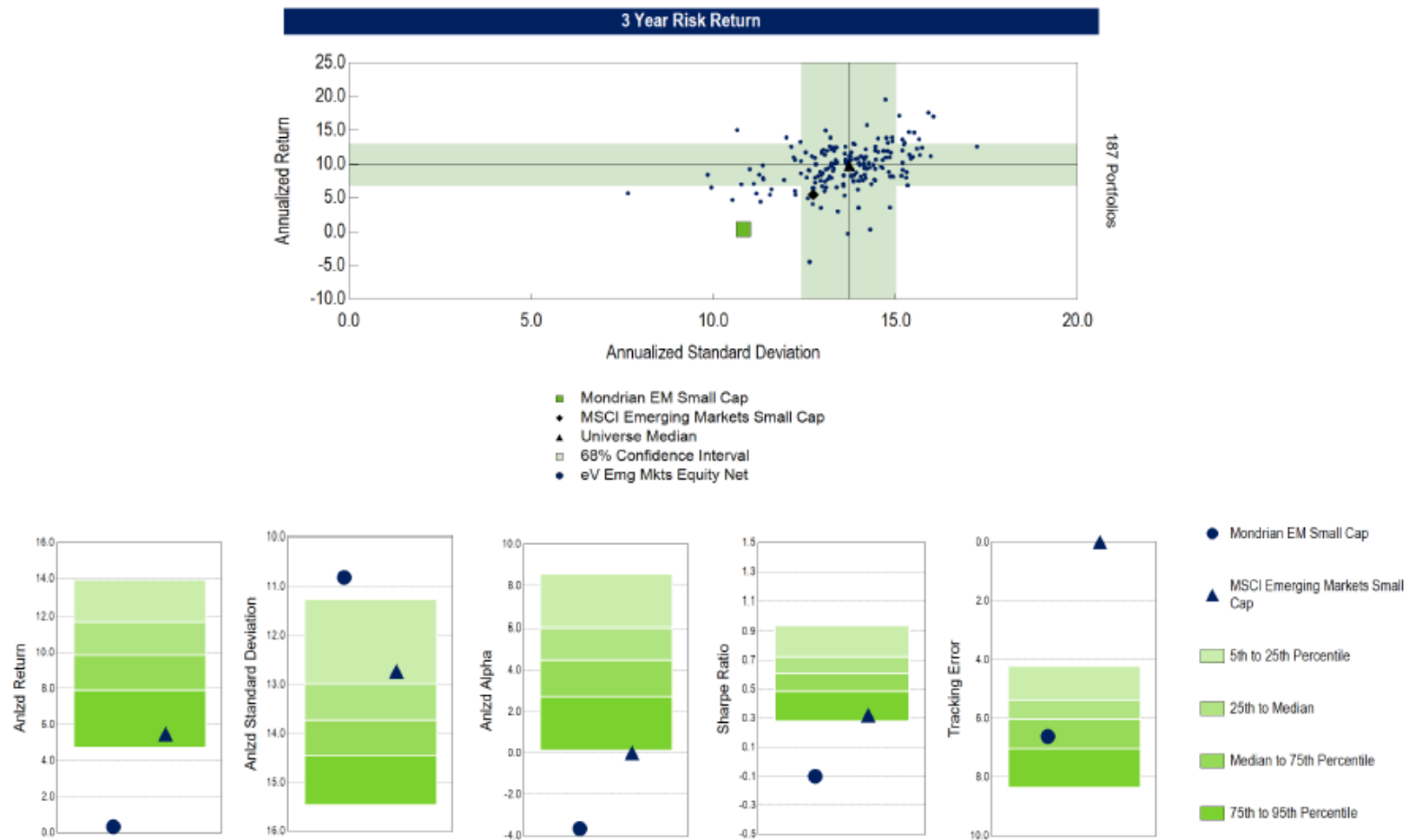
5.2



June 30, 2019

MONDRIAN EM SMALL CAP

5.2



June 30, 2019

MONDRIAN EM SMALL CAP

5.2

Characteristics		
	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	108	1,625
Weighted Avg. Market Cap. (\$B)	1.4	1.3
Median Market Cap. (\$B)	1.0	0.7
Price To Earnings	19.5	13.4
Price To Book	3.3	2.2
Price To Sales	2.3	0.8
Return on Equity (%)	18.3	12.7
Yield (%)	2.5	2.7
Beta		1.0
R-Squared		1.0

Top Positive Contributors		
	Relative Contribution %	Return %
PI INDUSTRIES	0.3%	14.1%
DUZONBIZON	0.3%	31.2%
VOLTRONIC POWER TECH.	0.2%	11.2%
ASCENDAS INDIA TRUST	0.2%	17.8%
AARTI INDUSTRIES	0.2%	13.1%
VARUN BEVERAG	0.2%	9.6%
DINO POLSKA SA	0.2%	11.2%
SYNGENE INTER	0.2%	12.6%
APOLLO HOSPS. ENTERPRISE	0.1%	11.1%
ALUPAR INVESTIMENTO UNITS	0.1%	15.2%

Top Negative Contributors		
	Relative Contribution %	Return %
KOLMAR KOREA	-0.4%	-25.4%
HAND ENTERPRISE SLTN.'A'	-0.4%	-21.3%
CLEAR MEDIA	-0.3%	-31.7%
EMAMI	-0.3%	-25.0%
COSMAX NBT	-0.3%	-37.8%
SHANGHAI PHICHEM MRA.'A'	-0.3%	-22.5%
MICROPORT SCIENTIFIC	-0.3%	-20.6%
AIRTAC INTERNATIONAL GP.	-0.2%	-13.5%
TRAVELSKY TECHNOLOGY 'H'	-0.2%	-24.0%
SINOSOFT TECHNOLOGY GP.	-0.2%	-14.1%

Equity Sector Attribution											
	Attribution Effects							Returns		Ending Sector Weights	
	Total Effects	Selection Effect	Allocation Effect		Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark	
Energy	-0.1%	-0.1%		0.0%		0.0%	-6.7%	-2.0%	1.0%	2.2%	
Materials	0.2%	0.1%		0.0%		0.1%	0.4%	-1.1%	10.3%	11.9%	
Industrials	0.1%	0.0%		0.0%		0.1%	-0.3%	-0.9%	14.0%	14.5%	
Consumer Discretionary	-0.9%	-1.0%		0.0%		0.1%	-7.3%	-0.4%	11.6%	13.9%	
Consumer Staples	-0.7%	-0.2%		-0.2%		-0.2%	-5.8%	-2.8%	13.1%	6.6%	
Health Care	0.1%	0.2%		-0.3%		0.2%	-3.9%	-7.5%	13.1%	7.9%	
Financials	-0.2%	-0.1%		-0.2%		0.1%	3.0%	2.1%	1.9%	10.9%	
Information Technology	-0.5%	-1.0%		0.0%		0.5%	-8.9%	-2.1%	8.0%	14.6%	
Communication Services	-0.2%	-0.2%		0.0%		0.0%	-6.2%	-1.7%	4.2%	4.1%	
Utilities	0.0%	0.1%		0.0%		0.0%	8.3%	6.9%	3.5%	4.9%	
Real Estate	-0.3%	-0.3%		0.0%		0.0%	0.4%	3.9%	6.4%	8.3%	
Cash	0.0%	0.0%		0.0%		0.0%	0.6%	--	11.6%	0.0%	
Portfolio	-2.5%	=	-2.5%	+	-0.8%	+	0.8%	-3.2%	-0.7%	98.8%	100.0%

* Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of period portfolio. Results may differ from actual performance. Returns are gross of fees.



June 30, 2019

MONDRIAN EM SMALL CAP

Sector Allocation*

	Fund	MSCI EM SC
Communication Services	4.7	4.2
Consumer Discretionary	12.8	14.0
Consumer Staples	14.3	6.5
Energy	1.1	2.2
Financials	2.7	10.9
Health Care	15.5	7.8
Industrials	15.7	14.4
Information Technology	9.1	14.6
Materials	11.5	11.8
Real Estate	7.1	8.6
Utilities	3.8	5.0
Cash	1.6	-
TOTAL	100.0	100.0

Country Allocation*

	Fund	MSCI EM SC
Latin America	9.5	13.3
Brazil	3.8	8.0
Mexico	3.8	2.7
Peru	2.0	-
Europe, Middle East & Africa	11.8	13.4
Czech Republic	1.2	0.1
Estonia	1.3	-
Kuwait	1.5	-
Poland	2.5	1.1
Saudi Arabia	2.3	1.1
Slovenia	0.7	-
South Africa	0.9	5.6
UAE	0.7	0.6
United Kingdom	0.7	-
Asia	77.1	73.3
North Asia	32.8	46.1
China/Hong Kong	20.9	11.4
South Korea	4.3	15.8
Taiwan	7.6	18.9
South Asia	44.4	26.8
India	28.6	15.2
Indonesia	5.7	2.4
Malaysia	2.9	3.2
Philippines	4.7	1.0
Thailand	2.5	5.0
Cash	1.6	-
TOTAL	100.0	100.0

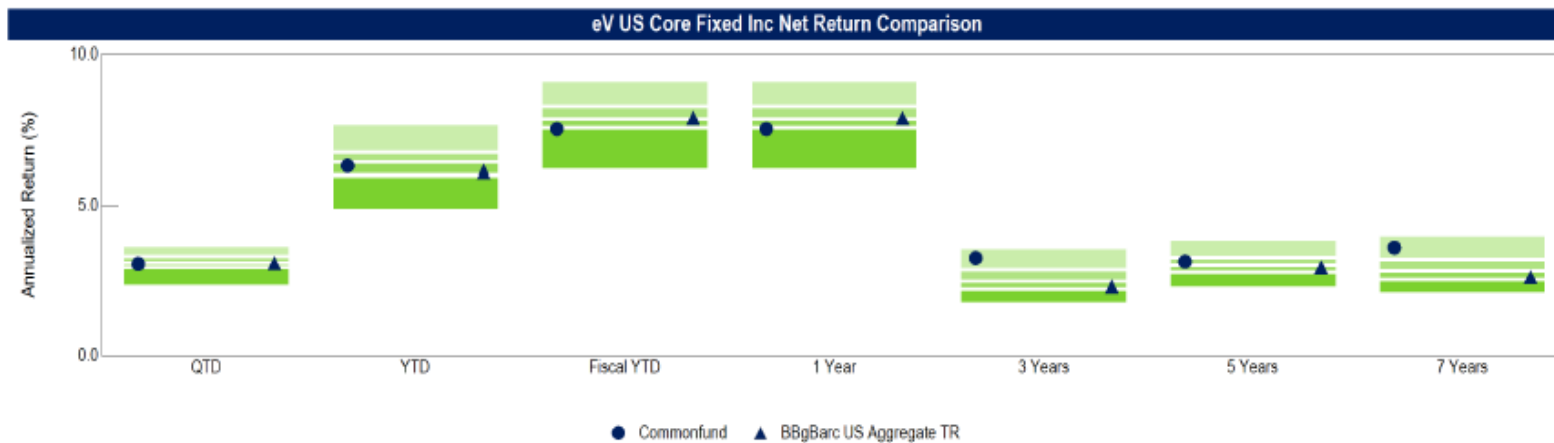
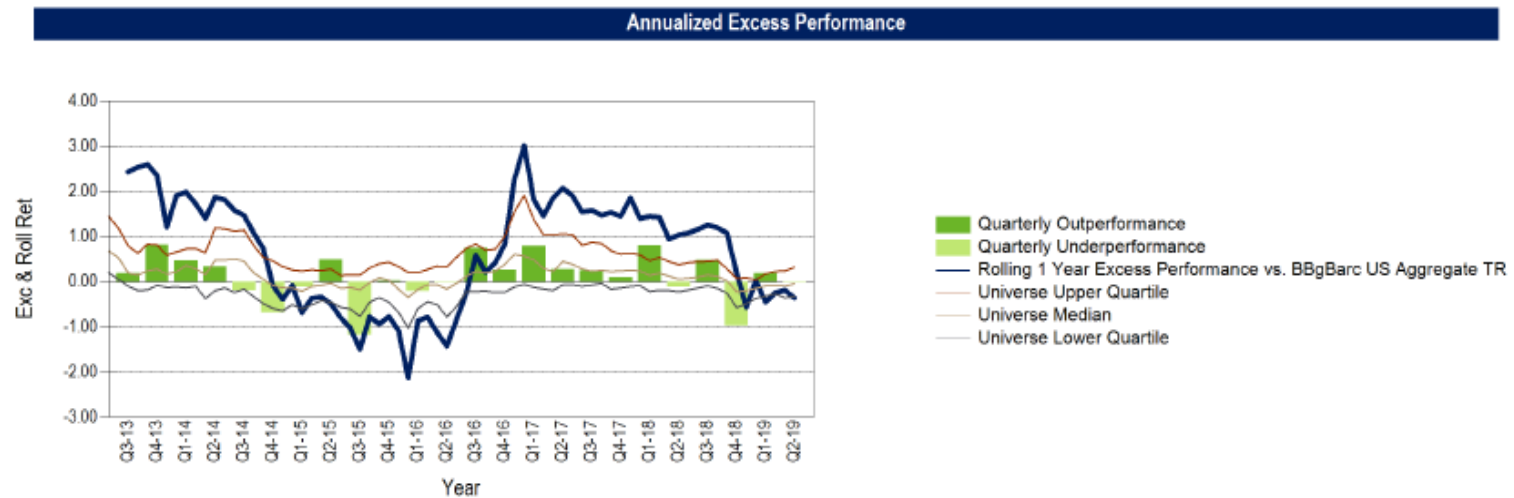


Source: Mondrian

June 30, 2019

COMMONFUND

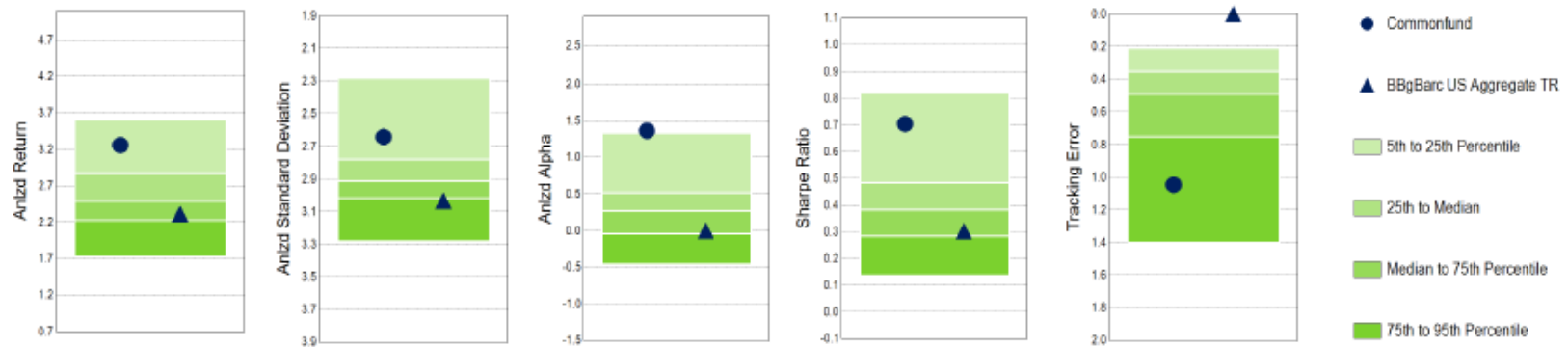
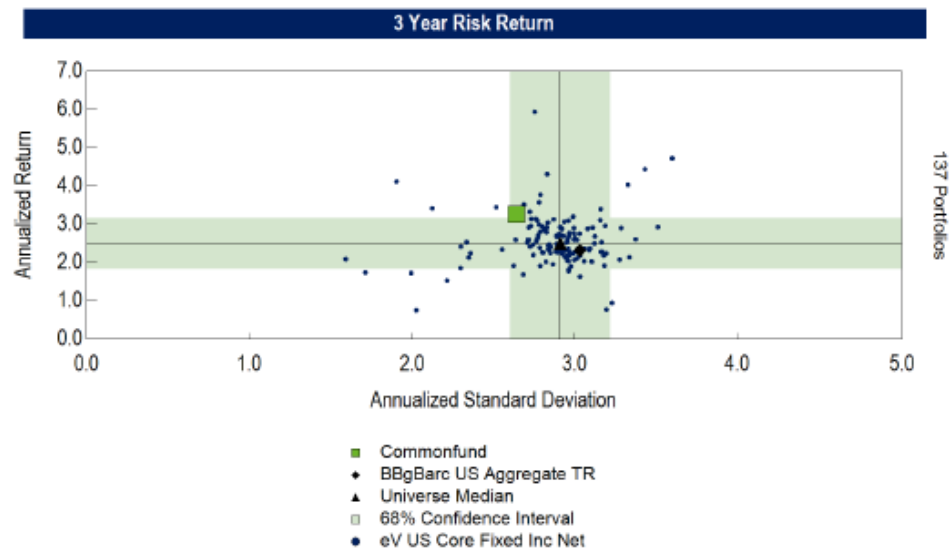
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June 30, 2019

COMMONFUND

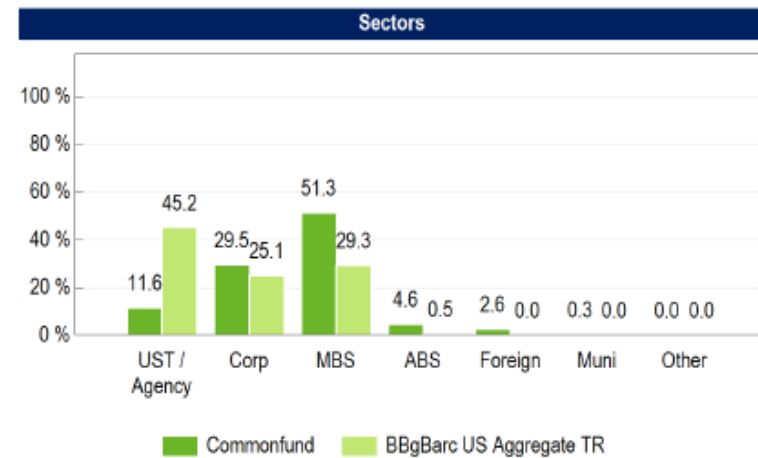
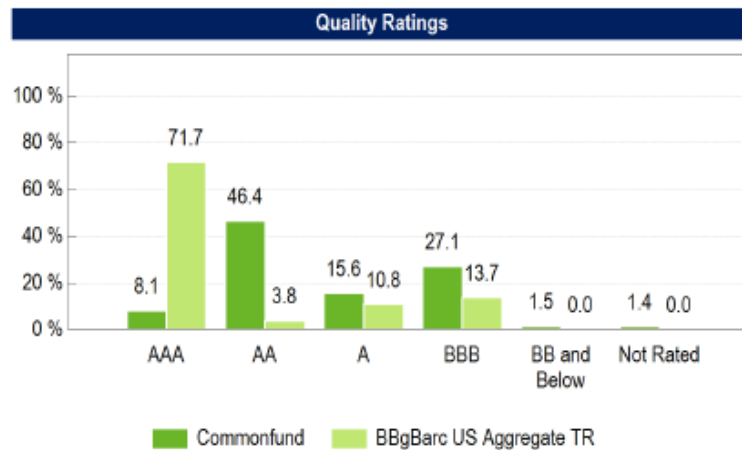
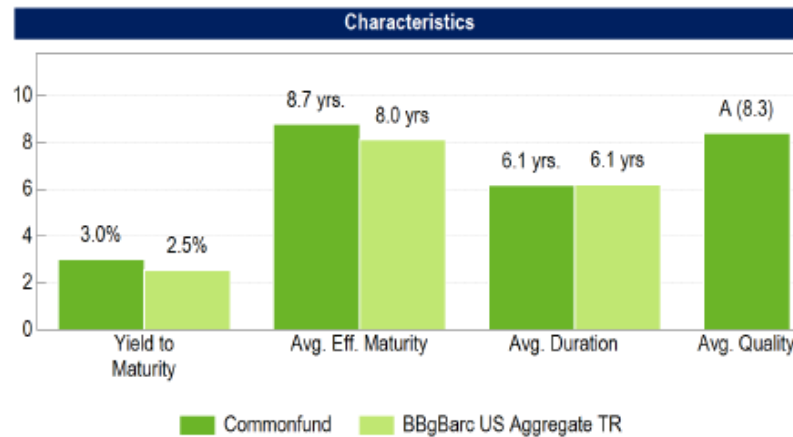
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June 30, 2019

COMMONFUND

5.2



June 30, 2019

COMMONFUND

Multi-Strategy Bond Fund: Investment Managers

5.2

Investment Managers	Core	Credit	Opportunistic
Bain Capital Specialty Fin.		X	
Brandywine Asset Management			X
Cerberus Capital Management		X	
Credit Partnerships CF 2018		X	
Direct Trading (Tsy Fut)			X
Distressed Debt Partnerships		X	
Income Research & Management (IRM)	X		
PIMCO Income Fund (PIMIX)			X
Rimrock Capital Management	X		
Western Asset	X		X



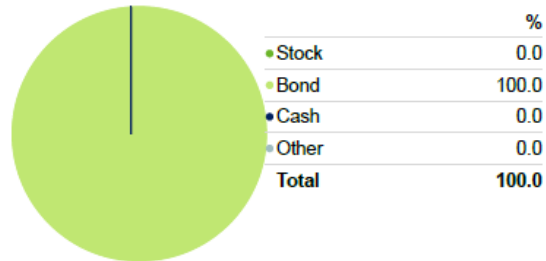
Source: Commonfund

June 30, 2019

VANGUARD INFLATION PROTECTED SECURITIES

Asset Allocation

Portfolio Date: 5/31/2019



Fixed Income Statistics

Portfolio Date: 5/31/2019

	Morningstar Fixed Income Style Box™		
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

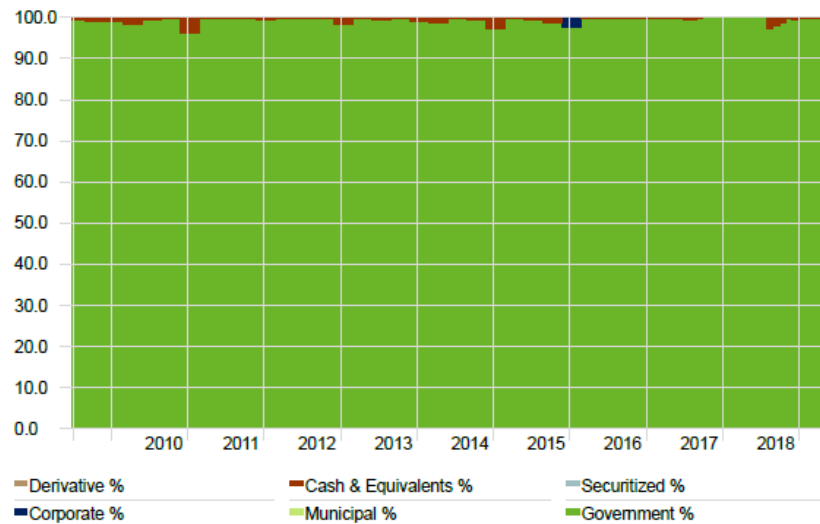
Average Eff Duration	7.6
Average Eff Maturity	8.4
Average Coupon	0.8
Average Price	104.3

Credit Quality Breakdown

Portfolio Date: 5/31/2019

	Fund	Index
AAA %	100.0	
AA %	0.00	
A %	0.00	
BBB %	0.00	
BB %	0.00	
B %	0.00	
Below B %	0.00	
Not Rated %	0.00	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.77
United States Treasury Notes 0.25%	BOND - GOV'T INFLATION PROTECTED	3.71
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.69
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.67
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.65
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.63
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.60
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.59
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.58
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.57



Source: Morningstar

June 30, 2019

VANGUARD INFLATION PROTECTED SECURITIES

5.2

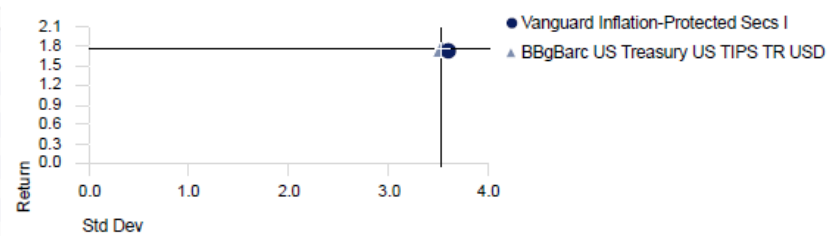
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	99.4	100.0
Alpha	-0.1	0.0
Beta	1.0	1.0
Std Dev	3.6	3.5
Up Capture Ratio	100.4	100.0
Down Capture Ratio	102.7	100.0
Sharpe Ratio (geo)	0.2	0.2
Information Ratio (geo)	-0.1	0.0
Tracking Error	0.3	0.0
Correlation	1.0	1.0

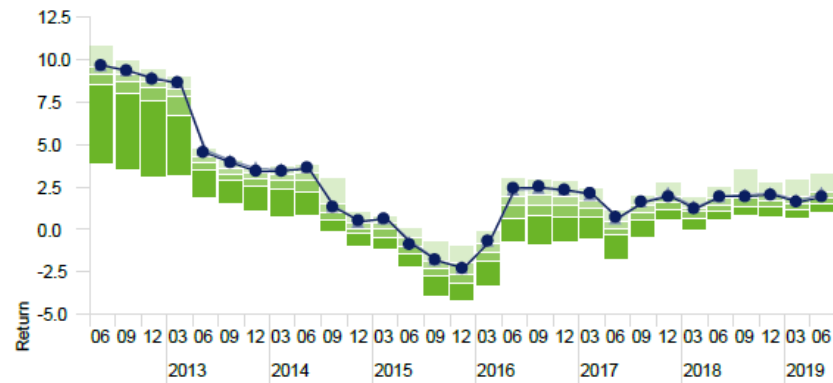
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

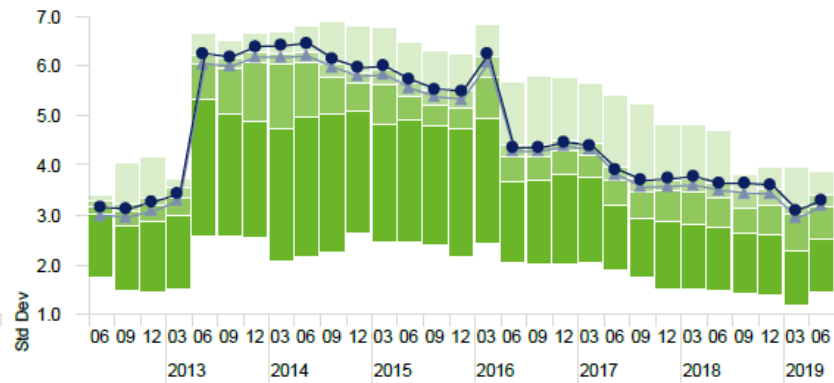


—Vanguard Inflation-Protected Secs I

—BBgBarc US Treasury US TIPS TR USD

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Inflation-Protected Secs I

—BBgBarc US Treasury US TIPS TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Inflation-Protected Secs I	11.0	29	6.3	28	13.4	6	6.9	24	-8.8	52	4.1	5	-1.7	31	4.6	39	3.0	34	-1.4	48
BBgBarc US Treasury US TIPS TR USD	11.4		6.3		13.6		7.0		-8.6		3.6		-1.4		4.7		3.0		-1.3	



Source: Morningstar

June 30, 2019

VANGUARD SHORT-TERM TIPS

Asset Allocation

Portfolio Date: 6/30/2019



• Stock	0.0
• Bond	96.9
• Cash	3.1
• Other	0.0
Total	100.0

Fixed Income Statistics

Portfolio Date: 6/30/2019

Morningstar Fixed Income Style Box™			
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

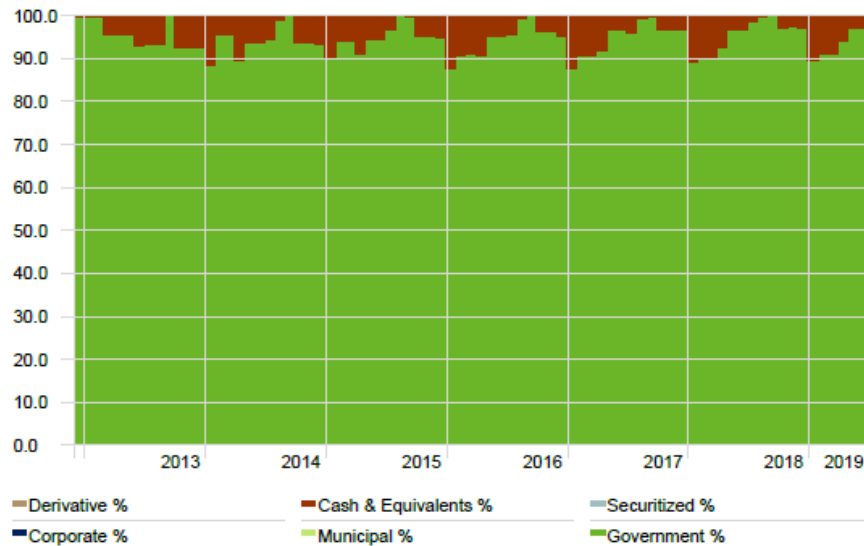
Average Eff Duration	2.6
Average Eff Maturity	2.7
Average Coupon	0.4
Average Price	100.1

Credit Quality Breakdown

Portfolio Date: 6/30/2019

	Fund	Index
AAA %	100.0	
AA %	0.00	
A %	0.00	
BBB %	0.00	
BB %	0.00	
B %	0.00	
Below B %	0.00	
Not Rated %	0.00	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	8.95
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.86
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	7.64
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.62
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	7.59
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	7.58
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.49
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.46
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.29
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	6.67



June 30, 2019

VANGUARD SHORT-TERM TIPS

5.2

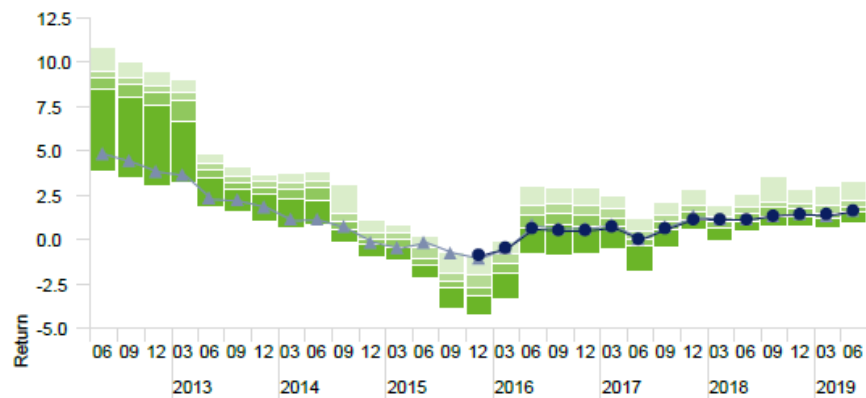
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	99.4	100.0
Alpha	0.0	0.0
Beta	0.9	1.0
Std Dev	1.8	2.0
Up Capture Ratio	92.1	100.0
Down Capture Ratio	88.3	100.0
Sharpe Ratio (geo)	0.0	0.0
Information Ratio (geo)	-0.1	0.0
Tracking Error	0.3	0.0
Correlation	1.0	1.0

Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Shrt-Term Infl-Prot Sec Idx Ins

