

Board of Trustees 15 Estabrooke Drive Orono, ME 04469

February 27, 2017

Tel: 207-581-5840 Fax: 207-581-9212 www.maine.edu

TO: Members of the Investment Committee

FR: Tracy Bigney, Clerk of the Board

The University of Maine

RE: March 9, 2017 Investment Committee Meeting

University of Maine at Augusta

The Investment Committee will meet from 10:00 am to 1:00 pm on Thursday, March 9, 2017. The following Polycom sites will be available:

University of Maine at Farmington

Polycom:

UMS – 253 Estabrooke Hall, 15 Estabrooke Drive, Orono

USM – 337 Wishcamper Center, Portland

UMPI - Executive Conference Room, Preble Hall

UMA - 111 Robinson Hall

University of Maine at Fort Kent

University of Maine at Machias

University of Maine at Presque Isle

> University of Southern Maine

The meeting materials have been posted to the Diligent Portal under Investment Committee. 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 973-3234.

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

cc: Ch

Chancellor James Page

Trustees who are not members of the Committee

Presidents Ryan Low Rebecca Wyke Robert Neely Tracy Elliott

University of Maine System Board of Trustees

Investment Committee

March 9, 2017 10:00 am – 1:00 pm

University of Maine System Executive Offices Rudman Conference Room 253 Estabrooke Hall, 15 Estabrooke Drive, Orono

AGENDA

10:00 - 10:20	TAB 1 - FY2018 Endowment Distribution Rate per Share
10:20 - 10:30	TAB 2 - Investment Committee Duties and Responsibilities Revised
10:30 - 10:50	TAB 3 - Defined Contribution Plan Quarterly Review
10:50 - 11:00	TAB 9 - Defined Contribution Plan Share Class Change
11:00 - 11:30	Performance Reviews TAB 4 - Managed Investment Pool TAB 5 - Defined Benefit Pension Fund TAB 6 - Operating Fund
11:30 - 12:30	TAB 7 - Asset Allocation Study and Recommendations
12:30 - 1:00	TAB 8 - MSCI ESG Report

Items for Committee decisions and recommendations are noted in red.

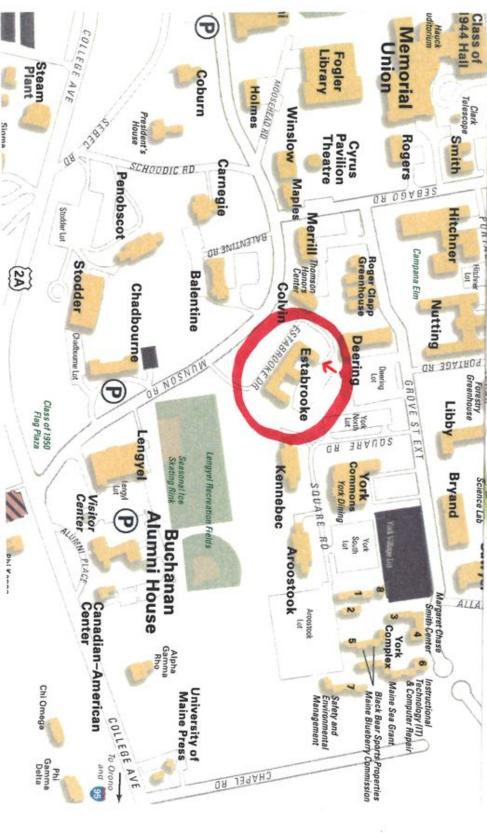
Note: Times are estimated based upon the anticipated length for presentation or discussion of a particular topic. An item may be brought up earlier or the order of items changed for effective deliberation of matters before the Committee.

University of Maine System

15 Estabrooke Drive, Orono

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 1-95: 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



AGENDA ITEM SUMMARY

1. NAME OF ITEM: FY2018 Endowment Distribution Rate per Share

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: BOARD ACTION: X

4. BACKGROUND:

The endowment distribution rate is presented for the Investment Committee's review and approval.

Distribution Rate Philosophy: The UMS endowment distribution formula is designed to smooth the impact of volatile investment returns as campus budgets depend on these endowment revenue streams to fund scholarships and other endowed spending.

Distribution Rate Calculation: The distribution formula uses a 3-year endowment pool market value average to which a percentage spending rate is applied. The resulting distribution amount is then divided by the total number of shares in the endowment pool¹ to arrive at the distribution rate per share.² The UMS Accounting Department uses the approved rate per share³ in the monthly allocation process whereby each endowment receives a distribution based on the respective number of shares held.

Underwater Endowments: For the purpose of determining the underwater⁴ status of endowments, the Accounting Department compares each endowment's market value with its initial investment value. To allow underwater endowments to regain market value, UMS does not distribute funds for underwater endowments during the following fiscal year.

Fiscal Year 2018 (FY18) Proposed Distribution Rate:

Consistent with prior years, an endowment spending rate of 4.5% is being used to calculate the rate per share. A summary of the endowment rate information by campus is enclosed for reference. A 4.5% spending rate (which includes a management fee, where charged) equates to a rate per share of \$15.13366. Using this rate, an estimated \$5.3 million will be distributed including \$4.2 million for endowed spending and \$1.1 million for management costs in FY18.

5. TEXT OF PROPOSED RESOLUTION:

That the Investment Committee approve an endowment distribution rate of \$15.13366 per share for FY18.

¹ Adjusted for any endowments with specific spending policies determined by the donor.

02/27/2017

² Shares (e.g., units) are the internal tracking mechanism for each respective endowment's portion of the total

endowment pool.

The Accounting Department uses the approved rate per share in the monthly allocation process whereby each endowment receives a distribution based on the respective number of shares held as of the annual measurement point adjusted for additional shares acquired during the remainder of the fiscal year. Effective with the FY18 rate calculation, the measurement point was moved from November 30 to October 31 so that estimated distribution amounts would be available to support earlier budgeting and determination of scholarship awards.

⁴ Underwater is the term used to describe an endowment when its market value is less than its corpus (e.g., initial investment).

UNIVERSITY OF MAINE SYSTEM ENDOWMENT DISTRIBUTION RATE - FY18

Market Valu	e - Per GL for Endowme	ents Subject	to UMSystem Spending R	tule:
Year			<u>MV*</u>	
Nov-14	(for FY2016)	\$	125,949,747	
Nov-15	(for FY2017)	\$	116,329,762	
Oct-16	(for FY2018)	\$	115,488,377	
Three year a	verage	\$	119,255,962	
Spending Ra	ite		4.50%	
Spending An	nount	\$	5,366,518	

Calculation of Total Estimated Shares for FY18:	Total	U	IM & USM	GUS	Α	II Others
Shares subject to UMSystem spending rule and not underwater	347,983		260,312	22,153	l	65,518
Shares subject to UMSystem spending rule and underwater	6,625		2,122	0	1	4,503
Total Shares as of October 2016	354,608		262,434	22,153		70,021
Rate Per Share = Spending Amount/Total Shares		\$	15.13366	\$ 15.13366	\$	15.13366
Amount Distributed Including Management Fee (rate per share X number of shares)	\$ 5,266,260	\$	3,939,480	\$ 335,252	\$	991,528
Amount Reinvested Back Into Underwater Investments	\$ 100,258	\$	32,108	\$ -	\$	68,150
Total Allocation (Distributed Plus Amount Returned to Principal for Underwater Investments)	\$ 5,366,518	\$	3.971.588	\$ 335.252	\$	1.059.678

Calculation of Annual Distribution Rate Per Share for FY18:*	UM & USM	GUS	All Others
Dist. Rate Per Share for FY18 = Net Estimated Endow Amount to be Distrib/Total Shares:			
FY18 Share Rate - Gift Accounts	\$ 10.92987	\$ 14.29290	\$ 15.13366
FY18 Share Rate - Management Fee Accounts	\$ 4.20379	\$ 0.84076	\$ -
FY18 Share Rate - Gross	\$ 15.13366	\$ 15.13366	\$ 15.13366

^{*} In FY 2017, the UM and USM share rate for management fee accounts increased from 0.25% to 1.25%, GUS (Governance and University Services) stayed at 0.25% and all other campuses continue to not apply a management fee.



AGENDA ITEM SUMMARY

1. NAME OF ITEM: Investment Committee Duties and Responsibilities Revised

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: BOARD ACTION: X

4. BACKGROUND:

The Committee Chair worked with staff to review and update the Investment Committee Duties and Responsibilities. Proposed changes include clarifying the Committee's authority to act without referring items to the Board of Trustees. In addition, language was added to allow Committee members to provide direction to staff, with subsequent formal action to be taken by the Committee or the Board, when a quorum of the Committee is not present.

The updated document, using tracking changes, is included for the Committee's review.

5. TEXT OF PROPOSED RESOLUTION:

That the Investment Committee forwards this item to the Consent Agenda at the March 26-27, 2017 Board of Trustees meeting for approval of the following resolution:

That the Board of Trustees approves the Investment Committee Duties and Responsibilities, as presented.

University of Maine System Board of Trustees

Investment CommitteeDuties and Responsibilities

Committee established: 1988

Last revised: 1/25/1999; 8/23/2010; 3/14/2011; 8/28/2012; X/XX9/23/2013

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

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.

- 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 <u>Vice-Chancellor</u>, Treasurer, or <u>Controller the staff</u>, 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. The following non-Trustee, non-voting members have been added to the Investment Committee:

James Mullen, effective June 1, 2008, initial term for three years with the option of an

Investment Committee Duties and Responsibilities Continued

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appointment for a second, three year term. Mr. Mullen's second term was
 confirmed effective June 1, 2012 for a three year term.

John (Jack) Moore, effective October 5, 2009, initial term for three years with the option of an appointment for a second, three year term. Mr. Moore's second term was confirmed effective October 5, 2012 for a three year term.

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, and Treasurer, and Controller.



AGENDA ITEM SUMMARY

1. NAME OF ITEM: Defined Contribution Plan Update

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. BACKGROUND:

Barry Schmitt, Senior Vice President with CAPTRUST Financial Advisors, will provide an update regarding the Defined Contribution Plan at the March 9, 2017 Investment Committee meeting.

University of Maine System 4th Quarter, 2016

DEFINED CONTRIBUTION QUARTERLY REVIEW

CAPTRUST

4208 Six Forks Road, Suite 1700 Raleigh, NC 27609

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 Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

University of Maine System Defined Contribution Plan

4th Quarter, 2016 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

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

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Industry Updates.....

MORNINGSTAR ADDS ETFS TO PEER GROUPS

Morningstar combined its open-end mutual fund universe with its exchange-traded fund (ETF) universe in November 2016. In the coming months, CAPTRUST will evaluate the impact that the addition of ETFs will have on peer groups and how it might affect our approach to monitoring investment policy statements. To avoid immediate disruption, we will not include ETFs in our calculation of peer group averages, rankings, or investment policy monitor scores starting in the fourth quarter of 2016.

As we evaluate the addition of ETFs, below are several considerations:

Are ETFs part of the opportunity set for institutional investors?

Given their tax status and the prevalence of other low-cost passive products, qualified retirement plans do not meaningfully use ETFs. For participant-directed plans, access to ETFs is a function of recordkeeping platform capabilities, and most platforms are not set up to handle ETF intraday trading and valuation.

How will ETF performance be measured? Is it an appropriate comparison to mutual funds?

ETF performance used for category calculations would be market-return based, not based on the underlying value of an ETF's holdings. This means returns could be influenced by short-term supply and demand imbalances.

How will ETF inclusion in peer groups alter performance and scoring over time?

The ETF universe has grown rapidly since 2009. As a result, ETFs on average tend to have shorter track records than comparable mutual funds. They are also more likely to be passively managed. These factors will make performance comparisons difficult, at least until the two groups more closely resemble each other.

Source: Morningstar Direct. Mutual funds data includes multiple share classes.

The chart below shows the increase in peer group size as of 11.30.2016, after inclusion of ETFs. Sector-specific categories such as technology, utilities, and health care are most impacted.

Category Name	Number of Mutual Funds	Number of ETFs	Percent Increase
Commodities Broad Basket	160	22	14%
Diversified Emerging Mkts	933	67	7%
Foreign Large Value	363	35	10%
Foreign Small/Mid Blend	114	8	7%
Foreign Small/Mid Value	73	9	12%
Healthcare	133	36	27%
Intermediate-Term Bond	1,139	26	2%
Large Blend	1,628	105	6%
Large Growth	1,648	39	2%
Large Value	1,438	68	5%
Mid-Cap Blend	486	37	8%
Mid-Cap Growth	729	24	3%
Mid-Cap Value	471	24	5%
Natural Resources	131	31	24%
Real Estate	294	21	7%
Small Blend	887	30	3%
Small Growth	766	14	2%
Small Value	476	19	4%
Technology	204	47	23%
Utilities	59	13	22%

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A CRYSTAL BALL AND A COMPASS

NORTH

The DOL's Fiduciary Rule

- Money leaving defined contribution plans may slow
- Plan sponsor focus shifts more toward retirees in plan
- Plan sponsors add more distribution options to plan designs
- Income and withdrawal solutions garner increasing attention
- Plan sponsors will evolve how they monitor their recordkeepers since many will be giving fiduciary advice to participants
- Plan sponsors begin to consider managed accounts and other QDIA-eligible solutions beyond target date funds

EAST

An Improving Economic Environment

- Tighter labor markets cause plan sponsors to consider effectiveness of total retirement benefits
- Plan sponsors increasingly evaluate advice, wellness, and student loan repayment progress
- Beyond changes to defined contribution plans, more sponsors may add nonqualified and cash balance pension plans
 - Favorable business conditions, rising rates, and rising PBGC premiums may lead to more pension risk transfers
 - Increased need for precision with liability-driven investing strategies

WEST

Future Policy Direction

- All eyes are on the potential for tax reform to impact individual and plan limits
- If corporate tax rates are lowered as expected, more corporations may add nonqualified deferred compensation plans as the cost of sponsoring them decreases
- Legislative support for open multiple employer plans (MEPs) may pave the way for new private-market solutions designed to improve coverage at work

SOUTH

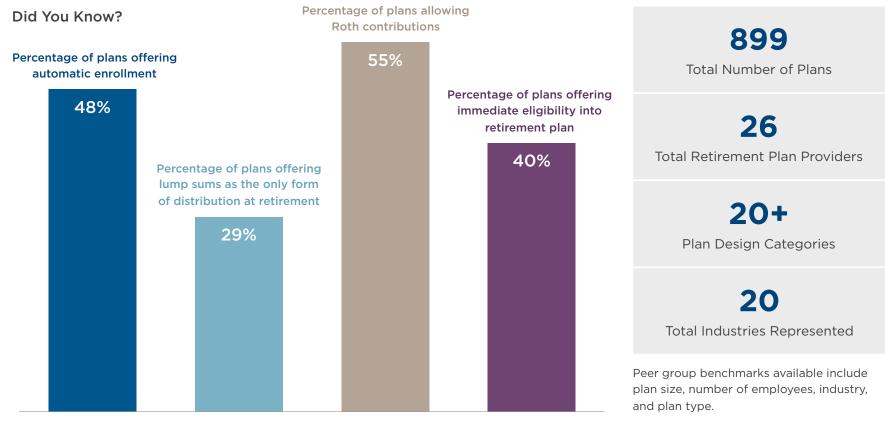
Litigation On the Rise

- · Utilization of passive investments to continue
- Expect more institutionally priced vehicles, such as collective investment trusts (CITs), to be used in qualified plans
- RFP and plan benchmarking activity may increase given the focus on fees in allegations
- Continuation of trend to externalize plan-related fees other than investment fees
- Expect more outsourcing of fiduciary responsibilities, including 3(38)

Please visit captrustadvisors.com/discover to access articles, features, and updates for CAPTRUST's institutional clients.

CAPTRUST LAUNCHES PLAN DESIGN BENCHMARK

This past summer, CAPTRUST began aggregating client data on a variety of defined contribution plan design features. Our goal was to construct a resource for clients to benchmark their plan designs and help them ensure their plans remain competitive with those of their peers. Information was collected on nearly 900 plans, making this one of the most diverse, independent data sets in the industry. We will continue to refresh data to provide ongoing benchmarks and updates on the retirement landscape.



Source: CAPTRUST Research. Plan Design Benchmark 2016

FIDUCIARY UPDATE

Each quarter, CAPTRUST's Drew McCorkle highlights court cases with ERISA retirement plan implications and provides an overview of regulatory and legislative updates impacting the retirement industry—most particularly plan sponsors and their participants. Below, we highlight a few of the notable items covered in this quarter's *Fiduciary Update*.

CYBERSECURITY ISSUES IN THE RETIREMENT PLAN WORLD

Two recent cybersecurity breaches involving retirement plans highlight the importance of retirement plan fiduciaries understanding the controls and safeguards of their recordkeepers and asset custodians.

- One involved a municipality's deferred compensation plan suffering \$2.6 million of losses from fraudulent participant loans
- The other involved a union pension plan whose servers were hacked and received a ransom request, which fortunately they were able to ignore given rigorous data back-up protocols.

LIFETIME INCOME IN QDIAs? "NO" ... BUT THERE'S MORE

- In a recent Information Letter, the U.S. Department of Labor addressed the question of whether a Qualified Default Investment Alternative ("QDIA") could include a particular annuity feature and retain its QDIA status. To qualify as a QDIA, participants must be permitted to transfer assets out of the QDIA no less frequently than once in any three-month period. The particular lifetime income feature reviewed by the DOL included liquidity restrictions longer than the required three-month limit. As a result, the lifetime income feature presented could not be included in an investment solution wishing to receive QDIA protection.
- In a related development, the DOL has included in its regulatory agenda a project
 to consider the inclusion of lifetime income options in QDIAs. This will begin with
 a request for information, which could be issued as soon as this spring.

SELECT FEE AND RELATED LITIGATION DEVELOPMENTS

- Moreno v. Deutsche Bank Americas Holdings Corp (S.D. NY 2016)
 Participants in Deutsche Bank's 401(k) plan alleged that plan fiduciaries improperly used Deutsche Bank's own indexed funds rather than much less expensive Vanguard indexed funds. The court allowed the case to continue, saying that such a failure could be inferred from the facts if, "a superior alternative investment was readily apparent such that an adequate investigation would have uncovered that alternative."
- Tibble v. Edison International (9th Cir 2016)
 Following the Supreme Court's groundbreaking decision in this case in 2015, the court of appeals changed course to now allow plan participants to pursue their claims for damages resulting from plan fiduciaries' failure to routinely monitor share classes of the investments offered in the plan.
- In Re Disney Litigation (C.D. CA 2016)
 The 401(k) fiduciary committee of Walt Disney Company was sued for including a mutual fund that suffered considerable underperformance attributable to a specific fund holding. The court dismissed the claim and noted that (a) underperformance of an investment alone does not support a claim for breach of fiduciary duty, (b) there was no allegation that the fiduciaries lacked a sufficient review process and, (c) plan fiduciaries have no duty to monitor the underlying investments in a mutual fund.

For access to the full version of this quarter's Fiduciary Update, visit the Resources section of www.captrustadvisors.com.

Any case highlights contained here are provided for general information purposes only and do not, and are not intended to, constitute legal advice. You should contact your ERISA counsel to determine how the laws or cases discussed might apply to your plan(s), plan fiduciaries, and/or plan participants.

SECTION 2: MARKET COMMENTARY AND REVIEW

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

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

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

Continued U.S. growth with potential positive economic policy changes on the way

- The U.S. economy is experiencing midto-late business cycle dynamics with low likelihood of a recession in the near term
- Lighter regulation and lower taxes could serve as a catalyst to extend the current business cycle

Surging business and consumer confidence

- Higher confidence encourages business spending, capital investment, and jobs, which would be positive for consumer spending
- A large pickup in business and consumer confidence could unleash "animal spirits," leading to an upside surprise

Relative calm in the global economy

- China's recent stabilization has reduced headwinds for the moment as growth prospects continue
- The recession in commodity prices has ended, leading to a recovery in emerging markets

HEADWINDS

Rising geopolitical risk and the lack of a global leader

- The U.S.'s shift to more unilateral "America first" policies could negatively affect trade and hurt markets
- A number of events abroad, including European elections and congressional meetings in China, could bring uncertainty and volatility this year

Potential for mid-cycle dynamics to shift to late-cycle too quickly

- An inflation pickup could lead to higher rates, a stronger dollar, and higher oil prices that tighten financial conditions in the U.S.
- Tighter financial conditions discourage business and consumer spending and could lead to a slowdown in growth

High expectations could lead to disappointment

- The market has entered the "show me" stage for campaign promises and new policies this year
- Downside risks are present given very high market expectations should policies fail to materialize or underwhelm

Overall, while the global economy has stabilized and may accelerate due to the prospect of a new policy direction in the U.S., we are mindful of new geopolitical risks. The economic landscape can fluctuate quickly, so we will update you with changes as they occur.



U.S. Stocks

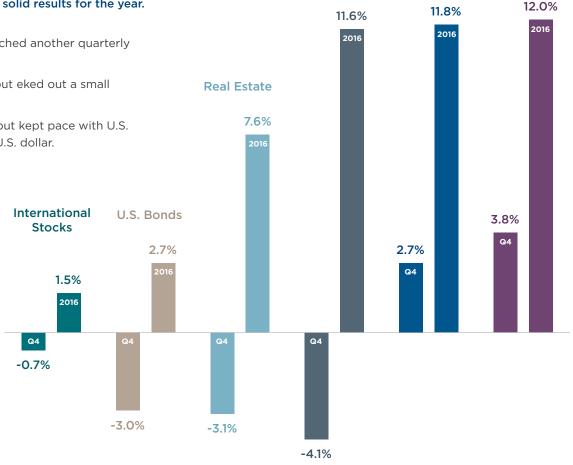
Commodities

MARKETS CLOSE OUT A GOOD YEAR

While the fourth quarter was mixed, all asset classes moved higher last year. In the end, 2016's headline events and periodic choppiness masked slow-but-steady economic improvement that supported markets and produced solid results for the year.

- Buoyed by an improving economy, U.S. stocks notched another quarterly gain, adding to their solid results for the year.
- International stocks slipped in the fourth quarter but eked out a small gain for the year.
- Emerging market stocks fell in the fourth quarter but kept pace with U.S. stocks in 2016 despite the headwinds of a strong U.S. dollar.
- Bonds fell in the fourth quarter as interest rates reached their highest levels in more than a year.
 They managed a small gain for 2016.
- Real estate slumped in the fourth quarter due to rising interest rates, but finished the year in positive territory.
- Commodities rose again last quarter and finished off a year of strong gains fueled by rising oil and gas prices.

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



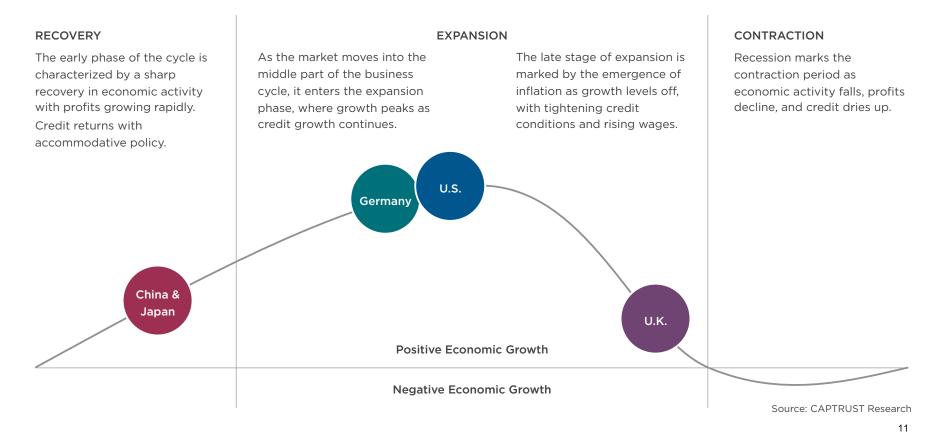
Emerging

Market Stocks

FROM SECULAR TO CYCLICAL: RETURN OF THE BUSINESS CYCLE

The global economy has been caught in a secular slowdown for the last eight years. Growth stagnated in the U.S. as the consumer paid back debt after years of excess leverage leading up to the financial crisis. As these secular forces abate, the U.S. economy moves toward a more normal state—one where the business cycle plays a more prominent role in portfolio strategy.

Business Cycle Phases



ASSET CLASS RETURNS

Period Ending 12.31.16 | Q4 '16

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Small-Cap Growth 48.54%	Mid-Cap Value 23.70%	International Equities 14.02%	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%
Small-Cap Value 46.03%	Small-Cap Value 22.25%	Mid-Cap Value 12.65%	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%
Mid-Cap Growth 42.71%	International Equities 20.70%	Mid-Cap Growth 12.10%	Large-Cap Value 22.25%	Mid-Cap Growth 11.43%	Small-Cap Value -28.91%	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%
International Equities 39.17%	Large-Cap Value 16.49%	Large-Cap Value 7.05%	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%
Mid-Cap Value 38.07%	Mid-Cap Growth 15.48%	Large-Cap Growth 5.26%	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 30.03%	Small-Cap Growth 14.31%	Small-Cap Value 4.71%	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%
Large-Cap Growth 29.75%	Large-Cap Growth 6.30%	Small-Cap Growth 4.15%	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%
Fixed Income 4.31%	Fixed Income 3.04%	Cash 3.35%	Cash 5.08%	Mid-Cap Value -1.42%	International Equities -43.06%	Fixed Income 5.24%	Fixed Income 5.98%	Small-Cap Value -5.50%	Fixed Income 4.22%	Cash 0.07%	Cash 0.03%	Mid-Cap Value -4.78%	International Equities 1.51%
Cash 1.05%	Cash 1.44%	Fixed Income 1.58%	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%	Equities 1.51% Cash 0.33%
Small-Ca	ap Growth Stoc	s (Russell 2000 cks (Russell 200 cks (Russell 100	00 Growth)	Mid-	e-Cap Value Si Cap Growth St Cap Value Sto	ocks (Russell N	1id-Cap Growt	•	Fixed Inc	•		.S. Aggregate	