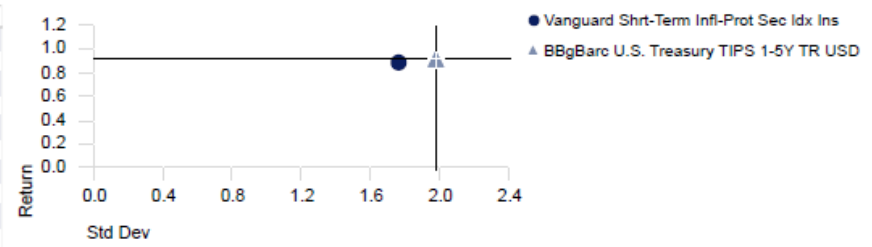
—BBgBarc U.S. Treasury TIPS 1-5Y TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Shrt-Term Infl-Prot Sec Idx Ins									-1.5	5	-1.1	88	-0.2	2	2.8	91	0.8	85	0.6	1
BBgBarc U.S. Treasury TIPS 1-5Y TR USD	11.5		3.9		4.9		2.7		-2.0		-1.1		-0.1		3.1		0.8		0.4	

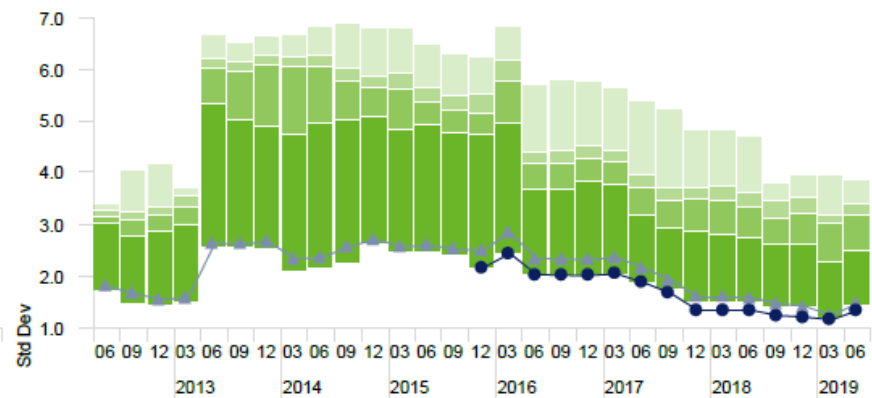
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Shrt-Term Infl-Prot Sec Idx Ins

—BBgBarc U.S. Treasury TIPS 1-5Y TR USD

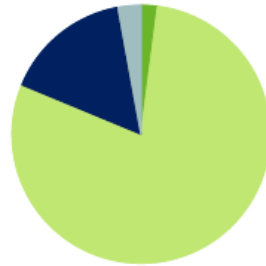


June 30, 2019

BLACKROCK STRATEGIC INCOME

Asset Allocation

Portfolio Date: 4/30/2019



Stock	2.0
Bond	79.2
Cash	15.9
Other	2.9
Total	100.0

Fixed Income Statistics

Portfolio Date: 12/31/2018

Morningstar Fixed Income Style Box™			
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

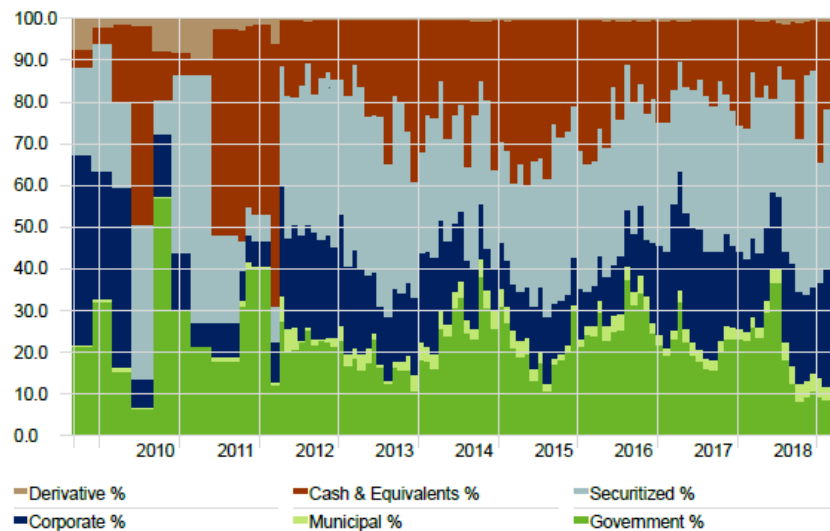
Average Eff Duration	2.7
Average Eff Maturity	6.9
Average Coupon	4.7
Average Price	101.6
Yield to Maturity	

Credit Quality Breakdown

Portfolio Date: 3/31/2019

	Fund	Index
AAA %	26.6	
AA %	6.27	
A %	12.69	
BBB %	20.75	
BB %	12.59	
B %	8.39	
Below B %	3.70	
Not Rated %	9.06	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	2.03
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	2.02
BlackRock Liquidity T-Fund Instl	MUTUAL FUND - MONEY MARKET	1.64
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	1.49
United States Treasury Bonds 3.38%	BOND - GOV'T/TREASURY	1.39
United States Treasury Notes 3.12%	BOND - GOV'T/TREASURY	0.98
Japan (Government Of) 0.1%	BOND - GOV'T INFLATION PROTECTED	0.98
United States Treasury Notes 2.62%	BOND - GOV'T/TREASURY	0.96
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	0.80
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	0.77



Source: Morningstar

June 30, 2019

BLACKROCK STRATEGIC INCOME

5.2

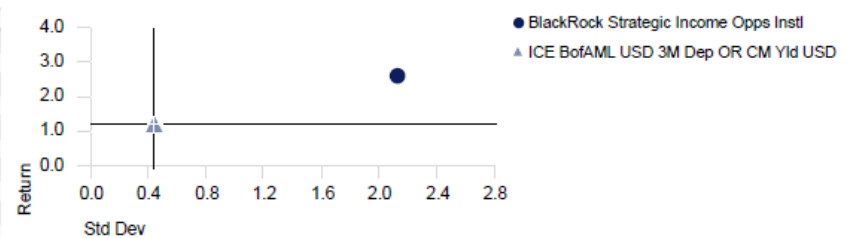
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	1.1	100.0
Alpha	2.9	0.0
Beta	-3.9	1.0
Std Dev	2.1	0.4
Up Capture Ratio	213.7	100.0
Down Capture Ratio		
Sharpe Ratio (geo)	0.8	0.7
Information Ratio (geo)	0.7	
Tracking Error	2.1	0.0
Correlation	-0.1	1.0

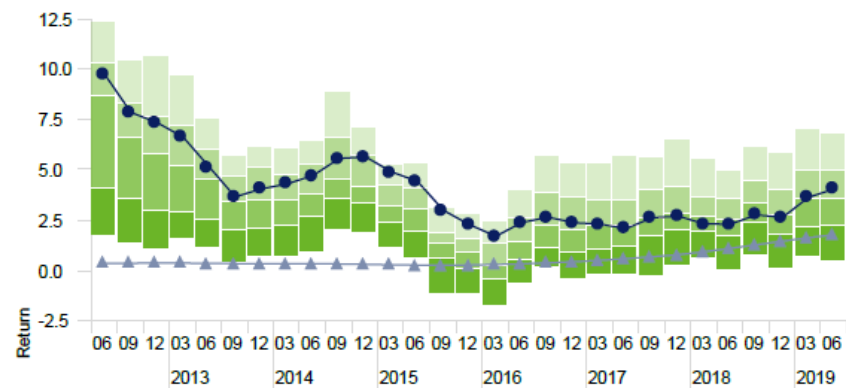
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

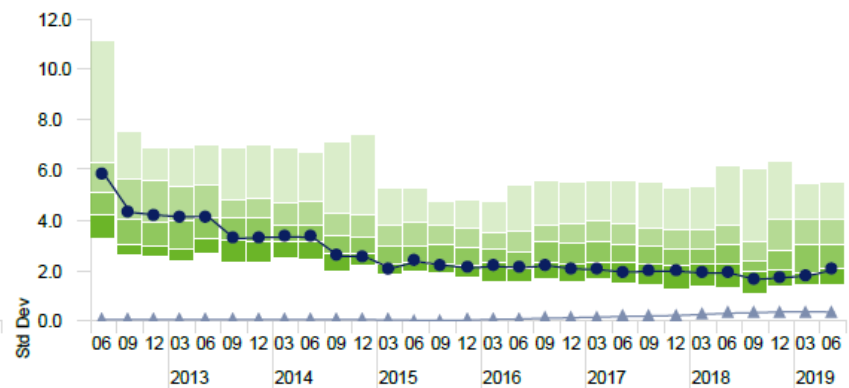


—BlackRock Strategic Income Opps Instl

—ICE BofAML USD 3M Dep OR CM Yld USD

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—BlackRock Strategic Income Opps Instl

—ICE BofAML USD 3M Dep OR CM Yld USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
BlackRock Strategic Income Opps Instl	25.2	29	13.4	1	-0.7	50	9.9	25	3.3	19	3.9	16	-0.3	32	3.6	66	4.9	39	-0.5	46
ICE BofAML USD 3M Dep OR CM Yld USD	0.7		0.3		0.3		0.4		0.3		0.2		0.3		0.8		1.3		2.4	

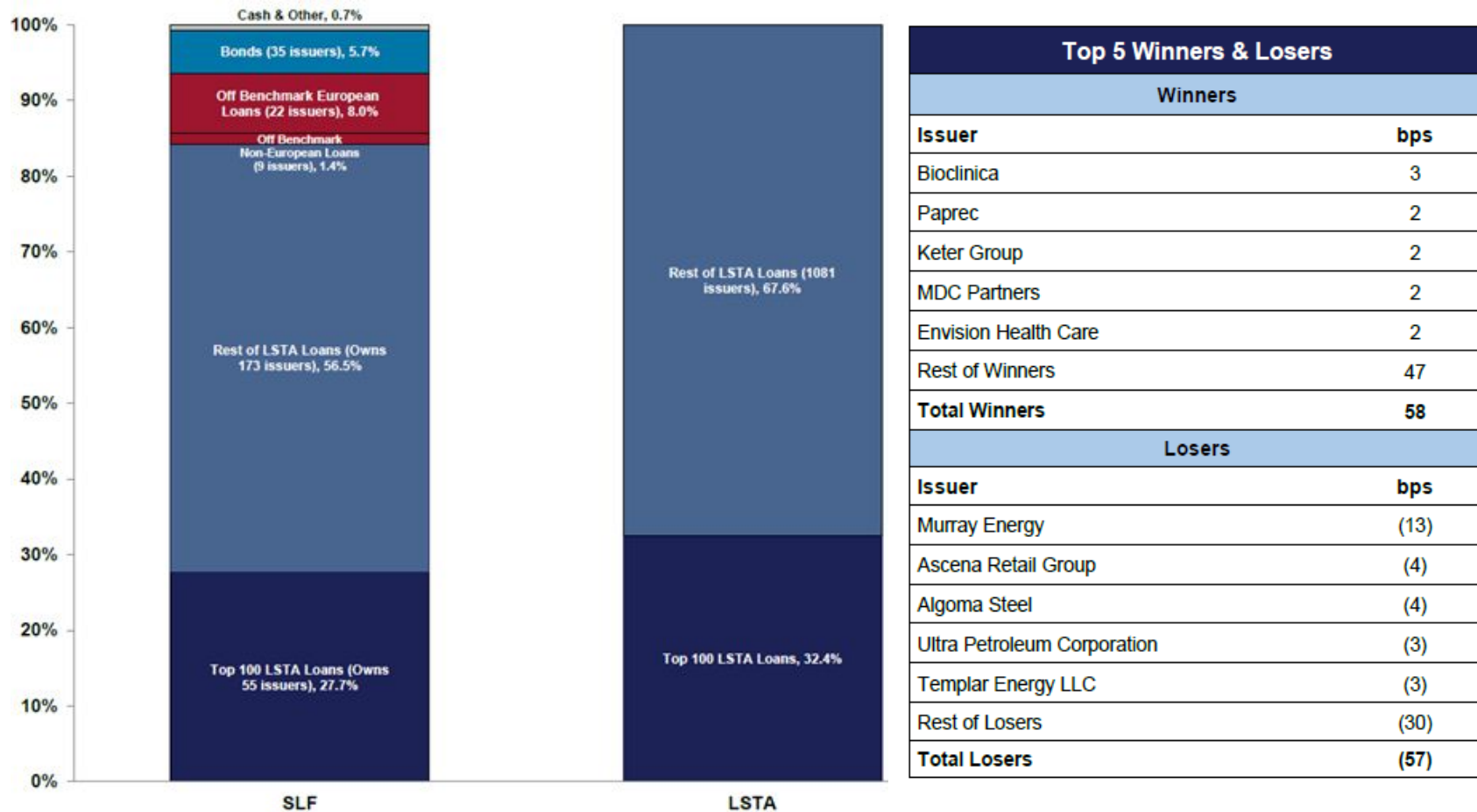
Source: Morningstar



June 30, 2019

BAIN CAPITAL SENIOR LOAN FUND

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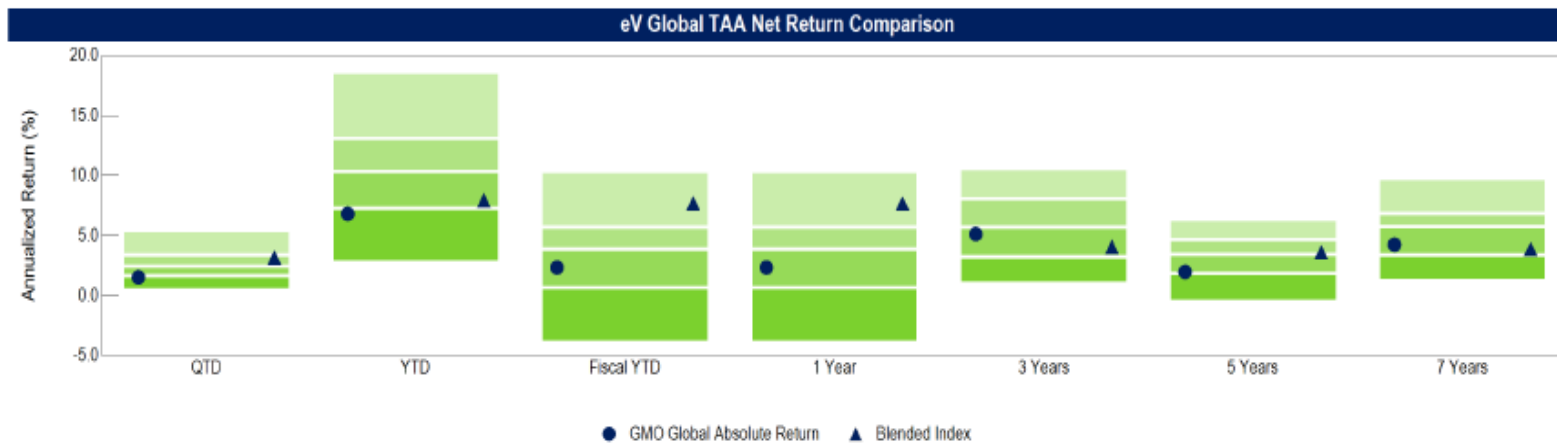
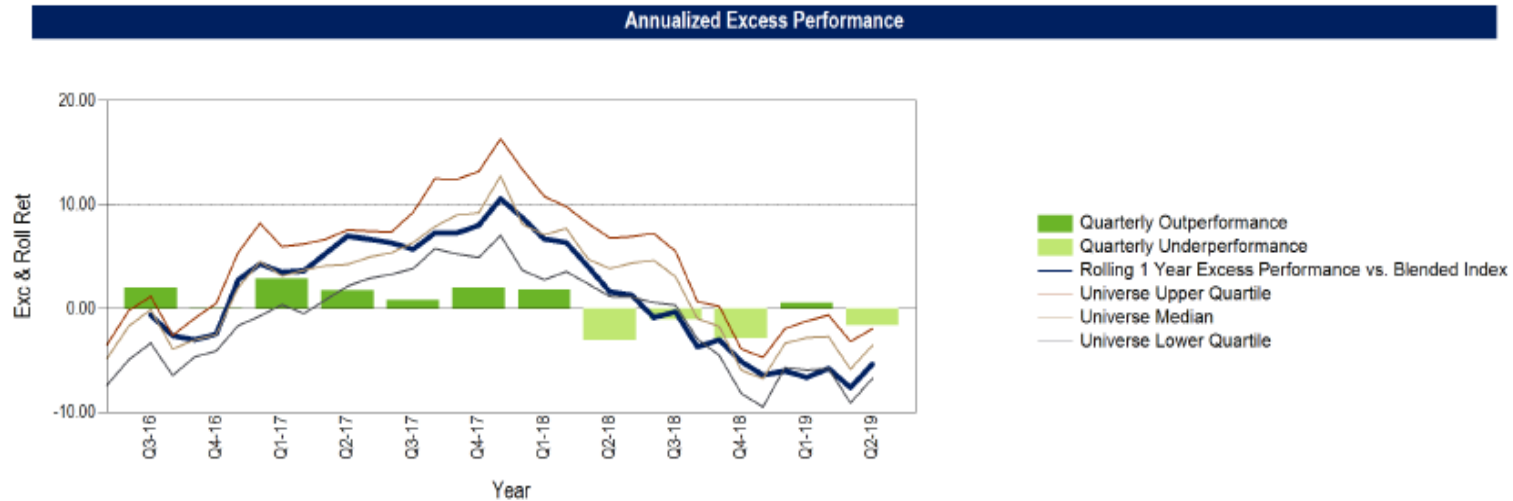


Source: Bain Capital

June 30, 2019

GMO GLOBAL ABSOLUTE RETURN

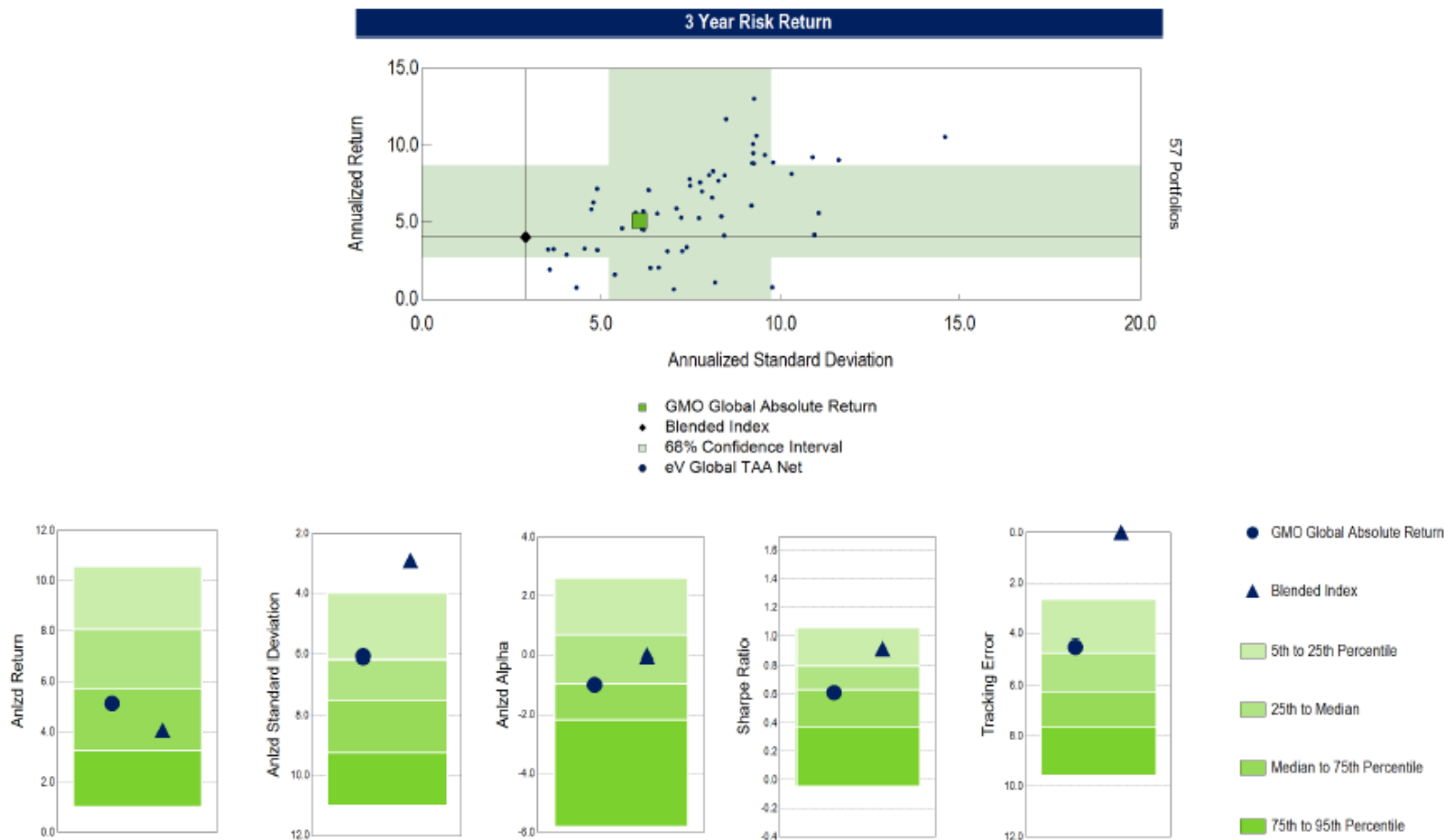
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June 30, 2019

GMO GLOBAL ABSOLUTE RETURN

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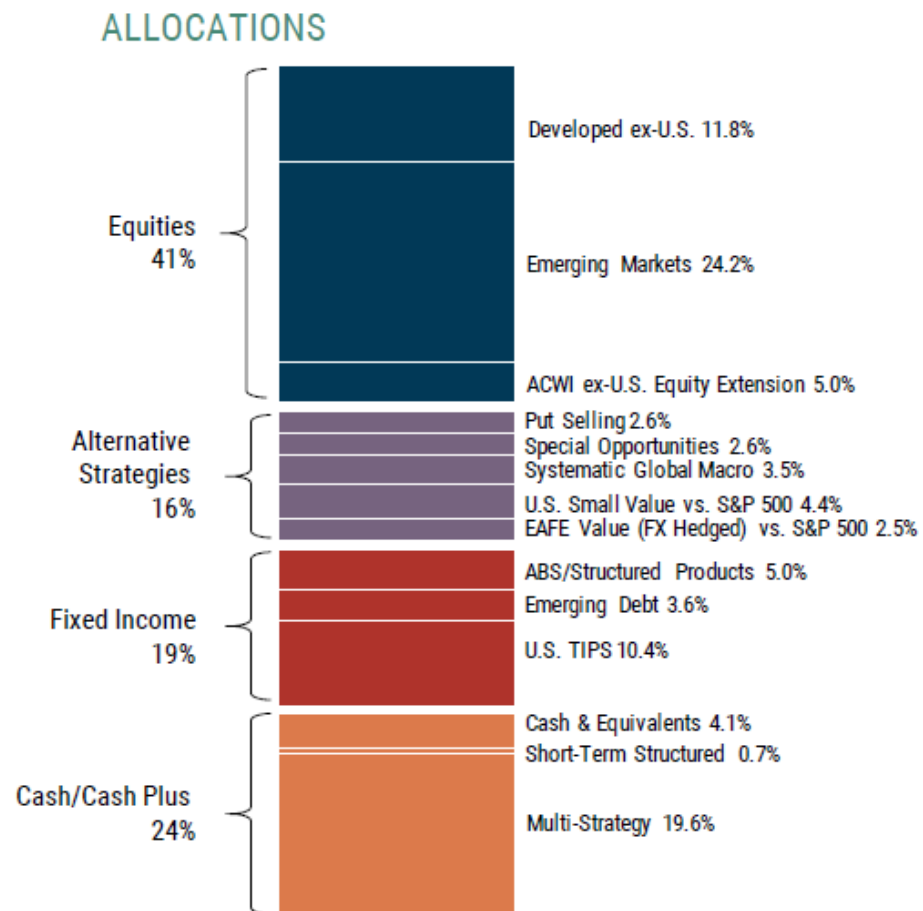


June 30, 2019

GMO GLOBAL ABSOLUTE RETURN

Strategy Composition

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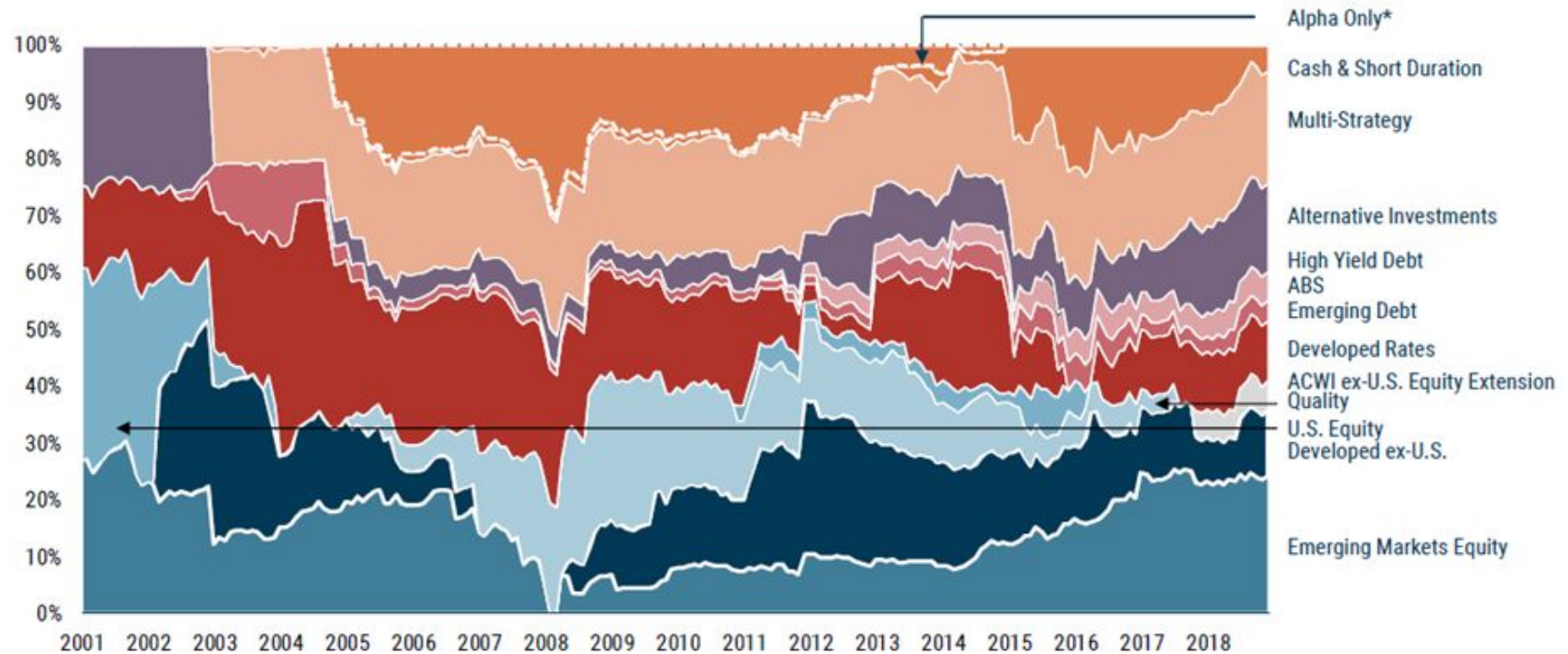
Source: GMO



June 30, 2019

GMO GLOBAL ABSOLUTE RETURN

Allocation History



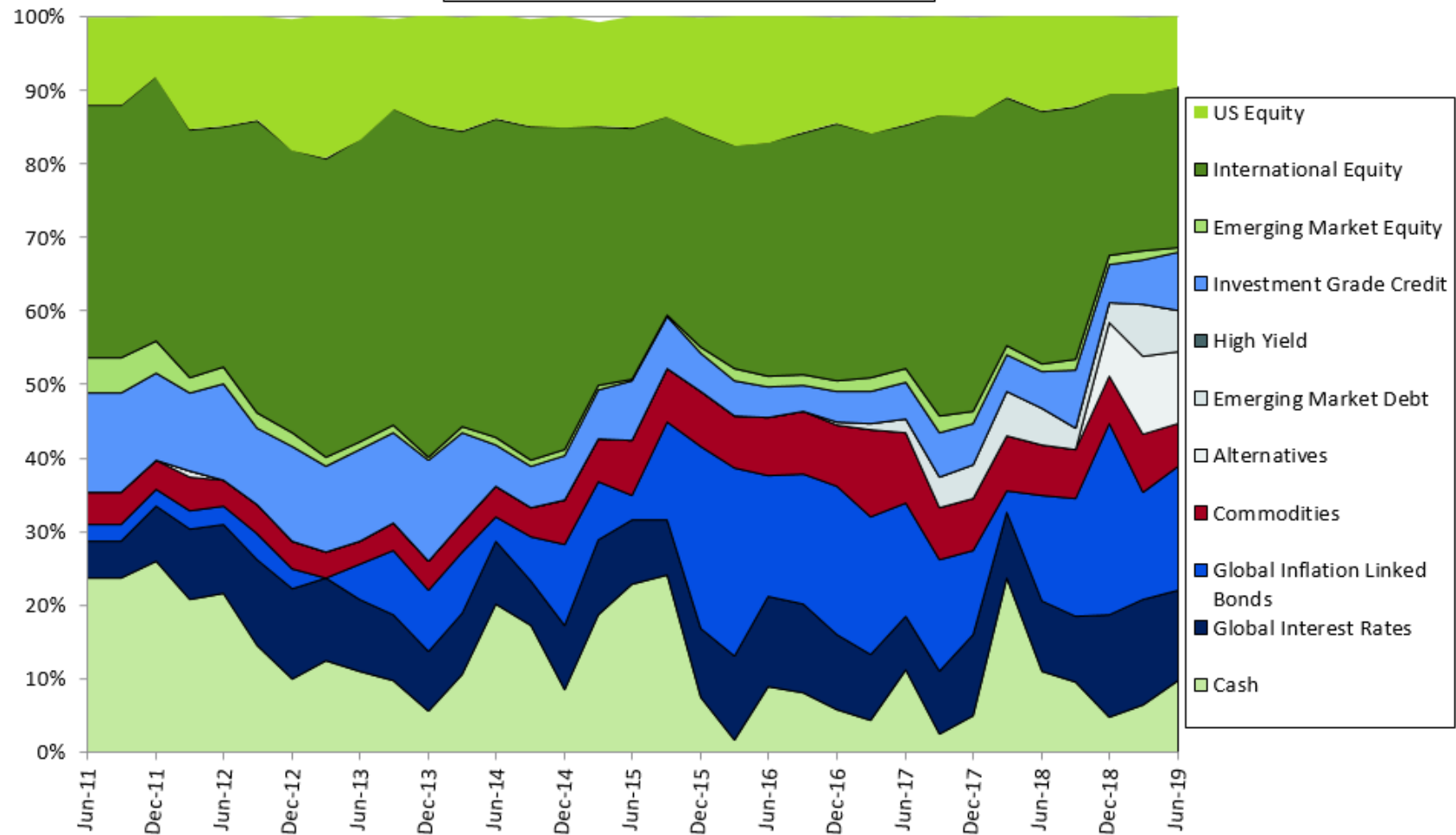
Source: GMO



June 30, 2019

NEWTON GLOBAL REAL RETURN

Newton Global Real Return



Source: Newton

June 30, 2019

LIGHTHOUSE GLOBAL LONG/SHORT

General Fund Information			
Fund Name	Lighthouse Global Long/Short Fund		
Management Company	Lighthouse Investment Partners, LLC		
Location	Palm Beach, FL		
Firm AUM	\$14.2 billion	Strategy	Fund of Fund
Fund AUM	\$1.1 billion	Sub-Strategy	Long/Short Equity
Portfolio Managers	Ethan Baron	Direct or FOF	FOF

Terms	
Share Class	--
Minimum Investment	\$1 million
Management Fee	1.15%
Incentive Fee	--
Hurdle Rate	None
High Water Mark	Yes
Subscription	Monthly
Redemption	Quarterly (60 days notice) or Monthly (90 days notice)
Lock-Up	None

Investment Strategy
Lighthouse's Global Long/Short Fund is a global portfolio of 20-30 separately managed accounts with industry sector and country specialist managers. The geographical allocations are similar to the MSCI World Index (30%-75% Americas, 10%-35% Europe, 5%-35% Asia).
The Fund targets returns greater than 10% over market cycles with 6%-8% volatility and an equity beta of 0.2-0.4 to the MSCI World Index.

Strategy Information

Region Allocation & Attribution

Region	Net	Gross
Developed North America	7.0%	179.3%
Developed Europe	3.1%	58.6%
Developed Asia	1.4%	42.4%
Emerging Markets	9.3%	25.2%
Hedges / Other	2.5%	3.2%

Var ^{RI}	0.27%	0.09%	-0.02%	0.19%	0.02%
QTD ^{RI}	2.87%	0.45%	-0.70%	-0.58%	-0.15%

Sector Allocation & Attribution

Sector	Net	Gross
Communication Services	5.3%	14.3%
Consumer Discretionary	1.0%	41.0%
Consumer Staples	2.2%	14.0%
Energy	1.3%	15.7%
Financials	5.6%	61.6%
Healthcare	3.6%	47.4%
Industrials	-1.4%	41.2%
Technology	2.7%	29.5%
Materials	3.8%	17.0%
Real Estate	1.3%	17.9%
Utilities	-0.3%	5.7%
Hedges / Other	2.6%	3.4%

Var ^{RI}	0.14%	0.08%	0.02%	0.02%	0.02%	0.10%	0.06%	0.09%	0.06%	0.01%	0.01%	-0.06%
QTD ^{RI}	0.07%	-0.34%	0.37%	0.24%	0.75%	0.40%	-0.05%	0.68%	-0.01%	0.42%	-0.09%	-0.57%



For more information please see NEPC's Investment Due Diligence Report and Operational Due Diligence Report

June 30, 2019

LIGHTHOUSE GLOBAL LONG/SHORT



June 30, 2019

JOHN HANCOCK TIMBER

5.2

INVESTMENTS

<u>Property</u>	<u>Location</u>	<u>Acquisition date</u>	<u>Acres</u>	<u>Independent appraisals</u>		<u>Book value</u>	<u>Fair market value</u>	<u>Unrealized appreciation (depreciation)</u>
				<u>Last</u>	<u>Next</u>			
Tyler	TX	10/31/05	86,605	Dec-18	Dec-19	\$ 75,977,499	\$ 172,000,000	\$ 96,022,501
Total equity real estate			86,605			\$ 75,977,499	\$ 172,000,000	\$ 96,022,501
<u>Other investments</u>		<u>Acquisition date</u>						
Red River Timberlands Company *	LA, TX	4/1/08	269	Dec-17	NA	\$ 20,285,157	\$ 20,267,681	\$ (17,476)
Total other investments			269			\$ 20,285,157	\$ 20,267,681	\$ (17,476)

INVESTMENT REGIONS

Hancock Timber Resource Group Total Individually Managed Assets Under Management As of March 31, 2019

<u>NCREIF Region</u>	<u>Real Estate Market Value</u>	<u>Market Value (%)</u>	<u>Acres</u>	<u>Acres (%)</u>
Northeast	\$ 113,925,000	1.4%	42,950	1.1%
Lake States	17,973,775	0.2%	30,712	0.8%
Pacific Northwest	1,899,211,750	23.4%	836,795	21.7%
Southeast	1,072,714,229	13.2%	561,171	14.5%
Southwest	1,009,727,047	12.4%	512,308	13.3%
Non - U.S.A	3,999,761,397	49.3%	1,877,959	48.6%
	\$ 8,113,313,198	100.0%	3,861,895	100.0%



Source: Hancock

June 30, 2019

LANDMARK EQUITY PARTNERS XV

General Fund Information			
Fund Name	Landmark Equity Partners XV		
General Partner	Landmark Partners		
Main Address	10 Mill Pond Lane, Simsbury, CT 06070		
Target Fund Size	\$2.5B	Expected Final Close	Up to 15 months after Initial Closing
Capital Raised	\$3.25B	Closes to Date	Yes
Investment Period	3-4 years	Minimum Investment	\$10M (negotiable)
Term of Entity	10 years from initial close, subject to 2 one-year extensions at GP's discretion	Investment Structure	Delaware L.P.
Key Persons	There are 6 members of the Key Person clause	Fund Auditor	PWC
Size of Fund Team	78 professionals (includes investment and administrative)	Number of Past Funds	28 (across all strategies)

GP Fees, Promote and Commitment	
Preferred Return	<ul style="list-style-type: none"> 8% per annum
GP Fees	Years 1 - 4: 1.00% of LP's capital commitments Years 5 - 8: 1.00% of the aggregate amount of LP's capital contributions plus amounts subject to call for Fund obligations Years 8 - remaining life of fund: 1.00% of LP's investment percentage of the reported value of Fund XV's portfolio investments
GP Commitment	<ul style="list-style-type: none"> 1% of aggregate commitments
Carried Interest	<ul style="list-style-type: none"> 10% on secondary investments only



Fund Strategy			
Investment Strategy	<ul style="list-style-type: none"> Landmark XV's primary objective is to acquire interests in private equity investments through secondary transactions. Landmark will build a diversified portfolio of private equity partnership interests diversified by strategy, geography and vintage year. Landmark strives to execute transactions on a negotiated basis and acquire portfolios of interests in private equity funds and direct investments through secondary market transactions that are unique, may require structuring, and where the opportunity for value creation exists. 		
Target Net Returns	Landmark aims to return a 1.6x-1.8x net multiple and a 15%-20% net IRR	Direct or fund of funds	Fund of funds (secondary interests)
Investment Style	Secondary	Target Fund Leverage	May use up to 10% leverage on aggregate commitment amount
Target Asset Types	Secondary investments in limited partnership interests	Target Geographies	Global (primary focus North America and Europe)
		Target Deal Size	No stated minimums or maximums

Fund Sourcing and Asset Management Capabilities	
Sourcing Capabilities	<ul style="list-style-type: none"> Reactive deal flow is attributed to inbound leads from limited partners, general partners and intermediaries - generally in the form of an auction. Firm will only consider participating in a competitive process if it believes it has an edge on its competitors with regard to familiarity of a portfolio and/or believes the assets are mispriced. Utilizes its proprietary database, quantitative research, and portfolio management tools to proactively engage with potential sellers with the ultimate goal of sourcing investments on an exclusive basis. Believes that deal exclusivity hinges on talking to LPs who do not yet realize that they are potential sellers. Two-thirds of their non-auctioned deal flow is due to their research tool projects undertaken with potential sellers.
Value Add	<ul style="list-style-type: none"> Focus on sourcing exclusive transactions should on average produce pricing that is lower than the prices available in the auction channel. Strives to arrange preferred structures to protect downside while preserving commensurate upside participation. Proactive sourcing model allows the investment team more time and better access to data to conduct due diligence.

5.2

June 30, 2019

APPENDIX

NEPC, LLC

GLOSSARY OF TERMS

Alpha - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

Alpha Jensen - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

Annualized Excess Return over Benchmark - Annualized fund return minus the annualized benchmark return for the calculated return.

Annualized Return - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

Beta - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio.

Formula:

(Annualized Return of Portfolio - Annualized Return of Benchmark)/Annualized Standard Deviation(Period Portfolio Return - Period Benchmark Return). To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

R-Squared - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

Sharpe Ratio - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

Sortino Ratio - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

Formula:

*Calculation Average (X-Y)/Downside Deviation (X-Y) * 2
Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)*

Standard Deviation - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

Formula:

(Annualized Return of Portfolio - Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)

Tracking Error - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Formula:

*Tracking Error = Standard Deviation (X-Y) * $\sqrt{(\# \text{ of periods per year})}$*

Where X = periods portfolio return and Y = the period's benchmark return

For monthly returns, the periods per year = 12

For quarterly returns, the periods per year = 4

Treynor Ratio - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

Formula:

(Portfolio Average Return - Average Return of Risk-Free Rate)/Portfolio Beta

Up/Down Capture Ratio - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is >= 0

DownsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Benchmark < 0

Data Source: InvestorForce



INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may not be available from the source or may be preliminary and subject to change.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodial bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This report is provided as a management aid for the client's internal use only. Performance contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

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



SECOND QUARTER 2019 SUPPLEMENTAL PERFORMANCE

UNIVERSITY OF MAINE SYSTEM PENSION PLAN

August 28, 2019

Jay E. Roney, Partner

Kelly Regan, Senior Consultant



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

CASH FLOW SUMMARY

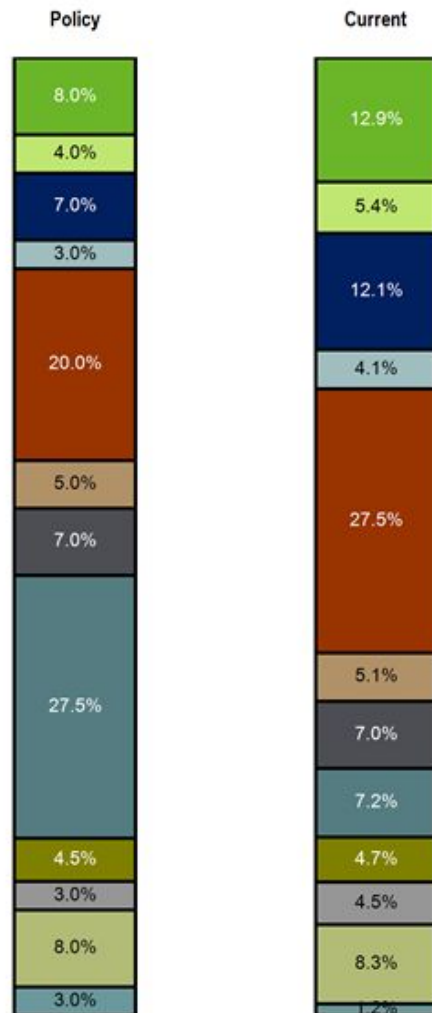
5.3

	Quarter Ending June 30, 2019					Ending Market Value
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	
Bain Capital Senior Loan Fund	\$1,311,725	\$0	-\$1,651	-\$1,651	\$22,346	\$1,332,420
BlackRock Strategic Income Opportunities	\$642,551	\$500,000	-\$1,311	\$498,689	\$28,392	\$1,169,633
Distribution Account	\$271,622	\$4,293,751	-\$4,247,952	\$45,798	\$6,308	\$323,729
Guggenheim US Bank Loans	\$155,315	\$0	-\$155,315	-\$155,315	\$0	--
Lighthouse	\$1,191,922	\$0	\$0	\$0	\$30,725	\$1,222,647
Mondrian EM Small Cap	\$816,602	\$300,000	-\$4,299	\$295,701	-\$32,390	\$1,079,913
Morgan Stanley Int'l	\$2,229,118	\$900,000	-\$6,691	\$893,309	\$62,195	\$3,184,622
Newton Global Real Return	\$2,036,938	\$0	-\$221,715	-\$221,715	\$79,888	\$1,895,111
Principal	\$2,256,200	\$0	-\$117,000	-\$117,000	\$27,371	\$2,166,571
SSgA R2000 Index Fund Non Lending	\$1,380,684	\$0	-\$499	-\$499	\$29,229	\$1,409,414
Vanguard Inflation-Protected Securities	\$899,078	\$0	-\$160	-\$160	\$25,253	\$924,171
Vanguard S&P 500 Index	\$3,253,444	\$0	-\$332	-\$332	\$140,135	\$3,393,247
Vanguard Short-Term Inflation-Protected Securities - VTSPX	--	\$900,000	\$0	\$900,000	\$8,662	\$908,662
Vanguard Total Bond Market Index	\$6,755,101	\$250,000	-\$1,232	\$248,768	\$217,207	\$7,221,076
Z TERMINATED Wellington	\$3,726,534	\$0	-\$3,792,754	-\$3,792,754	\$66,220	--
Total	\$26,926,834	\$7,143,751	-\$8,550,911	-\$1,407,160	\$711,541	\$26,231,215



June 30, 2019

ASSET ALLOCATION



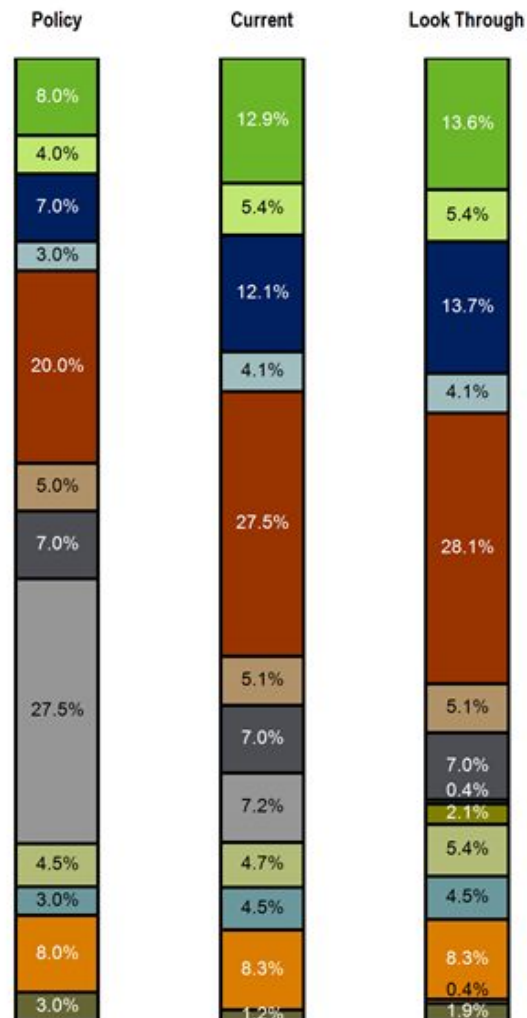
Asset Allocation vs. Target							
	Current	Policy	Current	Difference	Policy Range	Within Range	
Large Cap Equity	\$3,393,247	8.0%	12.9%	4.9%	3.0% - 13.0%	Yes	
Small Cap Equity	\$1,409,414	4.0%	5.4%	1.4%	0.0% - 6.0%	Yes	
International Equity	\$3,184,622	7.0%	12.1%	5.1%	2.0% - 12.0%	No	
Emerging Markets Equity	\$1,079,913	3.0%	4.1%	1.1%	0.0% - 5.0%	Yes	
Core Bonds	\$7,221,076	20.0%	27.5%	7.5%	10.0% - 30.0%	Yes	
Bank Loans	\$1,332,420	5.0%	5.1%	0.1%	0.0% - 10.0%	Yes	
TIPS	\$1,832,833	7.0%	7.0%	0.0%	0.0% - 14.0%	Yes	
Global Asset Allocation	\$1,895,111	27.5%	7.2%	-20.3%	25.0% - 30.0%	No	
Hedge Funds	\$1,222,647	4.5%	4.7%	0.2%	0.0% - 10.0%	Yes	
Absolute Return	\$1,169,633	3.0%	4.5%	1.5%	0.0% - 5.0%	Yes	
Real Estate	\$2,166,571	8.0%	8.3%	0.3%	0.0% - 10.0%	Yes	
Cash	\$323,729	3.0%	1.2%	-1.8%	0.0% - 10.0%	Yes	
Total	\$26,231,215	100.0%	100.0%				

Note: International Equity policy targets and ranges include International small cap equity. Emerging market equity policy targets and ranges include emerging market small cap equity. TIPS policy targets and ranges include short-term TIPS.



June 30, 2019

ASSET ALLOCATION



Asset Allocation			
	Policy	Current	Look Through
Large Cap Equity	8.0%	12.9%	13.6%
Small Cap Equity	4.0%	5.4%	5.4%
International Equity	7.0%	12.1%	13.7%
Emerging Markets Equity	3.0%	4.1%	4.1%
Core Bonds	20.0%	27.5%	28.1%
Bank Loans	5.0%	5.1%	5.1%
TIPS	7.0%	7.0%	7.0%
Fixed Income - Emerging	--	--	0.4%
Global Bonds	--	--	2.1%
Global Asset Allocation	27.5%	7.2%	--
Hedge Funds	4.5%	4.7%	5.4%
Absolute Return	3.0%	4.5%	4.5%
Real Estate	8.0%	8.3%	8.3%
Real Assets	--	--	0.4%
Cash	3.0%	1.2%	1.9%
Total	100.0%	100.0%	100.0%

Net Asset Allocation breaks out the exposure of GAA managers.

Asset class weights may not add up to 100%.

The 60% MSCI ACWI/40% FTSE WGBI Index is broken down into the following categories: 33.2% Domestic Equities, 19.8% Int'l Equities, 7.1% Emerging Equities, 15.2% US Treasury Bonds, 12.6% European Government Bonds, 7.5% Japanese Debt, 2.6% United Kingdom Bonds and 2.1% Developing Market Bonds.

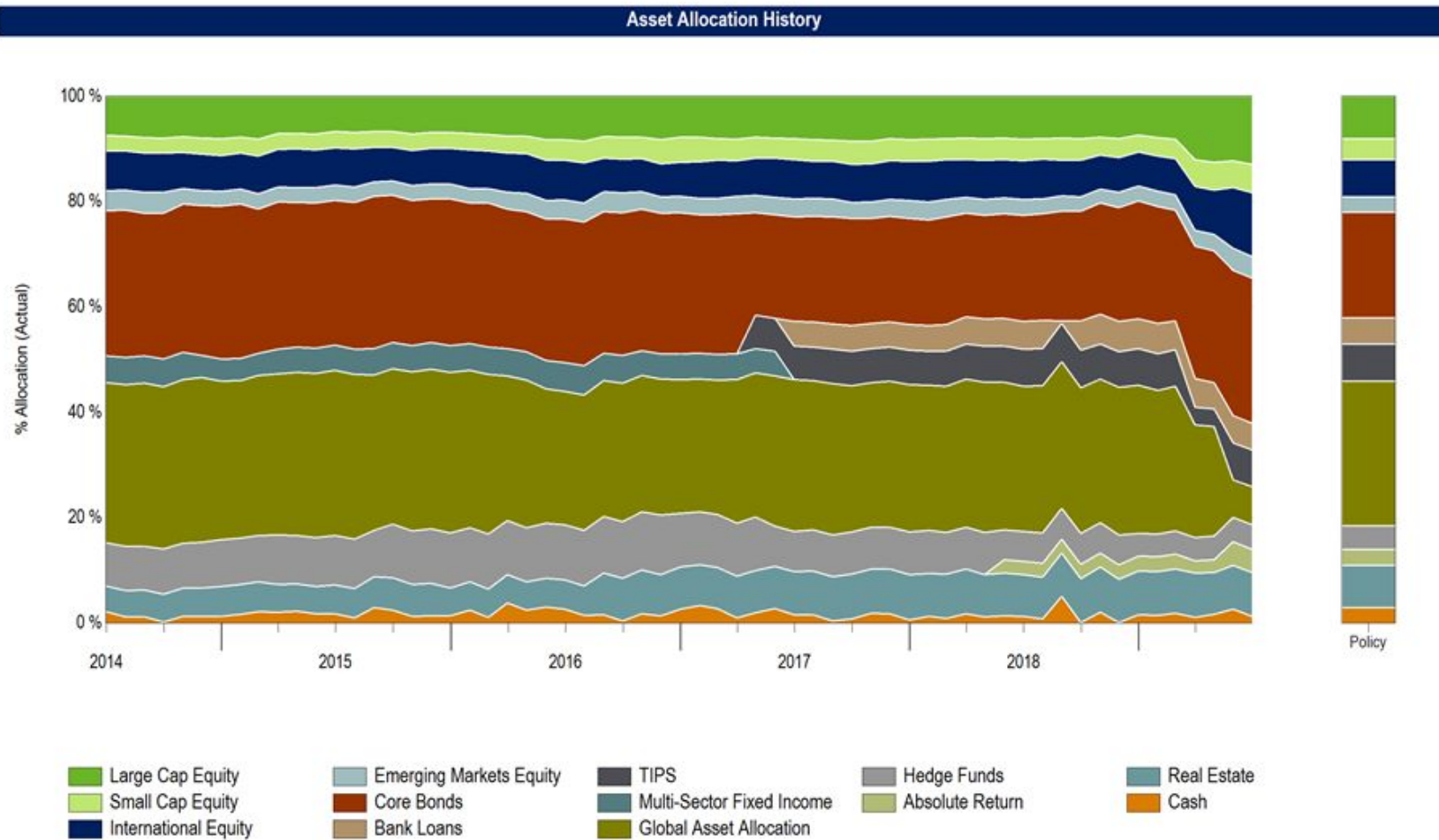
Note: International Equity policy targets and ranges include International small cap equity. Emerging market equity policy targets and ranges include emerging market small cap equity. TIPS policy targets and ranges include short-term TIPS.



June 30, 2019

ASSET ALLOCATION HISTORY

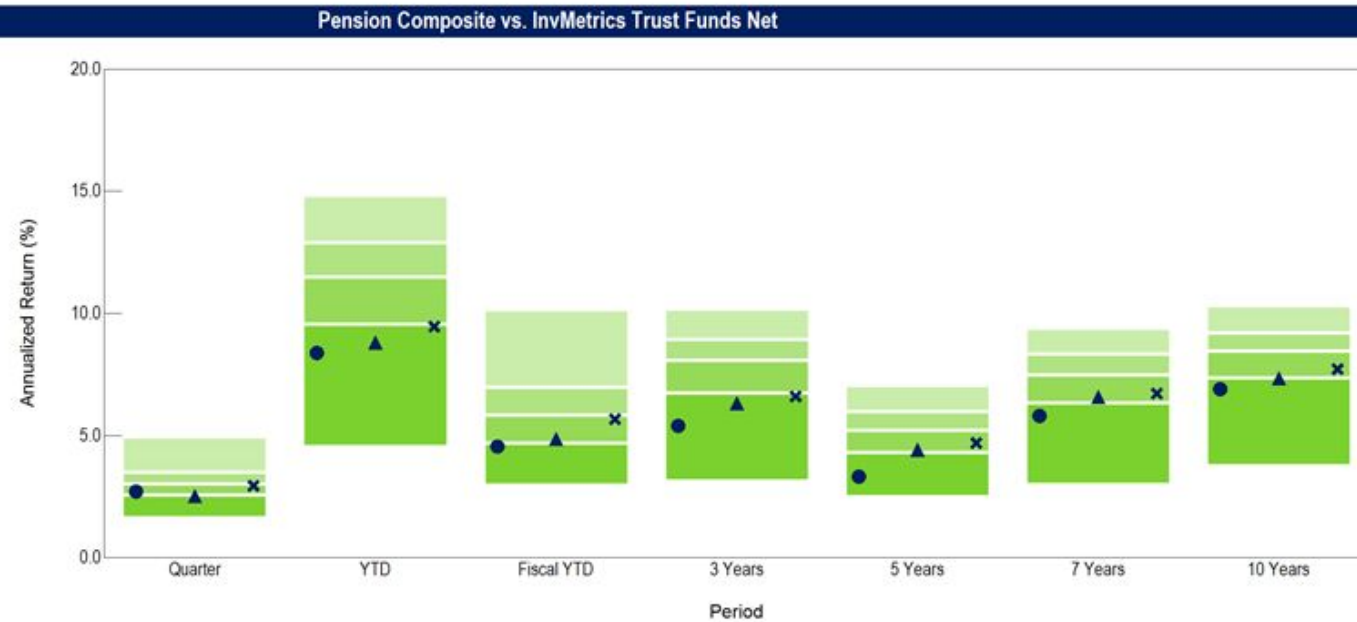
5.3



June 30, 2019

RETURNS VS. PEER UNIVERSE

5.3



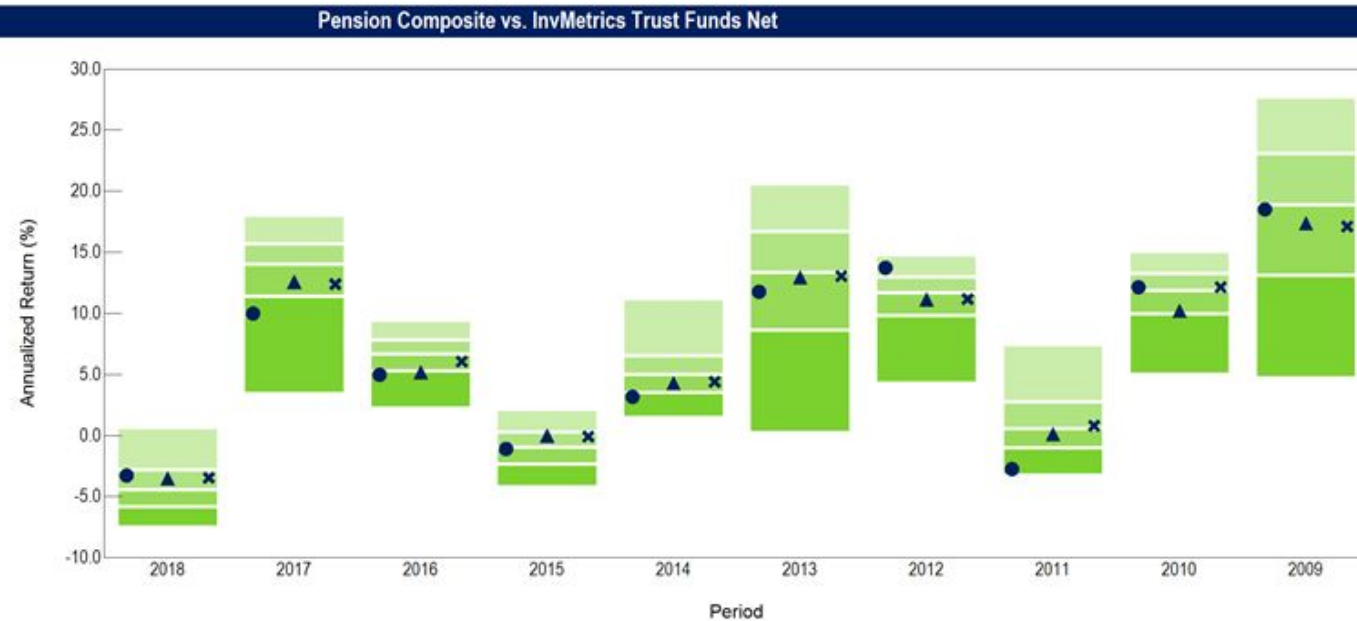
	Return (Rank)						
5th Percentile	5.0	14.8	10.1	10.2	7.0	9.4	10.3
25th Percentile	3.5	12.9	7.0	9.0	6.0	8.3	9.2
Median	3.0	11.5	5.9	8.1	5.2	7.5	8.5
75th Percentile	2.6	9.6	4.7	6.8	4.3	6.3	7.4
95th Percentile	1.7	4.6	3.0	3.1	2.5	3.0	3.8
# of Portfolios	3,018	3,006	2,964	2,740	2,507	2,260	1,899
● Pension Composite	2.7 (70)	8.4 (84)	4.6 (79)	5.4 (86)	3.3 (91)	5.8 (82)	6.9 (81)
▲ Allocation Index	2.5 (78)	8.8 (81)	4.9 (72)	6.3 (80)	4.4 (74)	6.6 (72)	7.3 (76)
× Policy Index	2.9 (55)	9.5 (77)	5.7 (55)	6.6 (77)	4.7 (67)	6.7 (70)	7.7 (70)



June 30, 2019

RETURNS VS. PEER UNIVERSE

5.3



	Return (Rank)									
5th Percentile	0.7	18.0	9.4	2.1	11.2	20.6	14.8	7.4	15.1	27.7
25th Percentile	-2.8	15.7	7.9	0.3	6.6	16.7	13.0	2.8	13.3	23.1
Median	-4.4	14.1	6.7	-0.9	5.0	13.4	11.7	0.6	11.9	18.9
75th Percentile	-5.8	11.4	5.3	-2.3	3.6	8.7	9.8	-1.0	10.0	13.2
95th Percentile	-7.5	3.5	2.3	-4.2	1.5	0.3	4.3	-3.2	5.0	4.8
# of Portfolios	3,627	2,518	2,446	2,339	2,007	1,709	1,539	1,403	1,326	1,233
● Pension Composite	-3.3 (32)	10.0 (80)	5.0 (80)	-1.1 (54)	3.2 (82)	11.8 (60)	13.7 (14)	-2.7 (92)	12.1 (47)	18.5 (52)
▲ Allocation Index	-3.5 (35)	12.6 (67)	5.2 (77)	0.0 (32)	4.3 (64)	13.0 (53)	11.2 (60)	0.1 (57)	10.2 (73)	17.4 (58)
× Policy Index	-3.5 (34)	12.4 (69)	6.1 (64)	-0.1 (34)	4.4 (62)	13.1 (52)	11.2 (60)	0.8 (47)	12.2 (47)	17.1 (59)