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

INDEX PERFORMANCE

Period Ending 12.31.16 | Q4 '16

SAP SOO 3.82% 11.96% 13.8% 13.69% 32.39% 16.00% 2.11% 11.96% 8.87% 14.66% 6.99 Dow Jones Industrial Average 8.66% 15.50% 0.21% 10.04% 29.55% 10.24% 8.33% 15.65% 8.77% 12.92% 75.50% 8.77% 12.92% 75.50% 8.77% 12.92% 75.50% 8.77% 12.92% 75.50% 8.77% 12.92% 75.50% 8.77% 12.92% 75.50% 8.97% 14.66% 75.00% 8.77% 12.92% 75.50% 8.97% 14.66% 75.00% 8.37% 15.00% 10.00% 10.00% 10.00% 10.00% 10.00% 13.33% 12.05% 0.92% 13.24% 33.11% 16.42% 15.00% 12.05% 8.59% 14.69% 75.00% 18.25% 14.50% 12.05% 8.59% 14.69% 75.00% 18.25% 14.50% 12.05% 12.05% 8.59% 14.69% 75.00% 18.25% 14.50% 12.05% 12.05% 12.05% 14.69% 75.00% 18.25% 14.50% 12.05% 12.05% 12.05% 14.69% 75.00% 18.25% 14.50% 12.05% 12.05% 12.05% 14.69% 75.00% 18.25% 14.50% 12.05% 12.05% 12.05% 14.69% 75.00% 18.25% 14.25% 18.05% 14.50% 12.05% 12.05% 12.05% 14.69% 75.00% 12.05% 12.05% 14.69% 12.05% 12.05% 12.05% 14.25% 18.05% 14.50% 12.05% 12.05% 12.05% 14.25% 18.05% 14.50% 12.05% 12.05% 12.05% 14.25% 18.05% 12												
Dow Jones Industrial Average	INDICES	Q4 2016	YTD 2016	2015	2014	2013	2012	2011	1 YEAR	3 YEAR	5 YEAR	10 YEAR
NASDAQ Composite 1,34% 7,50% 5,73% 13,40% 88,32% 15,91% -1,80% 7,50% 8,83% 15,62% 8,35	S&P 500	3.82%	11.96%	1.38%	13.69%	32.39%	16.00%	2.11%	11.96%	8.87%	14.66%	6.95%
Russell 1000 3.83% 12.05% 0.92% 13.24% 33.11% 16.42% 1.50% 12.05% 8.59% 14.69% 7.018 Russell 1000 Growth 1.01% 7.08% 5.67% 13.05% 33.48% 15.26% 2.64% 7.08% 8.55% 14.50% 8.33 Russell 1000 Value 6.68% 17.34% -3.483% 13.45% 32.53% 17.51% 0.39% 17.34% 8.59% 14.80% 5.77 Russell 2000 Value 3.21% 13.80% -2.44% 13.22% 34.67% 17.28% 1.55% 13.80% 7.92% 14.72% 7.88 Russell 2000 Growth 3.57% 11.32% -1.389% 5.66% 43.30% 16.35% -4.18% 2.55% 13.80% 7.92% 14.72% 7.88 Russell 2000 Growth 3.57% 11.32% -1.389% 5.66% 43.30% 14.59% -2.91% 11.32% 5.05% 31.74% 14.46% 7.07 Russell 2000 Growth 1.4.07% 31.74% -7.47% 4.22% 34.52% 18.05% -5.50% 31.74% 8.31% 15.07% 6.24 Russell 2000 Value 14.07% 31.74% -7.47% 4.22% 34.52% 18.05% -5.50% 31.74% 8.31% 15.07% 6.24 Russell 2000 Intermediate Bond -2.68% 1.51% -0.39% -4.48% 23.22% 17.90% -1.17.3% 1.51% -1.15% -1.15% 7.02% 12.28 Dow Jones US Real Estate Index -3.11% 7.56% 2.14% 27.24% 17.77% 18.93% 6.05% 7.56% 11.81% 11.09% 3.88 Bloomberg Barclays Corporate [6 Bond -2.28% 6.11% -0.68% 7.46% -1.55% 9.22% 4.22% 7.84% 2.65% 3.03% 2.23% 4.348 Bloomberg Barclays U.S. Aggregate Bond -2.98% 2.65% 0.55% 5.97% -2.02% 4.22% 7.84% 2.65% 3.03% 2.23% 1.85% 3.88 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.08% 3.39% 5.80% 2.08% 2.09% 1.85% 3.88 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.08% 3.39% 5.80% 2.08% 2.09% 1.85% 3.88 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.08% 3.39% 5.80% 2.08% 2.08% 2.09% 1.85% 3.88 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.08% 3.39% 5.80% 2.08% 2.08% 3.03% 2.23% 4.34 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.08% 3.39% 5.80% 2.08% 2.08% 3.03% 2.23% 4.34 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.08% 3.39% 1.00% 3.39% 0.05% 0.03% 0.03% 0.05% 0.05% 0.05% 0.00% 0.03% 0.00%	Dow Jones Industrial Average	8.66%	16.50%	0.21%	10.04%	29.65%	10.24%	8.38%	16.50%	8.71%	12.92%	7.52%
Russell 1000 Growth 1.01% 7.08% 5.67% 13.05% 33.48% 15.26% 2.64% 7.08% 8.55% 14.50% 5.37 Russell 10100 Value 6.68% 17.34% -3.033% 13.45% 32.53% 17.51% 0.38% 17.34% 8.59% 14.80% 5.7.7 Russell 10100 Value 6.68% 17.34% -3.033% 13.45% 32.53% 17.51% 0.38% 17.34% 8.59% 14.70% 7.88 Russell 10100 Value 7.00% 17.28% 1.155% 13.80% 7.22% 14.72% 7.88 Russell 10200 Growth 8.83% 21.31% -4.41% 4.89% 38.82% 16.35% -4.18% 21.31% 6.74% 14.46% 7.00 Russell 2000 Growth 3.57% 11.32% -1.38% 5.60% 43.30% 14.59% -2.91% 11.32% 5.05% 13.74% 7.70 Russell 2000 Value 14.07% 31.74% 7.47% 4.22% 43.45% 14.59% -2.91% 11.32% 5.05% 13.74% 7.02% 6.22% 10.00 Value 14.07% 31.74% 7.47% 4.22% 43.45% 14.59% -2.91% 11.32% 5.05% 13.74% 7.02% 6.22% 10.00 Value 14.07% 31.74% 7.47% 4.22% 43.45% 17.90% -11.73% 1.51% 1.51% 1.15% 7.02% 12.20 Dow Jones US Real Estate Index 1.31% 7.55% 21.41% 2.724% 11.77% 18.93% 6.05% 7.56% 11.81% 11.09% 3.818 Bloomberg Barclays Covt Intermediate Bond -2.18% 10.05% 11.18% 2.22% 1.12% 1.23% 6.05% 7.56% 11.18% 10.09% 3.818 Bloomberg Barclays Cuts-mediate Bond -2.83% 6.11% -0.68% 7.46% 1.53% 9.82% 8.15% 6.01% 4.23% 4.14% 5.44% 18.00 Parchases Parclays Cuts-mediate Bond -2.83% 6.11% -0.68% 7.46% 1.53% 9.82% 8.15% 6.11% 4.23% 4.14% 5.44% 18.00 Parchases Parclays Lus. Aggregate Bond -2.83% 6.11% -0.68% 7.46% 1.53% 9.82% 8.15% 6.11% 4.23% 4.14% 5.44% 18.00 Parchases Parclays Lus. Aggregate Bond -2.83% 6.11% -0.08% 7.46% 1.53% 9.82% 8.15% 6.11% 4.23% 4.14% 5.44% 18.00 Parchases Parclays Intermediate Bond -2.83% 6.11% -0.08% 7.46% 1.53% 9.82% 8.15% 6.11% 4.23% 4.14% 5.44% 18.00 Parchases Parclays Lus. Aggregate Bond -2.83% 6.11% -0.08% 7.46% 7.44% 18.81% 4.98% 17.13% 4.66% 7.36% 7.48% 18.00 Parchases Parclays Lus. Aggregate Bond -2.83% 6.11% -0.08% 7.46	NASDAQ Composite	1.34%	7.50%	5.73%	13.40%	38.32%	15.91%	-1.80%	7.50%	8.83%	15.62%	8.34%
Russell 1000 Value 6.68% 17.34% -3.83% 13.45% 32.53% 17.51% 0.39% 17.34% 8.59% 14.80% 5.77 Russell 2000 (1.20% 13.20% 13.20% -2.44% 13.22% 34.76% 17.28% -1.55% 13.80% 7.22% 14.72% 7.88 Russell 2000 (1.20% 13.20% -2.44% 13.22% 38.22% 16.35% -1.41% 13.21% 16.47% 14.46% 7.00 Russell 2000 Growth 3.57% 13.22% -1.38% 5.60% 43.30% 14.59% -2.91% 11.32% 5.05% 13.74% 14.64% 7.00 Russell 2000 Growth 14.07% 31.74% -7.47% 14.22% 34.52% 18.05% -5.50% 31.74% 8.31% 15.07% 6.22 Russell 2000 Value 14.07% 31.74% -7.47% 14.22% 34.52% 18.05% -5.50% 31.74% 8.31% 15.07% 6.22 Russell 2000 Value 14.07% 31.74% -7.47% 14.22% 34.52% 18.05% -5.50% 31.74% 8.31% 15.07% 6.22 Russell 2000 Value 14.07% 31.74% -7.47% 14.22% 17.7% 18.93% 6.05% 75.60% 11.81% 11.09% 3.83 Bioomberg Barclays Gov'l Intermediate Bond -2.81% 15.15% 15.60% 11.80% 72.22% 17.79% 18.93% 6.05% 75.60% 11.81% 11.09% 3.83 Bioomberg Barclays Corporate (16 Bond -2.88% 6.11% -0.68% 7.46% -1.55% 9.82% 6.05% 15.50% 3.03% 2.23% 4.34 Bioomberg Barclays U.S. Aggregate Bond -2.98% 2.65% 0.55% 5.59% 2.20% 4.22% 7.84% 2.65% 3.03% 2.23% 4.34 Bioomberg Barclays U.S. Aggregate Bond -2.98% 2.65% 0.55% 5.97% 2.20% 4.22% 7.84% 2.65% 3.03% 2.23% 4.34 Bioomberg Barclays U.S. Transmit 10.00% 3.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.02% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 3.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 3.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 3.31% 0.08% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 0.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 0.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 0.33% 0.05% 0.03% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Bioomberg Barclays U.S. Transmit 10.00% 0.33% 0.05% 0.03% 0.03% 0.05% 0.03% 0.00% 0.03% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.	Russell 1000	3.83%	12.05%	0.92%	13.24%	33.11%	16.42%	1.50%	12.05%	8.59%	14.69%	7.08%
Russell Mid Cap Index 3.21% 13.80% -2.44% 13.22% 34.76% 17.28% -1.55% 13.80% 7.92% 14.72% 7.86 Russell 2000 8.83% 21.31% -4.41% 4.89% 38.82% 16.55% -4.818% 21.31% 6.74% 14.46% 7.00 Russell 2000 Growth 3.57% 11.32% -1.38% 5.60% 43.30% 14.59% -2.91% 11.32% 5.05% 13.74% 7.77 Russell 2000 Value 14.07% 31.74% -7.47% 4.22% 34.52% 18.05% -5.50% 31.74% 8.31% 15.07% 6.26% MSCI Europe, Australia, Far East -0.68% 15.1% -0.39% -4.48% 22.39% 17.90% -11.73% 15.1% -1.15% 70.02% 12.20 Down Jones US Real Estate Index -3.11% 7.56% 21.14% 27.24% 17.7% 18.93% 6.05% 7.56% 11.18% 11.15% 70.02% 12.20 Down Jones US Real Estate Index -3.11% 7.56% 21.41% 27.24% 17.7% 18.93% 6.05% 7.56% 11.18% 11.15% 10.4% 3.43 Bloomberg Barclays Govt Intermediate Bond -2.18% 1.05% 11.18% 2.52% 11.25% 11.73% 6.08% 11.05% 11.58% 10.44% 3.44 Bloomberg Barclays US. Aggregate Bond -2.28% 6.55% 5.55% 2.02% 4.22% 4.22% 4.22% 4.22% 11.05% 6.08% 10.05% 15.89% 10.44% 3.44 Bloomberg Barclays US. Aggregate Bond -2.89% 2.65% 0.55% 5.55% 2.02% 4.22%	Russell 1000 Growth	1.01%	7.08%	5.67%	13.05%	33.48%	15.26%	2.64%	7.08%	8.55%	14.50%	8.33%
Russell 2000	Russell 1000 Value	6.68%	17.34%	-3.83%	13.45%	32.53%	17.51%	0.39%	17.34%	8.59%	14.80%	5.72%
Russell 2000 Growth 3.57% 11.32% -1.38% 5.60% 43.30% 14.59% -2.91% 11.32% 5.05% 13.74% 7.76 Russell 2000 Value 14.07% 31.74% 7.247% 4.22% 34.52% 18.05% 5.50% 31.74% 8.31% 15.07% 6.24 MSCI Europe, Australia, Far East -0.68% 1.51% -0.639% -4.48% 23.29% 17.50% -11.73% 1.51% 1.51% 1.15% 7.02% 1.25 Dow Jones US Real Estate Index -3.11% 7.56% 2.14% 27.24% 17.77% 18.93% 6.05% 7.56% 11.81% 11.09% 3.86 Bloomberg Barclays Corporate IG Bond -2.818% 6.11% -0.68% 7.46% -1.55% 9.82% 1.25% 1.25% 6.09% 1.05% 1.56% 3.03% 2.23% 4.34 Bloomberg Barclays U.S. Aggregate Bond -2.98% 2.65% 0.55% 5.97% -2.02% 4.22% 7.84% 2.65% 3.03% 2.23% 4.34 Bloomberg Barclays U.S. Aggregate Bond -2.98% 2.65% 0.55% 5.97% -2.02% 4.22% 7.84% 2.65% 3.03% 2.23% 4.34 Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.86% 3.89% 5.80% 2.08% 2.09% 1.85% 3.88 Bloomberg Barclays High Yield 1.75% 17.13% -4.47% 2.45% 7.44% 15.81% 4.98% 17.13% 4.66% 7.36% 7.44 90-Day US Treasury 0.09% 0.33% 0.06% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86 Consumer Price Index (Inflation) 0.05% 2.12% 0.73% 0.76% 1.50% 1.50% 1.74% 2.96% 2.12% 1.20% 1.37% 1.8 Manager Universe Q4 2016 VTD 2016 2015 2014 2013 2012 2011 1 VEAR 3 YEAR 5 YEAR 10 YEAR Average Large-Cap Growth Fund 0.3.6% 14.70% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.14 Average Large-Cap Blend Fund 6.3.6% 14.70% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.63% 14.02% 6.84 Average Small-Cap Blend Fund 6.3.5% 14.70% -0.88% 11.26% 31.78% 15.08% -3.48% 14.17% 5.98% 13.33% 6.34 Average Small-Cap Blend Fund 9.45% 0.66% -5.19% 4.10% 37.54% 15.00% 15.30% -3.59% 0.61% 1.59% 1.22% 3.55% Average Small-Cap Blend Fund 9.45% 0.66% -5.19% 4.10% 3.75% 18.00% 15.30% -3.59% 0.81% 1.1.59% 0.80 Average Emerging Market Fund -2.41% 0.2.95% -1.2.41% 1.2.56% 11.2.5% 11.2.5% 1.3.50% -3.59% 0.81% 1.1.51% 5.93% 0.90 Average Emerging Market Fund -2.41% 0.2.95% -1.2.41% 0.2.95% 1.1.2.5% 1.2.99% 3.3.50% 0.80 Average Emerging Market Fund -2.41% 0.2.95% -1.2.41% 0.2.55% 11.2.	Russell Mid Cap Index	3.21%	13.80%	-2.44%	13.22%	34.76%	17.28%	-1.55%	13.80%	7.92%	14.72%	7.86%
Russell 2000 Value	Russell 2000	8.83%	21.31%	-4.41%	4.89%	38.82%	16.35%	-4.18%	21.31%	6.74%	14.46%	7.07%
MSCI Europe, Australia, Far East	Russell 2000 Growth	3.57%	11.32%	-1.38%	5.60%	43.30%	14.59%	-2.91%	11.32%	5.05%	13.74%	7.76%
Dow Jones US Real Estate Index	Russell 2000 Value	14.07%	31.74%	-7.47%	4.22%	34.52%	18.05%	-5.50%	31.74%	8.31%	15.07%	6.26%
Bloomberg Barclays Govt Intermediate Bond -2.18% 1.05% 1.18% 2.52% -1.25% 1.73% 6.08% 1.05% 1.58% 1.04% 3.44 1.44 5.44 1.45 5.45 1.45 5.	MSCI Europe, Australia, Far East	-0.68%	1.51%	-0.39%	-4.48%	23.29%	17.90%	-11.73%	1.51%	-1.15%	7.02%	1.22%
Bloomberg Barclays U.S. Aggregate Bond -2.83% 6.11% -0.68% 7.46% -1.53% 9.82% 8.15% 6.11% 4.23% 4.14% 5.428 Bloomberg Barclays U.S. Aggregate Bond -2.98% 2.65% 0.55% 5.97% -2.02% 4.22% 7.84% 2.65% 3.03% 2.23% 4.3% 4.38	Dow Jones US Real Estate Index	-3.11%	7.56%	2.14%	27.24%	1.77%	18.93%	6.05%	7.56%	11.81%	11.09%	3.87%
Bloomberg Barclays U.S. Aggregate Bond	Bloomberg Barclays Govt Intermediate Bond	-2.18%	1.05%	1.18%	2.52%	-1.25%	1.73%	6.08%	1.05%	1.58%	1.04%	3.42%
Bloomberg Barclays Intermediate Govt/Credit -2.07% 2.08% 1.07% 3.13% -0.86% 3.89% 5.80% 2.08% 2.09% 1.85% 3.84 Bloomberg Barclays High Yield 1.75% 17.13% -4.47% 2.45% 7.44% 15.81% 4.98% 17.13% 4.66% 7.36% 7.45 90-Day US Treasury 0.09% 0.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.80 Consumer Price Index (Inflation) 0.05% 2.12% 0.73% 0.76% 1.50% 1.74% 2.96% 2.12% 1.20% 1.37% 1.8 Manager Universe 0.4 2016 YTD 2016 2015 2014 2013 2012 2011 1YEAR 3 YEAR 5 YEAR 10 YE Average Large-Cap Growth Fund -0.30% 3.17% 3.72% 10.06% 3.4.39% 15.29% -2.24% 3.17% 5.72% 12.97% 6.94 Average Large-Cap Blend Fund 3.87% 10.28% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.14 Average Large-Cap Value Fund 6.36% 14.70% -4.05% 10.44% 31.61% 14.70% -0.57% 14.70% 6.81% 13.02% 5.56 Average Bind-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.88 Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.84 Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84 Average Small-Cap Growth Fund 3.3.55% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.44 Average Allocation -3.0% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.24 Average Allocation -5.0% to 70% 1.02% 3.61% -0.03% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.60 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Bloomberg Barclays Corporate IG Bond	-2.83%	6.11%	-0.68%	7.46%	-1.53%	9.82%	8.15%	6.11%	4.23%	4.14%	5.47%
Bloomberg Barclays High Yield 1.75% 17.13% -4.47% 2.45% 7.44% 15.81% 4.98% 17.13% 4.66% 7.36% 7.44% 90-Day US Treasury 0.09% 0.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.86% 0.00% 0.05% 0.212% 0.73% 0.76% 1.50% 1.74% 2.96% 2.12% 1.20% 1.37% 1.88 Manager Universe Q4 2016 YTD 2016 2015 2014 2013 2012 2011 1 YEAR 3 YEAR 5 YEAR 10 YEAR Average Large-Cap Growth Fund 0.3.87% 10.28% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.12 Average Large-Cap Blend Fund 3.87% 10.28% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.12 Average Large-Cap Value Fund 6.36% 14.70% -4.05% 10.44% 31.61% 14.70% -0.57% 14.70% 6.81% 13.02% 5.50% Average Mid-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.83 Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 10.06% -4.51% 25.68% 6.63% 14.02% 6.84 Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84 Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% 11.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90% Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40% Average Allocation -5.0% to 5.0% 10.0% 5.55% 1.83% 16.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.92% Average Allocation -5.0% to 5.0% 10.0% 5.55% 1.83% 16.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.92% 4.064% 6.35% 4.064% 6.35% 1.00% 5.25% -0.96% 11.93% -0.14% 7.35% 3.89% 8.05% 4.92% 4.064% 6.35% 4.064% 6.35% 4.064% 6.35% 4.065% 6.35% 1.80% 11.55% 1.25% 1.80% 11.55% 1.25% 3.20% 6.26% 6.00% 3.84% 4.064% 6.35% 6.35% 6.35% 6.35% 6.33% 6.32% 6.35% 6.35% 6.35% 6.35% 6.35% 6.36% 6.35% 11.80% 11.55% 6.26% 6.35% 11.80% 11.55% 6.35% 11.80% 11.55% 6.26% 6.35% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6.36% 6.35% 6	Bloomberg Barclays U.S. Aggregate Bond	-2.98%	2.65%	0.55%	5.97%	-2.02%	4.22%	7.84%	2.65%	3.03%	2.23%	4.34%
90-Day US Treasury 0.09% 0.33% 0.05% 0.03% 0.07% 0.11% 0.10% 0.33% 0.14% 0.12% 0.80 Consumer Price Index (Inflation) 0.05% 2.12% 0.73% 0.76% 1.50% 1.74% 2.96% 2.12% 1.20% 1.37% 1.8 Manager Universe	Bloomberg Barclays Intermediate Govt/Credit	-2.07%	2.08%	1.07%	3.13%	-0.86%	3.89%	5.80%	2.08%	2.09%	1.85%	3.84%
Consumer Price Index (Inflation) 0.05% 2.12% 0.73% 0.76% 1.50% 1.74% 2.96% 2.12% 1.20% 1.37% 1.8 Manager Universe Q4 2016 YTD 2016 2015 2014 2013 2012 2011 1 YEAR 3 YEAR 5 YEAR 10 YEAR 4 Average Large-Cap Growth Fund -0.30% 3.17% 3.72% 10.06% 34.39% 15.29% -2.24% 3.17% 5.72% 12.97% 6.94 Average Large-Cap Blend Fund 3.87% 10.28% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.14 Average Large-Cap Value Fund 6.36% 14.70% -4.05% 10.44% 31.61% 14.70% -0.57% 14.70% 6.81% 13.02% 5.55% Average Mid-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.83 Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.88 Average Small-Cap Value Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.88 Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.44 Average Allocation -30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation -50% to 70% 1.02% 7.355% -1.83% 6.32% 16.87% 11.93% -0.14% 7.355% 3.89% 8.05% 4.92 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.00 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Bloomberg Barclays High Yield	1.75%	17.13%	-4.47%	2.45%	7.44%	15.81%	4.98%	17.13%	4.66%	7.36%	7.45%
Manager Universe Q4 2016 YTD 2016 2015 2014 2013 2012 2011 1 YEAR 3 YEAR 5 YEAR 10 YEAR Average Large-Cap Growth Fund -0.30% 3.17% 3.72% 10.06% 34.39% 15.29% -2.24% 3.17% 5.72% 12.97% 6.94 Average Large-Cap Blend Fund 3.87% 10.28% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.14 Average Large-Cap Value Fund 6.36% 14.70% -4.05% 10.44% 31.61% 14.70% -0.57% 14.70% 6.81% 13.02% 5.50 Average Mid-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.83 Average Small-Cap Blend Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.84 Average Small-Cap Blend Fund 9.45% 20.66% <t< td=""><td>90-Day US Treasury</td><td>0.09%</td><td>0.33%</td><td>0.05%</td><td>0.03%</td><td>0.07%</td><td>0.11%</td><td>0.10%</td><td>0.33%</td><td>0.14%</td><td>0.12%</td><td>0.80%</td></t<>	90-Day US Treasury	0.09%	0.33%	0.05%	0.03%	0.07%	0.11%	0.10%	0.33%	0.14%	0.12%	0.80%
Average Large-Cap Growth Fund	Consumer Price Index (Inflation)	0.05%	2.12%	0.73%	0.76%	1.50%	1.74%	2.96%	2.12%	1.20%	1.37%	1.81%
Average Large-Cap Blend Fund 3.87% 10.28% -0.88% 11.26% 31.78% 15.08% -0.67% 10.28% 6.79% 13.17% 6.14 Average Large-Cap Value Fund 6.36% 14.70% -4.05% 10.44% 31.61% 14.70% -0.57% 14.70% 6.81% 13.02% 5.56 Average Mid-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.81 Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.84 Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84 Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation -30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation -50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.91 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Manager Universe	Q4 2016	YTD 2016	2015	2014	2013	2012	2011	1 YEAR	3 YEAR	5 YEAR	10 YEAR
Average Large-Cap Value Fund 6.36% 14.70% -4.05% 10.44% 31.61% 14.70% -0.57% 14.70% 6.81% 13.02% 5.50% Average Mid-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.83% Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.86% Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84% Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18% Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90% Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40% Average Allocation – 30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26% Average Allocation –50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.99% Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84% Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.00 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34%	Average Large-Cap Growth Fund	-0.30%	3.17%	3.72%	10.06%	34.39%	15.29%	-2.24%	3.17%	5.72%	12.97%	6.94%
Average Mid-Cap Blend Fund 5.31% 14.17% -4.23% 8.74% 34.06% 16.38% -3.48% 14.17% 5.98% 13.33% 6.81 Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.84 Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84 Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.16 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation – 30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation –50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.95 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.00 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Large-Cap Blend Fund	3.87%	10.28%	-0.88%	11.26%	31.78%	15.08%	-0.67%	10.28%	6.79%	13.17%	6.14%
Average Small-Cap Value Fund 12.12% 25.68% -6.61% 3.47% 35.90% 16.06% -4.51% 25.68% 6.63% 14.02% 6.86 Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84 Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation – 30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation –50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.99 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.00 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Large-Cap Value Fund	6.36%	14.70%	-4.05%	10.44%	31.61%	14.70%	-0.57%	14.70%	6.81%	13.02%	5.50%
Average Small-Cap Blend Fund 9.45% 20.66% -5.19% 4.10% 37.54% 15.30% -3.87% 20.66% 6.00% 13.64% 6.84 Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation – 30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation – 50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.91 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.00 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Mid-Cap Blend Fund	5.31%	14.17%	-4.23%	8.74%	34.06%	16.38%	-3.48%	14.17%	5.98%	13.33%	6.83%
Average Small-Cap Growth Fund 3.35% 11.25% -2.41% 2.56% 41.22% 13.51% -3.28% 11.25% 3.59% 12.29% 7.18 Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation—30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation—50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.95 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.0 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Small-Cap Value Fund	12.12%	25.68%	-6.61%	3.47%	35.90%	16.06%	-4.51%	25.68%	6.63%	14.02%	6.86%
Average Foreign Fund -2.97% 0.81% -1.15% -4.73% 19.12% 18.03% -13.98% 0.81% -1.81% 5.93% 0.90 Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation – 30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation –50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.95 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.0 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Small-Cap Blend Fund	9.45%	20.66%	-5.19%	4.10%	37.54%	15.30%	-3.87%	20.66%	6.00%	13.64%	6.84%
Average Emerging Market Fund -5.41% 8.29% -13.75% -2.78% 0.30% 18.93% -19.52% 8.29% -3.07% 1.83% 1.40 Average Allocation — 30% to 50% -0.19% 6.59% -2.47% 4.26% 9.12% 10.18% 1.45% 6.59% 2.86% 5.68% 4.26 Average Allocation — 50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.99 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.0 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Small-Cap Growth Fund	3.35%	11.25%	-2.41%	2.56%	41.22%	13.51%	-3.28%	11.25%	3.59%	12.29%	7.18%
Average Allocation — 30% to 50%	Average Foreign Fund	-2.97%	0.81%	-1.15%	-4.73%	19.12%	18.03%	-13.98%	0.81%	-1.81%	5.93%	0.90%
Average Allocation—50% to 70% 1.02% 7.35% -1.83% 6.32% 16.87% 11.93% -0.14% 7.35% 3.89% 8.05% 4.95 Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.0 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Emerging Market Fund	-5.41%	8.29%	-13.75%	-2.78%	0.30%	18.93%	-19.52%	8.29%	-3.07%	1.83%	1.40%
Average Fixed Income Fund -2.04% 3.61% -0.13% 5.25% -0.96% 7.72% 6.35% 3.61% 2.86% 3.05% 3.84 Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.0 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Allocation – 30% to 50%	-0.19%	6.59%	-2.47%	4.26%	9.12%	10.18%	1.45%	6.59%	2.86%	5.68%	4.26%
Average High Yield Bond Fund 1.69% 13.32% -4.07% 1.16% 7.05% 14.76% 2.88% 13.32% 3.27% 6.24% 6.0 Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34%	Average Allocation – 50% to 70%	1.02%	7.35%	-1.83%	6.32%	16.87%	11.93%	-0.14%	7.35%	3.89%	8.05%	4.95%
Average Real Estate Fund -2.63% 6.53% 2.41% 28.26% 1.80% 17.57% 7.60% 6.53% 11.78% 10.89% 4.34	Average Fixed Income Fund	-2.04%	3.61%	-0.13%	5.25%	-0.96%	7.72%	6.35%	3.61%	2.86%	3.05%	3.84%
•	Average High Yield Bond Fund	1.69%	13.32%	-4.07%	1.16%	7.05%	14.76%	2.88%	13.32%	3.27%	6.24%	6.01%
Average Aggressive Growth Fund 0.55% 5.60% 0.14% 6.91% 30.85% 14.24% -5.21% 5.60% 4.11% 11.24% 5.60%	Average Real Estate Fund	-2.63%	6.53%	2.41%	28.26%	1.80%	17.57%	7.60%	6.53%	11.78%	10.89%	4.34%
	Average Aggressive Growth Fund	0.55%	5.60%	0.14%	6.91%	30.85%	14.24%	-5.21%	5.60%	4.11%	11.24%	5.67%

The opinions expressed in this report are subject to change without notice. This material has been prepared or is distributed solely for informational purposes and is not a solicitation or an offer to buy any security or to participate in any investment strategy. The performance data quoted represents past performance and does not guarantee future results. Index averages are provided for comparison purposes only. The information and statistics in this report are from sources believed to be reliable but are not guaranteed to be accurate or complete. CAPTRUST Financial Advisors is an investment adviser registered under the Investment Advisers Act of 1940. Sources: Morningstar Direct, MPI

SECTION 3: PLAN INVESTMENT REVIEW

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

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

15

University of Maine System Defined Contribution Plan Specialty-Private Real Estate **TIAA Real Estate Account Emerging Markets** DFA Emerging Markets Core Equity I Small Company Growth Eagle Small Cap Growth R6 Small Company Value Victory Sycamore Small Company Opp I Oppenheimer Intl Growth I Foreign Large Growth Oppenheimer Intl Growth Y **EXPECTED RETURN** Foreign Large Blend Vanguard Total Intl Stock Index Inst Foreign Large Value MFS International Value R6 Goldman Sachs Growth Opp I Medium Company Growth **Goldman Sachs Growth Opportunities R6** Medium Company Blend Vanguard Ext Mkt Idx Inst RidgeWorth Ceredex Mid-Cap Value Eq I Medium Company Value RidgeWorth Ceredex Mid-Cap Value Eq IS Harbor Capital App Instl Large Company Growth **Harbor Capital Appreciation Retirement CREF Stock R3** Large Company Blend Vanguard Institutional Index I JHancock Disciplined Value R5 Large Company Value JHancock Disciplined Value R6 Target Date Funds **Vanguard Target Retirement** World Allocation **CREF Social Choice R3** Prudential Total Return Bond Q Intermediate Term Bond **QDIA OPTION:** Vanguard Total Bond Market Index Adm **CREF Inflation-Linked Bond R3** Inflation Protected Bond Vanguard Target Retirement TIAA Traditional - Group Retirement Annuity Stable Value **CREF Money Market R3** Cash and Equivalents - Money Market Vanguard Federal Money Market

EXPECTED RISK

PLAN INVESTMENT REVIEW | EXECUTIVE ASSET SUMMARY

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

Plan Name	Plan/Contract Number	Plan Assets
University of Maine System Retirement Plan for Faculty and Professionals 403(b) DC	102965	\$1,119,298,394
University of Maine System Retirement Tax Deferred Annuity Plan 403(b) TDA	102966	\$143,170,772
University of Maine System Optional Retirement Savings 403(b)	102967	\$1,404,865
University of Maine System Optional Retirement Savings 401(a)	102968	\$1,141,935
University of Maine System Basic Retirement Plan for Classified Employees 403(b)	102969	\$31,770,064
University of Maine System Basic Retirement Plan for Classified Employees 401(a)	102970	\$60,363,607
University of Maine System Deferred Compensation Plan 457(b)	102971	\$24,937,871
	TOTALS	\$1,382,087,508

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University of Maine System Alternate Carrier Transfers In Date Range October 1, 2016 - December 31, 2016

Alternate Carrier		Amount
FIDELITY	\$	81,823.90
FORESTERS FINANCIAL	\$	65,643.78
VALIC	\$	70,794.21
VOYA	\$	1,143,279.42
Total	s	1,361,541.31

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.

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 fillings or for benefit statements.

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.

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

Period Ending 12.31.16 | Q4 16

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

		_	MARKET	VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$14,164,451	1.31%	\$14,999,372	1.34%
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$267,386	0.02%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$428,498,685	39.66%	\$432,193,984	38.61%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$13,297,121	1.23%	\$13,858,063	1.24%
Intermediate Term Bond	Prudential Total Return Bond Q	\$11,734,829	1.09%	\$14,149,830	1.26%
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$1,341,165	0.12%	\$2,605,204	0.23%
World Allocation	CREF Social Choice R3	\$33,715,372	3.12%	\$33,960,321	3.03%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$2,962,737	0.27%	\$3,233,146	0.29%
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$3,021,249	0.28%	\$3,431,930	0.31%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$2,069,999	0.19%	\$3,060,581	0.27%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$5,715,861	0.53%	\$7,725,120	0.69%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$4,008,839	0.37%	\$6,639,122	0.59%
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$4,003,842	0.37%	\$7,033,469	0.63%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$4,939,620	0.46%	\$6,800,551	0.61%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$3,944,074	0.37%	\$6,019,280	0.54%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$2,744,257	0.25%	\$4,515,289	0.40%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$1,141,973	0.11%	\$2,424,692	0.22%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$275,838	0.03%	\$835,696	0.07%

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Period Ending 12.31.16 | Q4 16

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

			− MARKET VALUE −			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.20	15 (%)	CURRENT	(%)	
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$41,8	46 0.00%	\$67,116	0.01%	
Large Company Value	JHancock Disciplined Value R5	\$16,119,8	79 1.49%	\$14,181,918	1.27%	
Large Company Value	JHancock Disciplined Value R6			\$3,588,201	0.32%	
Large Company Blend	CREF Stock R3	\$186,157,7	35 17.23 %	\$185,975,795	16.62%	
Large Company Blend	Vanguard Institutional Index I	\$13,125,7	55 1.21%	\$22,199,733	1.98%	
Large Company Growth	Harbor Capital App Instl	\$11,422,5	26 1.06 %	\$8,118,755	0.73%	
Large Company Growth	Harbor Capital Appreciation Retirement			\$651,546	0.06%	
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$6,378,1	17 0.59 %	\$8,616,407	0.77%	
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS			\$3,180,903	0.28%	
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$8,347,4	46 0.77 %	\$10,689,096	0.95%	
Medium Company Growth	Goldman Sachs Growth Opp I	\$4,065,5	70 0.38%	\$4,228,630	0.38%	
Medium Company Growth	Goldman Sachs Growth Opportunities R6			\$135,252	0.01%	
Foreign Large Value	MFS International Value R6	\$13,007,2	95 1.20%	\$13,142,498	1.17%	
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$5,586,0	12 0.52 %	\$7,724,284	0.69%	
Foreign Large Growth	Oppenheimer Intl Growth I			\$269,188	0.02%	
Foreign Large Growth	Oppenheimer Intl Growth Y	\$3,521,2	04 0.33%	\$3,897,730	0.35%	
Small Company Value	Victory Sycamore Small Company Opp I	\$3,359,7	11 0.31 %	\$9,044,450	0.81%	
Small Company Growth	Eagle Small Cap Growth R6	\$2,447,7	19 0.23%	\$2,178,964	0.19%	

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Period Ending 12.31.16 | Q4 16

University of	Maine System	Retirement Plan	for Faculty	and Professionals	403(b) DC -	102965
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FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$8,612,652	0.80%	\$13,477,365	1.20%
Specialty-Private Real Estate	TIAA Real Estate Account		\$47,006,311	4.35%	\$49,860,728	4.45%
Other Assets	Non Approved Funds		\$157,517,469	14.58%	\$145,269,885	12.98%
Self-Directed Brokerage	Self Directed Accounts		\$56,047,085	5.19%	\$49,046,914	4.38%
		TOTALS	\$1,080,344,244	100%	\$1,119,298,394	100%

Period Ending 12.31.16 | Q4 16

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

		— MARKET VALUE —				
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)	
Cash and Equivalents - Money Market	CREF Money Market R3	\$1,270,916	0.99%	\$1,452,371	1.01%	
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$0	0.00%	
Stable Value	TIAA Traditional - Group Retirement Annuity	\$46,020,840	36.00%	\$52,780,394	36.87%	
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$2,621,377	2.05%	\$2,479,783	1.73%	
Intermediate Term Bond	Prudential Total Return Bond Q	\$2,534,566	1.98%	\$3,422,343	2.39%	
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$165,607	0.13%	\$603,906	0.42%	
World Allocation	CREF Social Choice R3	\$5,196,488	4.07%	\$5,200,416	3.63%	
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$461,034	0.36%	\$1,020,550	0.71%	
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$346,834	0.27%	\$429,313	0.30%	
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$342,880	0.27%	\$761,117	0.53%	
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$774,231	0.61%	\$2,149,700	1.50%	
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$1,256,795	0.98%	\$1,964,333	1.37%	
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$660,816	0.52%	\$1,297,923	0.91%	
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$571,733	0.45%	\$897,317	0.63%	
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$258,731	0.20%	\$487,981	0.34%	
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$308,566	0.24%	\$192,167	0.13%	
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$26,113	0.02%	\$72,627	0.05%	
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$4,286	0.00%	\$60,979	0.04%	

CONTINUED...

Period Ending 12.31.16 | Q4 16

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

		─ MARKET VALUE ─				
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)	
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$7,494	0.01%	\$2,819	0.00%	
Large Company Value	JHancock Disciplined Value R5	\$1,884,375	1.47%	\$1,620,296	1.13%	
Large Company Value	JHancock Disciplined Value R6	-	-	\$323,047	0.23%	
Large Company Blend	CREF Stock R3	\$18,003,922	14.09%	\$17,793,531	12.43%	
Large Company Blend	Vanguard Institutional Index I	\$3,587,169	2.81%	\$5,625,224	3.93%	
Large Company Growth	Harbor Capital App Instl	\$1,521,247	1.19%	\$1,141,107	0.80%	
Large Company Growth	Harbor Capital Appreciation Retirement	-	-	\$26,628	0.02%	
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$591,428	0.46%	\$890,804	0.62%	
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS	•	-	\$243,490	0.17%	
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$1,327,722	1.04%	\$1,497,045	1.05%	
Medium Company Growth	Goldman Sachs Growth Opp I	\$521,678	0.41%	\$368,615	0.26%	
Medium Company Growth	Goldman Sachs Growth Opportunities R6	-	-	\$820	0.00%	
Foreign Large Value	MFS International Value R6	\$1,537,785	1.20%	\$1,745,873	1.22%	
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$1,044,930	0.82%	\$1,275,052	0.89%	
Foreign Large Growth	Oppenheimer Intl Growth I	-	-	\$24,765	0.02%	
Foreign Large Growth	Oppenheimer Intl Growth Y	\$417,912	0.33%	\$502,139	0.35%	
Small Company Value	Victory Sycamore Small Company Opp I	\$672,707	0.53%	\$1,395,946	0.98%	
Small Company Growth	Eagle Small Cap Growth R6	\$138,214	0.11%	\$109,887	0.08%	

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Period Ending 12.31.16 | Q4 16

University of Maine S	vstem Petirement	Tay Deferred Annuity	v Plan 403(h)	TDA-102966

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FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$885,445	0.69%	\$1,274,912	0.89%
Specialty-Private Real Estate	TIAA Real Estate Account		\$8,386,775	6.56%	\$10,406,780	7.27%
Other Assets	Non Approved Funds		\$21,734,518	17.00%	\$19,373,845	13.53%
Self-Directed Brokerage	Self Directed Accounts		\$2,736,027	2.14%	\$2,254,929	1.57%
		TOTALS	\$127,821,159	100%	\$143,170,772	100%

Period Ending 12.31.16 | Q4 16

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

		─ MARKET VALUE ─			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$9,722	0.66%	\$9,271	0.66%
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$0	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$670,312	45.78%	\$619,822	44.12%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$31,109	2.12%	\$32,113	2.29%
Intermediate Term Bond	Prudential Total Return Bond Q	\$2,246	0.15%	\$2,934	0.21%
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$0	0.00%	\$251	0.02%
World Allocation	CREF Social Choice R3	\$37,036	2.53%	\$37,727	2.69%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$972	0.07%	\$1,011	0.07%
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$1,528	0.10%	\$254	0.02%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$135	0.01%	\$143	0.01%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$35,915	2.45%	\$46,905	3.34%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$1,877	0.13%	\$2,017	0.14%
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$0	0.00%	\$0	0.00%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$0	0.00%	\$0	0.00%
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%

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Period Ending 12.31.16 | Q4 16

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

			— MARKET VALUE -			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.201	5 (%)	CURRENT	(%)	
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$	0.00%	\$0	0.00%	
Large Company Value	JHancock Disciplined Value R5	\$1,85	3 0.13%	\$1,605	0.11%	
Large Company Value	JHancock Disciplined Value R6			\$0	0.00%	
Large Company Blend	CREF Stock R3	\$203,53	7 13.90%	\$212,794	15.15%	
Large Company Blend	Vanguard Institutional Index I	\$2,99	2 0.20%	\$4,677	0.33%	
Large Company Growth	Harbor Capital App Instl	\$1,500	6 0.10%	\$741	0.05%	
Large Company Growth	Harbor Capital Appreciation Retirement			\$0	0.00%	
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$1,60	7 0.11%	\$1,436	0.10%	
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS			\$50	0.00%	
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$1,522	2 0.10%	\$1,724	0.12%	
Medium Company Growth	Goldman Sachs Growth Opp I	\$24	5 0.02%	\$39	0.00%	
Medium Company Growth	Goldman Sachs Growth Opportunities R6			\$0	0.00%	
Foreign Large Value	MFS International Value R6	\$2,39	0.16%	\$2,304	0.16%	
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$1,19	4 0.08%	\$1,197	0.09%	
Foreign Large Growth	Oppenheimer Intl Growth I			\$51	0.00%	
Foreign Large Growth	Oppenheimer Intl Growth Y	\$44	1 0.03%	\$509	0.04%	
Small Company Value	Victory Sycamore Small Company Opp I	\$540	6 0.04%	\$1,162	0.08%	
Small Company Growth	Eagle Small Cap Growth R6	\$38	9 0.03%	\$221	0.02%	

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Period Ending 12.31.16 | Q4 16

University of	Maine Syste	m Ontiona	Petirement	Savings	403(h)	102967

			— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$833	0.06%	\$1,202	0.09%
Specialty-Private Real Estate	TIAA Real Estate Account		\$47,589	3.25%	\$45,550	3.24%
Other Assets	Non Approved Funds		\$406,780	27.78%	\$377,155	26.85%
Self-Directed Brokerage	Self Directed Accounts		\$0	0.00%	\$0	0.00%
		TOTALS	\$1,464,278	100%	\$1,404,865	100%

Period Ending 12.31.16 | Q4 16

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

			MARKE	T VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$3,319	0.28%	\$3,634	0.32%
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$0	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$392,475	32.70%	\$393,666	34.47%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$32,383	2.70%	\$20,367	1.78%
Intermediate Term Bond	Prudential Total Return Bond Q	\$588	0.05%	\$760	0.07%
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$0	0.00%	\$63	0.01%
World Allocation	CREF Social Choice R3	\$24,303	2.02%	\$24,637	2.16%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$244	0.02%	\$253	0.02%
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$1,088	0.09%	\$839	0.07%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$0	0.00%	\$0	0.00%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$31,433	2.62%	\$38,617	3.38%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$391	0.03%	\$420	0.04%
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$747	0.06%	\$806	0.07%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$0	0.00%	\$0	0.00%
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%

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Period Ending 12.31.16 | Q4 16

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

		_	MARKE	T VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$0	0.00%	\$0	0.00%
Large Company Value	JHancock Disciplined Value R5	\$8,416	0.70%	\$9,343	0.82%
Large Company Value	JHancock Disciplined Value R6	-	-	\$0	0.00%
Large Company Blend	CREF Stock R3	\$134,369	11.19%	\$133,881	11.72%
Large Company Blend	Vanguard Institutional Index I	\$1,413	0.12%	\$1,878	0.16%
Large Company Growth	Harbor Capital App Instl	\$18,475	1.54%	\$17,742	1.55%
Large Company Growth	Harbor Capital Appreciation Retirement	-	-	\$0	0.00%
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$565	0.05%	\$642	0.06%
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS	-	-	\$12	0.00%
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$387	0.03%	\$416	0.04%
Medium Company Growth	Goldman Sachs Growth Opp I	\$17,483	1.46%	\$17,421	1.53%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	-	-	\$0	0.00%
Foreign Large Value	MFS International Value R6	\$15,204	1.27%	\$15,358	1.34%
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$281	0.02%	\$338	0.03%
Foreign Large Growth	Oppenheimer Intl Growth I	-	-	\$13	0.00%
Foreign Large Growth	Oppenheimer Intl Growth Y	\$178	0.01%	\$210	0.02%
Small Company Value	Victory Sycamore Small Company Opp I	\$120	0.01%	\$271	0.02%
Small Company Growth	Eagle Small Cap Growth R6	\$373	0.03%	\$397	0.03%

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Period Ending 12.31.16 | Q4 16

University of Maine	System Option	al Retirement Saving	s 401(a) - 102968
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		MARKET VALUE MARKET VALUE MARKET VALUE MARKET VALUE MARKET VALU				
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$14,284	1.19%	\$15,844	1.39%
Specialty-Private Real Estate	TIAA Real Estate Account		\$76,513	6.37%	\$58,998	5.17%
Other Assets	Non Approved Funds		\$310,862	25.90%	\$261,715	22.92%
Self-Directed Brokerage	Self Directed Accounts		\$114,487	9.54%	\$123,396	10.81%
		TOTALS	\$1,200,381	100%	\$1,141,935	100%

Period Ending 12.31.16 | Q4 16

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

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$461,801	1.61%	\$618,547	1.95%
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$2	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$5,700,020	19.88%	\$6,132,272	19.30%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$494,033	1.72%	\$552,746	1.74%
Intermediate Term Bond	Prudential Total Return Bond Q	\$450,841	1.57%	\$636,759	2.00%
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$36,490	0.13%	\$74,975	0.24%
World Allocation	CREF Social Choice R3	\$1,026,629	3.58%	\$1,068,820	3.36%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$324,427	1.13%	\$272,110	0.86%
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$171,976	0.60%	\$137,528	0.43%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$214,587	0.75%	\$345,261	1.09%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$536,379	1.87%	\$811,756	2.56%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$466,979	1.63%	\$936,012	2.95%
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$262,271	0.91%	\$443,884	1.40%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$208,469	0.73%	\$297,787	0.94%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$212,125	0.74%	\$297,390	0.94%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$142,202	0.50%	\$233,350	0.73%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$55,596	0.19%	\$93,358	0.29%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$36,663	0.13%	\$73,838	0.23%

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Period Ending 12.31.16 | Q4 16

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

		- MARKET VALUE -					
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)		
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$674	0.00%	\$9,780	0.03%		
Large Company Value	JHancock Disciplined Value R5	\$476,593	1.66%	\$419,105	1.32%		
Large Company Value	JHancock Disciplined Value R6	-	-	\$122,491	0.39%		
Large Company Blend	CREF Stock R3	\$3,193,830	11.14%	\$3,212,845	10.11%		
Large Company Blend	Vanguard Institutional Index I	\$410,238	1.43%	\$748,525	2.36%		
Large Company Growth	Harbor Capital App Instl	\$619,967	2.16%	\$527,971	1.66%		
Large Company Growth	Harbor Capital Appreciation Retirement	-	-	\$3,049	0.01%		
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$103,896	0.36%	\$163,112	0.51%		
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS		-	\$127,105	0.40%		
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$135,840	0.47%	\$220,415	0.69%		
Medium Company Growth	Goldman Sachs Growth Opp I	\$394,721	1.38%	\$404,887	1.27%		
Medium Company Growth	Goldman Sachs Growth Opportunities R6	-	-	\$0	0.00%		
Foreign Large Value	MFS International Value R6	\$644,124	2.25%	\$685,481	2.16%		
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$91,693	0.32%	\$188,081	0.59%		
Foreign Large Growth	Oppenheimer Intl Growth I	-	-	\$21,850	0.07%		
Foreign Large Growth	Oppenheimer Intl Growth Y	\$45,296	0.16%	\$69,750	0.22%		
Small Company Value	Victory Sycamore Small Company Opp I	\$199,642	0.70%	\$470,488	1.48%		
Small Company Growth	Eagle Small Cap Growth R6	\$27,276	0.10%	\$32,674	0.10%		

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Period Ending 12.31.16 | Q4 16

University of Maine	System Rasio	Petirement	Plan for	Classified	Employees	403(h)	- 102969
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		— MARKET VALUE —				
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$472,422	1.65%	\$687,139	2.16%
Specialty-Private Real Estate	TIAA Real Estate Account		\$1,849,250	6.45%	\$2,029,933	6.39%
Other Assets	Non Approved Funds		\$6,607,607	23.04%	\$6,035,842	19.00%
Self-Directed Brokerage	Self Directed Accounts		\$2,603,877	9.08%	\$2,563,149	8.07%
		TOTALS	\$28,678,435	100%	\$31,770,064	100%

Period Ending 12.31.16 | Q4 16

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

		─ MARKET VALUE ─			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$1,509,830	2.69%	\$1,419,189	2.35%
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$13	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$13,250,524	23.58%	\$14,028,827	23.24%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$953,390	1.70%	\$1,045,099	1.73%
Intermediate Term Bond	Prudential Total Return Bond Q	\$777,767	1.38%	\$1,037,070	1.72%
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$39,063	0.07%	\$94,748	0.16%
World Allocation	CREF Social Choice R3	\$2,625,993	4.67%	\$2,715,282	4.50%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$418,042	0.74%	\$492,158	0.82%
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$257,989	0.46%	\$263,210	0.44%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$448,923	0.80%	\$583,552	0.97%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$937,525	1.67%	\$1,177,594	1.95%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$850,970	1.51%	\$1,340,971	2.22%
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$449,587	0.80%	\$781,116	1.29%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$436,696	0.78%	\$601,057	1.00%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$293,966	0.52%	\$418,897	0.69%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$223,665	0.40%	\$340,464	0.56%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$95,400	0.17%	\$160,641	0.27%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$35,170	0.06%	\$75,237	0.12%

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Period Ending 12.31.16 | Q4 16

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

		_	- MARKET VALUE -					
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)			
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$674	0.00%	\$9,779	0.02%			
Large Company Value	JHancock Disciplined Value R5	\$669,342	1.19%	\$700,406	1.16%			
Large Company Value	JHancock Disciplined Value R6	-	-	\$159,468	0.26%			
Large Company Blend	CREF Stock R3	\$7,987,829	14.22%	\$8,071,198	13.37%			
Large Company Blend	Vanguard Institutional Index I	\$645,159	1.15%	\$1,141,971	1.89%			
Large Company Growth	Harbor Capital App Instl	\$798,041	1.42%	\$802,234	1.33%			
Large Company Growth	Harbor Capital Appreciation Retirement	-	-	\$4,604	0.01%			
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$191,761	0.34%	\$277,595	0.46%			
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS	-	-	\$161,465	0.27%			
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$270,593	0.48%	\$396,264	0.66%			
Medium Company Growth	Goldman Sachs Growth Opp I	\$421,498	0.75%	\$479,334	0.79%			
Medium Company Growth	Goldman Sachs Growth Opportunities R6	-	-	\$0	0.00%			
Foreign Large Value	MFS International Value R6	\$888,052	1.58%	\$1,027,422	1.70%			
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$177,318	0.32%	\$291,281	0.48%			
Foreign Large Growth	Oppenheimer Intl Growth I	-	-	\$7,483	0.01%			
Foreign Large Growth	Oppenheimer Intl Growth Y	\$89,502	0.16%	\$129,418	0.21%			
Small Company Value	Victory Sycamore Small Company Opp I	\$248,802	0.44%	\$577,144	0.96%			
Small Company Growth	Eagle Small Cap Growth R6	\$38,198	0.07%	\$54,590	0.09%			

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Period Ending 12.31.16 | Q4 16

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University	oi Maine	System	Dasic	Retirement	Plan	IOI	Classified	EIIIDIOVE	es 401(a)	- 102970

	— MARKET VALUE					
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$527,424	0.94%	\$805,114	1.33%
Specialty-Private Real Estate	TIAA Real Estate Account		\$3,384,389	6.02%	\$3,543,381	5.87%
Other Assets	Non Approved Funds		\$14,144,637	25.18%	\$13,101,869	21.70%
Self-Directed Brokerage	Self Directed Accounts		\$2,096,355	3.73%	\$2,046,461	3.39%
		TOTALS	\$56,184,073	100%	\$60,363,607	100%

ASSET INVESTMENT REVIEW | SUMMARY

Period Ending 12.31.16 | Q4 16

University of Maine S	vstem Deferred	Compensation	Dlan	457(b)	102971
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		_	MARKET	r VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$471,493	2.28%	\$529,498	2.12%
Cash and Equivalents - Money Market	Vanguard Federal Money Market	-	-	\$35,492	0.14%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$5,148,401	24.93%	\$6,219,922	24.94%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$474,741	2.30%	\$586,270	2.35%
Intermediate Term Bond	Prudential Total Return Bond Q	\$612,548	2.97%	\$895,107	3.59%
Intermediate Term Bond	Vanguard Total Bond Market Index Adm	\$2,218	0.01%	\$48,594	0.19%
World Allocation	CREF Social Choice R3	\$1,100,213	5.33%	\$1,215,718	4.87%
Target Date Ret Income Moderate	Vanguard Target Retirement Income Inv	\$168,285	0.81%	\$128,688	0.52%
Target Date 2000-2010 Conservative	Vanguard Target Retirement 2010 Inv	\$247,335	1.20%	\$306,473	1.23%
Target Date 2015 Moderate	Vanguard Target Retirement 2015 Inv	\$291,448	1.41%	\$375,654	1.51%
Target Date 2020 Moderate	Vanguard Target Retirement 2020 Inv	\$371,303	1.80%	\$601,347	2.41%
Target Date 2025 Moderate	Vanguard Target Retirement 2025 Inv	\$643,243	3.11%	\$654,453	2.62%
Target Date 2030 Conservative	Vanguard Target Retirement 2030 Inv	\$329,898	1.60%	\$583,136	2.34%
Target Date 2035 Moderate	Vanguard Target Retirement 2035 Inv	\$101,329	0.49%	\$144,777	0.58%
Target Date 2040 Moderate	Vanguard Target Retirement 2040 Inv	\$105,924	0.51%	\$154,953	0.62%
Target Date 2045 Moderate	Vanguard Target Retirement 2045 Inv	\$55,490	0.27%	\$86,149	0.35%
Target Date 2050 Moderate	Vanguard Target Retirement 2050 Inv	\$26,478	0.13%	\$30,118	0.12%
Target Date 2055 Moderate	Vanguard Target Retirement 2055 Inv	\$0	0.00%	\$0	0.00%

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ASSET INVESTMENT REVIEW | SUMMARY

Period Ending 12.31.16 | Q4 16

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

		-	MARKE	T VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2015	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Target Retirement 2060 Inv	\$0	0.00%	\$0	0.00%
Large Company Value	JHancock Disciplined Value R5	\$393,838	1.91%	\$444,904	1.78%
Large Company Value	JHancock Disciplined Value R6	-	-	\$90,121	0.36%
Large Company Blend	CREF Stock R3	\$1,498,413	7.26%	\$1,698,898	6.81%
Large Company Blend	Vanguard Institutional Index I	\$460,370	2.23%	\$884,453	3.55%
Large Company Growth	Harbor Capital App Instl	\$442,091	2.14%	\$377,020	1.51%
Large Company Growth	Harbor Capital Appreciation Retirement	-	-	\$18,217	0.07%
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq I	\$121,659	0.59%	\$158,476	0.64%
Medium Company Value	RidgeWorth Ceredex Mid-Cap Value Eq IS	-	-	\$75,372	0.30%
Medium Company Blend	Vanguard Ext Mkt Idx Inst	\$342,280	1.66%	\$453,350	1.82%
Medium Company Growth	Goldman Sachs Growth Opp I	\$198,700	0.96%	\$189,485	0.76%
Medium Company Growth	Goldman Sachs Growth Opportunities R6	-	-	\$974	0.00%
Foreign Large Value	MFS International Value R6	\$344,198	1.67%	\$426,873	1.71%
Foreign Large Blend	Vanguard Total Intl Stock Index Inst	\$170,112	0.82%	\$227,904	0.91%
Foreign Large Growth	Oppenheimer Intl Growth I	-	-	\$8,113	0.03%
Foreign Large Growth	Oppenheimer Intl Growth Y	\$97,625	0.47%	\$109,479	0.44%
Small Company Value	Victory Sycamore Small Company Opp I	\$135,958	0.66%	\$338,886	1.36%
Small Company Growth	Eagle Small Cap Growth R6	\$47,919	0.23%	\$60,262	0.24%

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ASSET INVESTMENT REVIEW | SUMMARY

Period Ending 12.31.16 | Q4 16

University of	Maina Systa	m Deferred	Compensation	Dlan 4576	h) - 102971
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			_	MARKET	VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2015	(%)	CURRENT	(%)
Emerging Markets	DFA Emerging Markets Core Equity I		\$262,922	1.27%	\$487,321	1.95%
Specialty-Private Real Estate	TIAA Real Estate Account		\$1,568,671	7.60%	\$1,940,406	7.78%
Other Assets	Non Approved Funds		\$3,462,829	16.77%	\$3,433,240	13.77%
Self-Directed Brokerage	Self Directed Accounts		\$955,381	4.63%	\$917,770	3.68%
		TOTALS	\$20,653,315	100%	\$24,937,871	100%

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT	QUANTITATIVE									QUALITATIVE		TOTALS	
	Risk-Ad Perfori			eers mance	St	yle	Confi	idence	Fund	Fund	Overall	Total	
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score	
Inflation Protected Bond CREF Inflation-Linked Bond R3					_							89	
Intermediate Term Bond Prudential Total Return Bond Q												100	
World Allocation CREF Social Choice R3										<u></u>		99	
Large Company Value JHancock Disciplined Value R5	_		_				_					90	
Large Company Value JHancock Disciplined Value R6	_		_				_					90	
Large Company Growth Harbor Capital App Instl	<u></u>	_										86	
Large Company Growth Harbor Capital Appreciation Retirement	_	_										86	
Medium Company Value RidgeWorth Ceredex Mid-Cap Value Eq I										<u></u>		96	

LEGEND

IN GOOD STANDING	MARKED FOR REVIEW	CONSIDER FOR TERMINATION	CONTINUED

The CAPTRUST Investment Policy Monitor ("Scorecard") is an illustration of our monitoring system and is designed to assist our Retirement Plan clients in their efforts to provide fiduciary oversight to retirement plan 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 plan sponsor use only and is not intended to be shared with plan participants.