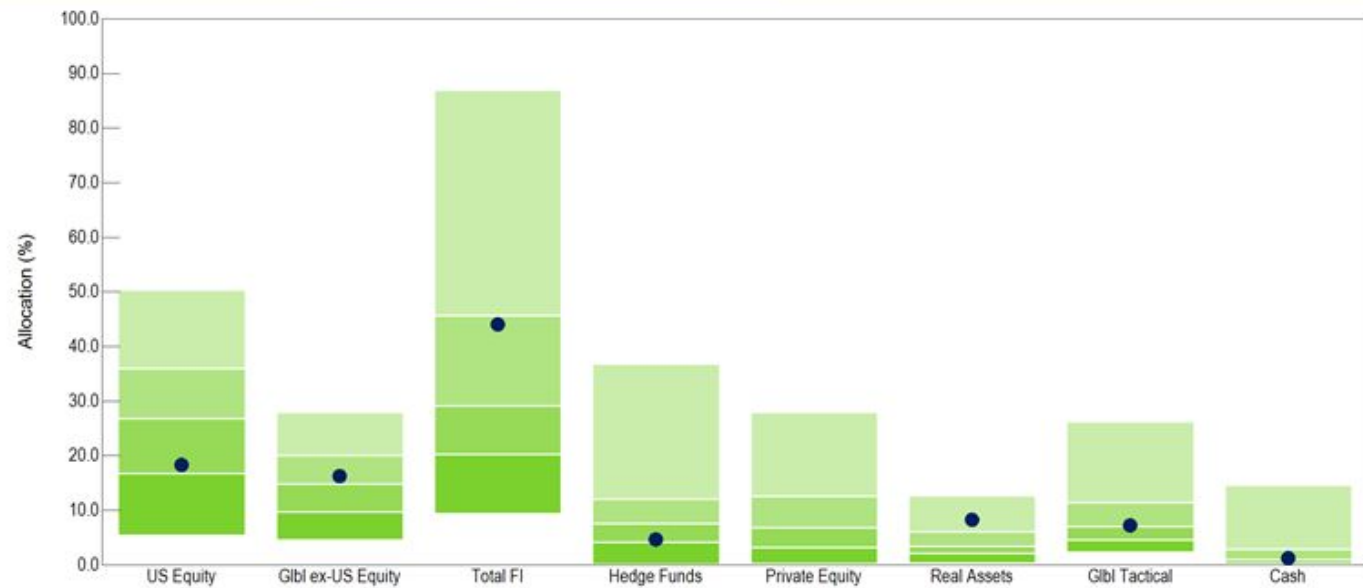


June 30, 2019

ALLOCATIONS VS. PEER UNIVERSE

5.3

Total Plan Allocation vs. InvMetrics Trust Funds Net

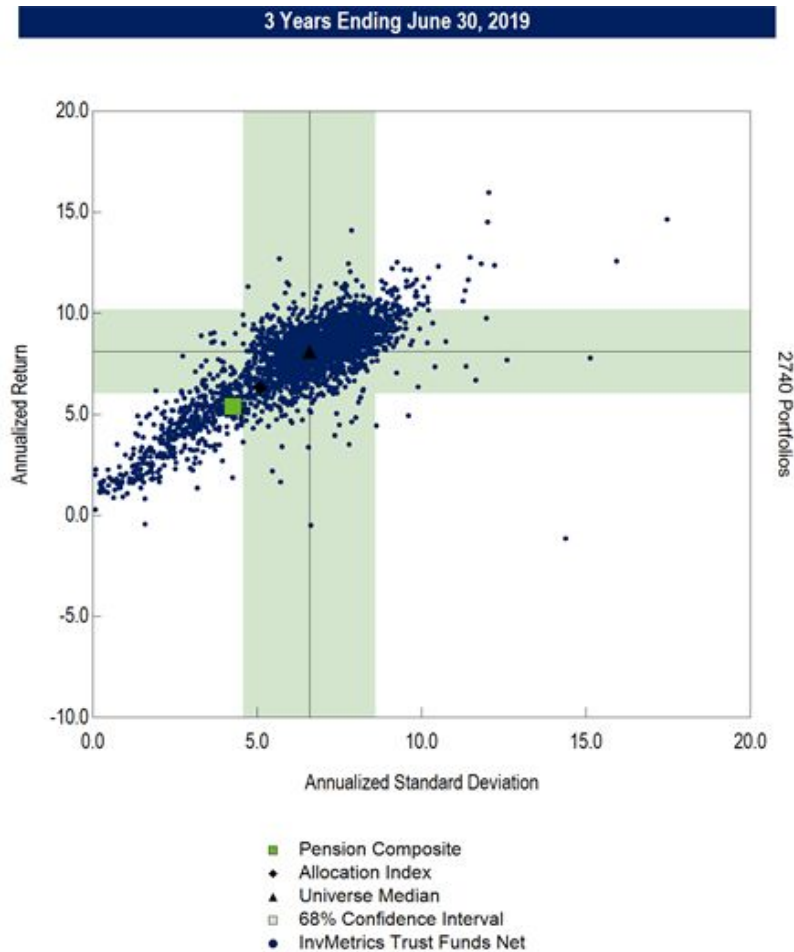


	Allocation (Rank)													
5th Percentile	50.3		28.0		86.9		36.8		28.0		12.7		26.2	
25th Percentile	36.1		20.1		45.7		12.1		12.7		6.2		11.5	
Median	26.9		14.9		29.2		7.6		7.0		3.5		7.1	
75th Percentile	16.8		9.8		20.3		4.2		3.3		2.2		4.7	
95th Percentile	5.5		4.6		9.5		0.2		0.3		0.4		2.4	
# of Portfolios	1,265		1,462		1,923		674		682		325		348	
• Pension Composite	18.3	(72)	16.3	(44)	44.1	(27)	4.7	(72)	--	--	8.3	(19)	7.2	(49)
													1.2	(46)



June 30, 2019

TOTAL PLAN RISK/RETURN - 3 YEAR



3 Years Ending June 30, 2019				
	Annzd Ret	Rank	Annzd Std Dev	Rank
Pension Composite	5.4%	86	4.3%	17
Allocation Index	6.3%	80	5.1%	22
Policy Index	6.6%	77	5.1%	22
InvMetrics Trust Funds Net Median	8.1%	--	6.6%	--

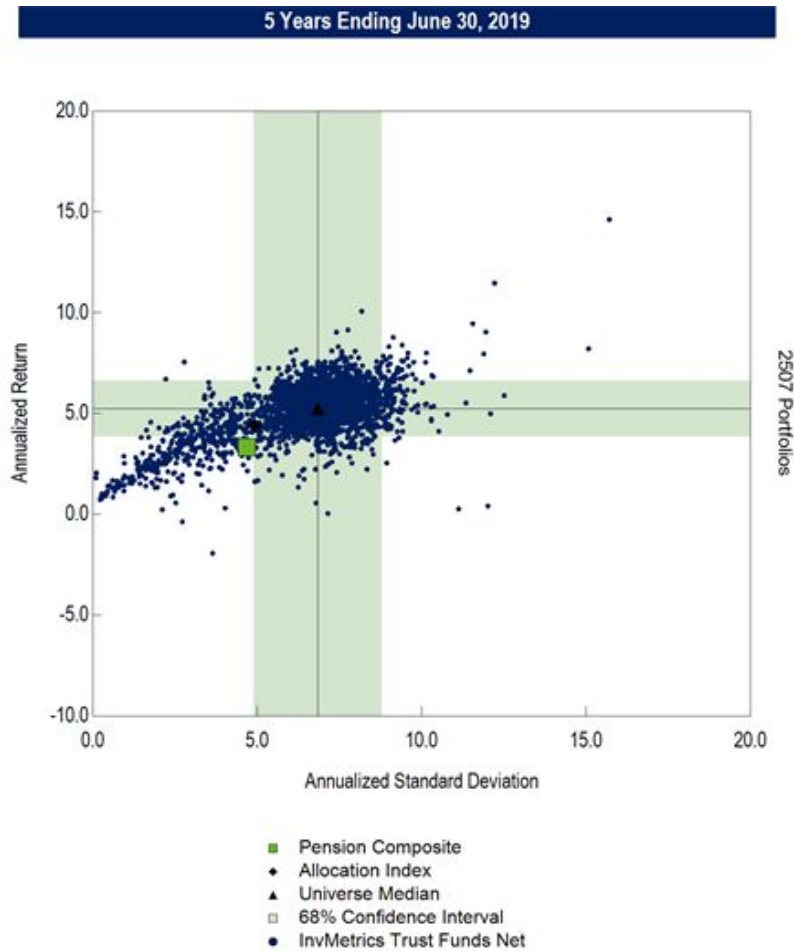
3 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	0.9	66	1.2	32
Allocation Index	1.0	60	1.1	44
Policy Index	1.0	43	1.2	28
InvMetrics Trust Funds Net Median	1.0	--	1.1	--

*Returns are net of fees.



June 30, 2019

TOTAL PLAN RISK/RETURN - 5 YEAR



5 Years Ending June 30, 2019				
	Annzd Ret	Rank	Annzd Std Dev	Rank
Pension Composite	3.3%	91	4.7%	17
Allocation Index	4.4%	74	4.9%	18
Policy Index	4.7%	67	4.9%	18
InvMetrics Trust Funds Net Median	5.2%	--	6.8%	--

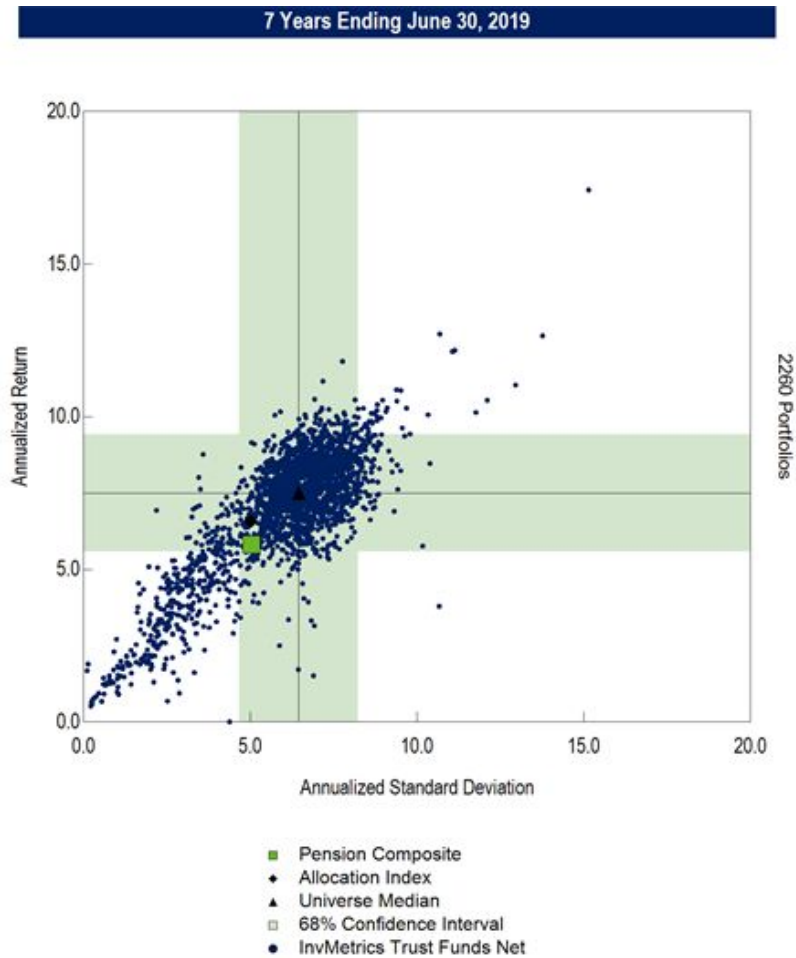
5 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	0.5	80	0.8	61
Allocation Index	0.7	39	1.0	36
Policy Index	0.8	29	1.1	23
InvMetrics Trust Funds Net Median	0.7	--	0.9	--

*Returns are net of fees.



June 30, 2019

TOTAL PLAN RISK/RETURN - 7 YEAR



7 Years Ending June 30, 2019				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Pension Composite	5.8%	82	5.0%	20
Allocation Index	6.6%	72	5.0%	20
Policy Index	6.7%	70	5.0%	20
InvMetrics Trust Funds Net Median	7.5%	--	6.4%	--

7 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	1.0	60	1.7	19
Allocation Index	1.2	27	1.8	16
Policy Index	1.2	23	1.9	10
InvMetrics Trust Funds Net Median	1.1	--	1.4	--

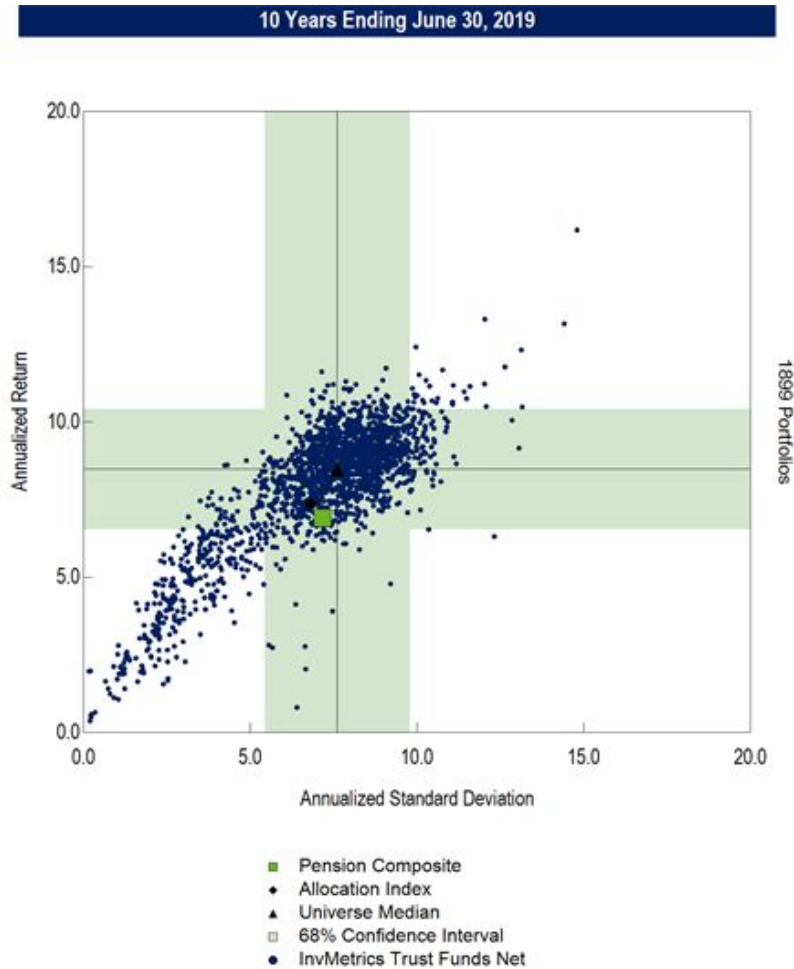
*Returns are net of fees.



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TOTAL PLAN RISK/RETURN - 10 YEAR

5.3



10 Years Ending June 30, 2019				
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Pension Composite	6.9%	81	7.2%	39
Allocation Index	7.3%	76	6.8%	32
Policy Index	7.7%	70	6.6%	28
InvMetrics Trust Funds Net Median	8.5%	--	7.6%	--

10 Years Ending June 30, 2019				
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	0.9	85	1.3	81
Allocation Index	1.0	63	1.5	57
Policy Index	1.1	41	1.7	29
InvMetrics Trust Funds Net Median	1.1	--	1.5	--

*Returns are net of fees.



June 30, 2019

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	Fiscal YTD (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Pension Composite	26,231,215	100.0	100.0	2.7	8.4	4.6	5.4	3.3	5.8	6.9
Allocation Index				2.5	8.8	4.9	6.3	4.4	6.6	7.3
Policy Index				2.9	9.5	5.7	6.6	4.7	6.7	7.7
Total Domestic Large Cap	3,393,247	12.9	8.0	4.3	18.5	10.4	14.2	10.7	14.1	13.7
S&P 500				4.3	18.5	10.4	14.2	10.7	14.0	14.7
Vanguard S&P 500 Index	3,393,247	12.9	8.0	4.3	18.5	10.4	14.2	10.7	--	--
S&P 500				4.3	18.5	10.4	14.2	10.7	14.0	14.7
Total Small Cap Composite	1,409,414	5.4	4.0	2.1	17.0	-3.4	12.3	6.9	11.4	13.2
Russell 2000				2.1	17.0	-3.3	12.3	7.1	11.6	13.4
SSgA R2000 Index Fund Non Lending	1,409,414	5.4	4.0	2.1	17.0	-3.4	12.3	7.0	11.5	13.2
Russell 2000				2.1	17.0	-3.3	12.3	7.1	11.6	13.4
Total International Equity (including emerging markets)	4,264,535	16.3	10.0	1.0	10.9	-1.9	5.1	0.5	4.4	5.3
MSCI EAFE				3.7	14.0	1.1	9.1	2.2	7.3	6.9
Morgan Stanley Int'l	3,184,622	12.1	7.0	2.5	14.0	-0.1	7.2	1.8	6.4	6.7
MSCI EAFE				3.7	14.0	1.1	9.1	2.2	7.3	6.9
Emerging Markets Equity	1,079,913	4.1	3.0	-3.2	3.3	-7.0	0.3	-2.8	-0.2	--
MSCI Emerging Markets				0.6	10.6	1.2	10.7	2.5	4.2	5.8
Mondrian EM Small Cap	1,079,913	4.1	3.0	-3.2	3.3	-7.0	0.3	-2.8	--	--
MSCI Emerging Markets Small Cap				-1.0	6.7	-5.1	5.5	0.5	3.7	5.9
Total Fixed Income	11,555,962	44.1	35.0	2.7	5.9	6.5	2.5	2.6	3.2	4.5
BBgBarc US Aggregate TR				3.1	6.1	7.9	2.3	2.9	2.6	3.9
Vanguard Total Bond Market Index	7,221,076	27.5	20.0	3.1	6.1	7.9	2.2	--	--	--
BBgBarc US Aggregate TR				3.1	6.1	7.9	2.3	2.9	2.6	3.9
Vanguard Inflation-Protected Securities	924,171	3.5	7.0	2.8	6.1	4.7	--	--	--	--
BBgBarc US TIPS TR				2.9	6.2	4.8	2.1	1.8	1.2	3.6
Vanguard Short-Term Inflation-Protected Securities - VTSPX	908,662	3.5		--	--	--	--	--	--	--
BBgBarc US TIPS 1-5 Yr TR				1.8	3.6	3.4	1.6	0.9	0.9	2.0
BlackRock Strategic Income Opportunities	1,169,633	4.5	3.0	2.6	5.2	5.2	--	--	--	--
3-Month Libor Total Return USD				0.6	1.3	2.6	1.8	1.2	1.0	0.8
Bain Capital Senior Loan Fund	1,332,420	5.1	5.0	1.6	5.7	--	--	--	--	--
Credit Suisse Leveraged Loans				1.6	5.4	4.1	5.4	3.9	4.7	6.3

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June 30, 2019

TOTAL PLAN PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	Fiscal YTD (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	1,895,111	7.2	27.5	5.0	10.9	6.0	5.3	2.1	4.3	5.8
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				3.6	12.6	6.1	8.2	4.6	7.0	7.7
Newton Global Real Return	1,895,111	7.2	13.8	4.2	8.9	9.6	3.0	--	--	--
60% MSCI ACWI (Net) / 40% FTSE WGBI				3.7	12.0	6.0	7.4	4.2	6.4	7.1
Total Alternative Investments	1,222,647	4.7	4.5	2.6	7.6	-1.3	3.8	1.5	3.1	3.0
HFRI Fund of Funds Composite Index				1.5	6.1	1.1	4.2	2.2	3.7	3.2
Lighthouse	1,222,647	4.7	4.5	2.6	7.6	-1.3	4.8	--	--	--
Credit Suisse Long Shrt Eqt USD				1.2	6.7	1.1	5.5	3.4	6.1	5.7
Total Real Assets	2,166,571	8.3	8.0							
Principal	2,166,571	8.3	8.0	1.3	2.9	6.7	7.9	9.7	10.3	9.4
NCREIF ODCE				1.0	2.4	6.4	7.6	9.8	10.5	9.9
Total Cash	323,729	1.2	3.0							
Distribution Account	323,729	1.2	3.0	0.5	1.1	2.0	1.1	0.7	0.5	0.4
91 Day T-Bills				0.6	1.2	2.3	1.4	0.9	0.6	0.5

Notes:

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate, 30% BC U.S. TIPS 1-10YR, 10% S&P 500, 10% BC High Yield, 10% JPM EMBI+

Returns are net of manager fees

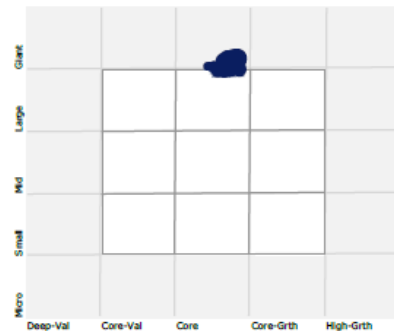
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VANGUARD INSTITUTIONAL INDEX I

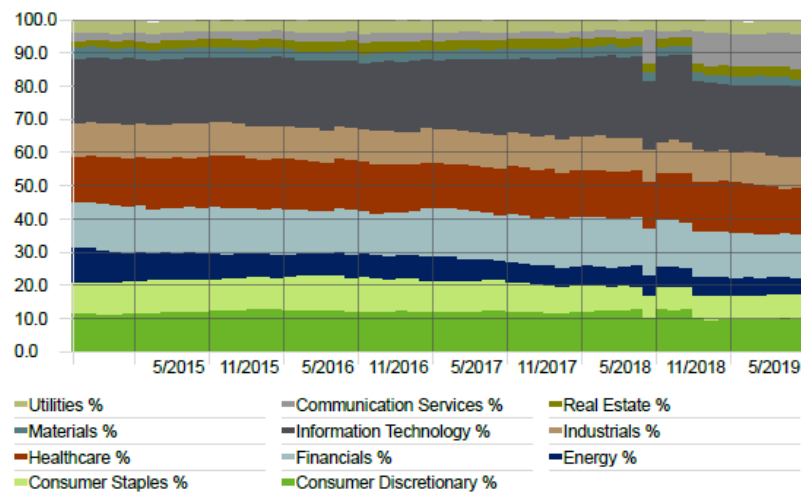
Holdings Based Style Trail (5 Years)

Time Period: 7/31/2014 to 6/30/2019



*Vanguard Institutional Index I - S&P 500 TR USD

Historical Sector Allocations (5 Years)



Portfolio Statistics

	Fund	Index
# of Holdings	510	505
% Asset in Top 10 Holdings	21.4	21.6
Turnover Ratio %	6.0	
P/E Ratio	18.8	20.3
P/B Ratio	3.0	3.2
LT Eam Growth	10.8	10.5
Hist Eam Growth	12.3	12.5
12 Mo Yield	2.0	

Market Capitalization Breakdown

	Fund	Index
Market Cap Giant %	56.4	56.2
Market Cap Large %	33.7	33.9
Market Cap Mid %	9.9	9.9
Market Cap Small %	0.0	0.0
Market Cap Micro %	0.0	0.0
Average Market Cap (mil)	102,789.0	102,675.1

Top 10 Holdings

	Portf Weight %	3 Month Ret %
Microsoft Corp	4.12	13.97
Apple Inc	3.40	4.80
Amazon.com Inc	3.18	6.34
Facebook Inc A	1.84	15.78
Berkshire Hathaway Inc B	1.67	6.11
Johnson & Johnson	1.52	0.31
JPMorgan Chase & Co	1.48	11.23
Alphabet Inc Class C	1.47	-7.88
Alphabet Inc A	1.44	-7.99
Exxon Mobil Corp	1.30	-4.08

Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Communication Services	10.23	10.28	4.47	4.47	0.00	0.00	0.00
Consumer Discretionary	10.17	10.22	5.30	5.29	0.00	0.00	0.00
Consumer Staples	7.28	7.32	3.73	3.73	0.00	0.00	0.00
Energy	5.17	5.19	-2.84	-2.84	0.00	0.00	0.00
Financials	12.95	13.04	8.03	8.01	0.00	0.00	0.00
Health Care	14.05	14.14	1.39	1.39	0.00	0.00	0.00
Industrials	9.39	9.43	3.61	3.61	0.00	0.00	0.00
Information Technology	21.24	21.34	6.06	6.06	0.00	0.00	0.00
Materials	2.51	2.64	6.04	4.72	-0.01	0.03	0.02
Real Estate	3.06	3.08	2.46	2.46	0.00	0.00	0.00
Utilities	3.31	3.33	3.48	3.48	0.00	0.00	0.00
Attribution Total	99.35	100.00	4.29	4.27	-0.01	0.03	0.02
Cash	0.51	0.00					
Bond	0.02	0.00					
Other	0.02	0.00					
Total	100.00	100.00					
Expense Ratio			0.01	0.00			
Residual(Reported - Attribution + Expense)			0.01	0.03			



Source: Morningstar

June 30, 2019

VANGUARD INSTITUTIONAL INDEX I

5.3

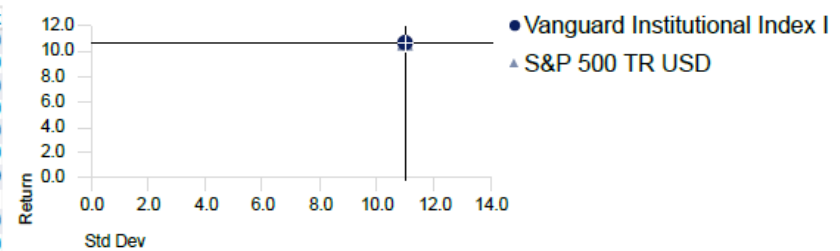
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	100.0	100.0
Alpha	0.0	0.0
Beta	1.0	1.0
Std Dev	11.0	11.0
Up Capture Ratio	99.9	100.0
Down Capture Ratio	100.1	100.0
Sharpe Ratio (geo)	0.9	0.9
Information Ratio (geo)	-2.4	0.0
Tracking Error	0.0	0.0
Correlation	1.0	1.0

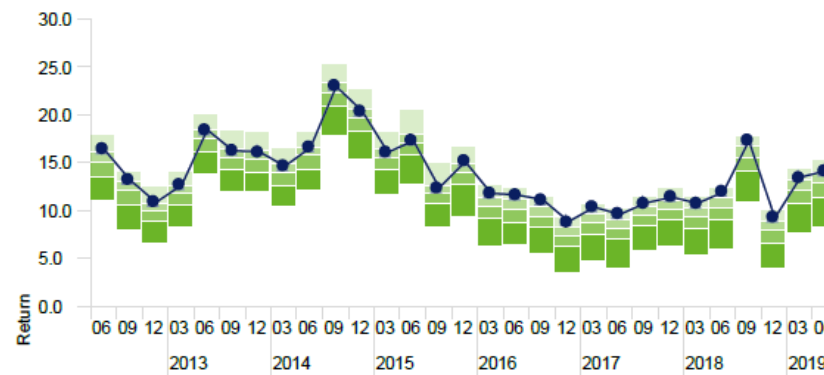
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Return (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

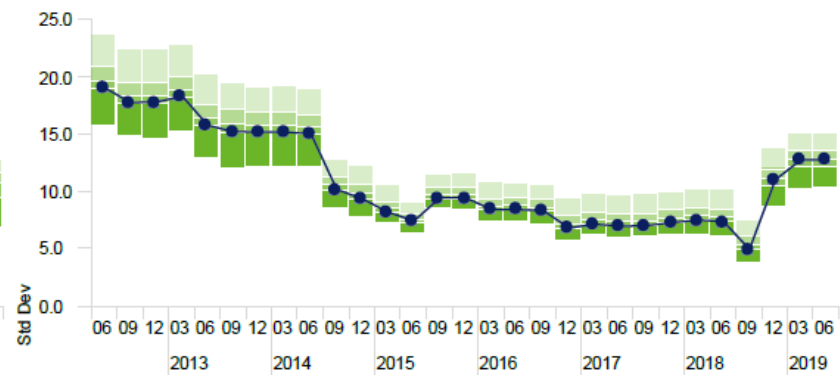


—Vanguard Institutional Index I

—S&P 500 TR USD

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Institutional Index I

—S&P 500 TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Institutional Index I	26.6	52	15.0	29	2.1	17	16.0	35	32.3	42	13.7	18	1.4	20	11.9	27	21.8	29	-4.4	27
S&P 500 TR USD	26.5		15.1		2.1		16.0		32.4		13.7		1.4		12.0		21.8		-4.4	

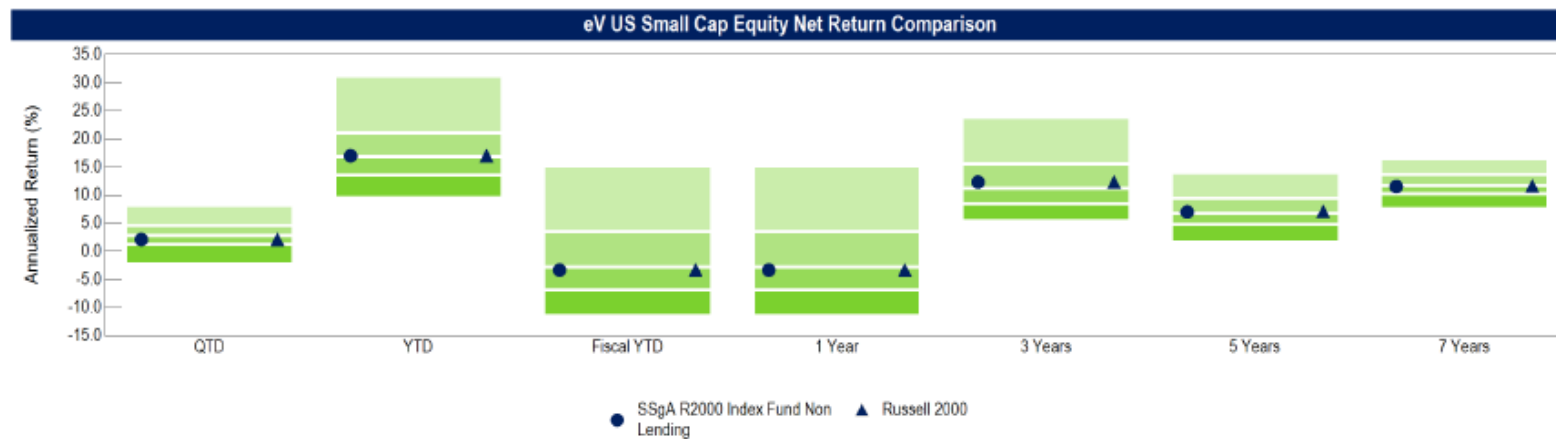
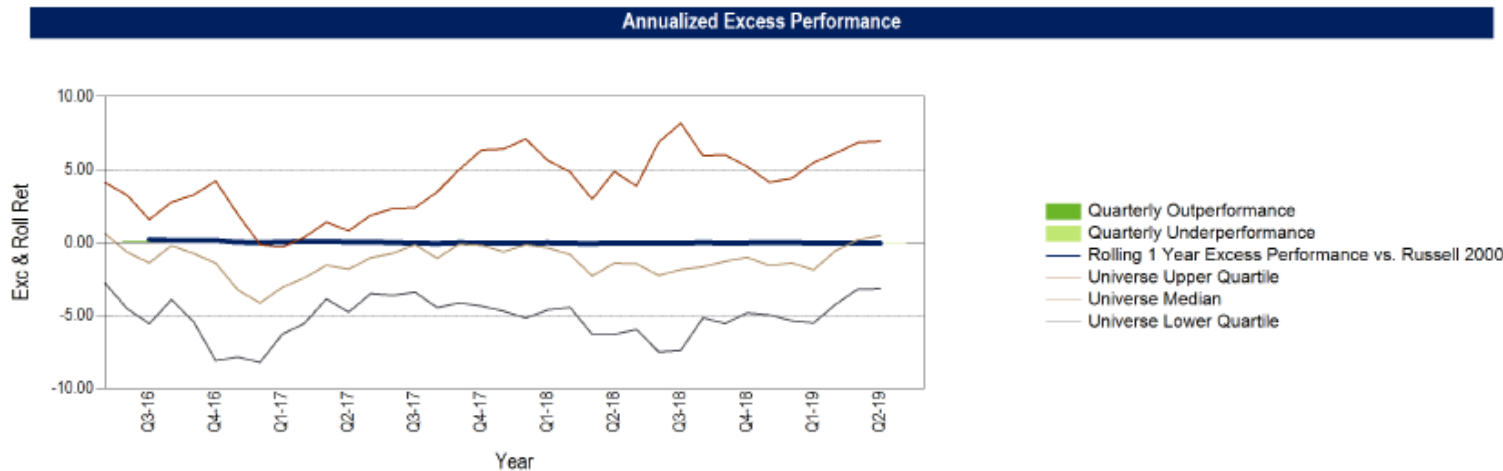


Source: Morningstar

June 30, 2019

SSGA R2000 INDEX FUND – NON LENDING

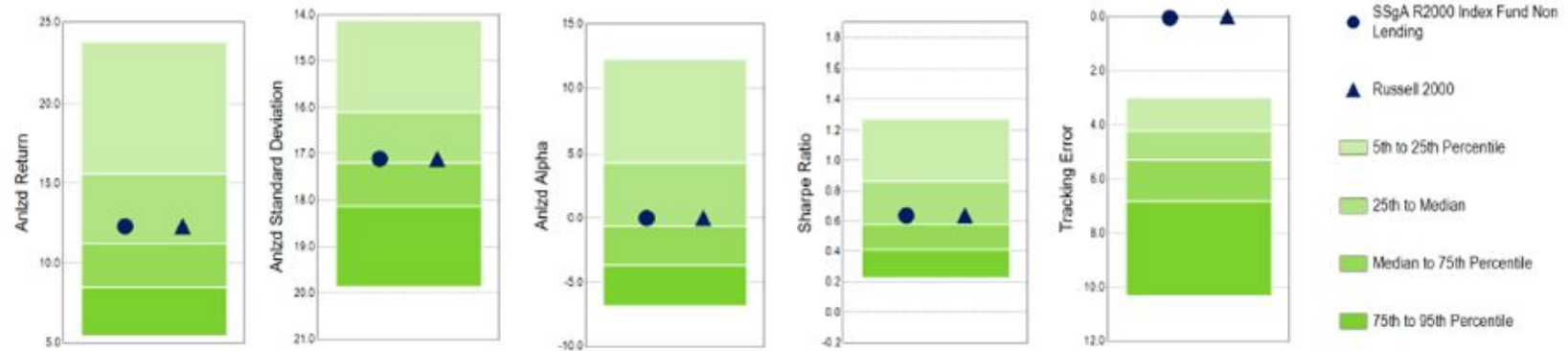
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SSGA R2000 INDEX FUND – NON LENDING

5.3



June 30, 2019

SSGA R2000 INDEX FUND – NON LENDING

5.3

Characteristics		
	Portfolio	Russell 2000
Number of Holdings	1,976	1,977
Weighted Avg. Market Cap. (\$B)	2.6	2.6
Median Market Cap. (\$B)	0.8	0.8
Price To Earnings	19.2	19.2
Price To Book	2.5	2.5
Price To Sales	1.2	1.2
Return on Equity (%)	2.9	2.9
Yield (%)	1.4	1.4
Beta		1.0
R-Squared		1.0

	Equity Sector Attribution										
	Attribution Effects				Returns		Ending Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	-8.4%	-8.4%	3.3%	3.2%			
Materials	0.0%	0.0%	0.0%	0.0%	-0.7%	-0.7%	3.8%	3.8%			
Industrials	0.0%	0.0%	0.0%	0.0%	8.7%	8.5%	15.2%	15.2%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	-0.7%	-0.6%	11.7%	11.7%			
Consumer Staples	0.0%	0.0%	0.0%	0.0%	-3.3%	-3.3%	2.7%	2.7%			
Health Care	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	15.8%	15.9%			
Financials	0.0%	0.0%	0.0%	0.0%	5.2%	5.2%	17.6%	17.7%			
Information Technology	0.0%	0.0%	0.0%	0.0%	2.6%	2.9%	15.4%	15.4%			
Communication Services	0.0%	0.0%	0.0%	0.0%	-5.9%	-5.9%	3.0%	3.0%			
Utilities	0.0%	0.0%	0.0%	0.0%	5.2%	5.2%	3.9%	3.9%			
Real Estate	0.0%	0.0%	0.0%	0.0%	1.1%	1.1%	7.5%	7.5%			
Cash	0.0%	--	--	--	--	--	0.1%	0.0%			
Unclassified	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	0.0%	=	0.0%	+	0.0%	+	0.0%	2.2%	2.1%	100.0%	100.0%

*Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of period portfolio. Results may differ from actual performance. Returns are net of fees.