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT		QUANTITATIVE									TOTALS	
	Risk-Ad Perfori			eers mance	Sty	yle	Confi	dence	Fund	Fund	Overall	Total
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score
Medium Company Value RidgeWorth Ceredex Mid-Cap Value Eq IS										_		96
Medium Company Growth Goldman Sachs Growth Opp I			_	_			_	_			_	76
Medium Company Growth Goldman Sachs Growth Opportunities R6			<u> </u>	_			V	_			V	76
Foreign Large Value MFS International Value R6					_							99
Foreign Large Growth Oppenheimer Intl Growth I			_									94
Foreign Large Growth Oppenheimer Intl Growth Y		•	_				_					94
Small Company Value Victory Sycamore Small Company Opp I												100
Small Company Growth Eagle Small Cap Growth R6		_						_		<u></u>		85

LEGEND

IN GOOD STANDING	$\overline{}$	MARKED FOR REVIEW	CONSIDER FOR TERMINATION	CONTINUED

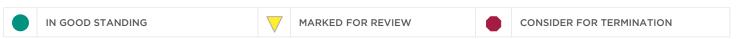
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University of Maine System Defined Contribution Plan

INVESTMENT				QUANTI	TATIVE				QUALIT	ATIVE	тот	TOTALS	
	Risk-Adjusted vs. Peers Style Confidence Performance Performance		idence	Fund	Fund	Overall	Total						
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm	0,0,0,0	Score	
Emerging Markets DFA Emerging Markets Core Equity I										$\overline{}$		92	

LEGEND



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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

TARGET DATE INVESTMENTS

INVESTMENT		QUANTITATIVE							QUALITATIVE				
		djusted mance		Peers mance	Glide	epath	Portfolio	Underlying	Fund	Fund		Total	
	3 Yr	5 Yr	3 Yr	5 Yr	% of Equities	Beta to Equities		Inv. Vehicles	Mgmt	Firm	Overall	Score	
Vanguard Target Retirement												96	

CAPITAL PRESERVATION INVESTMENTS

INVESTMENT	Overall	Commentary
CREF Money Market R3		According to CAPTRUST Financial Advisors, this Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
Vanguard Federal Money Market		According to CAPTRUST Financial Advisors, this Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
TIAA Traditional - Group Retirement Annuity		According to CAPTRUST Financial Advisors, 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 Retirement Plan clients in their efforts to provide fiduciary oversight to retirement plan assets. It is not intended as oslicitation 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 Performance (3.8 5.7); 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 metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as quality preservation option being evaluated, and may include quantitative metrics and may include quantitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative crit

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University of Maine System Defined Contribution Plan

PASSIVE INVESTMENTS

INVESTMENT	Overall	Commentary
Vanguard Total Bond Market Index Adm	•	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 Ext Mkt Idx Inst	•	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 Inst	•	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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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

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.

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PLAN INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

FUND MANAGEMENT ITEMS	COMMENTARY
CREF Inflation-Linked Bond Account	
	Effective April 1, 2016, the benchmark for CREF Inflation-Linked Bond Account changed from the Barclays U.S. TIPS Index to the Barclays U.S. TIPS 1-10 Year Index.
	In May 2016, Nicholas Travaglino assumed the role of co-portfolio manager for CREF Inflation-Linked Bond Account. John Cerra continues in his capacity as lead portfolio manager.
Goldman Sachs Growth Opp	
	In June 2016, Diego Lozada-Ghirardi, Vice President and Sector Portfolio Manager within the US Growth Equity team, left the firm. Diego covered the Energy sector for the US Growth Equity team since joining the firm in 2009. Jessica Katz, who joined the firm in September 2015, will assume coverage of the Energy sector.
	During 2Q 2016, Jenny Chang joined the Growth Equity Team. Jenny joins as a Vice President, serving as a Healthcare Sector Portfolio Manager with research coverage across the market capitalization spectrum.
MFS International Value	
	The MFS International Value strategy has re-opened to institutional clients, although it will remain soft closed to retail investors.
Prudential Total Return Bond	
	Effective January 1, 2016, James J. Sullivan, formerly head of Prudential Fixed Income, took on the role of Executive Chairman. In turn, Michael K. Lillard, currently Chief Investment Officer, will be appointed Chief Investment Officer and head of Prudential Fixed Income. Additionally, on November 9, 2015 Matthew J. Fitzgerald began employment as Prudential Fixed Income's Chief Compliance Officer.
Victory Sycamore Small Company Opp	
	Effective at the close of trading on December 2, 2016, Victory Sycamore Small Company Opportunity Fund will be closed to new retirement plans. Existing retirement plan shareholders will be allowed to continue to invest in the Fund, and sales of shares will be permitted within retirement plans that currently offer the Fund.

PLAN INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

FUND MANAGEMENT ITEMS	COMMENTARY
Vanguard Target Retirement	
	Vanguard has announced it will launch a 2065 vintage for the Target Retirement suite and merge the 2010 vintage with the Target Retirement Income Fund. These adjustments will occur in mid-2017.

FUND FIRM ITEMS	COMMENTARY
Dimensional Fund Advisors	
Difficisional Fund Advisors	
	David Martin retired from the roles of Chief Financial Officer and Treasurer at the end of March 2016. Greg Hinkle, Dimensional's Controller, took over Dave's responsibilities effective April 1, 2016 and was named CFO and Treasurer in July 2016.
Eagle Asset Management, Inc.	
	In early 2016, the senior management succession plan was implemented when Richard Rossi, president and co-COO announced his retirement effective December 31, 2016. Richard stepped down as president on April 4, 2016, but remains as a director of Eagle through the end of 2016. Succeeding Richard in April were Cooper Abbott, co-COO and executive vice president of investments, and Court James, vice president of new business development. This was an administrative change; there were no ownership or investment strategy changes.
Harbor Funds	
	It was announced in Q3 2016 that effective 10/21/2016, ORIX Corporation acquired the remaining interest that Rabobank Nederland held in Harbor Capital's parent company, Robeco Groep (10%). As a result, Robeco Groep is wholly-owned by ORIX, a global financial services company based in Japan.
John Hancock Funds	
	John Hancock launched two new ESG funds on December 14, 2016. The John Hancock ESG Core Bond Fund is managed by Breckinridge and the John Hancock International Equity Fund is managed by Boston Common Asset Management.

PLAN INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

FUND FIRM ITEMS	COMMENTARY
Prudential Investments	
	Jeffrey T. Becker became chairman and chief executive officer of Jennison Associates, effective Oct. 3, 2016. Jennison is an investment manager of PGIM, the global investment management businesses of Prudential Financial.
Ridgeworth Capital Management, Inc.	
	On December 16, 2016, Virtus Investment Partners announced that it had reached an agreement to acquire Ridgeworth Investments. The transaction is expected to close in mid-2017, at which time Ridgeworth will become a wholly owned subsidiary of Virtus.
TIAA-CREF	
	In Q3 2016, Michelle Beck was promoted to the role of Chief Risk Officer of TIAA Global Asset Management (TGAM), head of risk management and valuation service, moving from her role as head of risk management for Nuveen Investments and TGAM Public Markets. Michelle will report to Glenn Richter, COO of TGAM.
	On October 7, 2016, TIAA announced that CIO Bill Riegel, will retire effective April 1, 2017. In the meantime, BillI's team will report directly to Brad Finkle, President of TIAA Investments.
Victory Capital Management, Inc.	
	The planned acquisition of RS Investments by Victory Capital Management was completed on Friday, July 29, 2016.

PLAN INVESTMENT REVIEW | TARGET DATE REVIEW

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

VANGUARD TARGET RETIREMENT

MEETING DATE: JANUARY 12, 2017

FOCUS AREA

Organizational

COMMENTARY

In January, Vanguard announced that they are launching a 2065 vintage for each series within the Target Retirement suite, including the Target Retirement CITs. In addition, Vanguard will merge the 2010 vintage fund with the Income vintage fund. This will also be implemented across the suite and CITs. These adjustments will take place in mid-2017.

Investments

COMMENTARY

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

Performance and Positioning

COMMENTARY

In January, Vanguard announced that they are launching a 2065 vintage for each series within the Target Retirement suite, including the Target Retirement CITs. In addition, Vanguard will merge the 2010 vintage fund with the Income vintage fund. This will also be implemented across the suite and CITs. These adjustments will take place in mid-2017.

HARBOR CAPITAL APPRECIATION

Topic	The strategy's 2016 results significantly lagged its peer group and benchmark. Notably, the strategy was coming off a strong 2015 and its longer-term results compare favorably to its peers.
Attribution	2016 underperformance was driven by poor stock selection in healthcare (Novo Nordisk, UnitedHealth, Alexion Pharmaceuticals), technology (LinkedIn), and consumer staples (Kroger). Much of the underperformance occurred in Q1 when higher growth stocks came under pressure, as the strategy has more exposure to those stocks vs. the benchmark. Biotech stocks were particularly hard hit in Q1 on drug pricing concerns, and the strategy has significant exposure to this area due to strong product innovation. Higher yielding stocks led the market in Q1 due to historically low interest rates, and the strategy has less exposure to those areas such as consumer staples and telecom.
Our View	We continue to recommend this strategy as it benefits from the long tenure of co-managers Sig Segalas (1990) and Kathleen McCarragher (with the firm since 1998, promoted to co-PM in 2013). They are supported by an experienced team of ten sector analysts. The process focuses on the sustainability of growth and finding companies whose growth prospects are under appreciated by the market, both in duration and magnitude. The strategy uses an average investment horizon of five years as the team focuses on secular growth themes in sectors like technology, healthcare, and consumer discretionary.

RIDGEWORTH MID CAP VALUE

We are removing this strategy from our watch list and it remains on our recommended list.

- The strategy was placed on watch in Q3 2015 due to inconsistent performance. In recent years, the strategy faced stylistic headwinds similar to its peers. However, poor stock selection and its benchmark agnostic approach magnified the underperformance.
- Based on valuation concerns, the strategy is underweight to REITs and utilities which comprise nearly 30% of the index and benefited from the low interest rate backdrop.
- 2016 results showed improvement, as they were in-line with the index and in the top half of the peer group. Cyclical sectors such as energy, industrials, and financials led the market, which was a tailwind for the strategy's pro-cyclical positioning.
- Portfolio manager Don Wordell was early in positioning for higher interest rates and an improving economy, but his decision has paid off recently. As interest rates rose in the second half of 2016, real estate and utilities came under pressure while banks rose sharply. This aided the strategy's performance.
- In 2015, the strategy had several positions in technology and consumer discretionary where the investment thesis did not unfold as expected. The strategy largely avoided those issues in 2016.

GOLDMAN SACHS GROWTH OPPORTUNITIES

In November 2016, CAPTRUST due diligence conducted an on-site meeting in NYC with portfolio manager Ashley Woodruff.

Personnel and Process Changes

- The growth equity team has stabilized after the loss of both PMs in 2014-15, and added analysts in healthcare and consumer during 2016.
- The team now has 18 members, with an average of 15 years of industry experience.
- Steve Barry remains a co-PM on the strategy and is very involved in the process, as he and Ashley must agree on all trades.
- Ashley Woodruff has reduced her sector coverage in order to focus on the portfolio manager role.
- A devil's advocate is now assigned for each new stock that is presented to the team.

Performance

- Following a disappointing performance in 2015, the strategy again lagged its peers and benchmark in 2016.
- The strategy outperformed in the first half of 2016, but lagged significantly in the second half due to a rally in lower quality stocks. The team also had some missteps in individual positions where their thesis did not work as expected such as Restoration Hardware and LinkedIn.
- The strategy posted negative stock selection in the consumer sectors in 2015-16 as the team was overly optimistic on consumer spending.

GOLDMAN SACHS GROWTH OPPORTUNITIES

CAPTRUST View

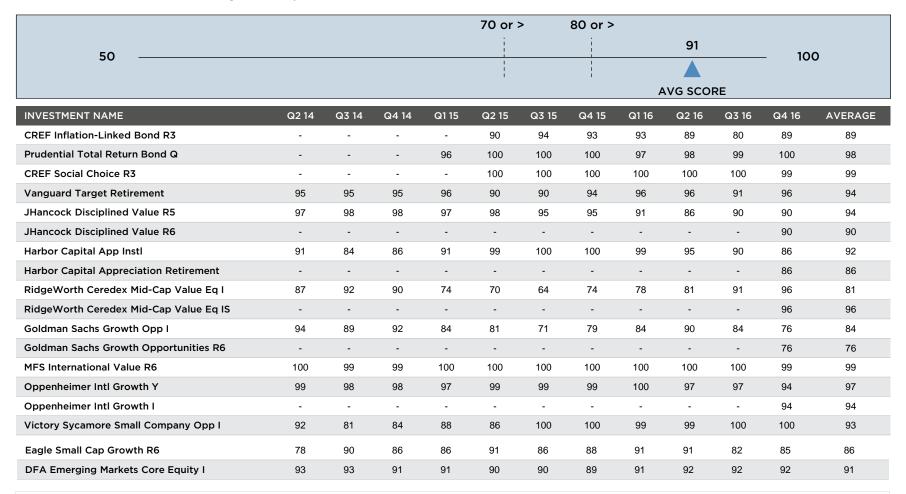
- We are removing the strategy from our recommended list.
- The strategy has recently faced stylistic headwinds and we do not believe that the team has navigated the challenging backdrop as well as some of its peers.
- We are also concerned about execution in the consumer sectors. Prior to joining the firm,
 Ashley Woodruff had a strong reputation as a consumer analyst at T. Rowe Price, but she is
 now more focused on the PM role.
- We have remained patient with this strategy as the team stabilized and Ashley implemented some changes to the process. However, these changes have not resulted in improved performance despite a sizeable and experienced team.
- Thus, we have less confidence in the team's ability to outperform its peers and benchmark going forward.

PLAN INVESTMENT REVIEW | PLAN PERFORMANCE MEASUREMENT

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

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 91

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.

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
CASH AND EQUIVALENTS - MONEY MARKET											
CREF Money Market R3	0.04%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	0.04%	0.03%	0.75%
Vanguard Federal Money Market	0.08%	0.30%	0.04%	0.01%	0.02%	0.01%	0.01%	0.30%	0.12%	0.08%	0.83%
BofA ML US Treasury Bill 3 Mon USD	0.08%	0.33%	0.05%	0.03%	0.07%	0.11%	0.10%	0.33%	0.14%	0.12%	0.80%
STABLE VALUE											
TIAA Traditional - Group Retirement Annuity				Curr	ent Rate is 4	.00%					
BofA ML US Treasury Bill 3 Mon USD	0.08%	0.33%	0.05%	0.03%	0.07%	0.11%	0.10%	0.33%	0.14%	0.12%	0.80%
Hueler Stable Value Index (gross)	0.45%	1.79%	1.77%	1.69%	1.84%	2.26%	2.69%	1.79%	1.75%	1.87%	2.77%
INFLATION PROTECTED BOND											
CREF Inflation-Linked Bond R3	-1.66%	4.23%	-1.68%	3.34%	-9.01%	6.41%	13.18%	4.23%	1.93%	0.50%	3.92%
BBgBarc US Treasury US TIPS TR USD	-2.41%	4.68%	-1.44%	3.64%	-8.61%	6.98%	13.56%	4.68%	2.26%	0.89%	4.36%
Morningstar Inflation Protected Bond Universe	-1.65%	4.63%	-2.22%	2.01%	-7.62%	6.35%	10.80%	4.63%	1.41%	0.42%	3.43%
INTERMEDIATE TERM BOND											
Prudential Total Return Bond Q	-3.01%	4.83%	0.09%	7.25%	-0.91%	9.96%	7.93%	4.83%	4.01%	4.16%	5.86%
Vanguard Total Bond Market Index Adm	-3.17%	2.60%	0.40%	5.89%	-2.15%	4.15%	7.68%	2.60%	2.94%	2.14%	4.29%
BBgBarc Aggregate Bond Index	-2.98%	2.65%	0.55%	5.97%	-2.02%	4.21%	7.84%	2.65%	3.03%	2.23%	4.34%
Morningstar Intermediate Term Bond Universe	-2.53%	3.24%	-0.25%	5.23%	-1.43%	6.66%	6.11%	3.24%	2.74%	2.68%	4.20%
WORLD ALLOCATION											
CREF Social Choice R3	0.38%	7.40%	-0.87%	6.83%	16.68%	10.99%	1.81%	7.40%	4.38%	8.05%	5.13%
60% MSCI World 40% BBgBarc Agg Index	0.64%	6.67%	-0.09%	5.63%	17.90%	12.26%	-0.92%	6.67%	4.03%	8.30%	4.40%
Morningstar World Allocation Universe	-0.53%	6.07%	-4.30%	1.50%	11.13%	11.68%	-3.21%	6.07%	1.04%	5.40%	3.74%

CONTINUED...

^{*}ANNUALIZED

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE RET INCOME MODERATE											
Vanguard Target Retirement Income Inv	-0.99%	5.25%	-0.17%	5.54%	5.87%	8.23%	5.25%	5.25%	3.50%	4.91%	4.88%
Morningstar Lifetime Moderate Income Index	-0.66%	5.98%	-1.30%	4.09%	6.45%	8.78%	4.13%	5.98%	2.88%	4.75%	4.80%
Retirement Income Moderate	-0.87%	5.04%	-1.38%	4.58%	6.61%	8.98%	2.09%	5.04%	2.78%	4.71%	3.87%
TARGET DATE 2000-2010 CONSERVATIVE											
Vanguard Target Retirement 2010 Inv	-1.02%	5.22%	-0.20%	5.93%	9.10%	10.12%	3.37%	5.22%	3.61%	5.97%	4.61%
Morningstar Lifetime Conservative 2010 Index	-1.71%	5.61%	-1.48%	4.62%	3.77%	9.02%	5.51%	5.61%	2.87%	4.25%	4.90%
2000-2010 Conservative	-1.38%	4.71%	-0.86%	3.35%	5.17%	6.88%	1.88%	4.71%	2.56%	4.00%	3.25%
TARGET DATE 2015 MODERATE											
Vanguard Target Retirement 2015 Inv	-0.55%	6.16%	-0.46%	6.56%	13.00%	11.37%	1.71%	6.16%	4.04%	7.22%	4.85%
Morningstar Lifetime Moderate 2015 Index	-0.76%	7.10%	-1.73%	5.55%	10.50%	11.49%	2.90%	7.10%	3.57%	6.48%	5.16%
2015 Moderate	-0.14%	6.27%	-1.40%	4.69%	11.76%	11.14%	-0.32%	6.27%	3.15%	6.71%	4.05%
TARGET DATE 2020 MODERATE											
Vanguard Target Retirement 2020 Inv	-0.18%	6.95%	-0.68%	7.11%	15.85%	12.35%	0.60%	6.95%	4.39%	8.17%	4.99%
Morningstar Lifetime Moderate 2020 Index	-0.56%	7.66%	-1.88%	5.87%	12.98%	12.53%	1.75%	7.66%	3.80%	7.29%	5.18%
2020 Moderate	-0.11%	6.11%	-1.41%	5.02%	15.48%	12.88%	-1.29%	6.11%	3.22%	7.68%	3.99%
TARGET DATE 2025 MODERATE											
Vanguard Target Retirement 2025 Inv	0.11%	7.48%	-0.85%	7.17%	18.14%	13.29%	-0.37%	7.48%	4.53%	8.86%	5.00%
Morningstar Lifetime Moderate 2025 Index	-0.12%	8.39%	-2.06%	6.04%	16.28%	13.67%	0.24%	8.39%	4.03%	8.27%	5.22%
2025 Moderate	0.09%	6.81%	-1.41%	5.11%	17.80%	13.86%	-2.15%	6.81%	3.40%	8.30%	4.27%

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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2030 CONSERVATIVE											
Vanguard Target Retirement 2030 Inv	0.42%	7.85%	-1.03%	7.17%	20.49%	14.24%	-1.27%	7.85%	4.58%	9.50%	4.98%
Morningstar Lifetime Conservative 2030 Index	-1.14%	7.73%	-2.06%	6.09%	12.23%	12.89%	1.80%	7.73%	3.83%	7.24%	5.27%
2030 Conservative	0.17%	7.23%	-2.01%	5.09%	15.23%	13.03%	-1.24%	7.23%	3.48%	7.63%	3.74%
TARGET DATE 2035 MODERATE											
Vanguard Target Retirement 2035 Inv	0.78%	8.26%	-1.26%	7.24%	22.82%	15.16%	-2.24%	8.26%	4.66%	10.15%	5.09%
Morningstar Lifetime Moderate 2035 Index	1.17%	10.07%	-2.58%	5.80%	22.03%	15.36%	-2.28%	10.07%	4.30%	9.82%	5.41%
2035 Moderate	0.60%	7.93%	-1.34%	5.34%	22.06%	15.51%	-3.32%	7.93%	3.90%	9.73%	4.68%
TARGET DATE 2040 MODERATE											
Vanguard Target Retirement 2040 Inv	1.13%	8.73%	-1.59%	7.15%	24.37%	15.56%	-2.55%	8.73%	4.66%	10.51%	5.26%
Morningstar Lifetime Moderate 2040 Index	1.60%	10.61%	-2.83%	5.51%	23.05%	15.71%	-2.85%	10.61%	4.28%	10.06%	5.45%
2040 Moderate	0.76%	7.41%	-1.43%	5.52%	23.50%	15.58%	-4.37%	7.41%	3.75%	9.88%	4.56%
TARGET DATE 2045 MODERATE											
Vanguard Target Retirement 2045 Inv	1.24%	8.87%	-1.57%	7.16%	24.37%	15.58%	-2.51%	8.87%	4.72%	10.54%	5.27%
Morningstar Lifetime Moderate 2045 Index	1.74%	10.84%	-3.03%	5.25%	23.07%	15.84%	-3.19%	10.84%	4.20%	10.03%	5.41%
2045 Moderate	0.98%	7.94%	-1.99%	5.03%	22.01%	15.15%	-4.56%	7.94%	3.62%	9.47%	4.43%
TARGET DATE 2050 MODERATE											
Vanguard Target Retirement 2050 Inv	1.25%	8.85%	-1.57%	7.18%	24.34%	15.58%	-2.54%	8.85%	4.72%	10.54%	5.27%
Morningstar Lifetime Moderate 2050 Index	1.71%	10.89%	-3.19%	5.00%	22.83%	15.94%	-3.47%	10.89%	4.07%	9.93%	5.35%
2050 Moderate	0.99%	7.95%	-1.79%	5.23%	23.75%	15.60%	-4.92%	7.95%	3.70%	9.77%	5.12%

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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2055 MODERATE											
Vanguard Target Retirement 2055 Inv	1.26%	8.88%	-1.72%	7.19%	24.33%	15.58%	-2.27%	8.88%	4.68%	10.51%	-
Morningstar Lifetime Moderate 2055 Index	1.65%	10.90%	-3.34%	4.74%	22.49%	16.00%	-3.75%	10.90%	3.94%	9.79%	5.27%
2055 Moderate	1.30%	8.38%	-1.55%	5.95%	23.73%	15.47%	-4.54%	8.38%	4.21%	10.06%	5.38%
TARGET DATE 2060+ MODERATE											
Vanguard Target Retirement 2060 Inv	1.25%	8.84%	-1.68%	7.16%	24.35%	-	-	8.84%	4.67%	-	-
Morningstar Lifetime Moderate 2060 Index	1.57%	10.88%	-3.48%	4.53%	22.18%	15.90%	-4.11%	10.88%	3.81%	9.64%	5.29%
2060+ Moderate	1.26%	8.72%	-0.89%	7.24%	24.34%	-	-	8.72%	4.89%	-	-
LARGE COMPANY VALUE											
JHancock Disciplined Value R5	8.04%	14.00%	-4.93%	11.03%	36.04%	20.02%	0.32%	14.00%	6.36%	14.46%	7.01%
JHancock Disciplined Value R6	8.11%	14.07%	-4.81%	11.04%	35.97%	20.08%	0.41%	14.07%	6.43%	14.51%	7.04%
Russell 1000 Value	6.68%	17.34%	-3.83%	13.45%	32.53%	17.51%	0.39%	17.34%	8.59%	14.80%	5.72%
Morningstar Large Value Universe	6.36%	14.70%	-4.05%	10.44%	31.61%	14.70%	-0.57%	14.70%	6.81%	13.02%	5.50%
LARGE COMPANY BLEND											
CREF Stock R3	2.08%	9.17%	-0.84%	6.41%	27.83%	17.29%	-4.95%	9.17%	4.83%	11.55%	5.03%
Vanguard Institutional Index I	3.82%	11.93%	1.37%	13.65%	32.35%	15.98%	2.09%	11.93%	8.85%	14.63%	6.95%
S&P 500 Index	3.82%	11.96%	1.38%	13.69%	32.39%	16.00%	2.11%	11.96%	8.87%	14.66%	6.95%
Morningstar Large Blend Universe	3.87%	10.28%	-0.88%	11.26%	31.78%	15.08%	-0.67%	10.28%	6.79%	13.17%	6.14%

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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
LARGE COMPANY GROWTH											
Harbor Capital App Instl	-1.94%	-1.07%	10.99%	9.93%	37.66%	15.69%	0.61%	-1.07%	6.48%	13.96%	8.01%
Harbor Capital Appreciation Retirement	-1.92%	-1.04%	10.99%	9.93%	37.66%	15.69%	0.61%	-1.04%	6.49%	13.97%	8.02%
Russell 1000 Growth	1.01%	7.08%	5.67%	13.05%	33.48%	15.26%	2.64%	7.08%	8.55%	14.50%	8.33%
Morningstar Large Growth Universe	-0.30%	3.17%	3.72%	10.06%	34.39%	15.29%	-2.24%	3.17%	5.72%	12.97%	6.94%
MEDIUM COMPANY VALUE											
RidgeWorth Ceredex Mid-Cap Value Eq I	7.78%	20.16%	-6.00%	11.00%	31.21%	21.79%	-7.31%	20.16%	7.83%	14.91%	9.13%
RidgeWorth Ceredex Mid-Cap Value Eq IS	7.87%	20.53%	-5.63%	11.05%	31.21%	21.79%	-7.31%	20.53%	8.10%	15.08%	9.21%
Russell Mid Cap Value	5.52%	20.00%	-4.78%	14.75%	33.46%	18.51%	-1.38%	20.00%	9.45%	15.70%	7.59%
Morningstar Mid Value Universe	6.75%	17.92%	-5.61%	9.54%	34.84%	16.26%	-3.87%	17.92%	6.77%	13.79%	6.89%
MEDIUM COMPANY BLEND											
Vanguard Ext Mkt Idx Inst	5.62%	16.15%	-3.24%	7.56%	38.42%	18.50%	-3.57%	16.15%	6.53%	14.67%	7.99%
Russell Mid Cap	3.21%	13.80%	-2.44%	13.22%	34.76%	17.28%	-1.55%	13.80%	7.92%	14.72%	7.86%
Morningstar Mid Blend Universe	5.31%	14.17%	-4.23%	8.74%	34.06%	16.38%	-3.48%	14.17%	5.98%	13.33%	6.83%
MEDIUM COMPANY GROWTH											
Goldman Sachs Growth Opp I	-2.65%	1.49%	-5.24%	11.44%	32.38%	19.58%	-3.70%	1.49%	2.34%	11.15%	8.28%
Goldman Sachs Growth Opportunities R6	-2.69%	1.49%	-5.24%	11.44%	32.38%	19.58%	-3.70%	1.49%	2.34%	11.15%	8.28%
Russell Mid Cap Growth	0.46%	7.33%	-0.20%	11.90%	35.74%	15.81%	-1.65%	7.33%	6.23%	13.51%	7.83%
Morningstar Mid Growth Universe	0.71%	5.93%	-0.75%	7.07%	35.29%	14.30%	-3.91%	5.93%	4.02%	11.78%	6.96%

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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
FOREIGN LARGE VALUE											
MFS International Value R6	-5.66%	4.31%	6.85%	1.61%	27.80%	16.13%	-1.81%	4.31%	4.23%	10.94%	5.15%
MSCI EAFE	-0.68%	1.51%	-0.39%	-4.48%	23.29%	17.90%	-11.73%	1.51%	-1.15%	7.02%	1.22%
Morningstar Foreign Large Value Universe	0.14%	2.96%	-3.26%	-6.32%	20.59%	16.61%	-12.71%	2.96%	-2.41%	5.45%	-0.04%
FOREIGN LARGE BLEND											
Vanguard Total Intl Stock Index Inst	-1.92%	4.70%	-4.24%	-4.15%	15.15%	18.28%	-14.51%	4.70%	-1.32%	5.53%	0.93%
MSCI EAFE	-0.68%	1.51%	-0.39%	-4.48%	23.29%	17.90%	-11.73%	1.51%	-1.15%	7.02%	1.22%
Morningstar Foreign Large Blend Universe	-2.24%	0.70%	-1.50%	-4.96%	19.48%	18.04%	-13.62%	0.70%	-2.07%	5.83%	0.57%
FOREIGN LARGE GROWTH											
Oppenheimer Intl Growth I	-5.33%	-1.88%	3.63%	-6.80%	25.71%	22.12%	-7.71%	-1.88%	-1.78%	7.79%	3.38%
Oppenheimer Intl Growth Y	-5.35%	-2.06%	3.44%	-6.99%	25.46%	22.10%	-7.31%	-2.06%	-1.96%	7.62%	3.55%
MSCI EAFE	-0.68%	1.51%	-0.39%	-4.48%	23.29%	17.90%	-11.73%	1.51%	-1.15%	7.02%	1.22%
Morningstar Foreign Large Growth Universe	-5.71%	-2.15%	0.91%	-3.97%	19.74%	18.63%	-12.43%	-2.15%	-1.80%	6.22%	1.57%
SMALL COMPANY VALUE											
Victory Sycamore Small Company Opp I	13.82%	30.04%	-0.39%	6.80%	33.39%	12.55%	1.52%	30.04%	11.42%	15.74%	9.25%
Russell 2000 Value	14.07%	31.74%	-7.47%	4.22%	34.52%	18.05%	-5.50%	31.74%	8.31%	15.07%	6.26%
Morningstar Small Value Universe	12.12%	25.68%	-6.61%	3.47%	35.90%	16.06%	-4.51%	25.68%	6.63%	14.02%	6.86%
SMALL COMPANY GROWTH											
Eagle Small Cap Growth R6	3.08%	10.39%	-0.39%	5.59%	34.70%	14.71%	-1.53%	10.39%	5.10%	12.40%	8.10%
Russell 2000 Growth	3.57%	11.32%	-1.38%	5.60%	43.30%	14.59%	-2.91%	11.32%	5.05%	13.74%	7.76%
Morningstar Small Growth Universe	3.35%	11.25%	-2.41%	2.56%	41.22%	13.51%	-3.28%	11.25%	3.59%	12.29%	7.18%

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Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

INVESTMENT NAME	Q4 '16	YTD '16	2015	2014	2013	2012	2011	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
EMERGING MARKETS											
DFA Emerging Markets Core Equity I	-5.10%	12.35%	-14.86%	-0.91%	-2.64%	20.49%	-20.64%	12.35%	-1.77%	2.14%	3.11%
MSCI Emerging Markets	-4.08%	11.60%	-14.60%	-1.82%	-2.27%	18.63%	-18.17%	11.60%	-2.19%	1.64%	2.17%
Morningstar Emerging Markets Universe	-5.41%	8.29%	-13.75%	-2.78%	0.30%	18.93%	-19.52%	8.29%	-3.07%	1.83%	1.40%
SPECIALTY-PRIVATE REAL ESTATE											
TIAA Real Estate Account	1.25%	5.20%	8.16%	12.22%	9.65%	10.06%	13.00%	5.20%	8.49%	9.03%	3.38%
NCREIF Property Index	1.73%	7.97%	13.33%	11.81%	10.99%	10.54%	14.26%	7.97%	11.01%	10.91%	6.93%
Morningstar Specialty-Real Estate Universe	-2.63%	6.53%	2.41%	28.26%	1.80%	17.57%	7.60%	6.53%	11.78%	10.89%	4.34%

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SECTION 4: FUND FACT SHEETS

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

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Fund Fact Sheets....