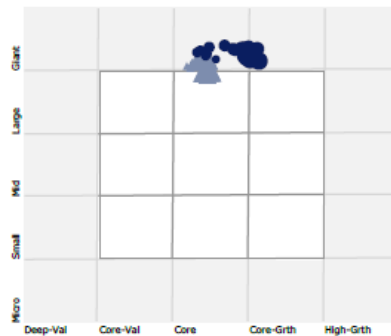
June 30, 2019

MORGAN STANLEY INTERNATIONAL EQUITY I

5.3

Holdings Based Style Trail (5 Years)

Time Period: 7/31/2014 to 6/30/2019



Portfolio Statistics

	Fund	Index
# of Holdings	59	923
% Asset in Top 10 Holdings	34.7	12.2
Turnover Ratio %	34.0	
P/E Ratio	17.6	15.4
P/B Ratio	2.3	1.5
LT Eam Growth	8.4	8.4
Hist Eam Growth	8.1	5.4
12 Mo Yield	2.3	

Market Capitalization Breakdown

	Fund	Index
Market Cap Giant %	61.0	50.0
Market Cap Large %	34.1	36.7
Market Cap Mid %	4.9	13.3
Market Cap Small %	0.0	0.0
Market Cap Micro %	0.0	0.0
Average Market Cap	52,550.6	35,266.1
Equity Region Developed %	95.7	99.2
Equity Region Emerging %	4.3	0.8

Top Ten Holdings

	Port Weight %	3 Month Return
Reckitt Benckiser Group PLC	4.59	-3.37
Unilever NV DR	4.34	5.36
SAP SE	3.59	20.38
Novartis AG	3.52	5.74
Kirin Holdings Co Ltd	3.38	-8.44
GlaxoSmithKline PLC	3.27	-2.40
RELX PLC	3.08	15.38
Pernod Ricard SA	3.02	2.72
Sanofi SA	3.02	1.73
AIA Group Ltd	2.91	9.53

Sector Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Communication Services	3.31	5.46	-5.77	4.15	0.01	-0.36	-0.35
Consumer Discretionary	2.51	11.01	0.94	6.16	-0.19	-0.13	-0.32
Consumer Staples	32.40	11.80	-2.55	2.17	-0.35	-1.61	-1.96
Energy	5.29	5.61	-3.80	0.67	0.01	-0.25	-0.25
Financials	14.57	19.09	5.39	4.65	-0.04	0.11	0.07
Health Care	15.90	11.01	2.85	1.96	-0.09	0.14	0.05
Industrials	13.10	14.57	10.80	6.07	-0.03	0.61	0.58
Information Technology	7.66	6.50	13.66	6.39	0.03	0.55	0.58
Materials	3.44	7.37	11.14	4.08	-0.01	0.26	0.25
Real Estate	0.00	3.75		-2.10	0.23	0.00	0.23
Utilities	0.00	3.78		1.66	0.08	0.00	0.08
Attribution Total	98.17	99.96	2.83	3.87	-0.35	-0.69	-1.04
Cash	1.83	0.00					
Missing Performance	0.00	0.04					
Total	100.00	100.00					

Region Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Asia - Developed	5.11	5.67	1.68	4.00	0.00	-0.12	-0.12
Asia - Emerging	4.15	0.71	-5.81	3.20	-0.02	-0.39	-0.41
Australasia	0.00	6.92		7.51	-0.25	0.00	-0.25
Canada	4.81	0.00	10.92		0.36	0.00	0.36
Europe - ex Euro	5.49	14.18	3.89	6.47	-0.22	-0.14	-0.36
Eurozone	39.84	29.65	5.39	5.91	0.23	-0.21	0.02
Japan	13.30	23.93	-1.38	0.98	0.31	-0.33	-0.03
Latin America	0.00	0.05		-3.55	0.00	0.00	0.00
Middle East	0.00	0.44		-2.28	0.03	0.00	0.03
United Kingdom	23.94	16.92	0.11	1.08	-0.21	-0.24	-0.45
United States	1.53	1.49	14.93	2.78	0.00	0.18	0.17
Attribution Total	98.17	99.96	2.83	3.87	0.21	-1.25	-1.04
Cash	1.83	0.00					
Missing Performance	0.00	0.04					
Total	100.00	100.00					



Source: Morningstar

June 30, 2019

MORGAN STANLEY INTERNATIONAL EQUITY I

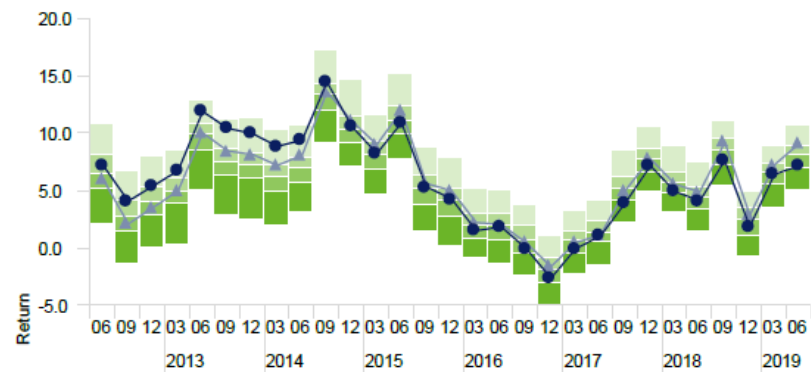
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	93.1	100.0
Alpha	-0.5	0.0
Beta	1.0	1.0
Std Dev	11.6	11.7
Up Capture Ratio	90.9	100.0
Down Capture Ratio	95.2	100.0
Sharpe Ratio (geo)	0.1	0.1
Information Ratio (geo)	-0.2	
Tracking Error	3.1	0.0
Correlation	1.0	1.0

Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Morgan Stanley Inst International Eq I

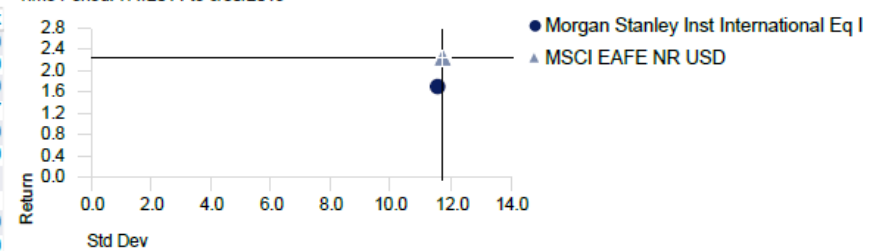
—MSCI EAFE NR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Morgan Stanley Inst International Eq I	21.6	85	6.1	87	-7.6	5	19.6	26	20.4	43	-6.1	64	0.4	30	-2.0	82	25.2	53	-13.8	37
MSCI EAFE NR USD	31.8		7.8		-12.1		17.3		22.8		-4.9		-0.8		1.0		25.0		-13.8	

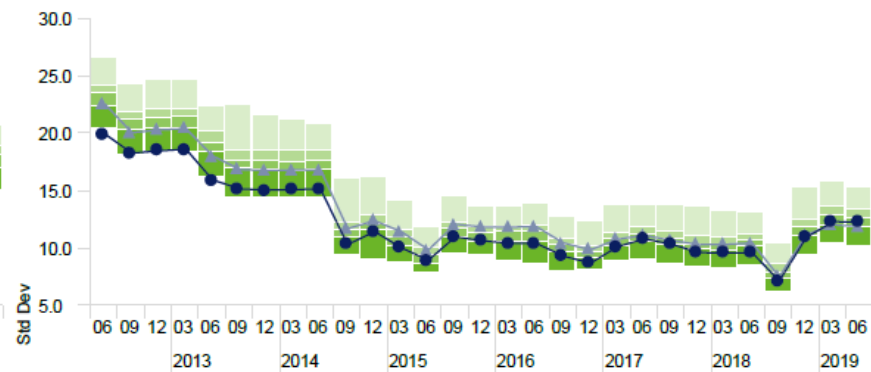
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Morgan Stanley Inst International Eq I

—MSCI EAFE NR USD

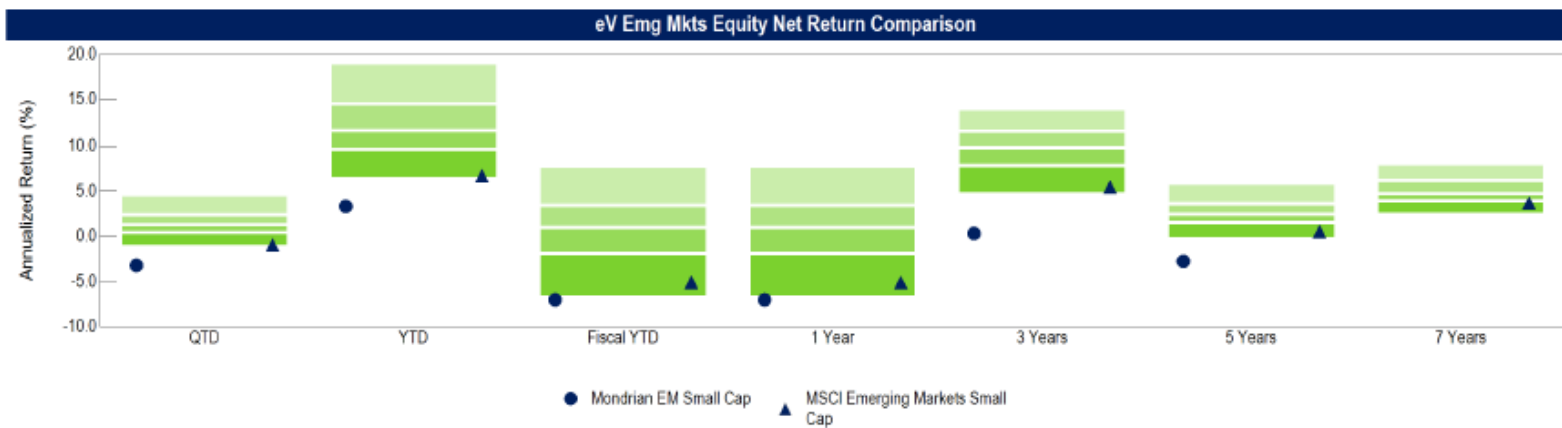


Source: Morningstar

June 30, 2019

MONDRIAN EM SMALL CAP

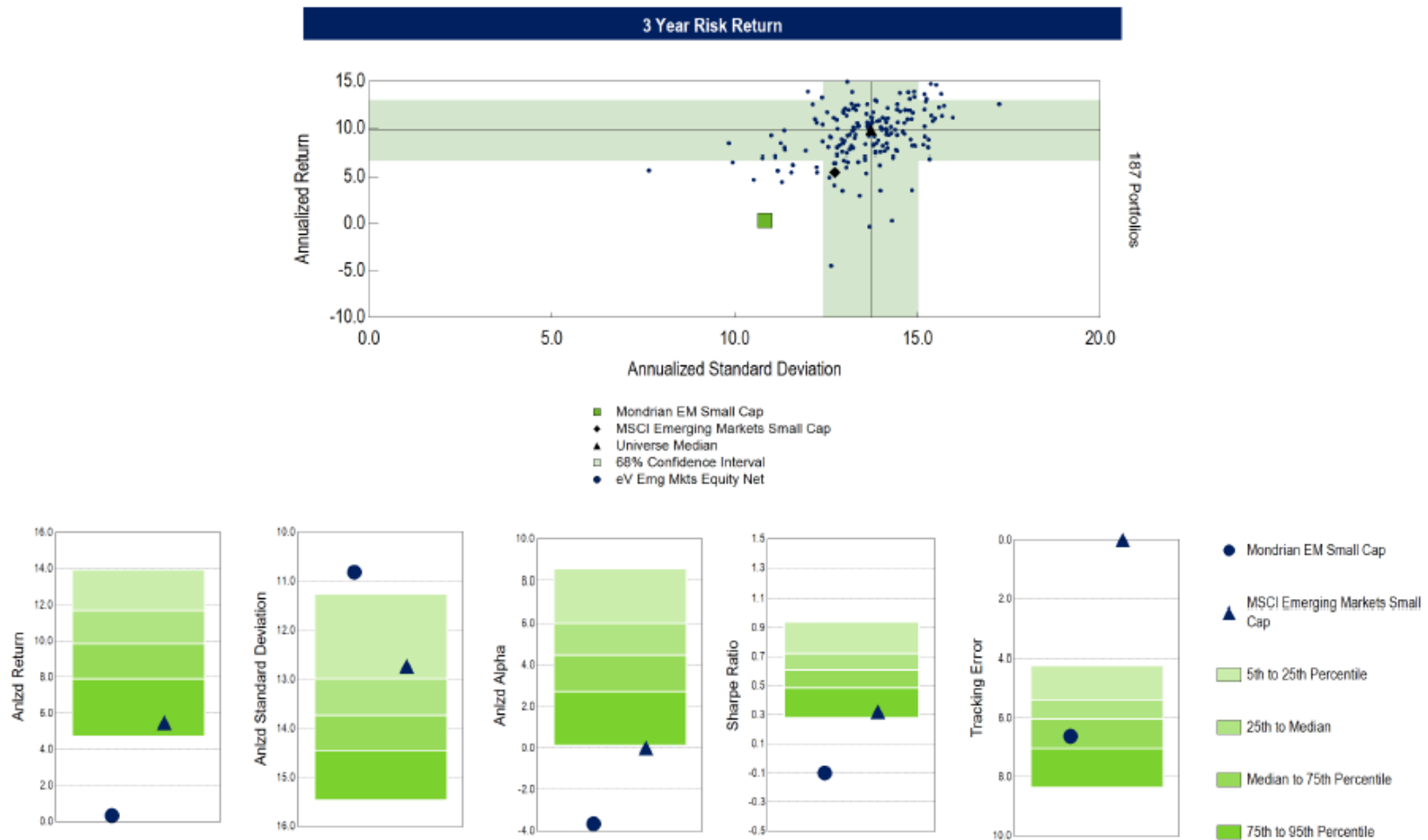
5.3



June 30, 2019

MONDRIAN EM SMALL CAP

5.3



June 30, 2019

MONDRIAN EM SMALL CAP

5.3

Characteristics		
	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	108	1,625
Weighted Avg. Market Cap. (\$B)	1.4	1.3
Median Market Cap. (\$B)	1.0	0.7
Price To Earnings	19.5	13.4
Price To Book	3.3	2.2
Price To Sales	2.3	0.8
Return on Equity (%)	18.3	12.7
Yield (%)	2.5	2.7
Beta		1.0
R-Squared		1.0

Top Positive Contributors		
	Relative Contribution %	Return %
PI INDUSTRIES	0.3%	14.1%
DUZONBIZON	0.3%	31.2%
VOLTRONIC POWER TECH.	0.2%	11.2%
ASCENDAS INDIA TRUST	0.2%	17.8%
AARTI INDUSTRIES	0.2%	13.1%
VARUN BEVERAG	0.2%	9.6%
DINO POLSKA SA	0.2%	11.2%
SYNGENE INTER	0.2%	12.6%
APOLLO HOSPS. ENTERPRISE	0.1%	11.1%
ALUPAR INVESTIMENTO UNITS	0.1%	15.2%

Top Negative Contributors		
	Relative Contribution %	Return %
KOLMAR KOREA	-0.4%	-25.4%
HAND ENTERPRISE SLTN.'A'	-0.4%	-21.3%
CLEAR MEDIA	-0.3%	-31.7%
EMAMI	-0.3%	-25.0%
COSMAX NBT	-0.3%	-37.8%
SHANGHAI PHICHEM MRA.'A'	-0.3%	-22.5%
MICROPORT SCIENTIFIC	-0.3%	-20.6%
AIRTAC INTERNATIONAL GP.	-0.2%	-13.5%
TRAVELSKY TECHNOLOGY 'H'	-0.2%	-24.0%
SINOSOFT TECHNOLOGY GP.	-0.2%	-14.1%

Equity Sector Attribution								
	Attribution Effects				Returns		Ending Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1%	-0.1%	0.0%	0.0%	-6.7%	-2.0%	1.0%	2.2%
Materials	0.2%	0.1%	0.0%	0.1%	0.4%	-1.1%	10.3%	11.9%
Industrials	0.1%	0.0%	0.0%	0.1%	-0.3%	-0.9%	14.0%	14.5%
Consumer Discretionary	-0.9%	-1.0%	0.0%	0.1%	-7.3%	-0.4%	11.6%	13.9%
Consumer Staples	-0.7%	-0.2%	-0.2%	-0.2%	-5.8%	-2.8%	13.1%	6.6%
Health Care	0.1%	0.2%	-0.3%	0.2%	-3.9%	-7.5%	13.1%	7.9%
Financials	-0.2%	-0.1%	-0.2%	0.1%	3.0%	2.1%	1.9%	10.9%
Information Technology	-0.5%	-1.0%	0.0%	0.5%	-8.9%	-2.1%	8.0%	14.6%
Communication Services	-0.2%	-0.2%	0.0%	0.0%	-6.2%	-1.7%	4.2%	4.1%
Utilities	0.0%	0.1%	0.0%	0.0%	8.3%	6.9%	3.5%	4.9%
Real Estate	-0.3%	-0.3%	0.0%	0.0%	0.4%	3.9%	6.4%	8.3%
Cash	0.0%	0.0%	0.0%	0.0%	0.6%	--	11.6%	0.0%
Unclassified	-0.1%	0.0%	-0.1%	0.0%	-5.5%	--	1.4%	0.0%
Portfolio	-2.5%	=	-2.5%	+	-3.2%	-0.7%	100.0%	100.0%



June 30, 2019

MONDRIAN EM SMALL CAP

Sector Allocation*

	Fund	MSCI EM SC
Communication Services	4.7	4.2
Consumer Discretionary	12.8	14.0
Consumer Staples	14.3	6.5
Energy	1.1	2.2
Financials	2.7	10.9
Health Care	15.5	7.8
Industrials	15.7	14.4
Information Technology	9.1	14.6
Materials	11.5	11.8
Real Estate	7.1	8.6
Utilities	3.8	5.0
Cash	1.6	-
TOTAL	100.0	100.0

Country Allocation*

	Fund	MSCI EM SC
Latin America	9.5	13.3
Brazil	3.8	8.0
Mexico	3.8	2.7
Peru	2.0	-
Europe, Middle East & Africa	11.8	13.4
Czech Republic	1.2	0.1
Estonia	1.3	-
Kuwait	1.5	-
Poland	2.5	1.1
Saudi Arabia	2.3	1.1
Slovenia	0.7	-
South Africa	0.9	5.6
UAE	0.7	0.6
United Kingdom	0.7	-
Asia	77.1	73.3
North Asia	32.8	46.1
China/Hong Kong	20.9	11.4
South Korea	4.3	15.8
Taiwan	7.6	18.9
South Asia	44.4	26.8
India	28.6	15.2
Indonesia	5.7	2.4
Malaysia	2.9	3.2
Philippines	4.7	1.0
Thailand	2.5	5.0
Cash	1.6	-
TOTAL	100.0	100.0



Source: Mondrian

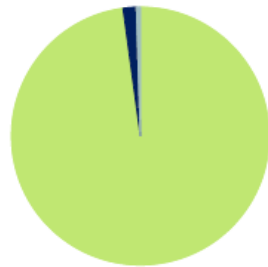
June 30, 2019

VANGUARD TOTAL BOND MARKET I

5.3

Asset Allocation

Portfolio Date: 5/31/2019



• Stock	0.0
• Bond	97.8
• Cash	1.7
• Other	0.5
Total	100.0

Fixed Income Statistics

Portfolio Date: 5/31/2019

Morningstar Fixed Income Style Box™

	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

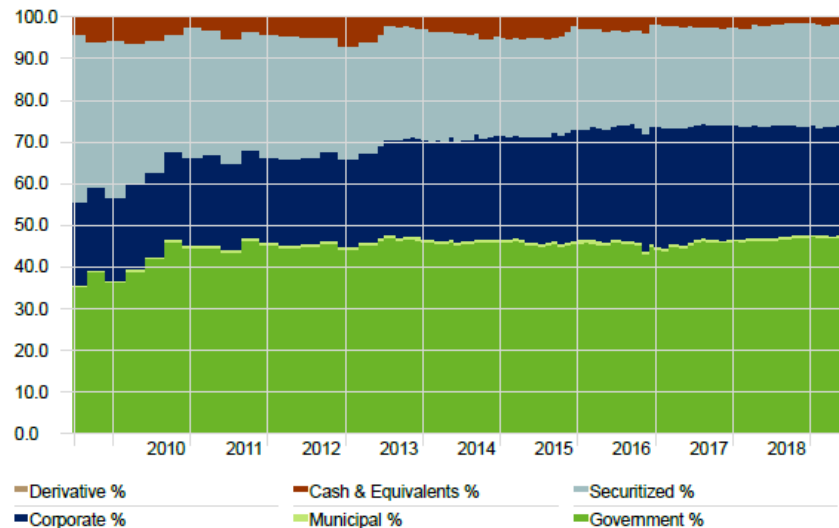
Average Eff Duration	6.0
Average Eff Maturity	8.2
Average Coupon	3.2
Average Price	104.1

Credit Quality Breakdown

Portfolio Date: 5/31/2019

	Fund	Index
AAA %	68.2	
AA %	3.53	
A %	11.10	
BBB %	17.21	
BB %	0.00	
B %	0.00	
Below B %	0.00	
Not Rated %	0.00	
Yield to Maturity	2.80	

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
Cmt Market Liquidity Rate	MUTUAL FUND - MONEY MARKET	1.66
United States Treasury Notes 2.88%	BOND - GOVT/TREASURY	0.44
United States Treasury Notes 2.12%	BOND - GOVT/TREASURY	0.43
United States Treasury Notes 2.12%	BOND - GOVT/TREASURY	0.43
United States Treasury Notes 1.75%	BOND - GOVT/TREASURY	0.41
United States Treasury Notes 3.12%	BOND - GOVT/TREASURY	0.40
United States Treasury Bonds 3%	BOND - GOVT/TREASURY	0.40
United States Treasury Notes 2.38%	BOND - GOVT/TREASURY	0.39
United States Treasury Notes 2.62%	BOND - GOVT/TREASURY	0.38
United States Treasury Notes 2.5%	BOND - GOVT/TREASURY	0.37



Source: Morningstar

June 30, 2019

VANGUARD TOTAL BOND MARKET I

5.3

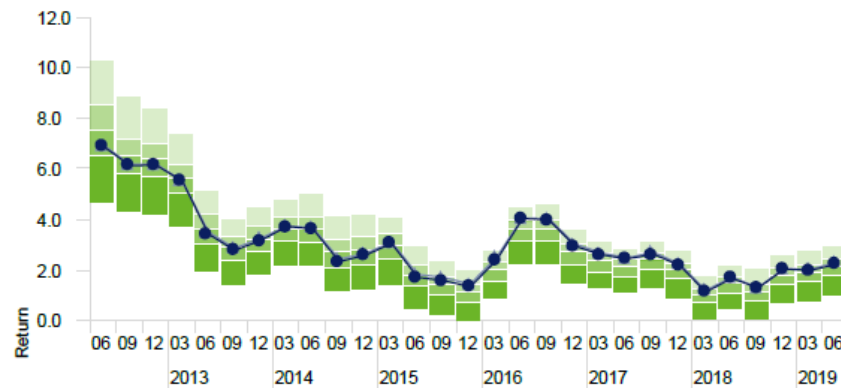
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	99.9	100.0
Alpha	-0.1	0.0
Beta	1.0	1.0
Std Dev	3.3	3.2
Up Capture Ratio	100.6	100.0
Down Capture Ratio	105.0	100.0
Sharpe Ratio (geo)	0.6	0.6
Information Ratio (geo)	-0.3	0.0
Tracking Error	0.2	0.0
Correlation	1.0	1.0

Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Total Bond Market Index I

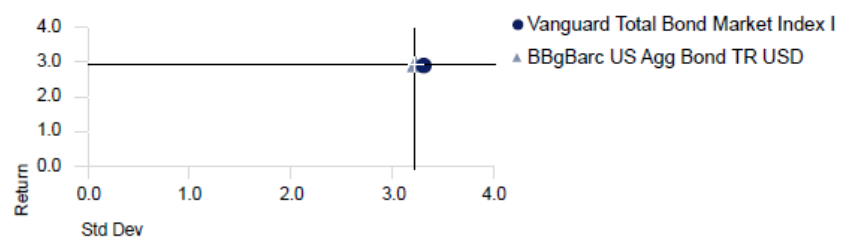
—BBgBarc US Agg Bond TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Total Bond Market Index I	6.1	89	6.6	70	7.7	11	4.2	83	-2.1	67	5.9	30	0.4	28	2.6	62	3.6	55	0.0	30
BBgBarc US Agg Bond TR USD	5.9		6.5		7.8		4.2		-2.0		6.0		0.5		2.6		3.5		0.0	

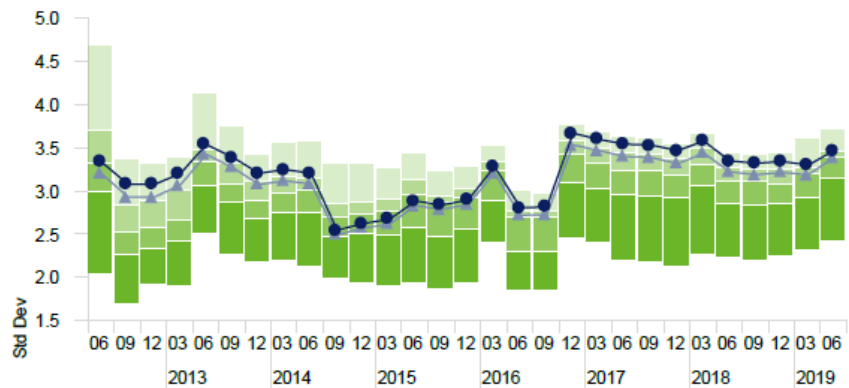
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Total Bond Market Index I

—BBgBarc US Agg Bond TR USD



Source: Morningstar

June 30, 2019

VANGUARD INFLATION PROTECTED SECURITIES

5.3

Asset Allocation

Portfolio Date: 5/31/2019



• Stock	0.0
• Bond	100.0
• Cash	0.0
• Other	0.0
Total	100.0

Fixed Income Statistics

Portfolio Date: 5/31/2019

Morningstar Fixed Income Style Box™			
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

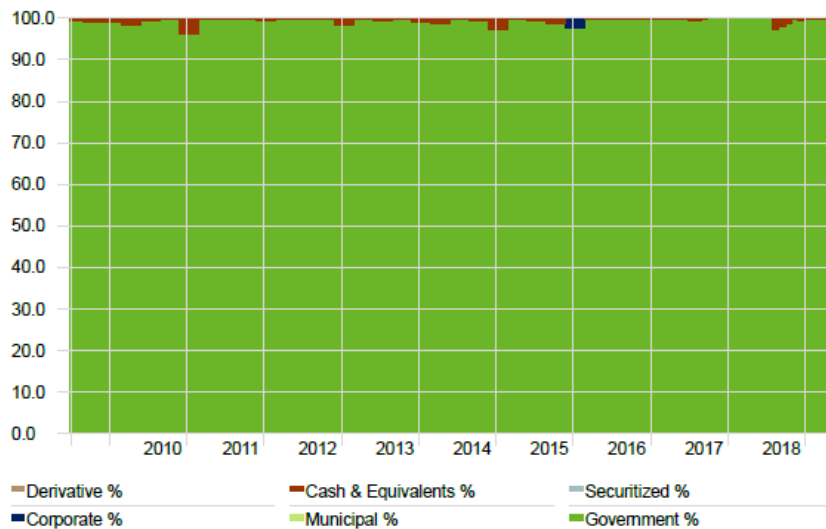
Average Eff Duration	7.6
Average Eff Maturity	8.4
Average Coupon	0.8
Average Price	104.3

Credit Quality Breakdown

Portfolio Date: 5/31/2019

	Fund	Index
AAA %	100.0	
AA %	0.00	
A %	0.00	
BBB %	0.00	
BB %	0.00	
B %	0.00	
Below B %	0.00	
Not Rated %	0.00	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.77
United States Treasury Notes 0.25%	BOND - GOV'T INFLATION PROTECTED	3.71
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.69
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.67
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.65
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.63
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.60
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.59
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.58
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.57



Source: Morningstar

June 30, 2019

VANGUARD INFLATION PROTECTED SECURITIES

5.3

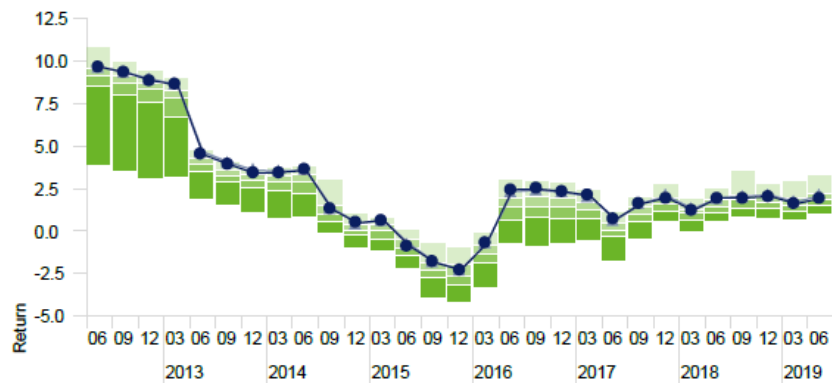
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	99.4	100.0
Alpha	-0.1	0.0
Beta	1.0	1.0
Std Dev	3.6	3.5
Up Capture Ratio	100.4	100.0
Down Capture Ratio	102.7	100.0
Sharpe Ratio (geo)	0.2	0.2
Information Ratio (geo)	-0.1	
Tracking Error	0.3	0.0
Correlation	1.0	1.0

Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Inflation-Protected Secs I

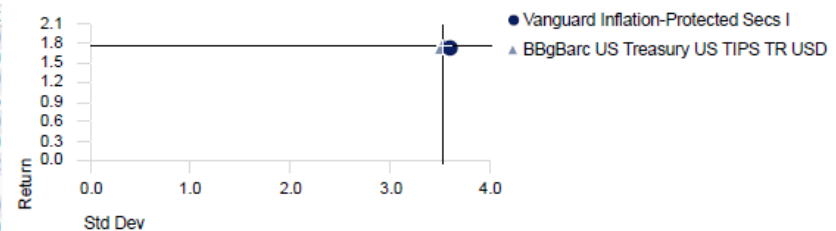
—BBgBarc US Treasury US TIPS TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Inflation-Protected Secs I	11.0	29	6.3	28	13.4	6	6.9	24	-8.8	52	4.1	5	-1.7	31	4.6	39	3.0	34	-1.4	48
BBgBarc US Treasury US TIPS TR USD	11.4		6.3		13.6		7.0		-8.6		3.6		-1.4		4.7		3.0		-1.3	

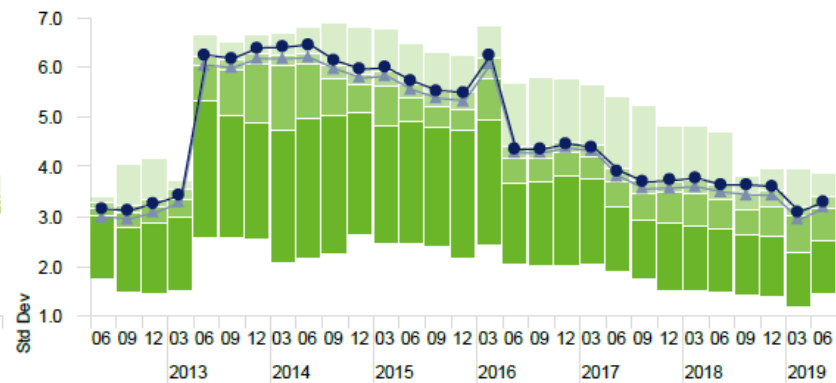
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Inflation-Protected Secs I

—BBgBarc US Treasury US TIPS TR USD



Source: Morningstar

June 30, 2019

VANGUARD SHORT-TERM TIPS

Asset Allocation

Portfolio Date: 6/30/2019



• Stock	0.0
• Bond	96.9
• Cash	3.1
• Other	0.0
Total	100.0

Fixed Income Statistics

Portfolio Date: 6/30/2019

Morningstar Fixed Income Style Box™			
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

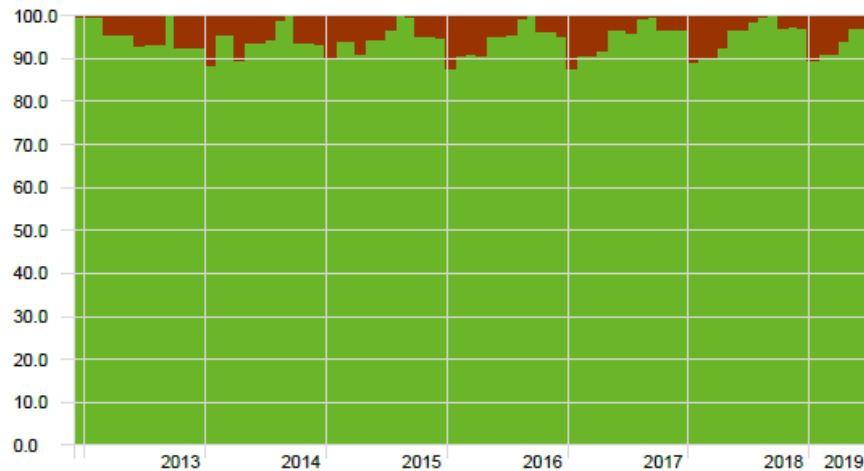
Average Eff Duration	2.6
Average Eff Maturity	2.7
Average Coupon	0.4
Average Price	100.1

Credit Quality Breakdown

Portfolio Date: 6/30/2019

	Fund	Index
AAA %	100.0	
AA %	0.00	
A %	0.00	
BBB %	0.00	
BB %	0.00	
B %	0.00	
Below B %	0.00	
Not Rated %	0.00	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Derivative %	Cash & Equivalents %	Securitized %
Corporate %	Municipal %	Government %

Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	8.95
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.86
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	7.64
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.62
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	7.59
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	7.58
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.49
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.46
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	7.29
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	6.67



June 30, 2019

VANGUARD SHORT-TERM TIPS

5.3

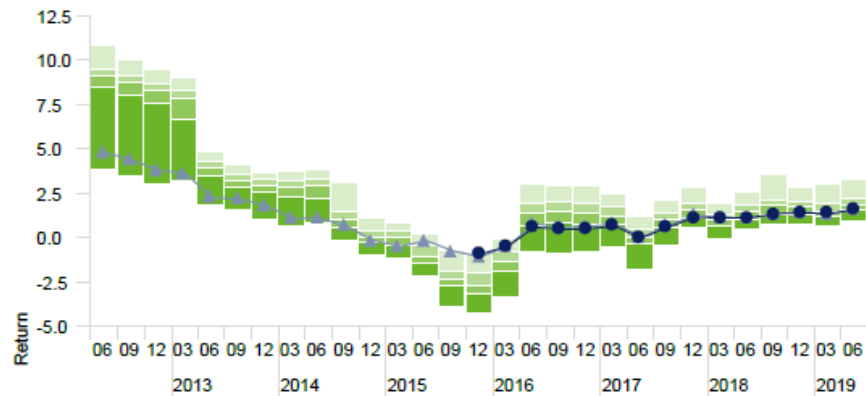
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	99.4	100.0
Alpha	0.0	0.0
Beta	0.9	1.0
Std Dev	1.8	2.0
Up Capture Ratio	92.1	100.0
Down Capture Ratio	88.3	100.0
Sharpe Ratio (geo)	0.0	0.0
Information Ratio (geo)	-0.1	0.0
Tracking Error	0.3	0.0
Correlation	1.0	1.0

Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Shrt-Term Infl-Prot Sec Idx Ins

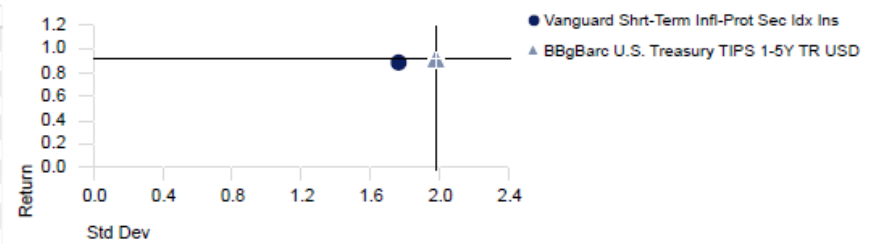
—BBgBarc U.S. Treasury TIPS 1-5Y TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Shrt-Term Infl-Prot Sec Idx Ins									-1.5	5	-1.1	88	-0.2	2	2.8	91	0.8	85	0.6	1
BBgBarc U.S. Treasury TIPS 1-5Y TR USD	11.5		3.9		4.9		2.7		-2.0		-1.1		-0.1		3.1		0.8		0.4	

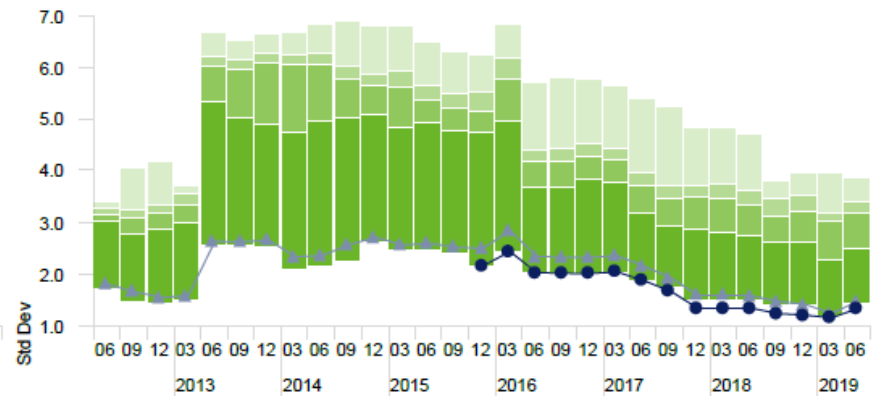
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Shrt-Term Infl-Prot Sec Idx Ins

—BBgBarc U.S. Treasury TIPS 1-5Y TR USD

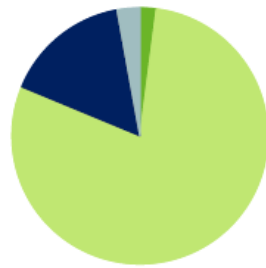


June 30, 2019

BLACKROCK STRATEGIC INCOME

Asset Allocation

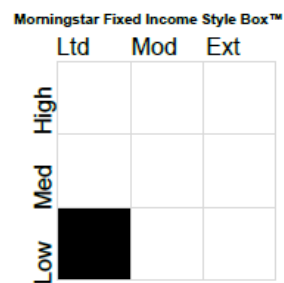
Portfolio Date: 4/30/2019



• Stock	2.0
• Bond	79.2
• Cash	15.9
• Other	2.9
Total	100.0

Fixed Income Statistics

Portfolio Date: 12/31/2018



Fixed-Income Stats

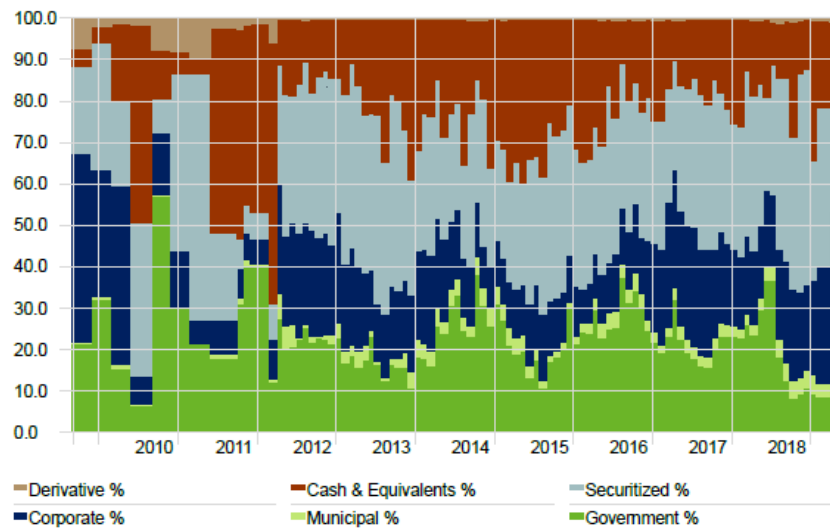
Average Eff Duration	2.7
Average Eff Maturity	6.9
Average Coupon	4.7
Average Price	101.6

Credit Quality Breakdown

Portfolio Date: 3/31/2019

	Fund	Index
AAA %	26.6	
AA %	6.27	
A %	12.69	
BBB %	20.75	
BB %	12.59	
B %	8.39	
Below B %	3.70	
Not Rated %	9.06	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	2.03
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	2.02
BlackRock Liquidity T-Fund Instl	MUTUAL FUND - MONEY MARKET	1.64
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	1.49
United States Treasury Bonds 3.38%	BOND - GOV'T/TREASURY	1.39
United States Treasury Notes 3.12%	BOND - GOV'T/TREASURY	0.98
Japan (Government Of) 0.1%	BOND - GOV'T INFLATION PROTECTED	0.98
United States Treasury Notes 2.62%	BOND - GOV'T/TREASURY	0.96
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	0.80
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	0.77



Source: Morningstar

June 30, 2019

BLACKROCK STRATEGIC INCOME

5.3

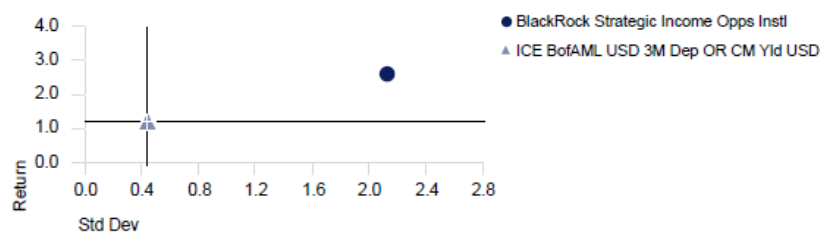
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	1.1	100.0
Alpha	2.9	0.0
Beta	-3.9	1.0
Std Dev	2.1	0.4
Up Capture Ratio	213.7	100.0
Down Capture Ratio		
Sharpe Ratio (geo)	0.8	0.7
Information Ratio (geo)	0.7	
Tracking Error	2.1	0.0
Correlation	-0.1	1.0

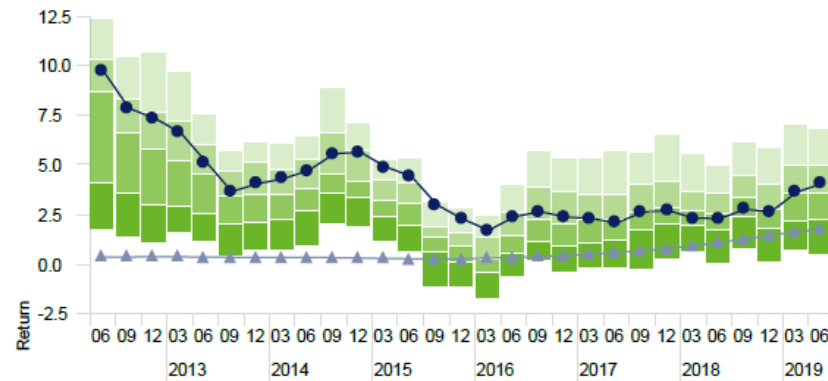
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

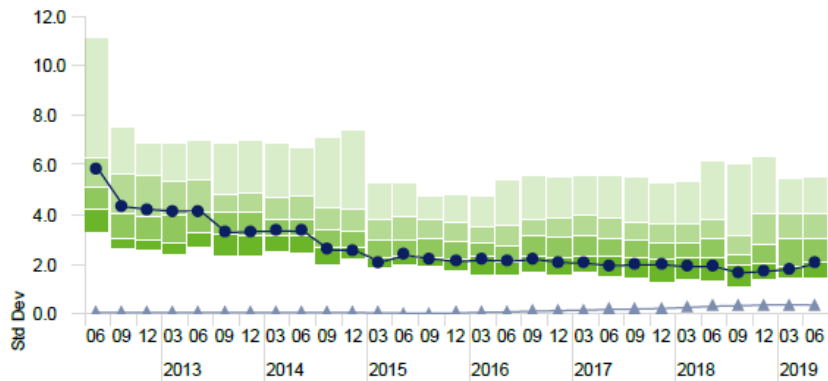


—BlackRock Strategic Income Opps Instl

—ICE BofAML USD 3M Dep OR CM Yld USD

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—BlackRock Strategic Income Opps Instl

—ICE BofAML USD 3M Dep OR CM Yld USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
BlackRock Strategic Income Opps Instl	25.2	29	13.4	1	-0.7	50	9.9	25	3.3	19	3.9	16	-0.3	32	3.6	66	4.9	39	-0.5	46
ICE BofAML USD 3M Dep OR CM Yld USD	0.7		0.3		0.3		0.4		0.3		0.2		0.3		0.8		1.3		2.4	

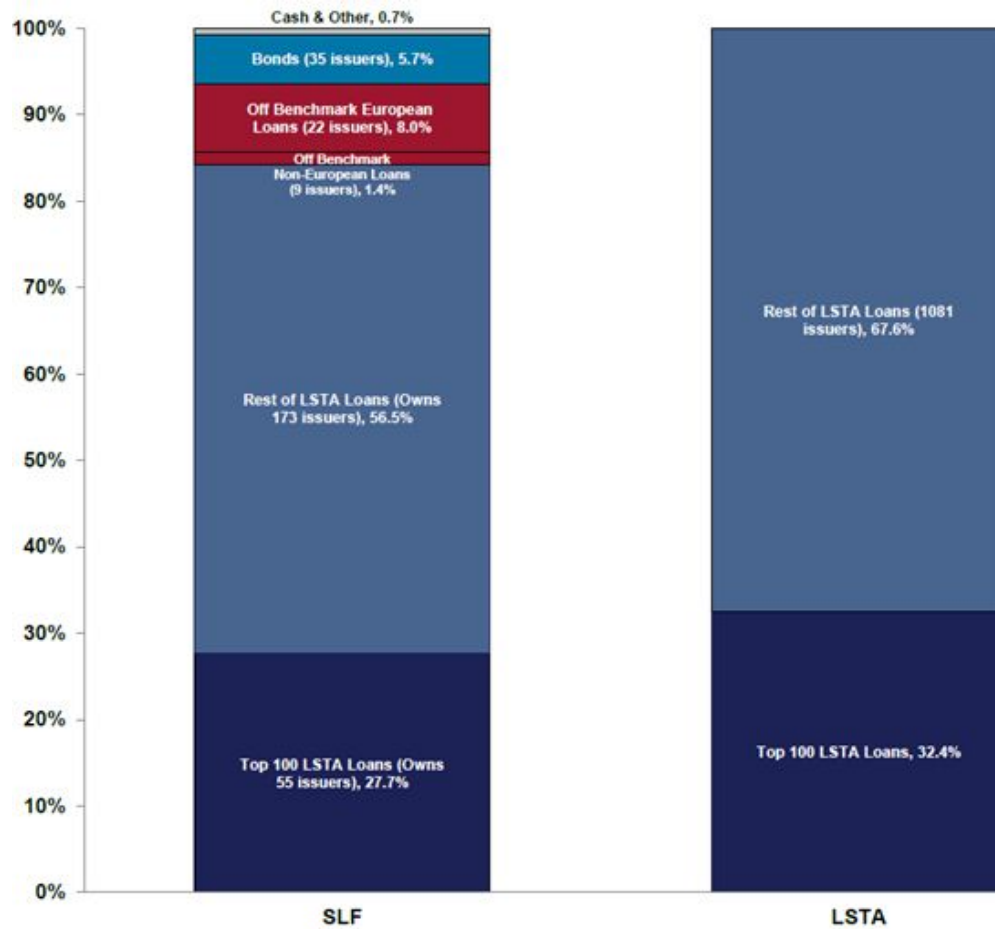


Source: Morningstar

June 30, 2019

BAIN CAPITAL SENIOR LOAN FUND

5.3



Top 5 Winners & Losers	
Winners	
Issuer	bps
Bioclinica	3
Paprec	2
Keter Group	2
MDC Partners	2
Envision Health Care	2
Rest of Winners	47
Total Winners	58
Losers	
Issuer	bps
Murray Energy	(13)
Ascena Retail Group	(4)
Algoma Steel	(4)
Ultra Petroleum Corporation	(3)
Templar Energy LLC	(3)
Rest of Losers	(30)
Total Losers	(57)

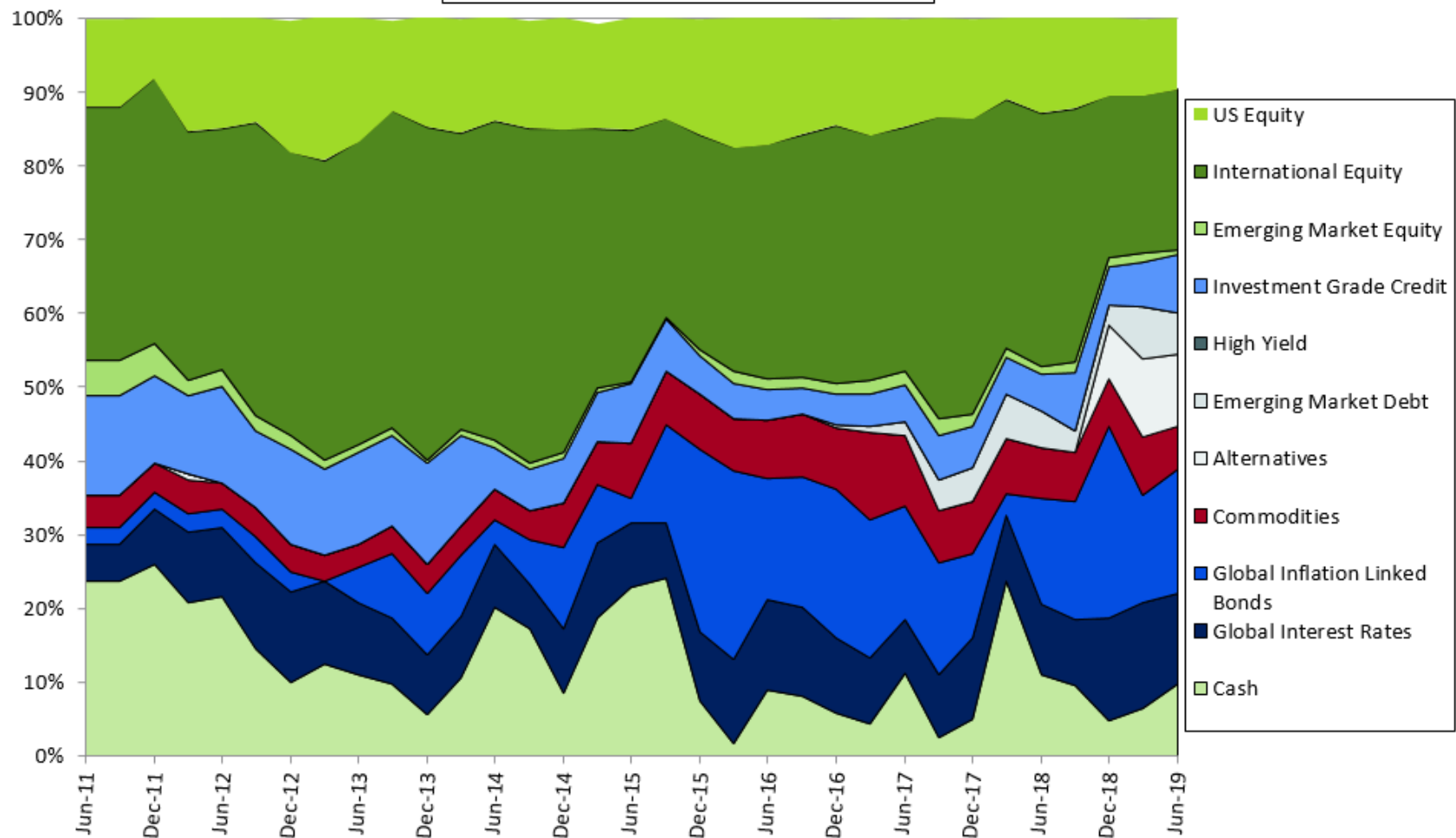


Source: Bain Capital

June 30, 2019

NEWTON GLOBAL REAL RETURN

Newton Global Real Return



Source: Newton

June 30, 2019

LIGHTHOUSE GLOBAL LONG/SHORT

General Fund Information			
Fund Name	Lighthouse Global Long/Short Fund		
Management Company	Lighthouse Investment Partners, LLC		
Location	Palm Beach, FL		
Firm AUM	\$14.2 billion	Strategy	Fund of Fund
Fund AUM	\$1.1 billion	Sub-Strategy	Long/Short Equity
Portfolio Managers	Ethan Baron	Direct or FOF	FOF

Terms	
Share Class	--
Minimum Investment	\$1 million
Management Fee	1.15%
Incentive Fee	--
Hurdle Rate	None
High Water Mark	Yes
Subscription	Monthly
Redemption	Quarterly (60 days notice) or Monthly (90 days notice)
Lock-Up	None

Investment Strategy
Lighthouse's Global Long/Short Fund is a global portfolio of 20-30 separately managed accounts with industry sector and country specialist managers. The geographical allocations are similar to the MSCI World Index (30%-75% Americas, 10%-35% Europe, 5%-35% Asia).
The Fund targets returns greater than 10% over market cycles with 6%-8% volatility and an equity beta of 0.2-0.4 to the MSCI World Index.

Strategy Information

Region Allocation & Attribution

Region	Net	Gross
Developed North America	7.0%	179.3%
Developed Europe	3.1%	58.6%
Developed Asia	1.4%	42.4%
Emerging Markets	9.3%	25.2%
Hedges / Other	2.5%	3.2%

Var ^{RI}	0.27%	0.09%	-0.02%	0.19%	0.02%
QTD ^{RI}	2.87%	0.45%	-0.70%	-0.58%	-0.15%

Sector Allocation & Attribution

Sector	Net	Gross
Communication Services	5.3%	14.3%
Consumer Discretionary	1.0%	41.0%
Consumer Staples	2.2%	14.0%
Energy	1.3%	15.7%
Financials	5.6%	61.6%
Healthcare	3.6%	47.4%
Industrials	-1.4%	41.2%
Technology	2.7%	29.5%
Materials	3.8%	17.0%
Real Estate	1.3%	17.9%
Utilities	-0.3%	5.7%
Hedges / Other	2.6%	3.4%

Var ^{RI}	0.14%	0.08%	0.02%	0.02%	0.02%	0.10%	0.06%	0.09%	0.06%	0.01%	0.01%	-0.06%
QTD ^{RI}	0.07%	-0.34%	0.37%	0.24%	0.75%	0.40%	-0.05%	0.68%	-0.01%	0.42%	-0.09%	-0.57%



For more information please see NEPC's Investment Due Diligence Report and Operational Due Diligence Report

June 30, 2019

LIGHTHOUSE GLOBAL LONG/SHORT

5.3



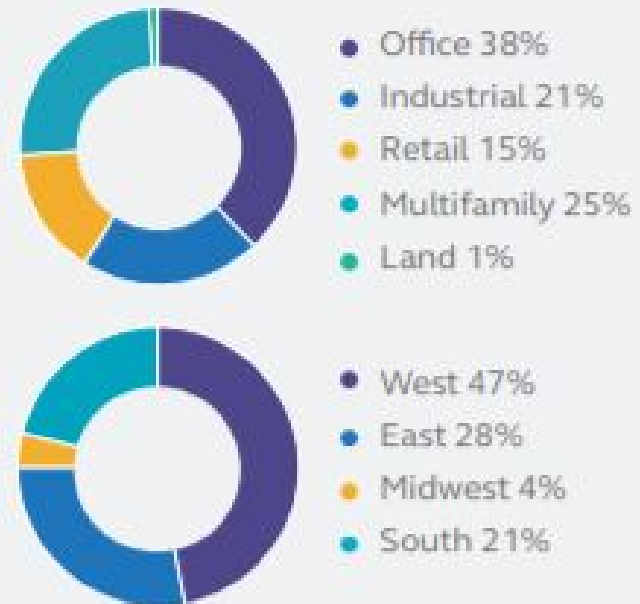
June 30, 2019

PRINCIPAL U.S. PROPERTY

2Q2019 key statistics

Inception date	January, 1982
Gross asset value	\$10.34 billion
Net asset value	\$8.24 billion
Number of investments	134
Number of markets	42
Core portfolio occupancy*	93.2%
Cash to gross assets	2.4%
Leverage ratio**	17.6%

Diversification



Source: Principal

June 30, 2019

APPENDIX

NEPC, LLC

GLOSSARY OF TERMS

Alpha - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

Alpha Jensen - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

Annualized Excess Return over Benchmark - Annualized fund return minus the annualized benchmark return for the calculated return.

Annualized Return - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

Beta - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio.