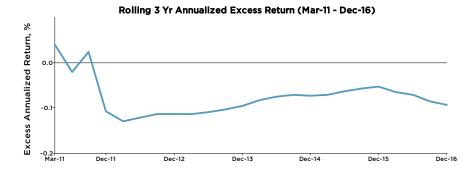
CREF MONEY MARKET R3

Period Ending 12.31.16 | Q4 16

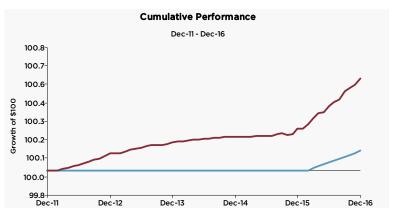
INDUSTRY ANALYSIS

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			ı
Last Qtr.	0.04	0.09	
YTD	0.13	0.33	
1 Year	0.13	0.33	
3 Years	0.04	0.14	
5 Years	0.03	0.12	
10 Years	0.75	0.80	
CALENDAR RETURNS			ı
2015	0.00	0.05	
2014	0.00	0.03	
2013	0.00	0.07	
2012	0.00	O.11	
2011	0.00	0.10	
2010	0.00	0.13	
KEY MEASURES / 5 YEAR			ı
Standard Deviation	0.02	0.04	







Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call (800) 216-0645. Index averages are derived from Morningstar. The opinions expressed in this report are subject to change without notice. This material is not a solicitation or an offer to buy any security or to participate in any investment strategy and is not guaranteed as to accuracy. Any such solicitation must be made by prospectus only. To obtain a prospectus, please call your Financial Advisor at (800) 216-0645. CAPTRUST Financial Advisors.

TIAA TRADITIONAL – GROUP RETIREMENT ANNUITY (GRA)

Period Ending 12.31.16 | Q4 16

INDUSTRY ANALYSIS

The insurance providers and industry as a whole have historically exhibited a high degree of sensitivity to broad financial markets. The economic and market downturn of 2008 and 2009 proved to be no exception as many of these providers watched as the assets on their balance sheets – public and private – were marked meaningfully lower. The shrinking assets resulted in deterioration of capital ratios and reserve amounts across the industry, leading to system-wide downgrades from the ratings agencies. However, the drive in equity markets since the nadir in March of 2009 have presented a formidable rally across every major fixed income sector. As this rally strengthened the balance sheets of insurers, attention shifted away from the industry, which has now been able to breathe a collective sigh of relief. While the insurance industry has staged an impressive recovery, investors should use this episode as a reminder of the risks inherent with single-insurer backed products.

		AN		

Aaron Tove-White - Senior Associate | 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:									
4/1/16 - 4/30/16	5/1/16 - 6/30/16	7/1/16 - 7/31/16	8/1/16 - 11/30/16	12/1/16 - 12/31/16					
4.00%	3.75%	3.50%	3.75%	4.00%					

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 1st.						
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).							

Important Disclosures: This slide is intended solely for institutional use. The opinions expressed in this report are subject to change without notice. The statistics and data have been compiled from sources believed to be reliable but are not guaranteed to be accurate or complete. Any performance quoted represents past performance and does not guarantee future results. Bloomberg Index averages are derived from Morningstar. This material is not a solicitation or an offer to buy any security or to participate in any investment strategy. Any such solicitation must be made by prospectus only. For more information or to obtain a prospectus, please contact your financial advisor at 800.216.0645. CAPTRUST Financial Advisors.

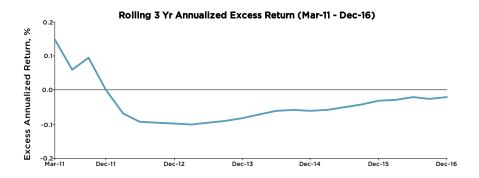
90 Day HS Treasury

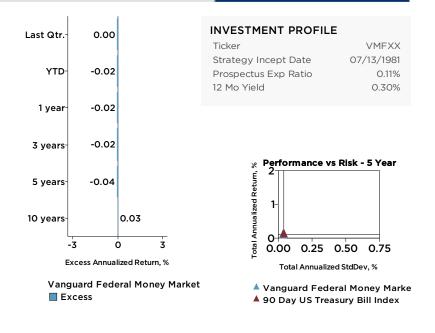
INDUSTRY ANALYSIS

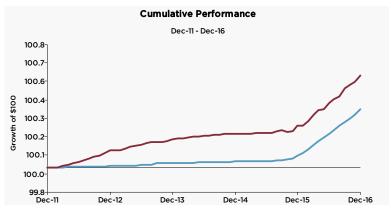
Money market reform passed in 2010 imposed new mandates on 2a-7 managers including shorter average maturities, tighter restrictions on allowable securities, increased liquidity mandates and mandatory stress testing by fund managers. In July 2014, the SEC passed further 2a-7 regulations that mandated 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 Endoral

	vanguard Federal Money Market	Bill Index
TRAILING RETURNS		
Last Qtr.	0.08	0.09
YTD	0.30	0.33
1 Year	0.30	0.33
3 Years	0.12	0.14
5 Years	0.08	0.12
10 Years	0.83	0.80
CALENDAR RETURNS		
2015	0.04	0.05
2014	0.01	0.03
2013	0.02	0.07
2012	0.01	O.11
2011	0.01	0.10
2010	0.02	0.13
KEY MEASURES / 5 YEAR		
Standard Deviation	0.03	0.04







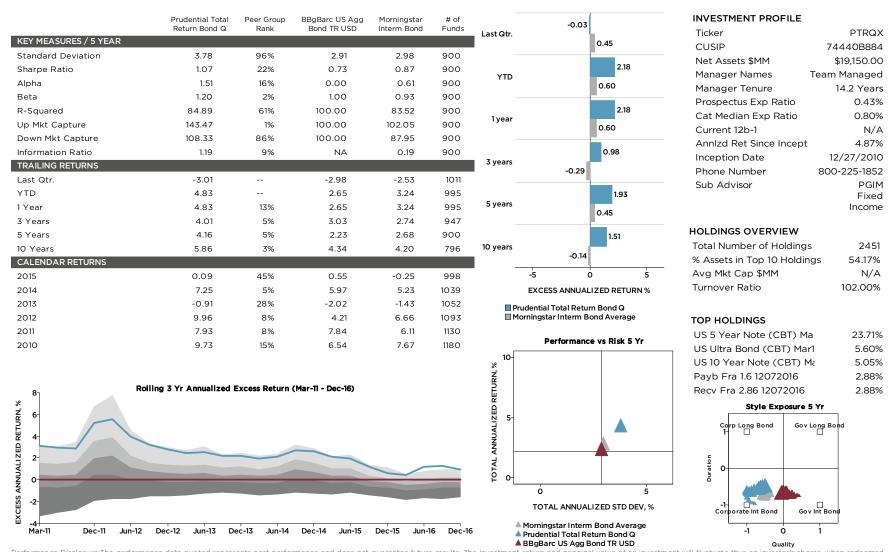
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance act accurrent to the most recent month-end, please call (800) 216-0645. Index averages are derived from Morningstar. The opinions expressed in this report are subject to change without notice. This material is not a solicitation or an offer to buy any security or to participate in any investment strategy and is not guaranteed as to accuracy. Any such solicitation must be made by prospectus only. To obtain a prospectus, please call your Financial Advisor (800) 216-0645. CAPTRUST Financial Advisors.

	CREF Inflation-Linked Bond R3	Peer Group Rank	BBgBarc Capital US TIPS Index	Morningstar Infl-Prot Bond	# of Funds			0.75		Style Ex	cposure 5 Yr
KEY MEASURES / 5 YEAR						Last Qtr.		0.76		Corp Long Bond	Gov Long Bond
Standard Deviation	4.67	63%	4.76	4.40	182			0.76			
Sharpe Ratio	0.08	47%	0.16	0.08	182		-0.45		<u> </u>		
Alpha	-0.37	50%	0.00	-0.36	182	YTD	-0.43		Duration	0	
Beta	0.97	39%	1.00	0.85	182		-0.06		Δ	77Z W	V.
R-Squared	98.64	35%	100.00	84.24	182					-1	
Up Mkt Capture	93.12	38%	100.00	81.72	182		-0.45		(orporate Int Bond	Gov Int Bond
Down Mkt Capture	98.99	49%	100.00	87.20	182	1 year	-0.06			-1	0 1
Information Ratio	-0.70	62%	NA	-0.83	182		-0.00			Q	uality
TRAILING RETURNS							-0.33				
Last Qtr.	-1.66		-2.41	-1.65	232	3 years	-0.33			Performan	ce vs Risk 5 Yr
YTD	4.23		4.68	4.63	228	•	-0.85		× <u> </u>		
1 Year	4.23	53%	4.68	4.63	228				8		
3 Years	1.93	27%	2.26	1.41	212		-0.39		Æ		
5 Years	0.50	42%	0.89	0.42	182	5 years	-0.48				
10 Years	3.92	36%	4.36	3.43	139		-0.48		L Z		
CALENDAR RETURNS							-0.45		ANNUALIZED RETURN, %		
2015	-1.68	36%	-1.44	-2.22	236	10 years	-0.45		₹ —	-	
2014	3.34	22%	3.64	2.01	235	-	-0.93		TOTAL	_	
2013	-9.01	67%	-8.60	-7.62	236	_	-5	5	و د	Ó	5 10
2012	6.41	50%	6.98	6.35	211					ΤΟΤΔΙ ΔΝΝΙΙΔ	LIZED STD DEV, %
2011	13.18	15%	13.56	10.80	205		EXCESS ANNUAL	IZED RETURN %			
2010	5.89	46%	6.31	5.83	188		nflation-Linked E gstar Infl-Prot Bo		<u> </u>	Morningstar Infl-I CREF Inflation-Li BBgBarc Capital	
3 ₇ R	colling 3 Yr Annualized Exc	ess Return (J	an-12 - Dec-16)			106 ¬	5	Yr Cumulative Pe	rformance	(Jan-12 - De	c-16)
% 2- CESS ANNUALIZED RETURN 1- 1- 0- -1- 2- -5-						105- 104- 103- 0019- 101- 00- 100- 100- 100- 98- 99- 96- 95-		<u> </u>		M	

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PRUDENTIAL TOTAL RETURN BOND Q

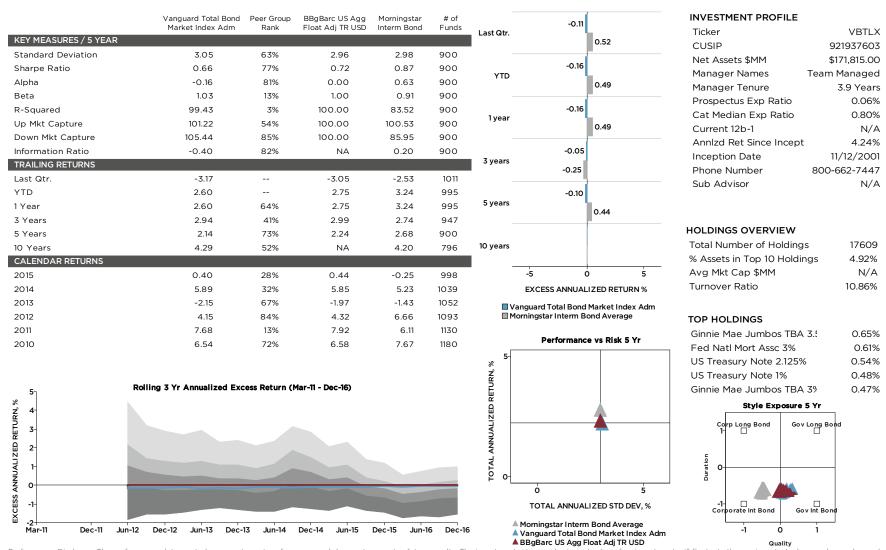
Period Ending 12.31.16 I Q4 16



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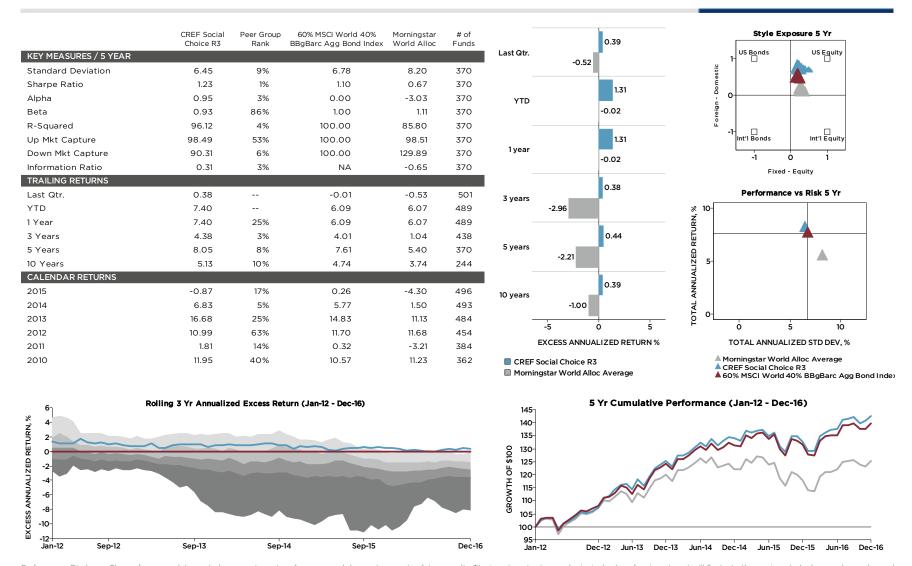
VANGUARD TOTAL BOND MARKET INDEX ADM

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CREF SOCIAL CHOICE R3



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VANGUARD TARGET RETIREMENT

Period Ending 12.31.16 | Q4 16

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).



Investment Profile										
% Open Architecture:	0%	Active/Passive:	Passive							
Inception Date:	10-27-2003	% Active:	0%							
Net Assets \$MM:	\$193,375	Manager Tenure:	3.92 years (longest)							
Manager Name:	Team	Expense Range:	0.14% - 0.16%							
Avg # of Holdings:	5	Investment Structure:	Mutual Fund							

Emerging Market Equities	No
International/Global Debt	Yes
Inflation-Protected Securities	Yes
High Yield Fixed Income	No
Real Estate	No

Dedicated Asset Class Granularity/Diversification

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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Commodities

No

VANGUARD TARGET RETIREMENT

Period Ending 12.31.16 | Q4 16

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:

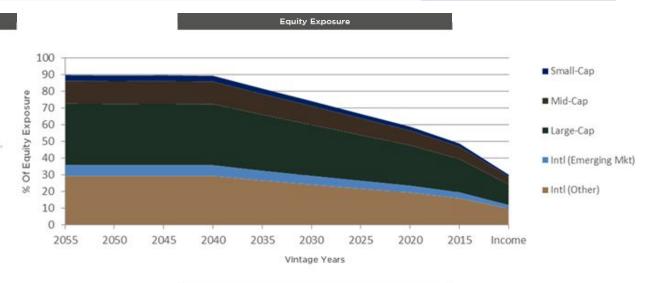
- Short-Term TIPs provide better inflation exposure with lower interest rate risk
- · Deemed to be an unnecessary asset class
- Dedicated exposure to move more in line with the Global fixed income Market Cap; better FI diversification

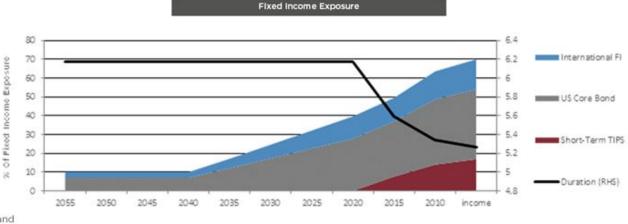
2015:

- 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





Vintage Years

*All information provided by the asset manager, as of 12/31/15. Asset allocations shown are static in nature and do not incorporate any tactical views implemented by the manager.

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6

TARGET DATE ANALYSIS

Period Ending 12.31.16 | Q4 16

	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2015 Inv	0.99	0.71	99.55	97.27	1.00	1.23	102.09	96.60
Morningstar Target Date 2015	0.96	0.54	91.28	101.66	0.96	1.04	91.62	99.33
S&P Target Date 2015 TR	1.00	0.69	100.00	100.00	1.00	1.17	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	1.02	0.60	102.91	101.57	1.01	1.16	102.99	99.44
Morningstar Target Date 2025	1.00	0.45	94.30	103.95	0.98	1.02	95.01	101.15
S&P Target Date 2025 TR	1.00	0.59	100.00	100.00	1.00	1.12	100.00	100.00

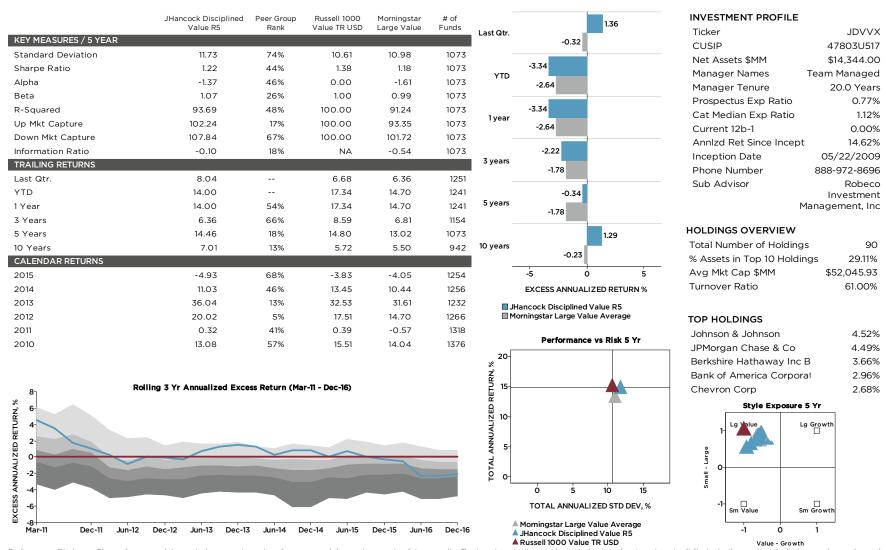
	3 Year				5 Year				
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture	
Vanguard Target Retirement 2045 Inv	1.04	0.47	102.34	104.05	1.02	1.07	102.21	101.80	
Morningstar Target Date 2045	1.04	0.37	97.21	106.13	1.02	0.97	97.43	103.33	
S&P Target Date 2045 TR	1.00	0.50	100.00	100.00	1.00	1.07	100.00	100.00	

^{*}Lowest cost share class shown

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JHANCOCK DISCIPLINED VALUE R5

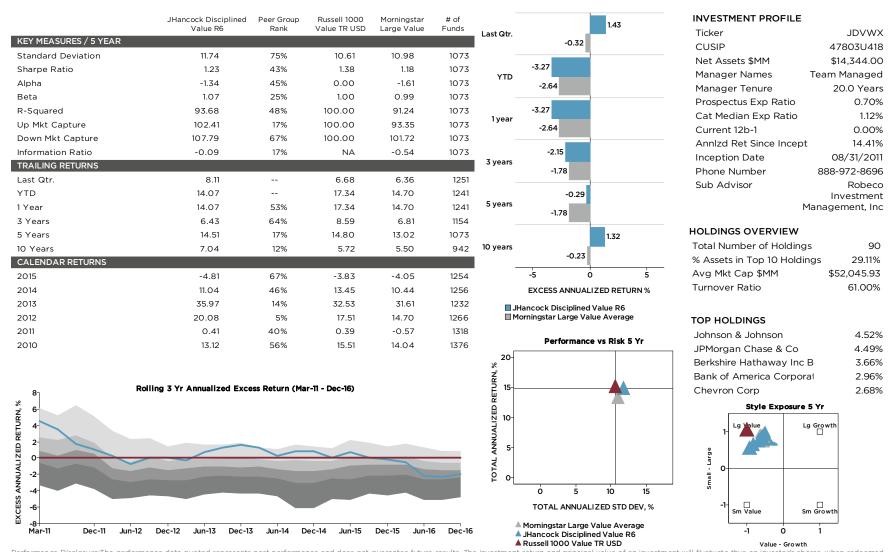
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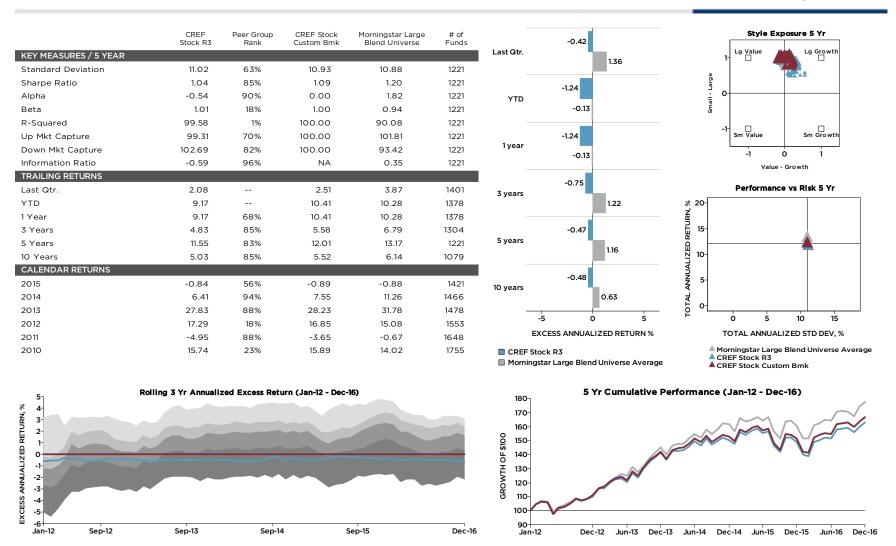
JHANCOCK DISCIPLINED VALUE R6

Period Ending 12.31.16 | Q4 16



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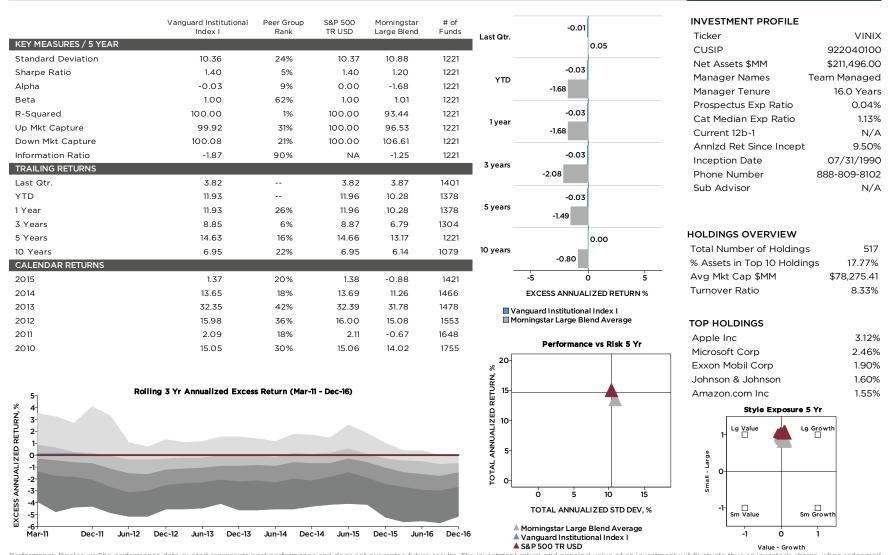
CREF STOCK R3



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VANGUARD INSTITUTIONAL INDEX I

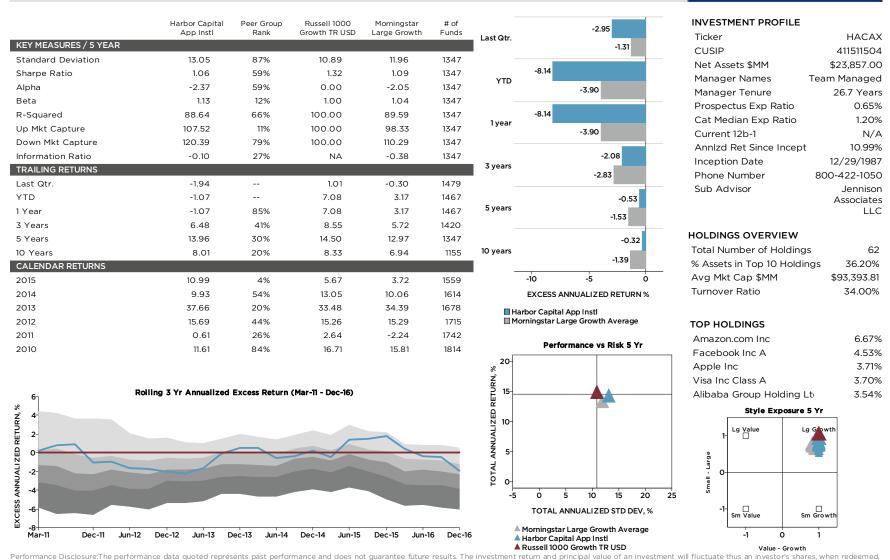
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HARBOR CAPITAL APP INSTI-

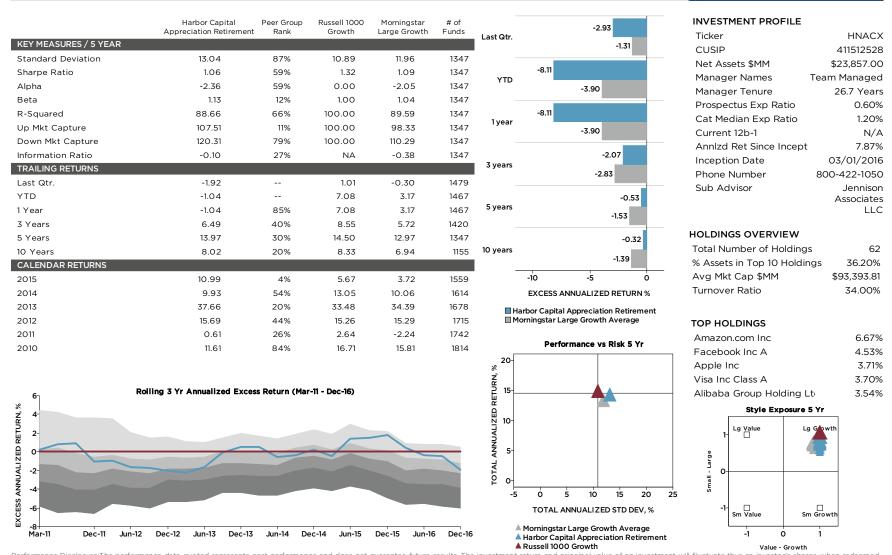
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HARBOR CAPITAL APPRECIATION RETIREMENT

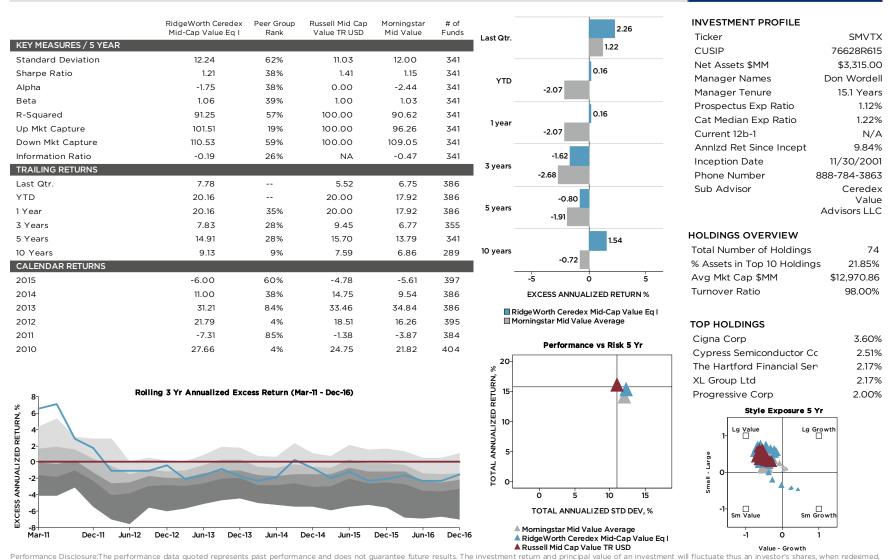
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RIDGEWORTH CEREDEX MID-CAP VALUE EQ I

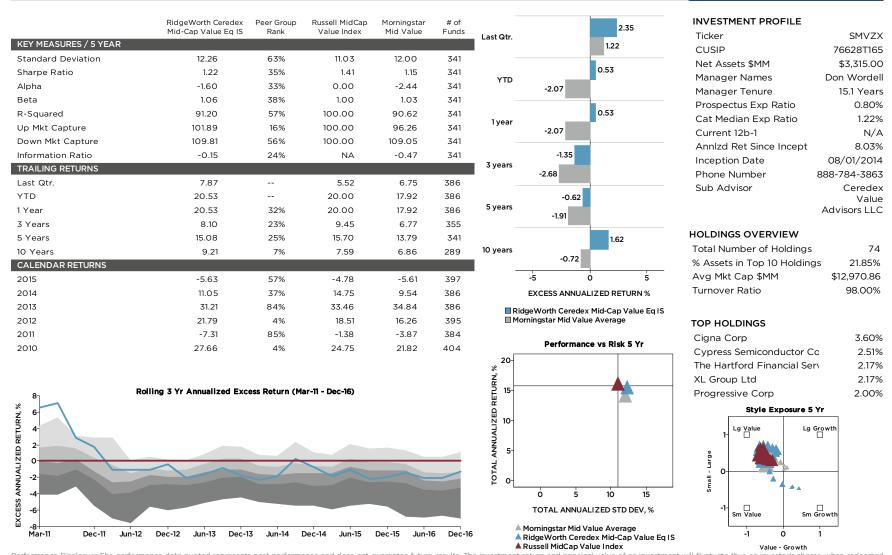
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RIDGEWORTH CEREDEX MID-CAP VALUE EQ IS

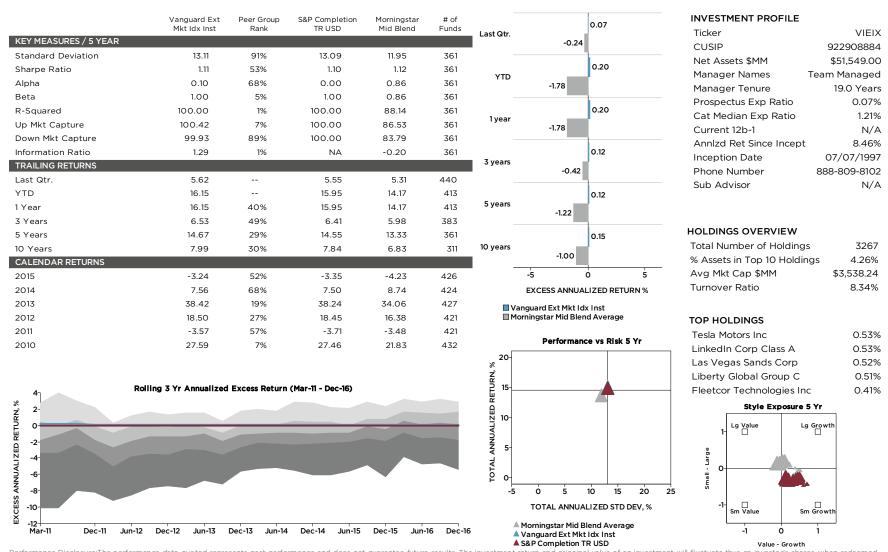
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Vanguard Ext Mkt Idx Inst

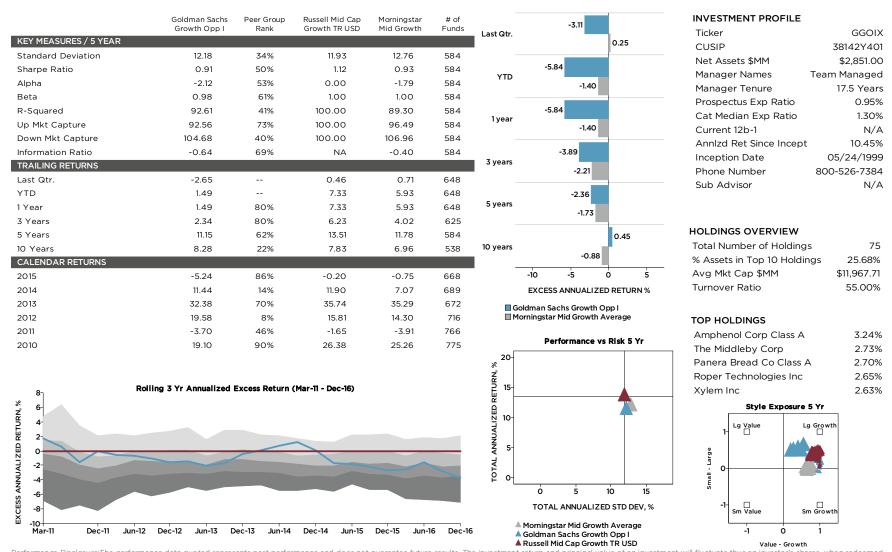
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GOLDMAN SACHS GROWTH OPP I

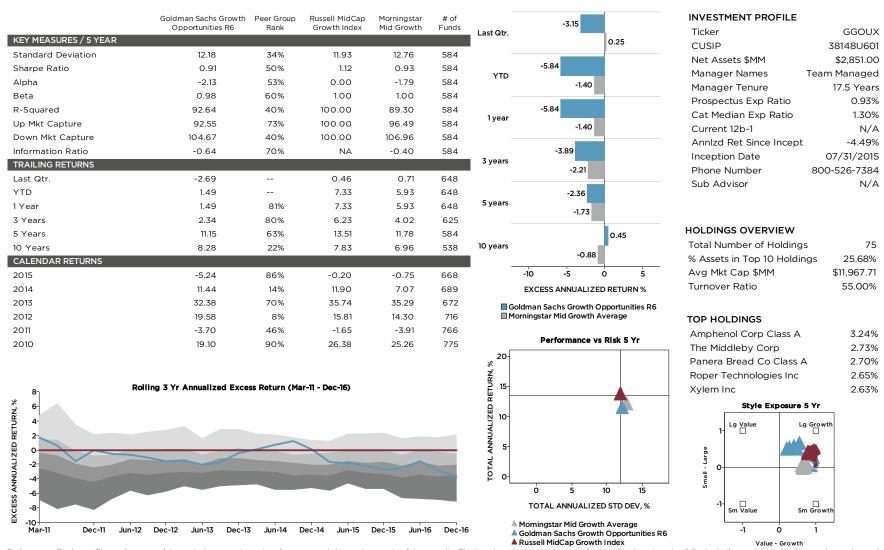
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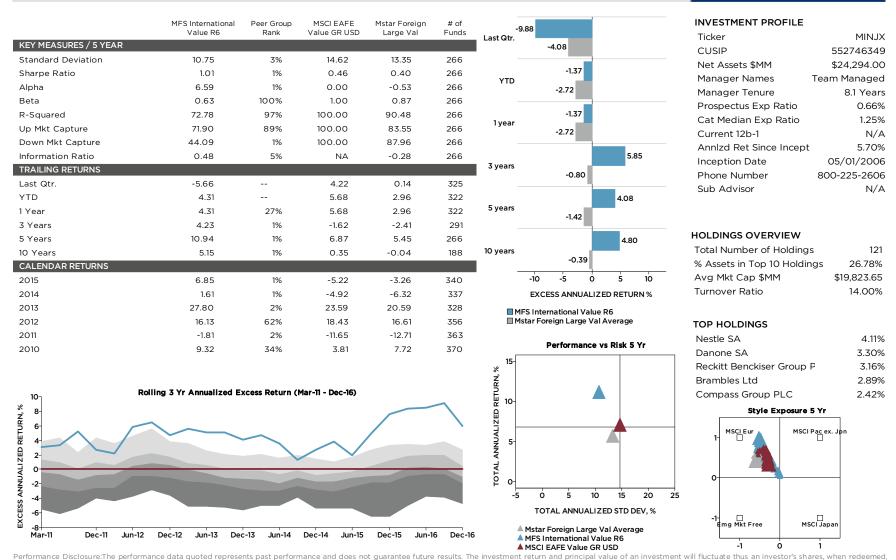
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GOLDMAN SACHS GROWTH OPPORTUNITIES R6

Period Ending 12.31.16 | Q4 16



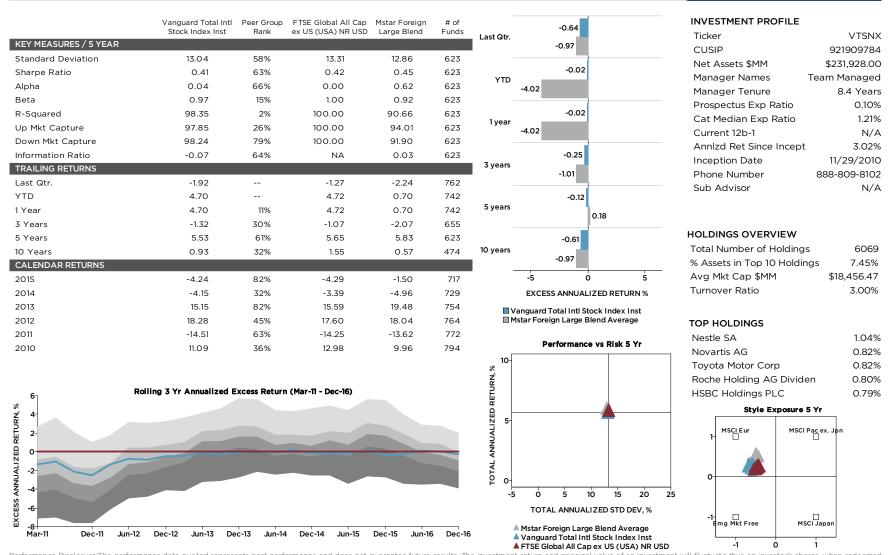
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VANGUARD TOTAL INTL STOCK INDEX INST

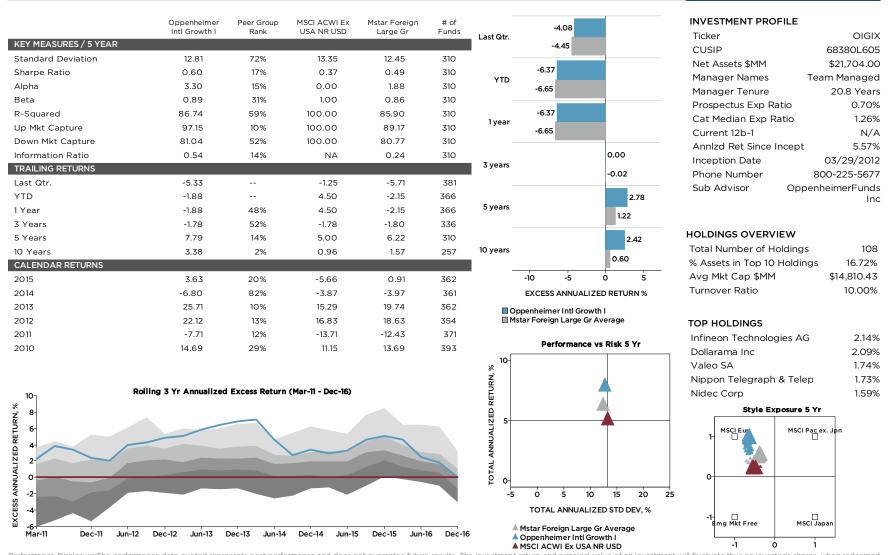
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OPPENHEIMER INTL GROWTH I

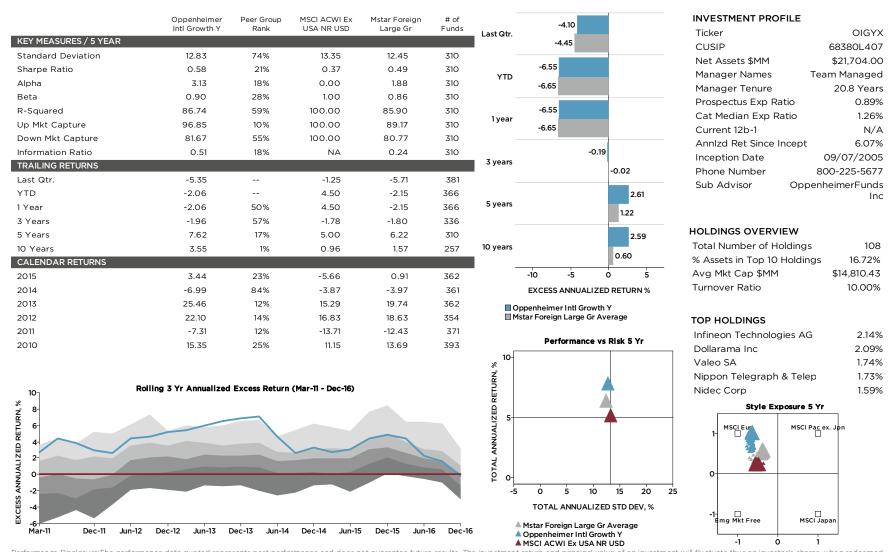
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OPPENHEIMER INTL GROWTH Y

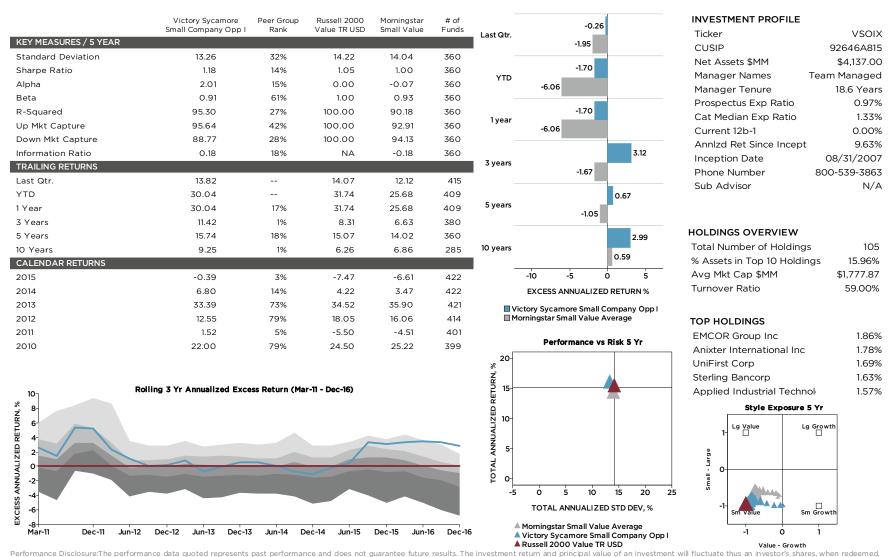
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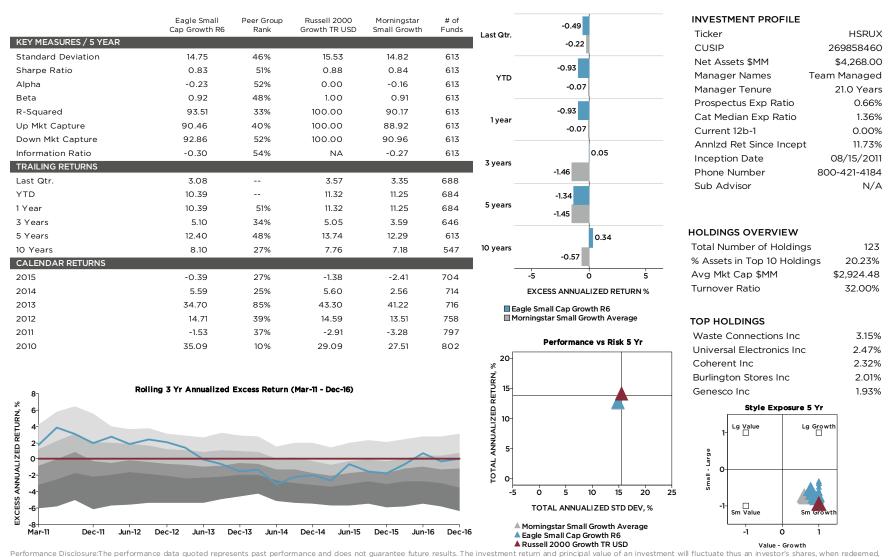
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VICTORY SYCAMORE SMALL COMPANY OPP I

Period Ending 12.31.16 | Q4 16



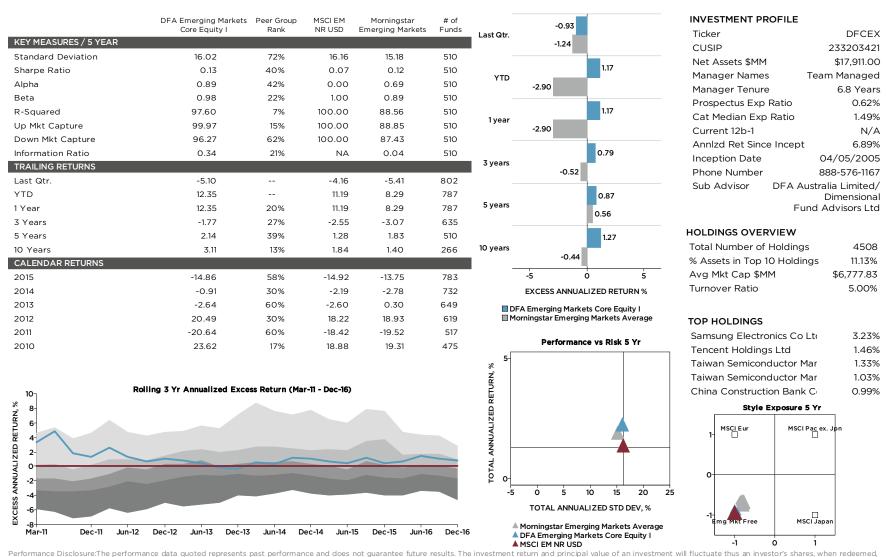
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DFA EMERGING MARKETS CORE EQUITY I

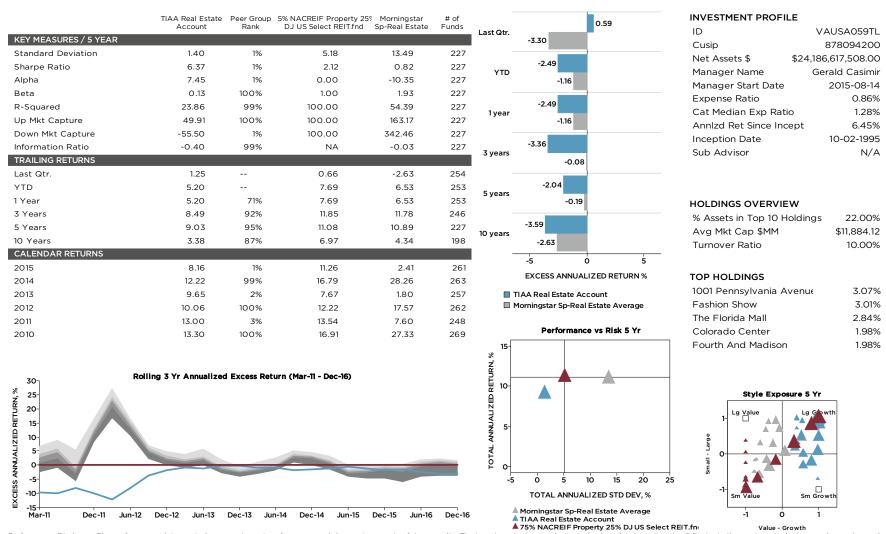
Period Ending 12.31.16 | Q4 16



may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to buy any security or to participate in any investment strategy and is not guaranteed as recurrent to buy any security or to participate in any investment strategy and is not guaranteed as recurrent to buy any security or to participate in any investment strategy and is not guaranteed as accuracy. Any such solicitation must be made by prospectus only. To obtain a prospectus, please call your Financial Advisor at (800) 216-0645. CAPTRUST Financial Advisors at (800) 216-0645.

TIAA REAL ESTATE ACCOUNT

Period Ending 12.31.16 | Q4 16



Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call (800) 216-0645. Index averages are derived from Morningstar. The opinions expressed in this report are subject to change without notice. This material is not a solicitation or an offer to buy any security or to participate in any investment strategy and is not guaranteed as to accuracy. Any such solicitation must be made by prospectus only. To obtain a prospectus, please call your Financial Advisor at (800) 216-0645. CAPTRUST Financial Advisors.

APPENDIX

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

APPENDIX
Plan Administration Review
Your CAPTRUST Service Team
Glossary of Terms
Evaluation Methodology

PLAN ADMINISTRATION REVIEW

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

Feedback on level of satisfaction with Provider:

AREA OF EVALUATION	FAIR	GOOD	EXCELLENT
Quality & timeliness of Participant materials			
Quality & timeliness of Plan Sponsor materials			
Accuracy of plan data			
Phone/email responsiveness			
Website usability			
Call center representative accessibility			
Ease of participant transactions			
Overall administration service evaluation			

PROVIDER NAME:	
TIAA-CREF	
RELATIONSHIP MANAGER	
Mark Woods	

COMMENTS:							

YOUR CAPTRUST SERVICE TEAM MEMBERS

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

TEAM MEMBERS	RESPONSIBILITIES
Michael S. Pratico Senior Vice President Financial Advisor michael.pratico@captrustadvisors.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.
Barron V. Schmitt Senior Vice President Financial Advisor barry.schmitt@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.
Scott T. Matheson, CFA, CPA Senior Director Defined Contribution Practice Leader scott.matheson@captrustadvisors.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.
Che-Che S. McCrimmon Senior Client Management Consultant Che-Che.McCrimmon@captrustadvisors.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.

GLOSSARY Period Ending 12.31.16 | Q4 16

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.

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.

PLAN INVESTMENT REVIEW | EVALUATION METHODOLOGY

Period Ending 12.31.16 | Q4 16

University of Maine System Defined Contribution Plan

MARKED FOR REVIEW

The following categories of the Investment Policy Monitor appear "Marked For Review" when:

QUANTITATIVE EVALUATION ITEMS

3/5 Year Risk- adjusted Performance

The investment option's 3 or 5 Year Annualized Risk Adjusted Performance falls below the 50th percentile of the peer group.

3/5 Year Performance vs. Peers

The investment option's 3 or 5 Year Annualized Peer Relative Performance falls below the 50th percentile of the peer group.

3/5 Year Style

The investment option's 3 or 5 Year R-Squared measure falls below the absolute threshold set per asset class.

3/5 Year Confidence

The investment option's 3 or 5 Year Confidence Rating falls below the 50th percentile of the peer group.

Glidepath Assessment

% 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.

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.

Fund Management

QUALITATIVE EVALUATION ITEMS

A significant disruption to the investment option's management team has been discovered.

Fund Family

A significant disruption to the investment option's parent company has been discovered.

Portfolio Construction

The investment option's combined Portfolio Construction score is 6 or below out of a possible 15 points.

Underlying Investment Vehicles

The investment option's combined Underlying Investment Vehicles score is 6 or below out of a possible 15 points.



AGENDA ITEM SUMMARY

1. NAME OF ITEM: Performance Review – Managed Investment Pool

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. BACKGROUND:

Enclosed for your information is the Managed Investment Pool performance report for the quarter ended December 31, 2016.

Kelly Regan and Jay Roney of NEPC will provide a brief review at the March 9, 2017 Investment Committee meeting.

University of Maine System Managed Investment Pool

Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
MIP Composite	271,637,945	100.0	100.0	-0.5	3.1	5.2	1.4	1.9	6.7	6.0	4.4
Allocation Index				-0.3	3.4	5.8	2.2	2.6	6.6	5.9	4.0
Policy Index				-0.1	4.0	7.0	2.6	2.9	6.7	6.2	4.5
Total Domestic Large Cap	49,831,483	18.3	16.0	3.8	7.8	11.9	6.5	8.8	14.4	12.7	7.8
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
SSgA S&P 500	49,831,483	18.3	16.0	3.8	7.8	11.9	6.5	8.8	14.6	12.8	6.9
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
Total Domestic Small/Mid Cap	16,270,054	6.0	6.0	7.6	15.5	15.8	5.5	5.5	14.5	13.4	10.2
Russell 2500				6.1	13.1	17.6	6.9	6.9	14.5	13.6	7.7
Westfield Capital	8,302,830	3.1	3.0	1.0	8.1	4.2	0.6	2.8	12.3	12.8	9.3
Russell 2500 Growth				2.6	9.8	9.7	4.7	5.4	13.9	13.5	8.2
DFA	7,967,224	2.9	3.0	13.5	22.0	26.9	9.4	7.2	16.0		
Russell 2000 Value				14.1	24.2	31.7	10.4	8.3	15.1	13.1	6.3
Total International Equity (including emerging markets)	60,325,121	22.2	23.0	-4.0	1.0	0.3	-1.1	-2.1	5.0	3.9	1.2
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Morgan Stanley	21,366,551	7.9	8.0	-2.4	0.1	-2.0	-0.8	-2.6	5.9	3.9	1.5
Globeflex	20,988,065	7.7	8.0	-2.9	4.6	-0.8	0.9	-1.0	7.3	5.0	
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Emerging Markets Equity	17,970,504	6.6	7.0	-7.3	-2.1	3.7	-4.3	-2.9	1.3		
MSCI Emerging Markets				-4.2	4.5	11.2	-2.7	-2.6	1.3	0.5	1.8
Aberdeen Emerging Mrkts	9,654,094	3.6	3.5	-5.8	-0.8	12.0	-1.7	-1.9	1.9	3.2	
MSCI Emerging Markets				-4.2	4.5	11.2	-2.7	-2.6	1.3	0.5	1.8
Mondrian EM Small Cap	8,316,410	3.1	3.5	-8.9	-3.5	-3.6	-6.7				
MSCI Emerging Markets Small Cap				-6.2	0.9	2.3	-2.4	-1.3	3.5	1.4	3.4
Total Fixed Income	49,088,074	18.1	18.0	-2.1	-0.4	5.4	1.5	2.9	4.2	5.1	4.9
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Commonfund	27,507,133	10.1	10.0	-2.7	-1.5	3.5	1.6	3.0	3.5	4.5	4.8
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Loomis Sayles Fixed Income	13,501,327	5.0	5.0	-0.6	2.8	9.9	1.6				
BBgBarc Global Aggregate TR				-7.1	-6.3	2.1	-0.6	-0.2	0.2	1.7	3.3
Vanguard Inflation-Protected Securities	8,079,614	3.0	3.0	-2.7	-1.7						
BBgBarc US TIPS TR				-2.4	-1.5	4.7	1.6	2.3	0.9	3.4	4.4



December 31, 2016

University of Maine System Managed Investment Pool

Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	55,409,964	20.4	20.0	-2.1	1.3	4.4	0.0	0.3	3.9	3.5	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
GMO Global Absolute Return	18,823,679	6.9	6.6	-1.5	2.0	3.7	-0.2	0.3	4.1	4.0	4.4
Blended Index				-1.6	0.0	6.1	3.0	3.6	3.8	5.0	5.1
Wellington	18,761,146	6.9	6.7	-0.5	5.3	5.8	2.9	2.1	5.9	4.1	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
Newton Global Real Return	17,825,138	6.6	6.7	-4.4	-5.0	-	-		-		
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				-2.2	1.3	5.7	1.5	1.9	5.8	5.2	3.8
Total Hedge Funds	33,480,053	12.3	12.0	1.9	4.1	2.7	-0.2	0.3	2.7	1.7	2.4
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
EntrustPermal	16,491,328	6.1	6.0	3.1	4.9	4.4	0.1	0.5	4.6	4.1	
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
Lighthouse	16,988,725	6.3	6.0	0.7	3.3	0.2	-		-		
Credit Suisse Long Shrt Eqt USD				-0.2	1.7	-3.4	0.0	1.8	6.1	4.5	4.0
Total Real Assets	5,221,858	1.9	3.0	-4.9	-4.8	-5.7	-1.1	1.2	6.3	-	
NCREIF Timberland Index				1.2	1.9	2.7	3.8	6.0	7.1	5.2	5.8
John Hancock Timber Fund	5,221,858	1.9	3.0	-4.9	-4.8	-5.7	-1.1	1.2	6.3	3.7	1.2
NCREIF Timberland Index				1.2	1.9	2.7	3.8	6.0	7.1	5.2	5.8
Private Equity	1,465,264	0.5	2.0	0.0	2.5	5.1	4.2		-	-	
Landmark Equity Partners XV	1,465,264	0.5	2.0	0.0	2.5	5.1	4.2		-		
Cambridge Associates US All PE (1 Qtr Lag)				3.8	7.9	8.7	7.3	10.7	13.1	13.9	10.8
Total Cash	546,076	0.2	0.0								
Distribution Account	546,076	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9
91 Day T-Bills				0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.7

Notes:

Fiscal YID 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 as of 12/31/16

Landmark market value estimated as of 12/31/16



December 31, 2016



Highlights of Fourth Quarter Happenings at NEPC

December 2016

NEPC Insights

- NEPC's Election Perspective: The Race to the Bottom (October 2016)
- Interest Rate Risk and Asset/Liability Management for Cash Balance Plans (October 2016)
- 2016 3rd Quarter Market Thoughts (October 2016)
- Behind The Curtain: Operational Capabilities Are A Must for OCIOs (November 2016)
- NEPC's 2016 Hedge Fund Operational Due Diligence Survey Results (November 2016)
- NEPC Market Chatter: To PE or not to PE... That is the Question (November 2016)
- Caution: Construction Ahead Healthcare Organizations Use Private Equity Investments to Support Innovation (December 2016)

Upcoming Events

NEPC's 22nd Annual Investment Conference will be held on May 9-10, 2017 at the InterContinental Hotel in Boston, MA. Details to come in the upcoming months!