Formula:

$$\frac{(\text{Annualized Return of Portfolio} - \text{Annualized Return of Benchmark}) / \text{Annualized Standard Deviation}(\text{Period Portfolio Return} - \text{Period Benchmark Return})}{\text{To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.}}$$

R-Squared - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

Sharpe Ratio - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

Sortino Ratio - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

Formula:

$$\text{Calculation Average } (X-Y) / \text{Downside Deviation } (X-Y) * 2$$
 Where X = Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)

Standard Deviation - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

Formula:

$$(\text{Annualized Return of Portfolio} - \text{Annualized Return of Risk Free}) / \text{Annualized Standard Deviation (Portfolio Returns)}$$

Tracking Error - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Formula:

$$\text{Tracking Error} = \text{Standard Deviation } (X-Y) * \sqrt{(\# \text{ of periods per year})}$$
 Where X = periods portfolio return and Y = the period's benchmark return
 For monthly returns, the periods per year = 12
 For quarterly returns, the periods per year = 4

Treynor Ratio - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

Formula:

$$(\text{Portfolio Average Return} - \text{Average Return of Risk-Free Rate}) / \text{Portfolio Beta}$$

Up/Down Capture Ratio - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

$$\text{UpsideCapture} = \text{TotalReturn}(\text{FundReturns}) / \text{TotalReturns}(\text{BMReturn}) \text{ when Period Benchmark Return is } > = 0$$

$$\text{DownsideCapture} = \text{TotalReturn}(\text{FundReturns}) / \text{TotalReturns}(\text{BMReturn}) \text{ when Benchmark } < 0$$

Data Source: InvestorForce



INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may not be available from the source or may be preliminary and subject to change.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodial bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This report is provided as a management aid for the client's internal use only. Performance contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

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



**SECOND QUARTER 2019
SUPPLEMENTAL PERFORMANCE
UNIVERSITY OF MAINE SYSTEM
OPERATING FUND**



August 28, 2019

Jay E. Roney, Partner

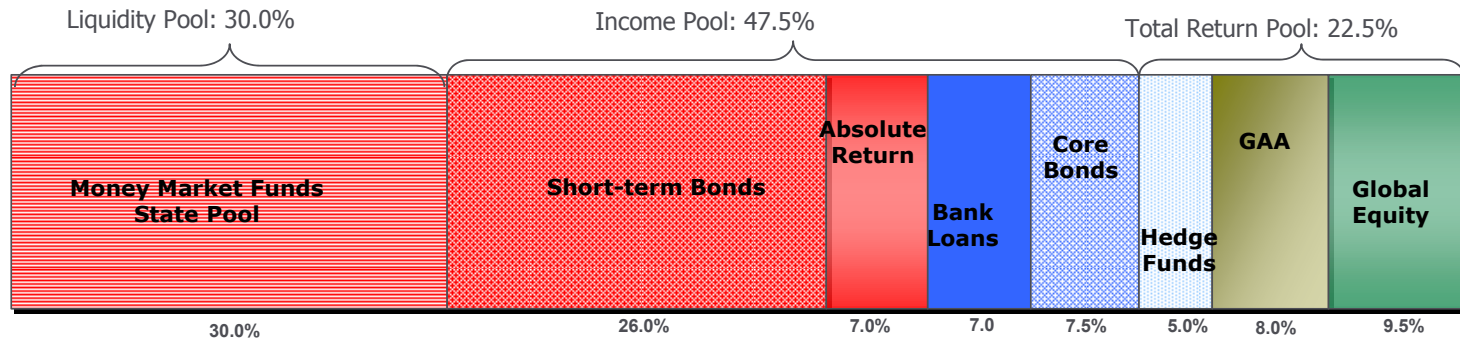
Kelly Regan, Senior Consultant



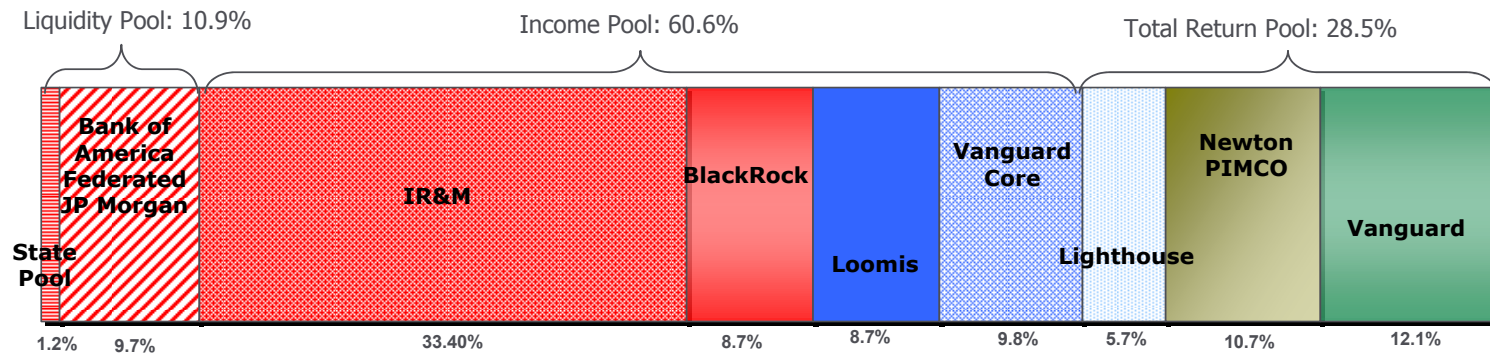
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

TOTAL FUND ASSET ALLOCATION

Target Asset Allocation



Actual Asset Allocation



*May not add up to 100% due to rounding



June 30, 2019

TOTAL PLAN PERFORMANCE DETAIL

5.4

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	Fiscal YTD (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Operating Funds Composite	256,614,428	100.0	100.0	1.9	4.6	4.1	3.3	2.1	2.7	3.0
<i>Allocation Index</i>				1.7	4.6	4.2	3.4	2.4	2.7	2.8
Liquidity Pool Composite	28,040,574	10.9	30.0	0.6	1.1	2.1	1.3	0.9	0.7	0.5
State Pool	3,019,680	1.2		0.6	1.1	2.1	1.3	0.9	0.7	0.6
BOA General Fund	6,714,085	2.6		0.3	0.5	1.1	0.4	0.3	0.2	--
Federated Gov't Obligations	6,914,417	2.7		0.6	1.2	2.1	--	--	--	--
JP Morgan US Gov't Money Market Fund	11,392,392	4.4		0.6	1.2	2.2	--	--	--	--
<i>FTSE T-Bill 3 Months TR</i>				0.6	1.2	2.3	1.4	0.8	0.6	0.5
Income Pool Composite	155,460,635	60.6	47.5	1.9	4.0	4.6	2.5	2.0	2.4	3.7
Income Research + Management	85,722,027	33.4	26.0	1.5	2.8	4.3	1.6	1.5	--	--
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>				1.5	2.7	4.3	1.6	1.5	1.3	1.6
BlackRock Strategic Income Opportunities	22,280,674	8.7	7.0	2.6	5.2	5.1	4.1	--	--	--
<i>3-Month Libor Total Return USD</i>				0.6	1.3	2.6	1.8	1.2	1.0	0.8
Loomis Sayles Bank Loans	22,379,499	8.7	7.0	1.6	5.4	3.6	4.0	3.2	3.7	4.8
<i>Loomis Bank Loans Custom Index</i>				1.8	6.2	4.1	4.3	3.7	4.5	6.2
Vanguard Total Bond Market Instl' Fund	25,078,435	9.8	7.5	3.1	6.1	7.9	2.2	2.9	2.6	--
<i>BBgBarc US Aggregate TR</i>				3.1	6.1	7.9	2.3	2.9	2.6	3.9
Total Return Pool Composite	73,113,219	28.5	22.5	3.1	10.1	4.7	7.0	3.7	5.2	6.1
Lighthouse	14,622,427	5.7	5.0	2.6	7.6	-1.3	4.8	--	--	--
<i>Credit Suisse Long Shrt Eqt USD</i>				1.2	6.7	1.1	5.5	3.4	6.1	5.7
Newton Global Real Return	14,153,321	5.5	4.0	4.2	9.0	9.7	--	--	--	--
<i>60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg</i>				3.6	12.0	6.1	7.7	4.3	6.6	7.4
PIMCO All Asset	13,365,149	5.2	4.0	2.7	8.2	5.0	6.6	2.7	4.3	6.4
<i>Blended Index</i>				3.2	7.9	7.7	4.1	3.6	3.9	5.6
Vanguard Total World Stock Index	30,972,322	12.1	9.5	3.5	16.3	5.1	11.6	6.3	--	--
<i>FTSE Global All Cap Index</i>				3.4	16.2	5.1	11.2	5.1	8.6	8.7

Returns are net of manager fees.

The inception date for the allocation index is 07/01/2009

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate / 30% BC U.S. TIPS 1-10YR / 10% S&P 500 / 10% BC High Yield / 10% JPM EMBI+

Loomis Bank Loans Custom Index blends performance of "S&P/LSTA Leveraged Loan Index" before 9/1/2014 and "S&P/LSTA Leveraged BB Loan Index" after 9/1/2014.

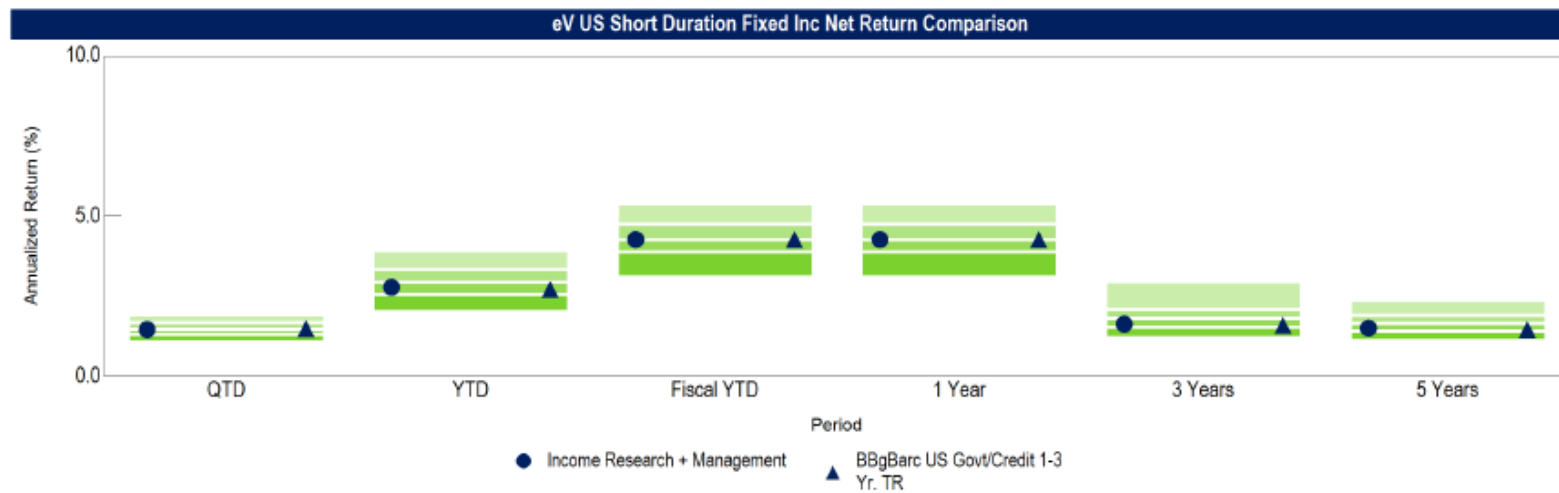
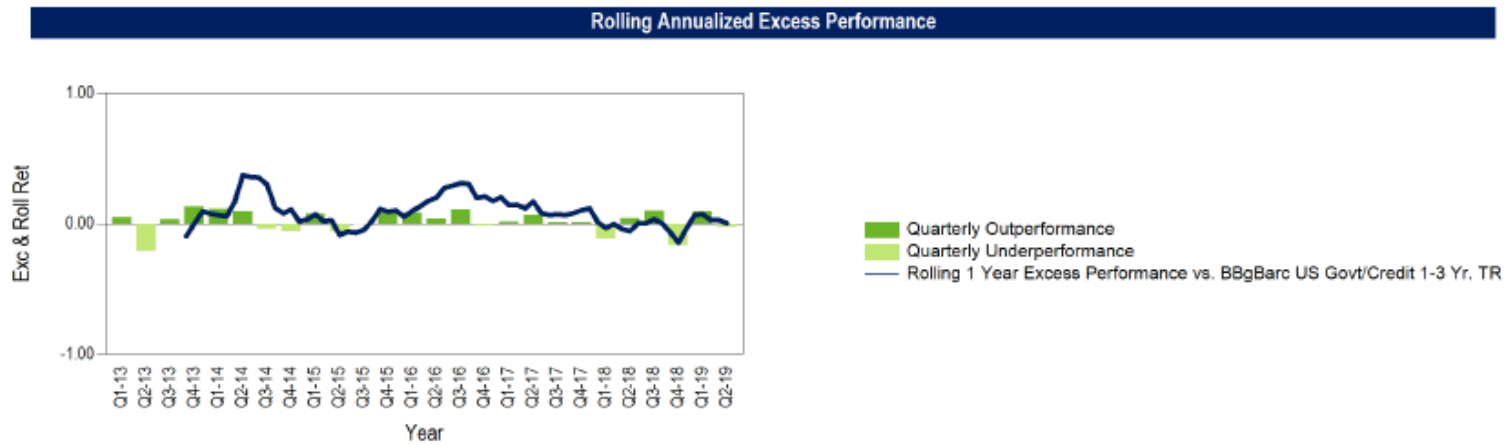
Composite excludes external loans.



June 30, 2019

INCOME RESEARCH + MANAGEMENT

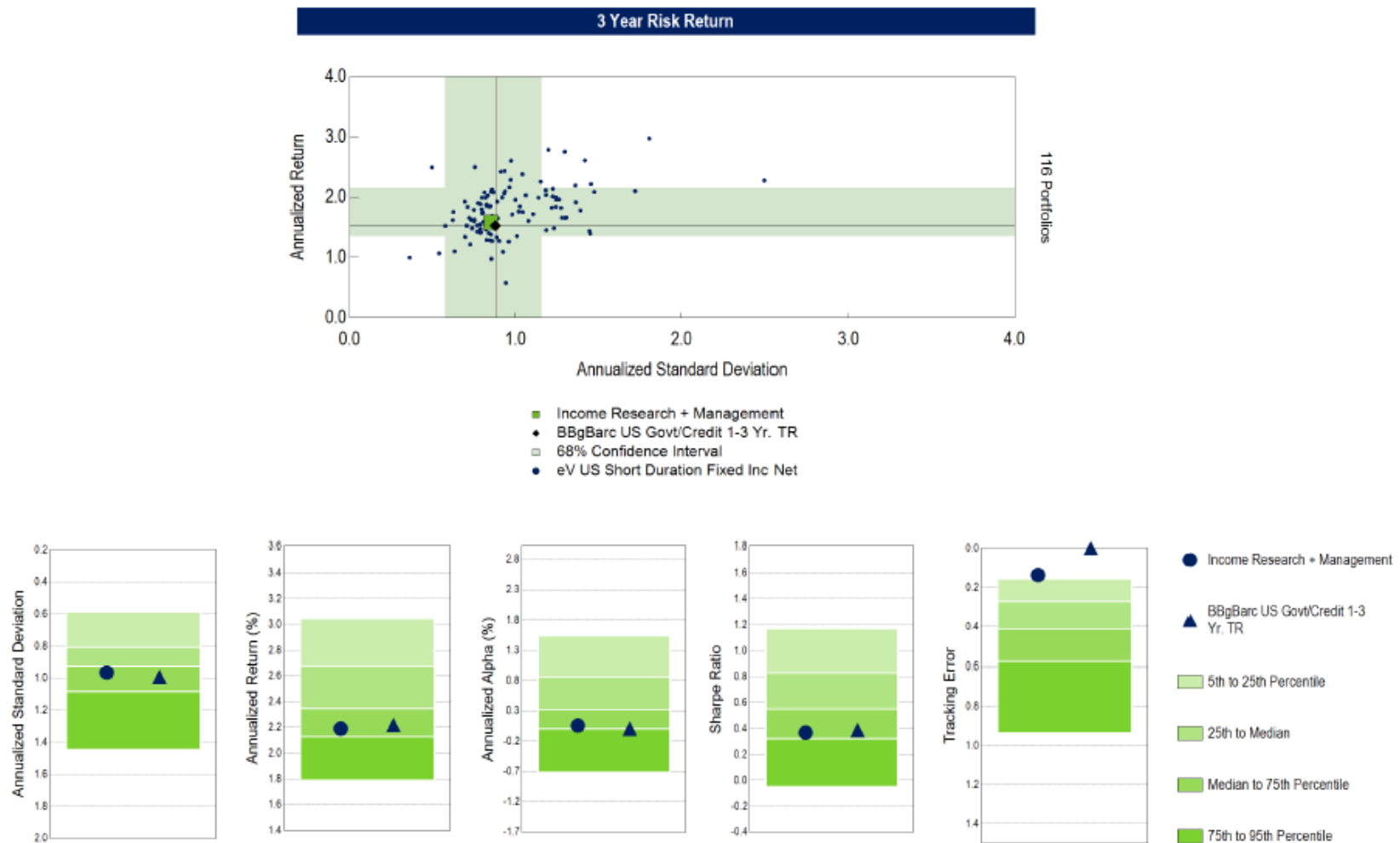
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June 30, 2019

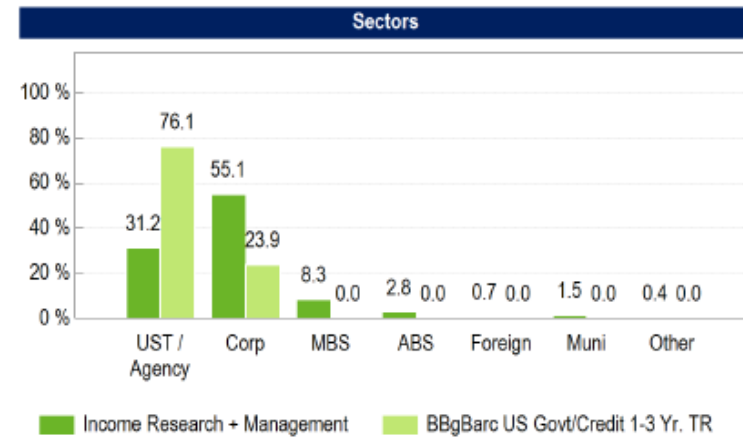
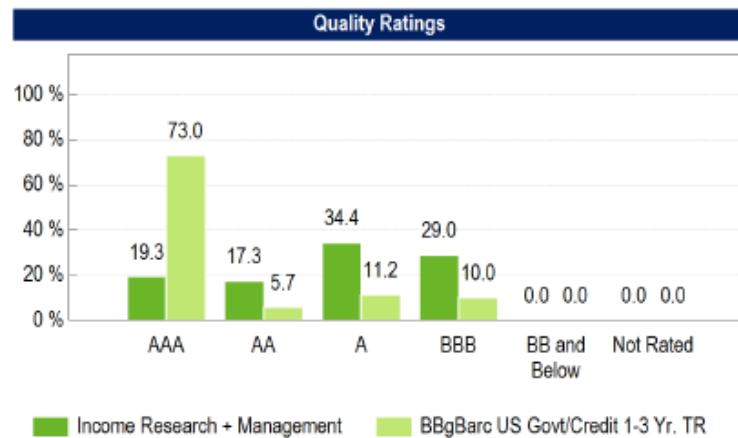
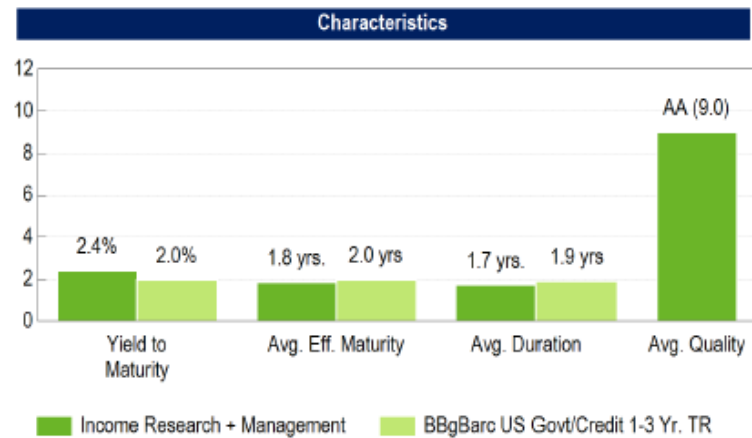
INCOME RESEARCH + MANAGEMENT

5.4



June 30, 2019

INCOME RESEARCH + MANAGEMENT

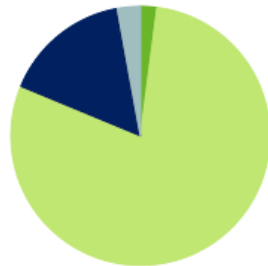


June 30, 2019

BLACKROCK STRATEGIC INCOME

Asset Allocation

Portfolio Date: 4/30/2019



Stock	2.0
Bond	79.2
Cash	15.9
Other	2.9
Total	100.0

Fixed Income Statistics

Portfolio Date: 12/31/2018

Morningstar Fixed Income Style Box™			
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

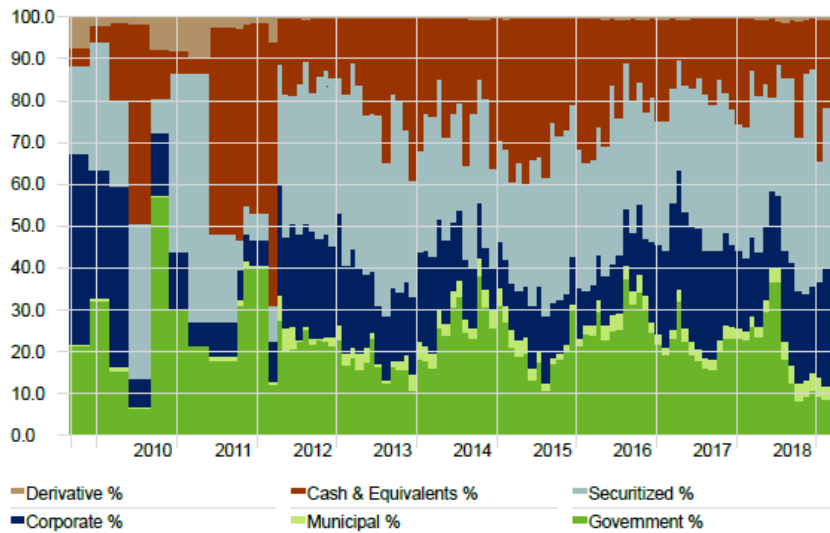
Average Eff Duration	2.7
Average Eff Maturity	6.9
Average Coupon	4.7
Average Price	101.6

Credit Quality Breakdown

Portfolio Date: 3/31/2019

	Fund	Index
AAA %	26.6	
AA %	6.27	
A %	12.69	
BBB %	20.75	
BB %	12.59	
B %	8.39	
Below B %	3.70	
Not Rated %	9.06	
Yield to Maturity		

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	2.03
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	2.02
BlackRock Liquidity T-Fund Instl	MUTUAL FUND - MONEY MARKET	1.64
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	1.49
United States Treasury Bonds 3.38%	BOND - GOV'T/TREASURY	1.39
United States Treasury Notes 3.12%	BOND - GOV'T/TREASURY	0.98
Japan (Government Of) 0.1%	BOND - GOV'T INFLATION PROTECTED	0.98
United States Treasury Notes 2.62%	BOND - GOV'T/TREASURY	0.96
Fnma Pass-Thru I 3%	BOND - GOV'T AGENCY PASS-THRU	0.80
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	0.77



Source: Morningstar

June 30, 2019

LOOMIS SAYLES BANK LOANS

5.4

HOLDINGS BY INDUSTRY (%)

Technology	9.7	Food & Beverage	2.3	Diversified Manufacturing	0.6
Consumer Cyclical Services	7.9	P&C	2.1	Metals and Mining	0.6
Healthcare	7.0	Packaging	2.0	Lodging	0.5
Building Materials	7.0	Leisure	1.9	Health Insurance	0.5
Media Entertainment	6.3	Environmental	1.8	Wirelines	0.5
Chemicals	5.0	Electric	1.6	Brokerage	0.5
Industrials - Other	4.2	Transportation Services	1.6	Midstream	0.5
Cable Satellite	3.5	REITS	1.2	Insurance	0.4
Consumer Products	3.3	Aerospace/Defense	0.9	Media - Cable	0.4
Financial Other	3.3	Refining	0.8	Construction Machinery	0.4
Retailers	3.1	Oil Field Services	0.8	Conglomerates	0.3
Restaurants	2.6	Internet & Data	0.8	Media - NonCable	0.2
Pharmaceuticals	2.6	Wireless	0.8	Energy - Integrated	0.1
Gaming	2.5	Entertainment	0.7	Cash & Equivalents	3.6
Automotive	2.5	Home Construction	0.7		

CREDIT QUALITY (%)

	Portfolio	S&P/LSTA Leveraged Loan Index
AA	-	-
A	-	-
BBB	5.8	10.5
BB	53.8	27.1
B	35.8	54.6
CCC & Lower	0.5	5.8
Not Rated	0.5	1.9
Cash & Equivalents	3.6	-
Second Lien	-	3.6
Avg. Credit Quality	BB-	B+

Reflects the credit ratings assigned by Standard & Poors. If shown, the S&P/LSTA US BB Ratings Loan Index would be rated 100% BB.

SECTOR DISTRIBUTION (%)

	Portfolio
Industrial	86.6
Financial	8.1
Utility	1.6
Cash & Equivalents	3.6

COUNTRY DISTRIBUTION (%)

	Portfolio
United States	92.6
Canada	3.2
Other	4.2

TOP FIVE HOLDINGS (%)

	Portfolio
Burger King Corporation	1.1
CommScope, Inc.	0.9
Virgin Media Bristol LLC	0.8
Nielsen Finance LLC	0.8
DTZ U.S. Borrower LLC	0.8



Source: Loomis Sayles

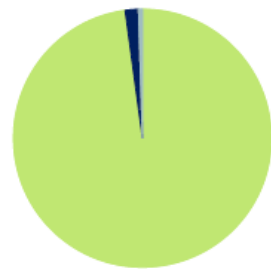
June 30, 2019

VANGUARD TOTAL BOND MARKET I

5.4

Asset Allocation

Portfolio Date: 5/31/2019



• Stock	0.0
• Bond	97.8
• Cash	1.7
• Other	0.5
Total	100.0

Fixed Income Statistics

Portfolio Date: 5/31/2019

Morningstar Fixed Income Style Box™			
	Ltd	Mod	Ext
High			
Med			
Low			

Fixed-Income Stats

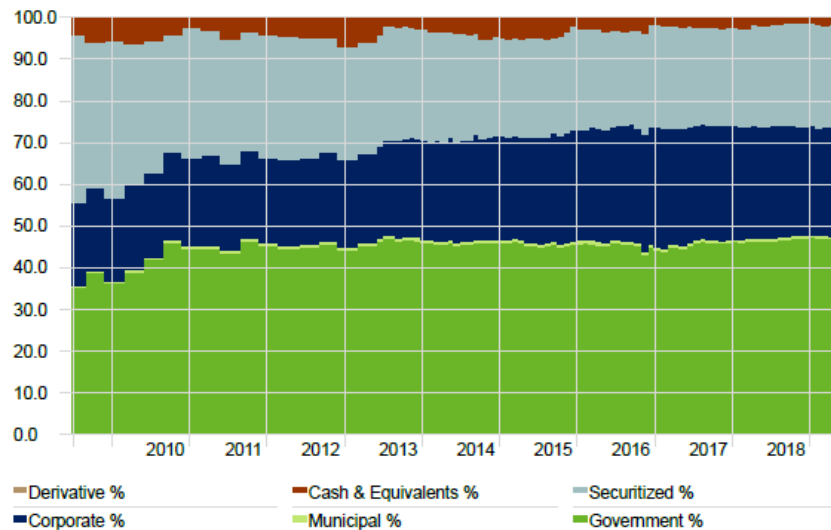
Average Eff Duration	6.0
Average Eff Maturity	8.2
Average Coupon	3.2
Average Price	104.1

Credit Quality Breakdown

Portfolio Date: 5/31/2019

	Fund	Index
AAA %	68.2	
AA %	3.53	
A %	11.10	
BBB %	17.21	
BB %	0.00	
B %	0.00	
Below B %	0.00	
Not Rated %	0.00	
Yield to Maturity	2.80	

Historical Sector Allocations (10 Years)



Top Holdings

	Detail Holding Type	Portfolio Weighting %
Cmt Market Liquidity Rate	MUTUAL FUND - MONEY MARKET	1.66
United States Treasury Notes 2.88%	BOND - GOVT/TREASURY	0.44
United States Treasury Notes 2.12%	BOND - GOVT/TREASURY	0.43
United States Treasury Notes 2.12%	BOND - GOVT/TREASURY	0.43
United States Treasury Notes 1.75%	BOND - GOVT/TREASURY	0.41
United States Treasury Notes 3.12%	BOND - GOVT/TREASURY	0.40
United States Treasury Bonds 3%	BOND - GOVT/TREASURY	0.40
United States Treasury Notes 2.38%	BOND - GOVT/TREASURY	0.39
United States Treasury Notes 2.62%	BOND - GOVT/TREASURY	0.38
United States Treasury Notes 2.5%	BOND - GOVT/TREASURY	0.37



Source: Morningstar

June 30, 2019

VANGUARD TOTAL BOND MARKET I

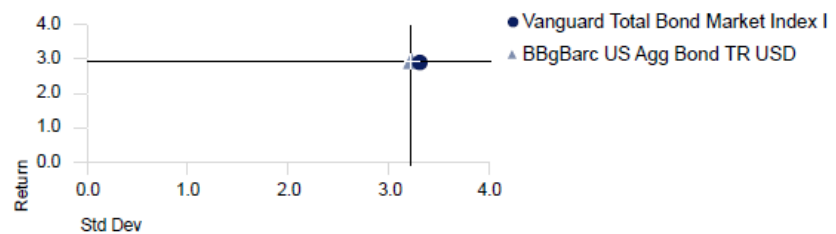
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	99.9	100.0
Alpha	-0.1	0.0
Beta	1.0	1.0
Std Dev	3.3	3.2
Up Capture Ratio	100.6	100.0
Down Capture Ratio	105.0	100.0
Sharpe Ratio (geo)	0.6	0.6
Information Ratio (geo)	-0.3	0.0
Tracking Error	0.2	0.0
Correlation	1.0	1.0

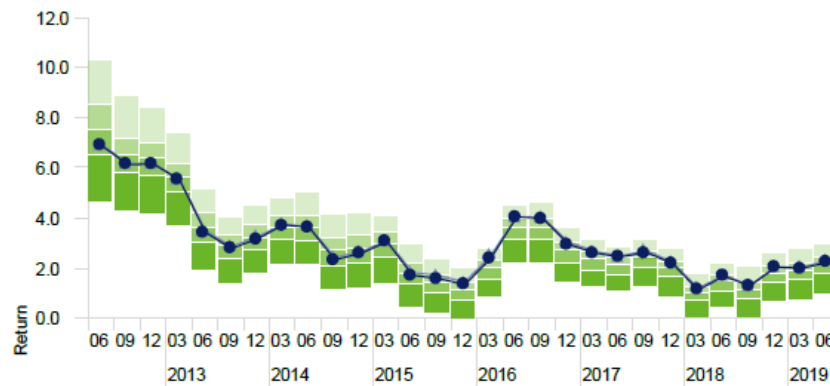
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

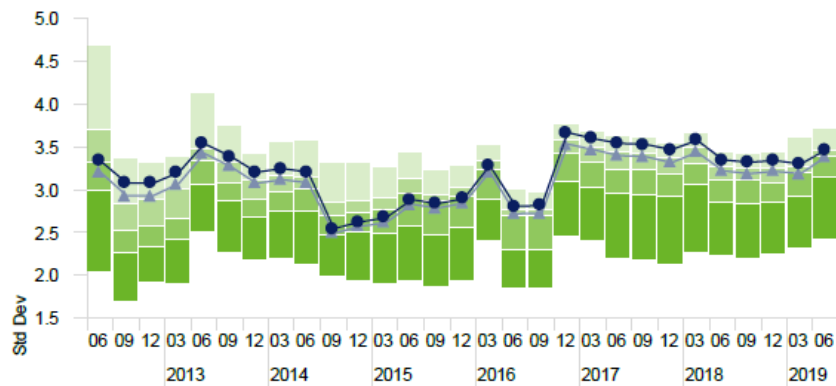


—Vanguard Total Bond Market Index I

—BBgBarc US Agg Bond TR USD

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Total Bond Market Index I

—BBgBarc US Agg Bond TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Total Bond Market Index I	6.1	89	6.6	70	7.7	11	4.2	83	-2.1	67	5.9	30	0.4	28	2.6	62	3.6	55	0.0	30
BBgBarc US Agg Bond TR USD	5.9		6.5		7.8		4.2		-2.0		6.0		0.5		2.6		3.5		0.0	



Source: Morningstar

June 30, 2019

LIGHTHOUSE GLOBAL LONG/SHORT

General Fund Information			
Fund Name	Lighthouse Global Long/Short Fund		
Management Company	Lighthouse Investment Partners, LLC		
Location	Palm Beach, FL		
Firm AUM	\$14.2 billion	Strategy	Fund of Fund
Fund AUM	\$1.1 billion	Sub-Strategy	Long/Short Equity
Portfolio Managers	Ethan Baron	Direct or FOF	FOF

Terms	
Share Class	--
Minimum Investment	\$1 million
Management Fee	1.15%
Incentive Fee	--
Hurdle Rate	None
High Water Mark	Yes
Subscription	Monthly
Redemption	Quarterly (60 days notice) or Monthly (90 days notice)
Lock-Up	None

Investment Strategy
Lighthouse's Global Long/Short Fund is a global portfolio of 20-30 separately managed accounts with industry sector and country specialist managers. The geographical allocations are similar to the MSCI World Index (30%-75% Americas, 10%-35% Europe, 5%-35% Asia).
The Fund targets returns greater than 10% over market cycles with 6%-8% volatility and an equity beta of 0.2-0.4 to the MSCI World Index.

Strategy Information

Region Allocation & Attribution

Region	Net	Gross
Developed North America	7.0%	179.3%
Developed Europe	3.1%	58.6%
Developed Asia	1.4%	42.4%
Emerging Markets	9.3%	25.2%
Hedges / Other	2.5%	3.2%

Var ^{RI}	0.27%	0.09%	-0.02%	0.19%	0.02%
QTD ^{RI}	2.87%	0.45%	-0.70%	-0.58%	-0.15%

Sector Allocation & Attribution

Sector	Net	Gross
Communication Services	5.3%	14.3%
Consumer Discretionary	1.0%	41.0%
Consumer Staples	2.2%	14.0%
Energy	1.3%	15.7%
Financials	5.6%	61.6%
Healthcare	3.6%	47.4%
Industrials	-1.4%	41.2%
Technology	2.7%	29.5%
Materials	3.8%	17.0%
Real Estate	1.3%	17.9%
Utilities	-0.3%	5.7%
Hedges / Other	2.6%	3.4%

Var ^{RI}	0.14%	0.08%	0.02%	0.02%	0.02%	0.10%	0.06%	0.09%	0.06%	0.01%	0.01%	-0.06%
QTD ^{RI}	0.07%	-0.34%	0.37%	0.24%	0.75%	0.40%	-0.05%	0.68%	-0.01%	0.42%	-0.09%	-0.57%



For more information please see NEPC's Investment Due Diligence Report and Operational Due Diligence Report

June 30, 2019

LIGHTHOUSE GLOBAL LONG/SHORT

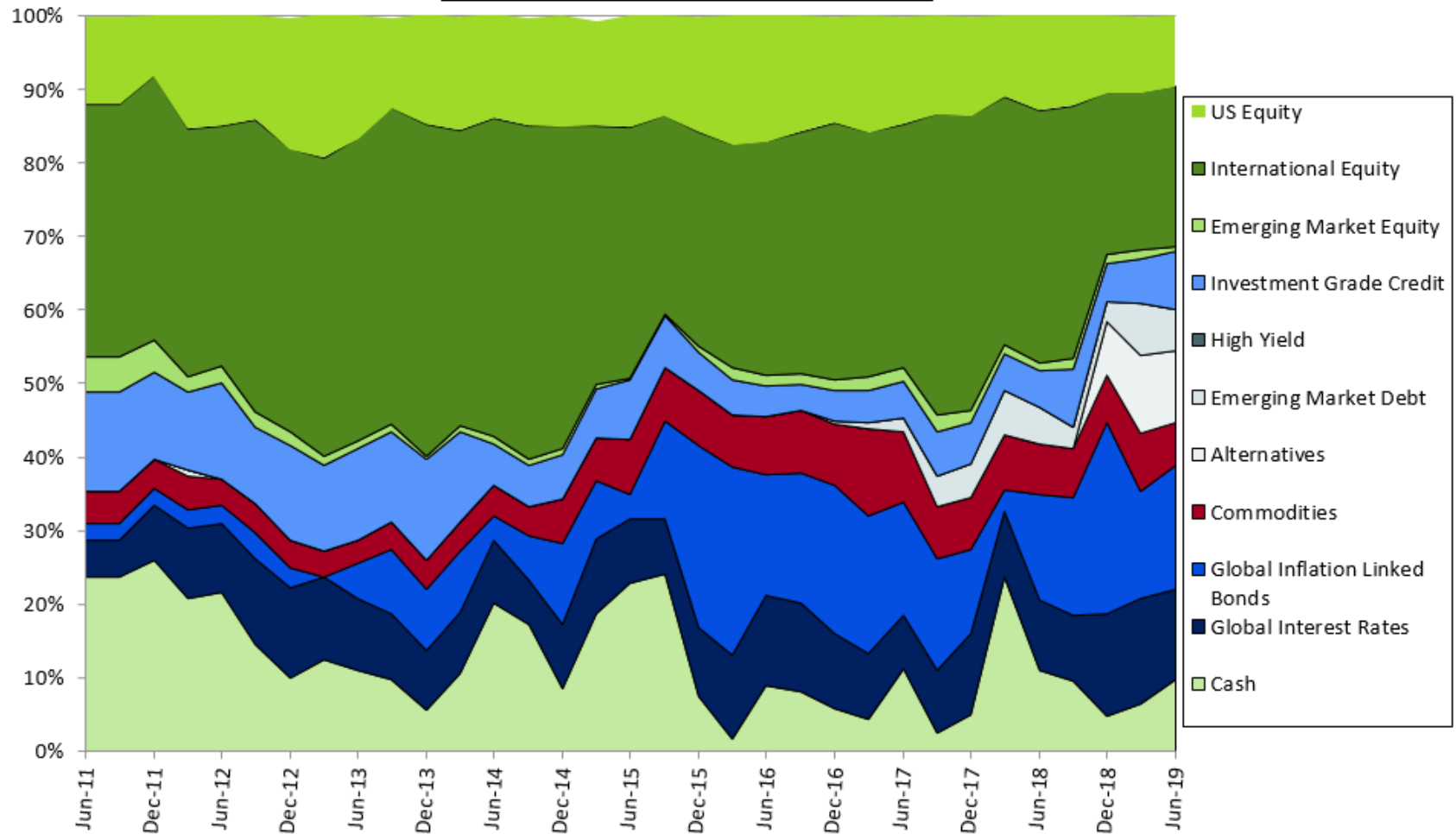
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June 30, 2019

NEWTON GLOBAL REAL RETURN

Newton Global Real Return



Source: Newton

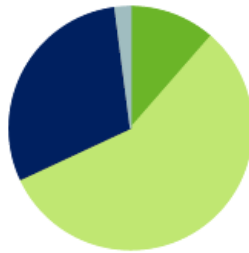
June 30, 2019

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PIMCO ALL ASSET

Asset Allocation

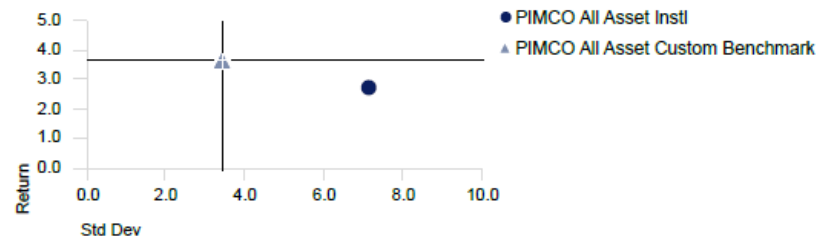
Portfolio Date: 3/31/2019



Stock	11.4
Bond	56.6
Cash	29.9
Other	2.1
Total	100.0

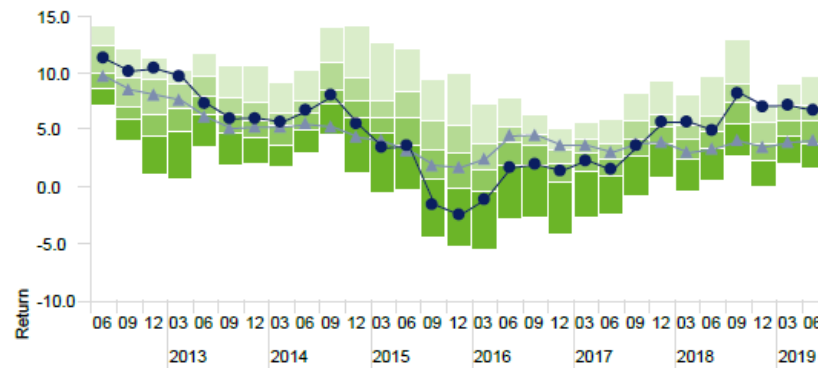
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Returns (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

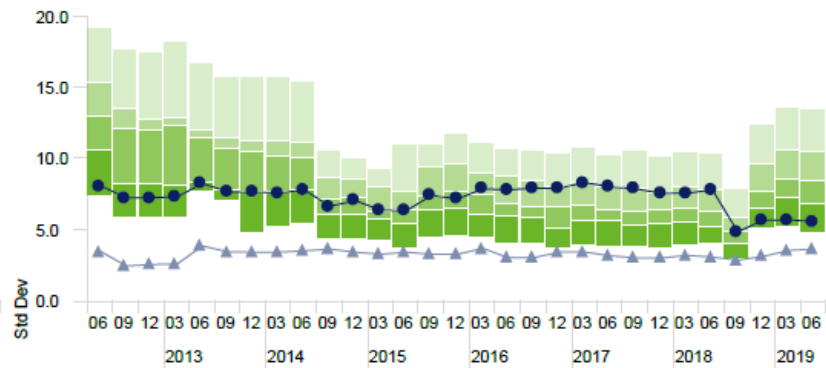


—PIMCO All Asset Instl

—PIMCO All Asset Custom Benchmark

Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—PIMCO All Asset Instl

—PIMCO All Asset Custom Benchmark

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
PIMCO All Asset Instl	23.0	58	13.7	18	2.4	13	15.4	11	0.8	82	0.8	71	-8.7	78	13.3	7	14.0	42	-5.0	22
PIMCO All Asset Custom Benchmark	16.5		8.5		7.6		8.1		0.2		4.9		0.0		6.1		5.6		-1.1	



Source: Morningstar

June 30, 2019

5.4

PIMCO ALL ASSET

Fund Name	All Asset Fund													
Total Fund Net Assets (\$US MM)	18,004.5													
	6/30/2014	12/31/2014	6/30/2015	12/31/2015	6/30/2016	12/31/2016	6/30/2017	12/31/2017	6/30/2018	12/31/2018	3/31/2019	4/30/2019	5/31/2019	6/30/2019
Third Pillar	78.71%	74.17%	85.75%	81.91%	81.04%	74.27%	70.05%	70.82%	74.15%	74.69%	79.97%	79.98%	79.12%	79.70%
Emerging Markets Equities	12.81%	11.83%	13.67%	14.11%	22.17%	18.77%	17.50%	17.76%	18.38%	22.87%	23.88%	24.03%	23.23%	24.91%
RAE Emerging Markets Fund	-	-	-	-	4.22%	4.63%	4.47%	5.33%	5.31%	6.68%	7.40%			
RAE PLUS EMG Fund	5.99%	4.12%	4.73%	4.65%	6.11%	3.39%	3.70%	6.41%	9.14%	11.95%	11.97%			
RAE Low Volatility PLUS EMG Fund	6.80%	7.70%	8.94%	9.46%	11.83%	10.74%	9.33%	5.76%	2.97%	3.30%	3.23%			
EqS Emerging Markets Fund	0.02%	0.02%	-	-	-	-	-	-	-	-	-			
RAFI Dynamic Multi-Factor EM Equity ETF	-	-	-	-	-	-	-	0.26%	0.02%	0.94%	0.97%			
Commodities and REITs	8.76%	9.89%	6.36%	5.52%	5.53%	5.25%	8.29%	10.66%	10.41%	8.48%	8.42%	8.30%	7.87%	8.06%
CommoditiesPLUS™ Strategy Fund	3.03%	3.06%	2.19%	1.68%	3.12%	3.47%	4.05%	5.38%	4.72%	3.25%	3.43%			
CommodityRealReturn Strategy Fund®	1.66%	3.97%	2.18%	1.62%	0.89%	0.53%	1.05%	1.08%	1.10%	1.21%	1.04%			
RealEstateRealReturn Strategy Fund	4.06%	2.86%	1.99%	2.23%	1.53%	1.26%	3.19%	4.20%	4.59%	4.02%	3.95%			
Emerging Markets Bonds	19.86%	18.83%	22.45%	20.83%	17.67%	19.97%	20.55%	20.11%	18.62%	17.72%	15.43%	15.61%	15.73%	15.47%
Emerging Local Bond Fund	7.42%	9.10%	9.79%	8.48%	6.94%	6.98%	6.76%	6.44%	5.70%	5.73%	4.42%			
Emerging Markets Currency and Short-Term Investments Fund	7.10%	9.05%	12.29%	11.94%	10.73%	12.99%	13.80%	13.66%	12.92%	11.99%	11.00%			
Emerging Markets Bond Fund	3.90%	0.47%	0.29%	0.32%	-	-	-	-	-	-	-			
Emerging Markets Corporate Bond Fund	1.43%	0.20%	0.07%	0.09%	-	-	-	-	-	-	-			
Credit	21.84%	14.21%	15.23%	15.32%	17.72%	17.46%	14.08%	12.40%	12.17%	8.16%	8.48%	8.23%	7.89%	7.36%
High Yield Fund	1.11%	2.64%	2.68%	2.53%	2.90%	2.35%	1.01%	0.59%	0.58%	1.03%	1.06%			
High Yield Spectrum Fund	3.69%	2.90%	3.20%	3.84%	4.67%	4.64%	2.50%	1.55%	1.59%	1.59%	1.62%			
Income Fund	10.28%	6.21%	6.01%	6.34%	7.51%	7.63%	6.62%	6.27%	7.00%	5.54%	5.80%			
Diversified Income Fund	3.21%	0.10%	0.21%	0.24%	0.57%	0.49%	0.15%	0.00%	0.00%	0.00%	0.00%			
Low Duration Income Fund	1.75%	0.06%	0.33%	0.29%	-	-	-	-	-	-	-			
Senior Floating Rate Fund	1.79%	2.30%	2.61%	2.07%	2.06%	2.34%	3.81%	3.99%	2.99%	0.00%	0.00%			
Convertible Fund	-	-	-	-	-	-	-	-	-	-	-			
European Convertible Fund	-	-	-	-	-	-	-	-	-	-	-			
Global Bonds	1.21%	0.35%	1.07%	1.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
International Bond Fund (Unhedged)	0.26%	0.30%	0.30%	0.29%	-	-	-	-	-	-	-			
Global Advantage Strategy Fund	0.95%	0.05%	0.76%	0.88%	-	-	-	-	-	-	-			
Global Bond Opportunities Fund (Unhedged)	-	-	-	-	-	-	-	-	-	-	-			
Inflation Linked Bonds	0.90%	2.73%	7.88%	7.90%	3.21%	3.85%	3.97%	3.76%	2.61%	1.93%	7.33%	7.26%	7.46%	6.73%
Real Return Fund	0.29%	1.38%	1.20%	0.81%	0.18%	3.19%	3.53%	3.32%	2.16%	1.49%	1.26%			
Long-Term Real Return Fund	0.53%	1.27%	6.50%	6.99%	2.91%	0.54%	0.44%	0.43%	0.44%	0.44%	6.07%			
Global Advantage® Inflation-Linked Bond ETF	0.08%	0.08%	0.08%	0.10%	0.12%	0.12%	-	-	-	-	-			
Alternative Strategies	13.34%	16.33%	19.09%	17.05%	14.74%	8.98%	8.65%	6.15%	12.00%	15.54%	16.74%	16.55%	16.94%	17.16%
Dynamic Bond Fund	2.53%	1.79%	2.44%	2.08%	1.96%	-	-	-	-	1.58%	1.53%			
Credit Opportunities Bond Fund	2.78%	0.76%	0.44%	0.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
Mortgage Opportunities and Bond Fund	0.55%	0.61%	0.66%	0.74%	0.78%	0.74%	0.72%	0.69%	0.71%	0.74%	0.71%			
TRENDS Managed Futures Strategy Fund	0.16%	0.19%	0.20%	0.26%	0.29%	0.30%	0.28%	0.29%	0.29%	1.08%	1.02%			
EqS Long/Short Fund	0.47%	0.49%	0.25%	-	-	-	-	-	-	-	-			
RAE Worldwide Long/Short PLUS Fund	-	3.08%	7.49%	7.96%	7.28%	5.73%	3.08%	3.03%	5.15%	6.25%	6.76%			
RAE Fundamental Advantage PLUS Fund	2.62%	4.84%	3.75%	2.62%	2.20%	1.06%	1.59%	2.14%	5.85%	5.88%	6.72%			
RAE Worldwide Fundamental Adv PLUS Fund	4.24%	4.57%	3.66%	3.16%	2.23%	1.15%	-	-	-	-	-			

Source: PIMCO



June 30, 2019

PIMCO ALL ASSET

	6/30/2014	12/31/2014	6/30/2015	12/31/2015	6/30/2016	12/31/2016	6/30/2017	12/31/2017	6/30/2018	12/31/2018	3/31/2019	4/30/2019	5/31/2019	6/30/2019
Second Pillar	9.06%	13.80%	6.16%	10.78%	10.63%	14.67%	20.07%	19.88%	19.91%	19.63%	13.93%	13.84%	14.82%	13.84%
US Core Bonds	3.10%	4.58%	3.17%	3.66%	6.28%	4.68%	7.71%	7.21%	6.46%	4.17%	4.55%	4.39%	4.53%	4.16%
Total Return Fund	3.07%	2.25%	1.38%	1.60%	3.41%	1.82%	4.44%	4.90%	4.25%	2.07%	2.48%			
Investment Grade Credit Bond Fund	0.02%	2.34%	1.78%	2.01%	2.87%	2.76%	3.26%	2.30%	2.21%	2.09%	2.07%			
Mortgage-Backed Securities Fund	-	-	-	-	-	-	-	-	-	-	-			
GNMA and Government Securities Fund	-	-	-	-	-	-	-	-	-	-	-			
US Long Maturity Bonds	4.82%	7.70%	1.52%	2.31%	2.55%	5.30%	8.63%	8.70%	8.22%	9.56%	5.11%	5.20%	6.46%	6.33%
Extended Duration Fund	-	-	-	-	0.42%	1.51%	2.91%	3.13%	3.52%	4.61%	2.83%			
Long-Term US Government Fund	0.27%	3.91%	0.00%	0.00%	1.18%	2.41%	4.42%	4.29%	3.45%	3.64%	0.97%			
Long-Term Credit Bond Fund	4.20%	1.93%	0.57%	0.88%	0.27%	0.17%	-	-	-	-	-			
Long Duration Total Return Fund	0.35%	1.86%	0.95%	1.42%	0.68%	1.20%	1.30%	1.28%	1.26%	1.31%	1.31%			
Short-Term Bonds	1.13%	1.52%	1.46%	4.81%	1.60%	4.69%	3.73%	3.97%	5.23%	5.91%	4.27%	4.25%	3.84%	3.55%
Low Duration Fund	0.94%	0.53%	0.87%	1.54%	1.26%	2.44%	3.37%	3.34%	4.89%	5.33%	3.93%			
Low Duration Exchange Traded Fund	0.20%	0.22%	0.24%	0.19%	-	-	-	-	-	-	-			
Short Term Fund	0.00%	0.00%	-	-	-	-	-	-	-	-	-			
Government Money Market Fund	-	0.80%	0.35%	-	0.54%	2.26%	0.37%	0.63%	0.34%	0.56%	0.34%			
Money Market Fund	-	-	-	3.13%	-	-	-	-	-	-	-			
Net Short Duration Instruments	-0.01%	-0.02%	-0.01%	-0.04%	0.00%	-0.01%	-0.01%	0.00%	0.00%	0.01%	0.00%			
First Pillar	12.24%	12.03%	8.10%	7.32%	8.33%	11.06%	9.88%	9.30%	5.95%	5.68%	6.10%	6.19%	6.06%	6.46%
US Equities	1.12%	4.03%	2.38%	1.53%	0.55%	0.25%	0.25%	0.27%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%
RAE PLUS Fund	0.03%	0.55%	0.21%	-	-	-	-	-	-	-	-			
RAE Low Volatility PLUS Fund	0.41%	2.70%	1.74%	1.21%	0.55%	0.25%	0.25%	0.27%	0.28%	-	-			
RAE PLUS Small Fund	0.65%	0.74%	0.43%	0.32%	-	-	-	-	-	-	-			
StocksPLUS® Small Fund	0.02%	0.02%	-	-	-	-	-	-	-	-	-			
Fundamental IndexPLUS™	-	0.00%	-	-	-	-	-	-	-	-	-			
StocksPLUS® Fund	0.00%	0.00%	-	-	-	-	-	-	-	-	-			
StocksPLUS® Absolute Return Fund	0.01%	0.01%	-	-	-	-	-	-	-	-	-			
Developed ex-US Equities	11.12%	8.00%	6.73%	5.79%	7.78%	10.81%	9.62%	9.03%	5.67%	5.65%	6.10%	6.19%	6.06%	6.46%
RAE PLUS International Fund	3.16%	3.01%	1.60%	1.51%	1.56%	2.51%	3.45%	3.43%	0.50%	0.91%	0.96%			
RAE Low Volatility PLUS Intl Fund	5.73%	3.79%	4.13%	4.24%	3.35%	5.31%	2.50%	1.80%	1.83%	1.73%	1.92%			
StocksPLUS® International Fund (USD-Hedged)	0.01%	0.01%	-	0.05%	2.58%	2.83%	2.94%	3.02%	3.08%	3.04%	3.21%			
StocksPLUS® International Fund (Unhedged)	0.02%	0.02%	-	-	0.29%	0.16%	0.73%	0.77%	0.26%	-	-			
EqS Global Dividend Fund	0.01%	0.01%	-	-	-	-	-	-	-	-	-			
EqS Pathfinder Fund	2.19%	1.16%	-	-	-	-	-	-	-	-	-			

Source: PIMCO

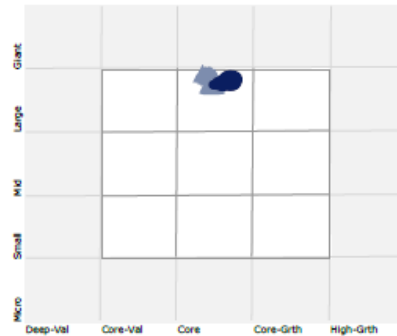


June 30, 2019

VANGUARD TOTAL WORLD STOCK INDEX I

Holdings Based Style Trail (5 Years)

Time Period: 7/31/2014 to 6/30/2019



• Vanguard Total World Stock Index I • FTSE Global All Cap ex US TR USD

Portfolio Statistics

	Fund	Index
# of Holdings	7,966	7,080
% Asset in Top 10 Holdings	9.7	8.4
Turnover Ratio %	9.0	
P/E Ratio	16.1	14.5
P/B Ratio	2.0	1.5
LT Earn Growth	10.1	9.5
Hist Earn Growth	10.0	6.6
12 Mo Yield	2.2	

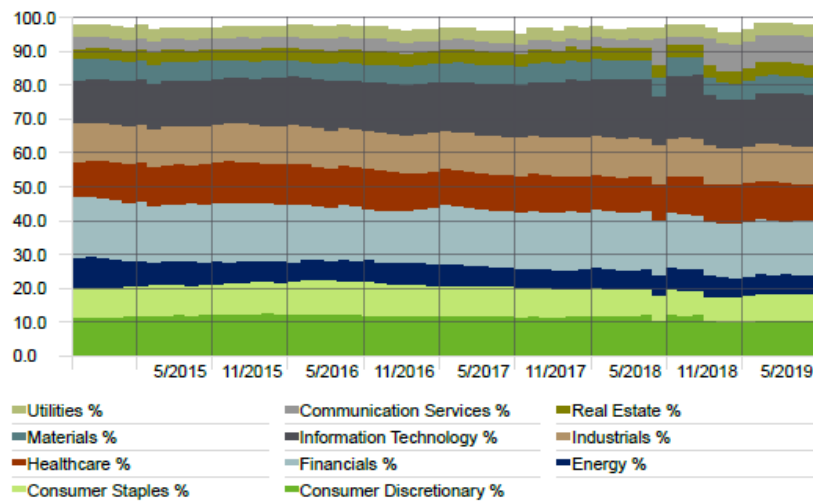
Market Capitalization Breakdown

	Fund	Index
Market Cap Giant %	45.9	44.0
Market Cap Large %	30.3	31.1
Market Cap Mid %	18.3	19.0
Market Cap Small %	5.0	5.2
Market Cap Micro %	0.6	0.7
Average Market Cap (mil)	39,331.7	21,901.9

Top 10 Holdings

	Portf Weight %	3 Month Ret %
Microsoft Corp	1.87	13.97
Apple Inc	1.66	4.60
Amazon.com Inc	1.45	6.34
Facebook Inc A	0.84	15.78
Johnson & Johnson	0.70	0.31
JPMorgan Chase & Co	0.70	11.23
Alphabet Inc Class C	0.67	-7.88
Alphabet Inc A	0.66	-7.99
Exxon Mobil Corp	0.60	-4.08
Nestle SA	0.60	11.32

Historical Sector Allocations (5 Years)



Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Communication Services	8.07		3.25				
Consumer Discretionary	10.67		4.04				
Consumer Staples	7.76		2.60				
Energy	5.65		-1.72				
Financials	16.01		5.66				
Health Care	11.00		1.31				
Industrials	11.10		4.67				
Information Technology	15.47		5.35				
Materials	5.02		3.52				
Real Estate	3.95		0.67				
Utilities	3.23		3.09				
Unclassified	0.00		0.52				
Attribution Total	97.92		3.54				
Cash	1.02						
Bond	0.04						
Other	0.13						
Total	100.00						
Expense Ratio			0.02				
Residual(Reported - Attribution + Expense)			0.01				



Source: Morningstar

June 30, 2019

VANGUARD TOTAL WORLD STOCK INDEX I

5.4

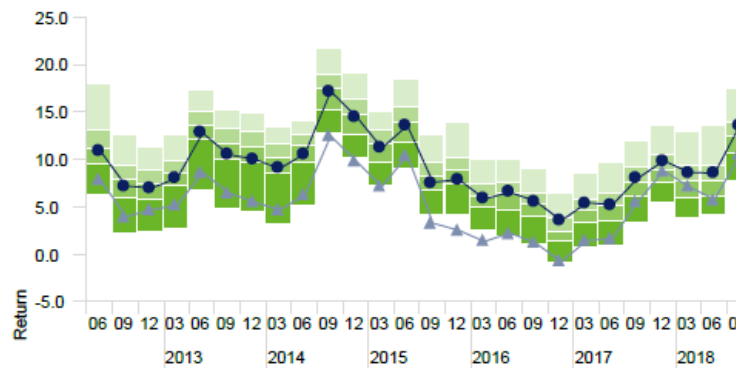
Risk & Return Characteristics (5 Years)

Time Period: 7/1/2014 to 6/30/2019

	Fund	Index
R2	91.1	100.0
Alpha	3.7	0.0
Beta	0.9	1.0
Std Dev	11.1	11.9
Up Capture Ratio	101.8	100.0
Down Capture Ratio	58.8	100.0
Sharpe Ratio (geo)	0.5	0.1
Information Ratio (geo)	1.0	
Tracking Error	3.6	0.0
Correlation	1.0	1.0

Rolling Return (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile

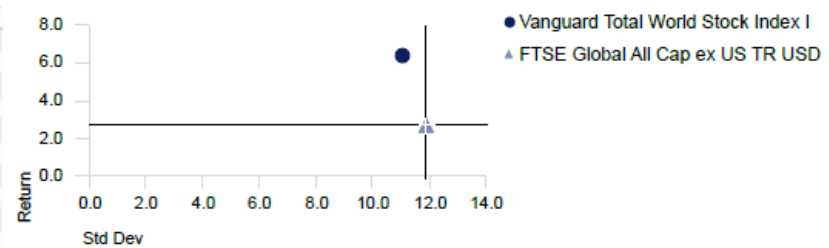


—Vanguard Total World Stock Index I

—FTSE Global All Cap ex US TR USD

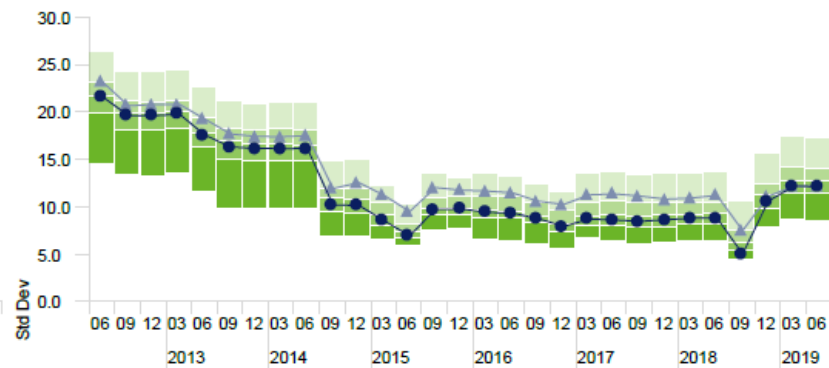
Risk & Return Illustration (5 Years)

Time Period: 7/1/2014 to 6/30/2019



Rolling Risk (3 Years)

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



—Vanguard Total World Stock Index I

—FTSE Global All Cap ex US TR USD

Calendar Year Returns

	2009	Rank	2010	Rank	2011	Rank	2012	Rank	2013	Rank	2014	Rank	2015	Rank	2016	Rank	2017	Rank	2018	Rank
Vanguard Total World Stock Index I	33.7	44	13.1	46	-7.7	48	17.4	40	23.0	63	4.0	34	-1.9	54	8.8	18	24.2	40	-9.7	52
FTSE Global All Cap ex US TR USD	45.0		13.2		-14.0		17.9		15.9		-3.1		-4.0		5.0		27.8		-14.4	



Source: Morningstar

June 30, 2019

APPENDIX

NEPC, LLC

GLOSSARY OF TERMS

Alpha - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

Alpha Jensen - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

Annualized Excess Return over Benchmark - Annualized fund return minus the annualized benchmark return for the calculated return.

Annualized Return - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

Beta - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio.

Formula:

$$\frac{(\text{Annualized Return of Portfolio} - \text{Annualized Return of Benchmark})}{\text{Annualized Standard Deviation}(\text{Period Portfolio Return} - \text{Period Benchmark Return})}$$
 To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

R-Squared - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

Sharpe Ratio - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

Sortino Ratio - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

Formula:

$$\text{Calculation Average } (X-Y) / \text{Downside Deviation } (X-Y) * 2$$
 Where X = Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)

Standard Deviation - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

Formula:

$$\frac{(\text{Annualized Return of Portfolio} - \text{Annualized Return of Risk Free})}{\text{Annualized Standard Deviation (Portfolio Returns)}}$$

Tracking Error - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Formula:

$$\text{Tracking Error} = \text{Standard Deviation } (X-Y) * \sqrt{\# \text{ of periods per year}}$$
 Where X = periods portfolio return and Y = the period's benchmark return
 For monthly returns, the periods per year = 12
 For quarterly returns, the periods per year = 4

Treynor Ratio - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

Formula:

$$\frac{(\text{Portfolio Average Return} - \text{Average Return of Risk-Free Rate})}{\text{Portfolio Beta}}$$

Up/Down Capture Ratio - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

$$\text{UpsideCapture} = \frac{\text{TotalReturn(FundReturns)}}{\text{TotalReturns(BMReturn)}} \text{ when Period Benchmark Return is } > = 0$$

$$\text{DownsideCapture} = \frac{\text{TotalReturn(FundReturns)}}{\text{TotalReturns(BMReturn)}} \text{ when Benchmark } < 0$$

Data Source: InvestorForce



INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

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