NEPC Gives Back

- NEPC employees sorted and prepared 6,853 pounds of food during a volunteer day at the Greater Boston Food Bank, an organization that works to end hunger in the area by providing people in need with healthy food and resources.
- During the month of November, NEPC's Movember team raised over \$5,000 to support men's health research.
- In support of Breast Cancer Awareness Month, NEPC employees wore their favorite pair of jeans with a purpose and participated in the American Cancer Society Denim Day by sporting denim and the color pink. Together, we raised over \$2,500.
- As part of our Annual United Way campaign, over 50 NEPC employees assembled Literacy Kits for children during the holiday season. The kits were filled with developmental games, arts and crafts supplies, and reading materials.

Webinar Replays

- Investor Insights Perspectives on the 2016 US Election (November 2016)
- Defined Benefit Plan Trends Survey Results (December 2016)
- Digging Deeper on ESG (December 2016)

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

Client Awards

We'd like to congratulate the following clients for their recent award wins at Chief Investment Officer's 7th Annual 2016 Industry Innovation Awards:

- Texas Tech University System's CIO, Tim Barrett as 2016 recipient of the Endowment Award
- MoDot & Patrol Employees' Retirement System's CIO, Larry Krummen as the 2016 recipient of the Public Defined Benefit Plan Below \$15 Billion Award
- · State of Wisconsin Investment Board's CIO, David Villa as the 2016 recipient of the Public Defined Benefit Plan Above \$100 Billion Award



















Index Performance Summary as of 12/31/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Oct	Nov	Dec	Q4	YTD
US Small/Mid Cap	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	-4.1%	8.5%	1.9%	6.1%	17.6%
US High Yield	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.4%	-0.5%	1.8%	1.8%	17.1%
EM Equity	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	0.2%	-4.6%	0.2%	-4.2%	11.2%
US Large Cap	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.9%	-1.8%	3.7%	2.0%	3.8%	12.0%
Commodities	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	-0.5%	1.3%	1.8%	2.7%	11.8%
EM Local Credit	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.7%	2.7%	-0.8%	-7.0%	1.9%	-6.1%	9.9%
US Credit	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.5%	-0.8%	-2.4%	0.1%	-3.0%	2.6%
Global Credit	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	-3.4%	-4.6%	-0.7%	-8.5%	1.6%
US Long Treasuries	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	8.2%	6.4%	-0.4%	-4.1%	-7.4%	-0.5%	-11.7%	1.3%
Int'l Developed Equity	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	-2.0%	-2.0%	3.4%	-0.7%	1.0%

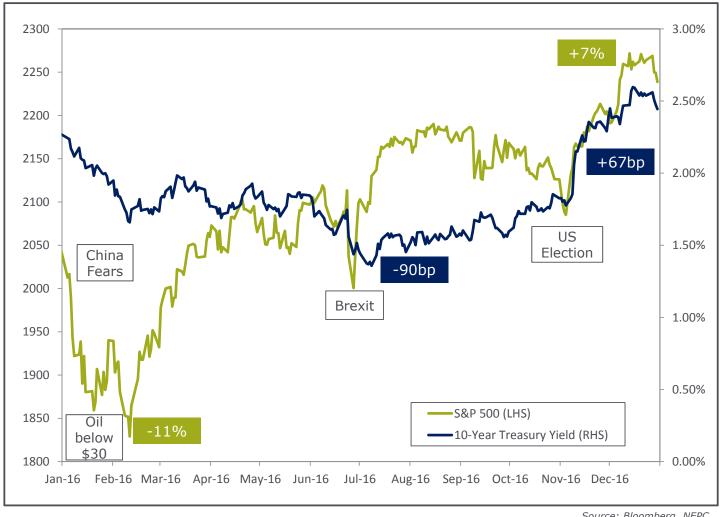
S&P 500 = US Large Cap
Russell 2500 = US Small/Mid Cap
MSCI EAFE = International Developed Equity
MSCI EAFE = International Developed Equity
Barclays Agg = US Credit
Barclays Long Treasury = US Long Treasuries
Barclays High Yield = US HY
WGBI = Global Credit
GBI-EM Global Diversified = EM Local Credit
Bloomberg Commodity = Commodities



December 31, 2016

Source: Bloomberg, Barclays, S&P, Russell, MSCI, JP Morgan, Credit Suisse

2016: A Rollercoaster of Geopolitical Events







Index Performance Summary as of 01/31/2017

	2009	2010	2011	2012	2013	2014	2015	2016	Jan	YTD
EM Equity	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	5.5%	5.5%
Int'l Developed Equity	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	2.9%	2.9%
EM Local Credit	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	2.3%	2.3%
US Large Cap	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	1.9%	1.9%
US High Yield	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	1.5%	1.5%
US Small/Mid Cap	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	1.4%	1.4%
Global Credit	-6.5%	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	1.1%	1.1%
US Long Treasuries	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	0.4%	0.4%
US Credit	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	0.2%	0.2%
Commodities	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	0.1%	0.1%

Source: Bloomberg, Barclays, S&P, Russell, MSCI, JP Morgan, Credit Suisse

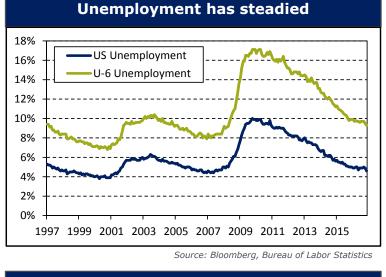
S&P 500 = US Large Cap Russell 2500 = US Small/Mid Cap MSCI EAFE = International Developed Equity MSCI EM = Emerging Market Equity Barclays Agg = US Credit Barclays Long Treasury = US Long Treasuries Barclays High Yield = US HY Barclays Global Agg = Global Credit GBI-EM Global Diversified = EM Local Credit Bloomberg Commodity = Commodities

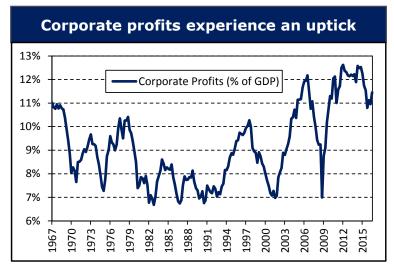


US Economic Indicators



Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics





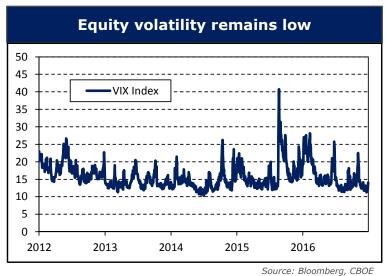
Source: Bloomberg, Bureau of Economic Analysis

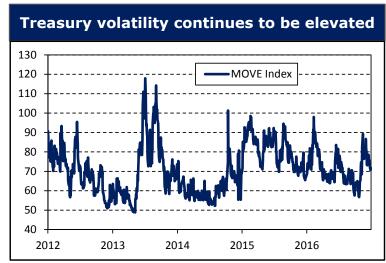


Source: Bloomberg, Institute for Supply Management

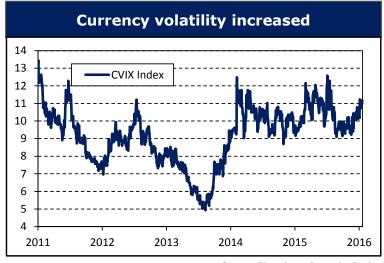


Volatility





Source: Bloomberg, Merrill Lynch



Commodity volatility has subsided 21 Bloomberg Commodity 90D Vol 19 17 15 13 11 2012 2013 2014 2015 2016

Source: Bloomberg, Deutsche Bank

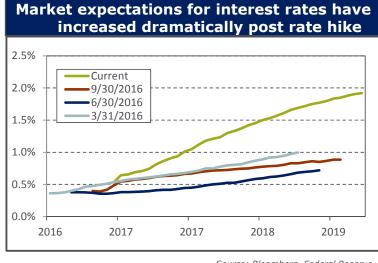
Source: Bloomberg, Merrill Lynch



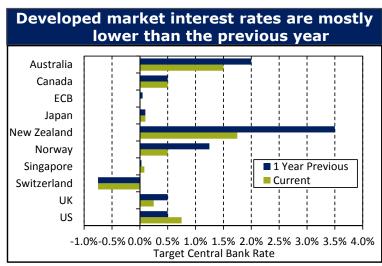
Central Banks

Yen depreciation has decreased the value of BoJ's balance sheet \$5.00 FED assets) \$4.50 ECB \$4.00 BoJ \$3.50 \$3.00 rillions (balance \$2.50 \$2.00 \$1.50 \$1.00 \$0.50 \$0.00 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

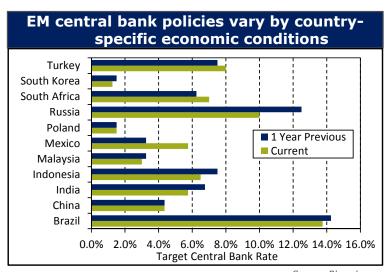
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC



Source: Bloomberg, Federal Reserve



Source: Bloomberg



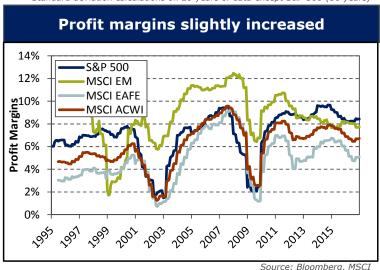
Source: Bloomberg

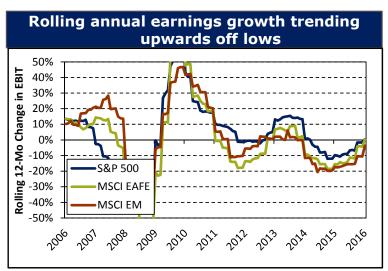


University of Maine System Managed Investment Pool Global Equity

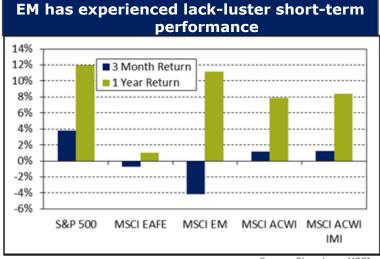
EAFE's current valuation is lower than the previous year 50 45 +1 Std Dev -1 St Dev **B**30 12/31/2015 12/30/2016 **2**25 15 10 S&P 500 MSCI EM MSCI EAFE MSCI ACWI

Source: Bloomberg, Standard and Poors, MSCI *MSCI EAFE is ex UK Telecom *Standard deviation calculations on 20 years of data except S&P 500 (30 years)





Source: Bloomberg, Standard and Poors, MSCI

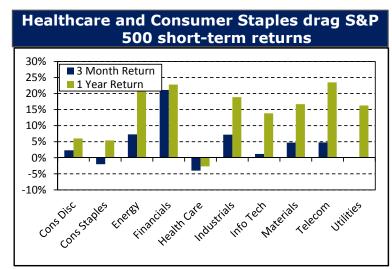


Source: Bloomberg, MSCI



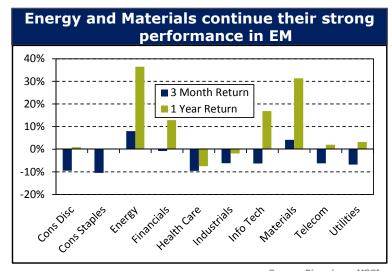
Global Equity by Sector

Energy and Financials lead MSCI ACWI short-term returns 30% 25% 20% 15% 10% 5% 0% 5% 10% Cons States Energy and Financials lead MSCI ACWI short-term returns 30% 1 year Return 1 year



Source: Bloomberg, MSCI



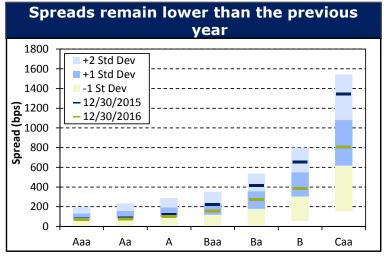


Source: Bloomberg, MSCI

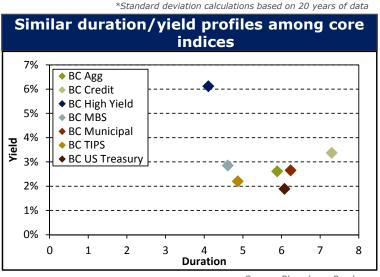
Source: Bloomberg, MSCI



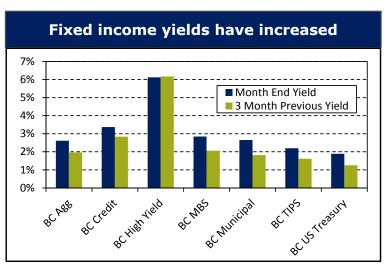
US Fixed Income



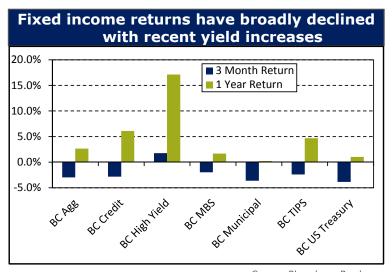
Source: Bloomberg, Barclays



Source: Bloomberg, Barclays



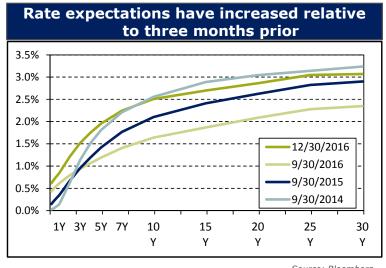
Source: Bloomberg, Barclays

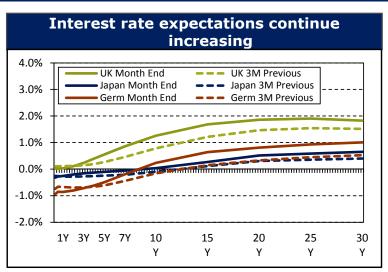


Source: Bloomberg, Barclays



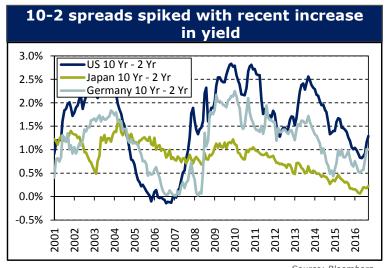
Rates

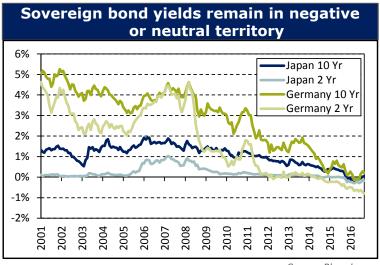




Source: Bloomberg

Source: Bloomberg



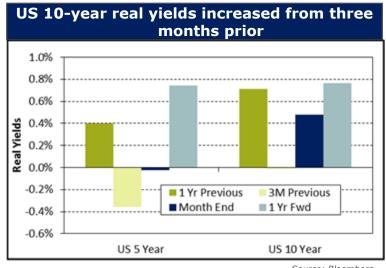


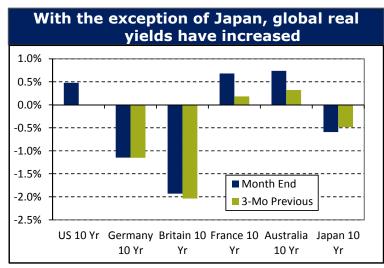
Source: Bloomberg

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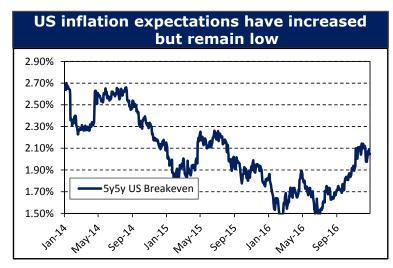
Inflation and Real Rates

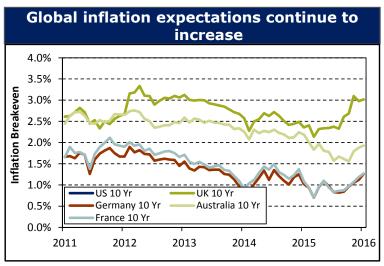




Source: Bloomberg

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Source: Bloomberg

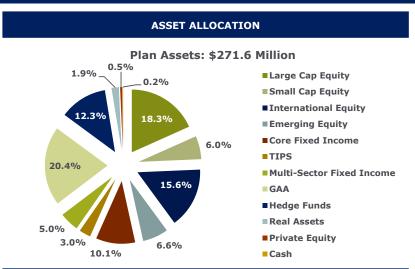
Source: Bloomberg







Executive Summary



	MIP	PERFOR	MANCE: N	IET OF F	EES		
	QTR	FYTD	1 YR	3 YR	5 YR	7 YR	10 YR
COMPOSITE	-0.5%	3.1%	5.2%	1.9%	6.7%	6.0%	4.4%
ALLOC. INDEX	-0.3%	3.4%	5.8%	2.6%	6.6%	5.9%	4.0%
POLICY INDEX	-0.1%	4.0%	7.0%	2.9%	6.7%	6.2%	4.5%

PLAN COMMENTS

Asset Allocation

MIP assets were \$271.6 million as of December 31, 2016, a \$2.4 million decrease over the quarter. During the 4^{th} quarter there was a \$1.6 million cash outflow of the Pool. All asset classes are within policy ranges.

Performance (Net of Fees)

The MIP returned -0.5% over the quarter, 3.1% fiscal year to date and 5.2% over the past year. Long term returns have outperformed the allocation index on a 5, 7 and 10 year basis.

The MIP ranked in the 92^{nd} percentile during the fiscal year to date and in the 77^{th} percentile for the one year period. (Universe = Endowments & Foundations with \$100m - \$500m)

The managers with the highest absolute returns over the fourth quarter were DFA (domestic small cap equity), SSgA (S&P 500) and EntrustPermal (hedge fund of funds).

RECENT ACTIONS/RECOMMENDATIONS

Recent Actions

MSCI completed an ESG Analysis on the MIP portfolio. MSCI, NEPC and University of Maine Staff reviewed the results in February. The findings are summarized in a separate report.

Recommendations

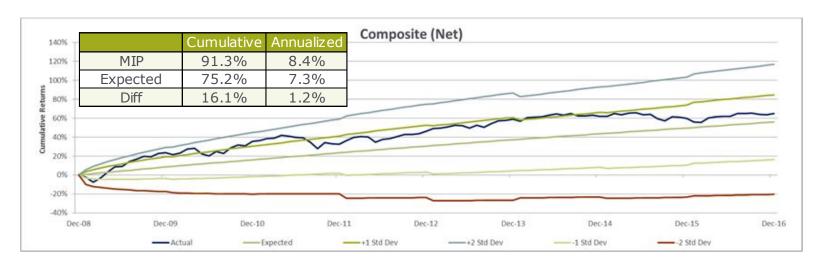
Review Asset Allocation study recommendations provided in a separate document.

Manager Due Diligence

There are two new manager updates detailed on the Due Diligence Monitor pages.



MIP Return Expectations



- Over the last 8 years ending 12/31/16, the MIP returned 8.4% annualized versus a blended expected return of 7.3% (based on NEPC's 5-7 year forecasts)
- The returns are currently above the expected target and within a one standard deviation range of outcomes



Due Diligence Monitor

The items below summarize any changes or announcements from your Plan managers/funds. A "Yes" indicates there was an announcement and a brief 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. NEPC considers ourselves to be a fiduciary, as ERISA defines the term in Section 3(21).

Investment Manager	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
Aberdeen	Yes	No Action / Maintain Hold
EntrustPermal	Yes	Watch (Firm) / Maintain Hold

A legend key to our recommendations is provided below.

	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.



Due Diligence Commentary

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

Manager Changes/Announcements	
Investment Option	Commentary
Aberdeen Asset Management Emerging Markets Equity	Aberdeen is in the process of rolling out a new Collective Investment Trust (CIT) for the Global Emerging Markets strategy. The University of Maine System is in the mutual fund and therefore eligible for the new vehicle. Consideration should be given to transitioning over. Aberdeen is willing to work with each client directly to lay out the cost differences. The mutual fund expense ratio is 1.13%, where the fee for the CIT will be 1% all-in. There is a dilution levy in place depending on the size of each client, which should be considered. **NEPC is comfortable with this change and will discuss with the System.**
EntrustPermal EntrustPermal Fixed Income Holdings N.V.	See Memo on following page. NEPC upgraded EntrustPermal firm rating from Hold to Watch and maintains the Hold rating for the strategy.





To: NEPC Clients

From: NEPC Research

Date: January 26, 2017

Subject: EnTrustPermal Due Diligence Status Change: Upgrade from HOLD to WATCH

Product Rating: EnTrustPermal Fixed Income Holdings N.V. ("EPFIH") and EnTrustPermal Fixed Income Holdings (ERISA) Ltd. ("EPFIHE"): Maintain Current Rating (Neutral) and Current Due Diligence Status: HOLD

Roughly one year since the announcement that EnTrust and Permal would merge and form a combined entity (EnTrustPermal) and subsidiary of Legg Mason, we are comfortable that the integration process is proceeding in line with expectations. At the firm level, there has been some reduction in overall assets under management but within expectations given a significant corporate event. We expect further integration efforts to occur over time to continue to gain efficiencies in the investment process and make efforts to extract additional fee savings from underlying managers. We will continue to monitor the ongoing integration but at this time we believe it is appropriate to upgrade the firm Due Diligence rating of EnTrustPermal from HOLD to WATCH. This means that we have gained comfort with how they have addressed a significant event (merger of two firms) but believe continued monitoring is appropriate.

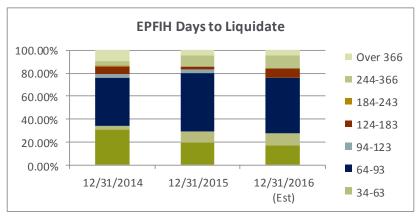
We are maintaining the current Due Diligence Status of HOLD on the legacy Permal Fixed Income Holdings strategies (EPFIH and EPFIHE) as we feel a higher level of monitoring and awareness is appropriate given relatively large redemptions in these strategies over the last year. Increasing investor outflows from the legacy Permal flagship fund (EPFIH), driven largely by non-NEPC investors (primarily Private Clients and Family Offices), have led to a drop in AUM of approximately 40% since the beginning of 2016. This asset decline could potentially present some liquidity concerns for NEPC investors in the Fund should more investors redeem. The ERISA Fund (EPFIHE) experienced a smaller asset drop in 2016 (~20%) but we are aware of anticipated additional redemptions of more than 30% in that fund. EnTrustPermal has indicated they there are prepared to manage those redemptions effectively.

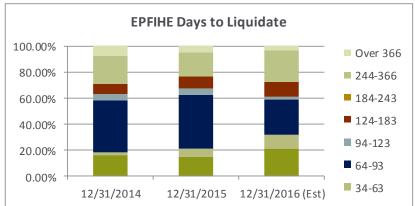
Historically, EnTrustPermal has managed portfolio liquidity of these funds effectively, including during this recent period of redemptions. The portfolio management team has prudently balanced portfolio flows and underlying manager redemptions while utilizing lines of credit to help mitigate the portfolio impact. Additionally, the team and processes remain the same.

Given the decline in assets and trend of outflows, we think it is appropriate to maintain our HOLD recommendation as we continue to monitor and evaluate the portfolio and overall asset flows. While the significant outflows are a concern, this is somewhat offset by the following factors:

- The portfolio management team has historically shown an ability to manage through periods of outflows and adjust positions to meet monthly redemptions.
- The funds performed well on a relative basis in 2016 despite the outflows.
- Effective liquidity management is evidenced by the fact that the liquidity profile of the Fund's underlying holdings has remained relatively similar to previous years. While the majority of assets are still in vehicles that require more than 30 days to liquidate, the overall profile remains consistent.







Source: NEPC, EnTrustPermal (12/20/2016). 12/31/2016 liquidity is estimated. The charts shown above are based on "a most restrictive liquidity review" by EnTrustPermal which for year end 2016 is estimated as of December 20, 2016. The "days to liquidate", has been defined by EnTrustPermal as the number of days until the next effective available redemption date of the underlying investments in EPFIH and EPFIHE

- While the use of credit lines increased meaningfully for the EPFIH during this period, EnTrustPermal has indicated that the funds' borrowing needs have dropped as outflows have slowed and they have continued to manage portfolio cash flows. In addition, they noted that they have additional borrowing capacity. This capacity should allow them to continue to manage the portfolio consistent with past practice.
- EnTrustPermal noted that they are considering merging the EPFIH and EPFIHE funds in order to improve the overall flexibility across all of the funds. We are supportive of this concept because of the potential additional benefits to clients and will keep you informed if this moves forward.
- If redemptions increase to the point that it could negatively impact remaining investors, it is possible that EnTrustPermal could impose a gate. As indicated by EnTrustPermal, the purpose of the gate would be to manage liquidity of the funds in the best interests of its continuing investors. This provides another potential layer of protection for remaining clients, but, if triggered, could lead to a slower repayment



- of redemption proceeds than what the Fund's stated terms offer for those clients redeeming.
- EnTrustPermal provided information about "advisor concentration". NEPC clients now represent the largest group under one advisor with approximately 35% and 45% of total assets in EPFIH and EPFIHE, respectively. No other advisor represents more than 10% of client assets in the EPFIH fund and there are three advisors that each represents 10-20% of the EPFIHE fund. We recognize that a change in our recommendation to Client Review or Terminate could potentially trigger a gate at the Fund level and we would therefore work to understand and communicate the implications if our assessment of the situation warrants a potential downgrade.

We recommend clients continue to assess EPFIH and EPFIHE and the role that each plays in the strategic asset allocation of your portfolio(s). At this point, we are comfortable with NEPC clients maintaining their exposure to the EPFIH and EPFIHE funds, subject to the specific circumstances of your particular investment program.

We will continue to monitor asset flows, portfolio construction and performance. If the situation changes, we will keep you informed. While we are not recommending any action at this point, we do want to remind you of the current notice periods which are outlined below.

Vehicle	Redemption Terms	Notice By	Redemption Date
EPFIH N.V.	Monthly 20 days notice	February 10, 2017	February 28, 2017
EPFIH Institutional (feeder)	Monthly 25 days notice	February 3, 2017	February 28, 2017
EPFIHE	Monthly 61 days Notice	January 27, 2017	March 31, 2017

Insert Memo

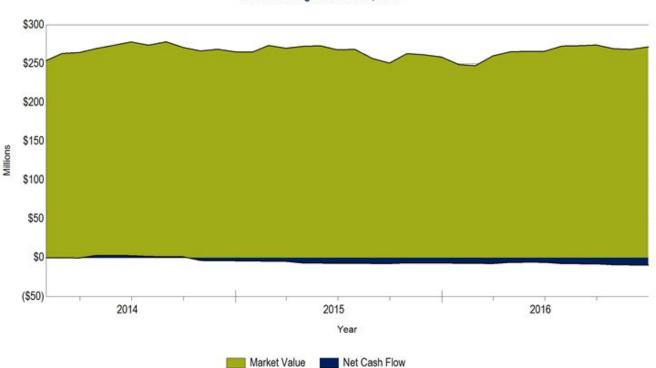


Plan Summary and Statistics



Total Plan Asset Growth Summary





	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$274,006,109	\$265,886,418	\$258,591,192	\$259,584,612
Net Cash Flow	-\$1,589,921	-\$3,572,041	-\$2,547,080	-\$9,559,122
Net Investment Change	-\$778,243	\$9,323,568	\$15,593,832	\$21,612,454
Ending Market Value	\$271,637,945	\$271,637,945	\$271,637,945	\$271,637,945



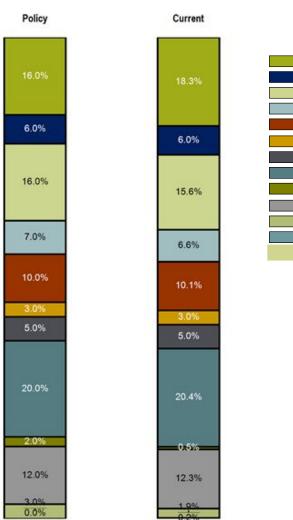
Total Plan Asset Growth Summary by Manager

3 Months Ending December 31, 2016

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Aberdeen Emerging Mrkts	\$9,703,877	-\$26,100	\$500,000	\$473,900	-\$523,683	\$9,654,094
Commonfund	\$27,450,831	-\$10,854	\$800,000	\$789,146	-\$732,845	\$27,507,133
Cube	\$199,925	-\$201,608	\$0	-\$201,608	\$1,683	
DFA	\$8,574,602	-\$1,808,799	\$0	-\$1,808,799	\$1,201,421	\$7,967,224
Distribution Account	\$1,757,748	-\$6,865,672	\$5,653,999	-\$1,211,673	\$0	\$546,076
EntrustPermal	\$15,988,607	\$0	\$0	\$0	\$502,721	\$16,491,328
Globeflex	\$22,608,817	-\$1,039,159	\$0	-\$1,039,159	-\$581,593	\$20,988,065
GMO Global Absolute Return	\$18,717,130	-\$46,425	\$350,000	\$303,575	-\$197,026	\$18,823,679
John Hancock Timber Fund	\$5,635,278	-\$140,000	\$0	-\$140,000	-\$273,420	\$5,221,858
Landmark Equity Partners XV	\$1,392,837	-\$90,399	\$162,826	\$72,427	\$0	\$1,465,264
Lighthouse	\$15,861,160	\$0	\$1,000,000	\$1,000,000	\$127,565	\$16,988,725
Loomis Sayles Fixed Income	\$13,576,042	-\$19,148	\$0	-\$19,148	-\$55,567	\$13,501,327
Mondrian EM Small Cap	\$10,904,363	-\$1,838,660	\$0	-\$1,838,660	-\$749,293	\$8,316,410
Morgan Stanley	\$21,882,940	-\$49,961	\$0	-\$49,961	-\$466,427	\$21,366,551
Newton Global Real Return	\$16,378,508	-\$884,836	\$3,100,000	\$2,215,164	-\$768,534	\$17,825,138
SSgA S&P 500	\$47,996,024	-\$12,000	\$0	-\$12,000	\$1,847,459	\$49,831,483
Vanguard Inflation-Protected Securities	\$8,302,129	-\$1,425	\$0	-\$1,425	-\$221,090	\$8,079,614
Wellington	\$18,831,269	-\$86,061	\$0	-\$86,061	\$15,938	\$18,761,146
Westfield Capital	\$8,244,021	-\$35,639	\$0	-\$35,639	\$94,448	\$8,302,830
Total	\$274,006,109	-\$13,156,746	\$11,566,825	-\$1,589,921	-\$778,243	\$271,637,945



Total Plan Asset Allocation vs. Policy Targets



	Asset Alloc	ation vs.	Target			
	Current	Policy	Current	Difference	Policy Range	Within Range
Large Cap Equity	\$49,831,483	16.0%	18.3%	2.3%	11.0% - 21.0%	Yes
Small/Mid Cap Equity	\$16,270,054	6.0%	6.0%	0.0%	0.0% - 9.0%	Yes
International Equity	\$42,354,616	16.0%	15.6%	-0.4%	11.0% - 21.0%	Yes
Emerging Markets Equity	\$17,970,504	7.0%	6.6%	-0.4%	0.0% - 10.0%	Yes
Core Bonds	\$27,507,133	10.0%	10.1%	0.1%	5.0% - 15.0%	Yes
TIPS	\$8,079,614	3.0%	3.0%	0.0%	0.0% - 6.0%	Yes
Multi-sector Fixed Income	\$13,501,327	5.0%	5.0%	0.0%	0.0% - 8.0%	Yes
Global Asset Allocation	\$55,409,964	20.0%	20.4%	0.4%	15.0% - 25.0%	Yes
Private Equity	\$1,465,264	2.0%	0.5%	-1.5%	0.0% - 5.0%	Yes
Hedge Funds	\$33,480,053	12.0%	12.3%	0.3%	9.0% - 15.0%	Yes
Real Assets	\$5,221,858	3.0%	1.9%	-1.1%	0.0% - 6.0%	Yes
Cash	\$546,076	0.0%	0.2%	0.2%	0.0% - 10.0%	Yes
Total	\$271,637,945	100.0%	100.0%			



Asset Class Allocations

			Asset	Allocation		
Policy	Current	Look Through		Policy	Current	Look Through
			Large Cap Equity	16.0%	18.3%	21.2%
			Small/Mid Cap Equity	6.0%	6.0%	6.0%
16.0%	0.040000000		International Equity	16.0%	15.6%	20.9%
10.070	18.3%	21.2%	Emerging Markets Equity	7.0%	6.6%	8.9%
			Core Bonds	10.0%	10.1%	12.0%
	(4)		TIPS	3.0%	3.0%	3.0%
6.0%	6.0%		Multi-sector Fixed Income	5.0%	5.0%	5.1%
	0.070	6.0%	Fixed Income - Emerging			0.9%
			Global Bonds			2.8%
16.0%	1000000		Global Asset Allocation	20.0%	20.4%	
	15.6%		Private Equity	2.0%	0.5%	0.5%
		20.9%	Hedge Funds	12.0%	12.3%	14.3%
7.0%			Real Assets	3.0%	1.9%	2.8%
7.076	6.6%		Cash	0.0%	0.2%	1.6%
			Total	100.0%	100.0%	100.0%
10.0%	10.1%	8.9%				
3.0%		0.070				
	3.0%					
5.0%	5.0%	12.0%	Net Asset Allocation breaks out the exposure of GAA managers.			
		12.076	Asset class weights may not add up to 100% The 60% MSCI ACWI/40% CITI WGBI Index is broken down into the following cate:	gories: 32.3% Domestic Equities, 21.4% Int'l	Equities, 6.3% Emergin	a Equities, 14,1%
			US Treasury Bonds, 12.8% European Government Bonds, 8.9% Japanese Debt, 2.			V 1 ,
20.0%		3.0%				
20.076	20.4%	5.1% 0.9%				
		2.8%				
		0.50				
2.0%	0.5%					
0.000.000		14.3%				
12.0%	12.3%					
3.0%		2.00/				
0.0%	1.9%	2.8%				
Marine Marine San	U.E.					



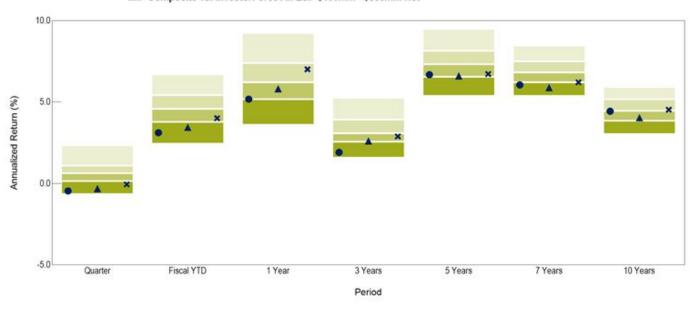
Total Plan Asset Allocation History

Asset Allocation History 100 % 80 % % Allocation (Actual) 60 % 40 % 20 % Policy 2012 2013 2014 2015 2016 Large Cap Equity **Emerging Markets Equity** Private Equity Real Assets Small/Mid Cap Equity Core Bonds Multi-sector Fixed Income Hedge Funds Cash International Equity High Yield Global Asset Allocation



Total Plan Return Summary vs. Peer Universe (Net of Fees)

MIP Composite vs. InvestorForce All E&F \$100mm - \$500mm Net

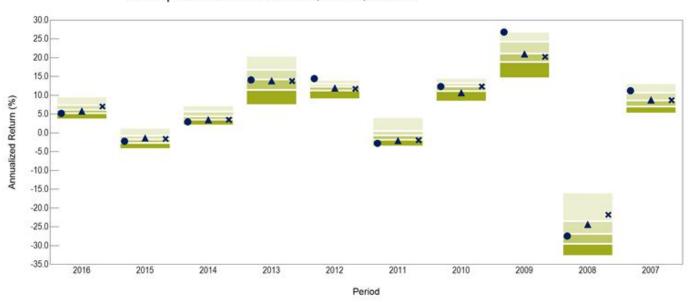


	Return (Rank)													
5th Percentile	2.3		6.7		9.2		5.2		9.5		8.5		5.9	
25th Percentile	1.1		5.4		7.4		3.9		8.2		7.5		5.2	
Median	0.6		4.6		6.2		3.1		7.3		6.8		4.5	
75th Percentile	0.2		3.8		5.2		2.6		6.6		6.2		3.9	
95th Percentile	-0.6		2.4		3.6		1.6		5.4		5.4		3.0	
# of Portfolios	186		186		186		178		168		160		141	
MIP Composite	-0.5	(92)	3.1	(91)	5.2	(76)	1.9	(91)	6.7	(72)	6.0	(82)	4.4	(53)
Allocation Index	-0.3	(89)	3.4	(84)	5.8	(58)	2.6	(75)	6.6	(75)	5.9	(85)	4.0	(68)
Policy Index	-0.1	(83)	4.0	(67)	7.0	(36)	2.9	(62)	6.7	(70)	6.2	(77)	4.5	(47)



Total Plan Return Summary vs. Peer Universe (Net of Fees)

MIP Composite vs. InvestorForce All E&F \$100mm - \$500mm Net

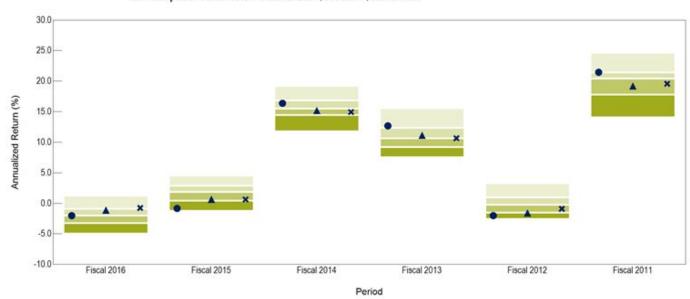


	Return (R	ank)																		
5th Percentile	9.6		1.3		7.3		20.5		14.1		4.2		14.6		26.9		-15.9		13.2	
25th Percentile	7.4		-0.7		5.7		16.8		13.0		0.5		13.3		24.3		-23.4		10.7	
Median	6.2		-1.7		4.4		14.2		12.3		-0.6		12.4		21.1		-26.9		8.7	
75th Percentile	5.2		-2.7		3.6		11.5		11.3		-1.8		11.1		18.9		-29.5		7.0	
95th Percentile	3.6		-4.3		2.0		7.4		9.0		-3.6		8.3		14.6		-32.7		5.2	
# of Portfolios	158		142		98		75		78		75		70		69		67		62	
MIP Composite	5.2	(77)	-2.2	(64)	2.9	(86)	14.1	(53)	14.4	(3)	-2.8	(90)	12.3	(53)	26.8	(9)	-27.4	(57)	11.2	(15)
Allocation Index	5.8	(58)	-1.4	(44)	3.5	(77)	13.9	(57)	11.9	(58)	-2.1	(79)	10.7	(83)	21.0	(52)	-24.3	(30)	8.8	(50)
Policy Index	7.0	(37)	-1.6	(48)	3.5	(78)	13.8	(57)	11.7	(64)	-2.0	(78)	12.3	(51)	20.2	(66)	-21.8	(16)	8.7	(50)



Total Plan Return Summary vs. Peer Universe (Net of Fees)

MIP Composite vs. InvestorForce All E&F \$100mm - \$500mm Net

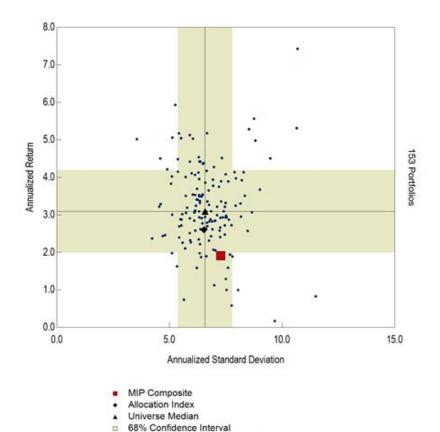


	Return (Rank)											
5th Percentile	1.2		4.5		19.2		15.5		3.3		24.7	
25th Percentile	-0.9		2.9		16.9		12.4		1.0		21.4	
Median	-2.0		1.9		15.5		10.7		-0.2		20.4	
75th Percentile	-3.2		0.4		14.5		9.2		-1.5		17.8	
95th Percentile	-4.9		-1.2		11.8		7.6		-2.6		14.1	
# of Portfolios	157		130		83		81		75		73	
MIP Composite	-2.0	(51)	-0.8	(94)	16.4	(32)	12.7	(23)	-2.0	(88)	21.4	(24)
Allocation Index	-1.1	(29)	0.7	(70)	15.2	(63)	11.1	(45)	-1.6	(83)	19.2	(66)
Policy Index	-0.8	(24)	0.6	(70)	14.9	(65)	10.7	(50)	-0.9	(66)	19.6	(60)



Total Plan Risk/Return - 3 Years

3 Years Ending December 31, 2016



InvestorForce All E&F \$100mm - \$500mm Net

3 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
MIP Composite	1.9%	92	7.3%	73	
Allocation Index	2.6%	76	6.5%	50	
Policy Index	2.9%	63	6.6%	50	
InvestorForce All E&F \$100mm - \$500mm Net Median	3.1%		6.6%		

3 Years Ending December 31, 2016

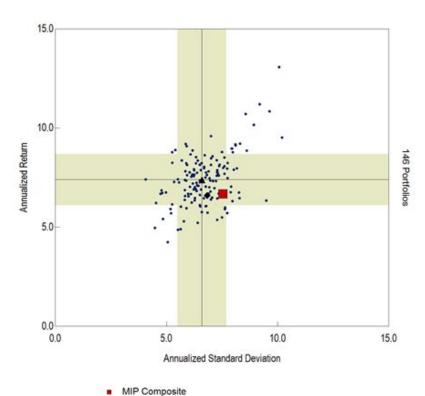
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.2	93	0.4	94
Allocation Index	0.4	73	0.6	64
Policy Index	0.4	59	0.7	53
InvestorForce All E&F \$100mm - \$500mm Net Median	0.5		0.8	-

^{*}Returns are net of fees.



Total Plan Risk/Return - 5 Years

5 Years Ending December 31, 2016



5 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
MIP Composite	6.7%	74	7.5%	80	
Allocation Index	6.6%	75	6.8%	58	
Policy Index	6.7%	70	6.8%	55	
InvestorForce All E&F \$100mm - \$500mm Net Median	7.4%	-	6.6%	-	

5 Years Ending December 31, 2016

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.9	89	1.3	88
Allocation Index	1.0	80	1.4	79
Policy Index	1.0	77	1.5	66
InvestorForce All E&F \$100mm - \$500mm Net Median	1.1		1.7	

^{*}Returns are net of fees.



Allocation Index

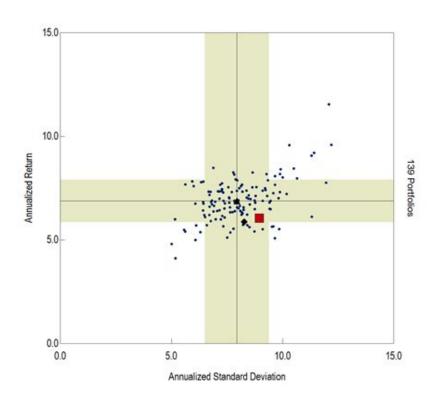
Universe Median

^{68%} Confidence Interval

InvestorForce All E&F \$100mm - \$500mm Net

Total Plan Risk/Return - 7 Years

7 Years Ending December 31, 2016



7 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
MIP Composite	6.0%	83	9.0%	75	
Allocation Index	5.9%	85	8.3%	62	
Policy Index	6.2%	77	8.2%	60	
InvestorForce All E&F \$100mm - \$500mm Net Median	6.9%	-	7.9%	-	

7 Years Ending December 31, 2016

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.7	94	1.0	95
Allocation Index	0.7	87	1.1	86
Policy Index	0.7	82	1.2	63
InvestorForce All E&F \$100mm - \$500mm Net Median	0.8	-	1.3	

^{*}Returns are net of fees.



MIP Composite

Allocation Index

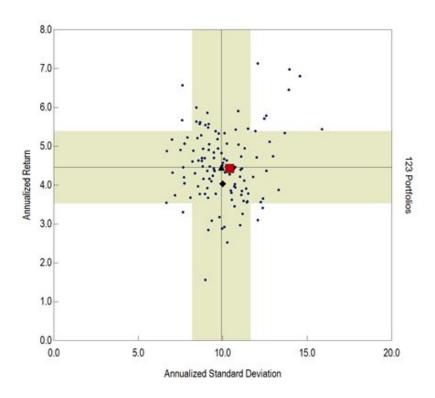
Universe Median

^{68%} Confidence Interval

InvestorForce All E&F \$100mm - \$500mm Net

Total Plan Risk/Return - 10 Years

10 Years Ending December 31, 2016



10 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
MIP Composite	4.4%	54	10.4%	61	
Allocation Index	4.0%	70	10.0%	53	
Policy Index	4.5%	46	9.5%	45	
InvestorForce All E&F \$100mm - \$500mm Net Median	4.5%		9.9%		

10 Years Ending December 31, 2016

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
MIP Composite	0.4	60	0.5	48
Allocation Index	0.3	70	0.4	60
Policy Index	0.4	44	0.5	29
InvestorForce All E&F \$100mm - \$500mm Net Median	0.4	-	0.5	

InvestorForce All E&F \$100mm - \$500mm Net

^{*}Returns are net of fees.



MIP Composite

Allocation Index

Universe Median

^{68%} Confidence Interval

Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
MIP Composite	271,637,945	100.0	100.0	-0.5	3.1	5.2	1.4	1.9	6.7	6.0	4.4
Allocation Index				-0.3	3.4	5.8	2.2	2.6	6.6	5.9	4.0
Policy Index				-0.1	4.0	7.0	2.6	2.9	6.7	6.2	4.5
Total Domestic Large Cap	49,831,483	18.3	16.0	3.8	7.8	11.9	6.5	8.8	14.4	12.7	7.8
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
SSgA S&P 500	49,831,483	18.3	16.0	3.8	7.8	11.9	6.5	8.8	14.6	12.8	6.9
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
Total Domestic Small/Mid Cap	16,270,054	6.0	6.0	7.6	15.5	15.8	5.5	5.5	14.5	13.4	10.2
Russell 2500				6.1	13.1	17.6	6.9	6.9	14.5	13.6	7.7
Westfield Capital	8,302,830	3.1	3.0	1.0	8.1	4.2	0.6	2.8	12.3	12.8	9.3
Russell 2500 Growth				2.6	9.8	9.7	4.7	5.4	13.9	13.5	8.2
DFA	7,967,224	2.9	3.0	13.5	22.0	26.9	9.4	7.2	16.0		
Russell 2000 Value				14.1	24.2	31.7	10.4	8.3	15.1	13.1	6.3
Total International Equity (including emerging markets)	60,325,121	22.2	23.0	-4.0	1.0	0.3	-1.1	-2.1	5.0	3.9	1.2
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Morgan Stanley	21,366,551	7.9	8.0	-2.4	0.1	-2.0	-0.8	-2.6	5.9	3.9	1.5
Globeflex	20,988,065	7.7	8.0	-2.9	4.6	-0.8	0.9	-1.0	7.3	5.0	
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Emerging Markets Equity	17,970,504	6.6	7.0	-7.3	-2.1	3.7	-4.3	-2.9	1.3		
MSCI Emerging Markets				-4.2	4.5	11.2	-2.7	-2.6	1.3	0.5	1.8
Aberdeen Emerging Mrkts	9,654,094	3.6	3.5	-5.8	-0.8	12.0	-1.7	-1.9	1.9	3.2	
MSCI Emerging Markets				-4.2	4.5	11.2	-2.7	-2.6	1.3	0.5	1.8
Mondrian EM Small Cap	8,316,410	3.1	3.5	-8.9	-3.5	-3.6	-6.7				
MSCI Emerging Markets Small Cap				-6.2	0.9	2.3	-2.4	-1.3	3.5	1.4	3.4
Total Fixed Income	49,088,074	18.1	18.0	-2.1	-0.4	5.4	1.5	2.9	4.2	5.1	4.9
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Commonfund	27,507,133	10.1	10.0	-2.7	-1.5	3.5	1.6	3.0	3.5	4.5	4.8
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Loomis Sayles Fixed Income	13,501,327	5.0	5.0	-0.6	2.8	9.9	1.6				
BBgBarc Global Aggregate TR				-7.1	-6.3	2.1	-0.6	-0.2	0.2	1.7	3.3
Vanguard Inflation-Protected Securities	8,079,614	3.0	3.0	-2.7	-1.7						
BBgBarc US TIPS TR				-2.4	-1.5	4.7	1.6	2.3	0.9	3.4	4.4



Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	55,409,964	20.4	20.0	-2.1	1.3	4.4	0.0	0.3	3.9	3.5	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
GMO Global Absolute Return	18,823,679	6.9	6.6	-1.5	2.0	3.7	-0.2	0.3	4.1	4.0	4.4
Blended Index				-1.6	0.0	6.1	3.0	3.6	3.8	5.0	5.1
Wellington	18,761,146	6.9	6.7	-0.5	5.3	5.8	2.9	2.1	5.9	4.1	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
Newton Global Real Return	17,825,138	6.6	6.7	-4.4	-5.0	-			-		
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				-2.2	1.3	5.7	1.5	1.9	5.8	5.2	3.8
Total Hedge Funds	33,480,053	12.3	12.0	1.9	4.1	2.7	-0.2	0.3	2.7	1.7	2.4
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
EntrustPermal	16,491,328	6.1	6.0	3.1	4.9	4.4	0.1	0.5	4.6	4.1	
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
Lighthouse	16,988,725	6.3	6.0	0.7	3.3	0.2			-		
Credit Suisse Long Shrt Eqt USD				-0.2	1.7	-3.4	0.0	1.8	6.1	4.5	4.0
Total Real Assets	5,221,858	1.9	3.0	-4.9	-4.8	-5.7	-1.1	1.2	6.3	-	
NCREIF Timberland Index				1.2	1.9	2.7	3.8	6.0	7.1	5.2	5.8
John Hancock Timber Fund	5,221,858	1.9	3.0	-4.9	-4.8	-5.7	-1.1	1.2	6.3	3.7	1.2
NCREIF Timberland Index				1.2	1.9	2.7	3.8	6.0	7.1	5.2	5.8
Private Equity	1,465,264	0.5	2.0	0.0	2.5	5.1	4.2		-	-	
Landmark Equity Partners XV	1,465,264	0.5	2.0	0.0	2.5	5.1	4.2		-		
Cambridge Associates US All PE (1 Qtr Lag)				3.8	7.9	8.7	7.3	10.7	13.1	13.9	10.8
Total Cash	546,076	0.2	0.0								
Distribution Account	546,076	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9
91 Day T-Bills				0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.7

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 as of 12/31/16

Landmark market value estimated as of 12/31/16



Private Markets Update

 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 \$2.95 million
- Since inception, the strategy has an IRR of 14.9%, net of fees (6/30/16)

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 1.4%, net of fees (12/31/16)

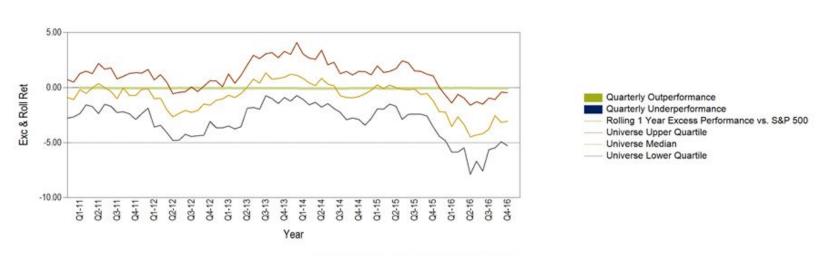






SSgA S&P 500

Annualized Excess Performance

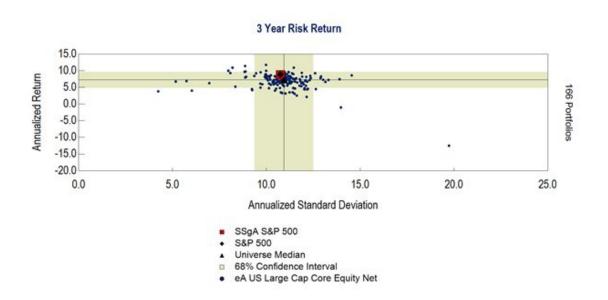


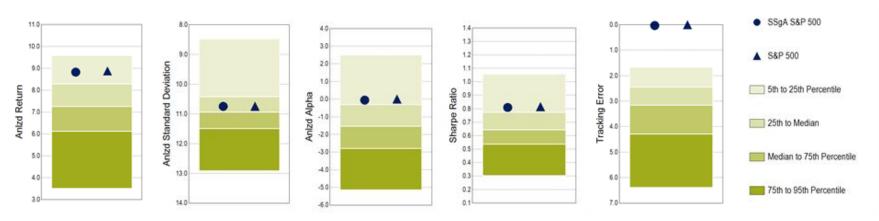


*Returns are net of fees.



SSgA S&P 500





*Returns are net of fees.



Characteristics

SSgA S&P 500

Number of Holdings

Price To Earnings

Return on Equity (%)

Price To Book

Price To Sales

Yield (%)

R-Squared

Beta

Median Market Cap. (\$B)

Weighted Avg. Market Cap. (\$B)

Top Positive Contributors Top Negative Contributors Relative Relative Contribution Contribution Return % Return % S&P 500 % Portfolio 507 505 GOLDMAN SACHS GP. 0.0% 48.9% NIELSEN 0.0% -21.1% 139.0 138.5 SYNCHRONY FINANCIAL 0.0% 30.1% MEDTRONIC -17.1% 0.0% 18.8 18.8 MORGAN STANLEY 0.0% 32.6% BANK OF AMERICA 41.7% 0.0% 23.1 22.3 FREEPORT-MCMORAN 0.0% 21.5% 4.7 4.4 XEROX 0.0% -13.1% 3.5 3.3 SOUTHWEST AIRLINES 0.0% 28.4% WELLS FARGO & CO 0.0% 25.5% 20.9 18.5 CITIZENS FINANCIAL GROUP 0.0% 44.8% **PENTAIR** 0.0% -12.2% 2.1 2.1 LINCOLN NATIONAL 0.0% 41.8% DOW CHEMICAL 0.0% 11.3% 1.0 JP MORGAN CHASE & CO. 0.0% 30.5% CHEVRON 0.0% 15.5% 1.0 **DELTA AIR LINES** 0.0% 25.5% CONOCOPHILLIPS 0.0% 16.0% DEERE 0.0% 21.4% METLIFE 0.0% 22.3%

Equity Sector Attribution

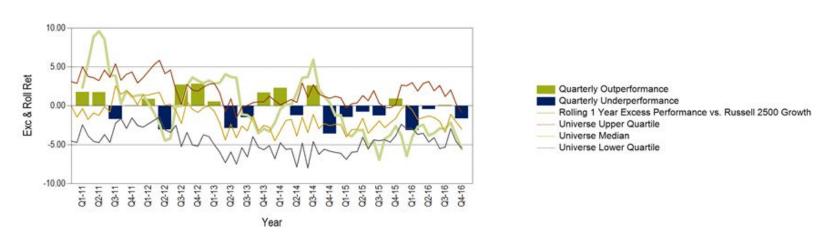
			_qu	ity ocotor / ttti ibutior	•				
			Attribution Effects		F	Returns	Ending \$	nding Sector Weights	
	Total	Selection	Allocation	Interaction					
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark	
Energy	0.0%	0.0%	0.0%	0.0%	7.3%	7.3%	7.5%	7.6%	
Materials	0.0%	0.0%	0.0%	0.0%	4.3%	4.8%	2.8%	2.9%	
Industrials	0.0%	0.0%	0.0%	0.0%	7.2%	6.8%	10.3%	10.2%	
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	2.3%	2.3%	12.0%	12.0%	
Consumer Staples	0.0%	0.0%	0.0%	0.0%	-1.9%	-1.9%	9.4%	9.4%	
Health Care	0.0%	0.0%	0.0%	0.0%	-4.0%	-4.0%	13.6%	13.6%	
Financials	0.3%	0.8%	-0.4%	-0.1%	21.1%	16.2%	14.9%	14.8%	
Information Technology	0.0%	0.0%	0.0%	0.0%	1.2%	1.2%	20.8%	20.8%	
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	4.8%	4.8%	2.7%	2.7%	
Utilities	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	3.1%	3.2%	
Real Estate	-0.3%	0.0%	-0.3%	0.0%	-4.5%	-4.5%	2.8%	2.9%	
Cash	0.0%						0.0%	0.0%	
Unclassified	0.0%		-	-			0.1%	0.0%	
Portfolio	0.0%	= 0.8%	+ -0.7%	+ -0.2%	3.8%	3.8%	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.



Westfield Capital

Annualized Excess Performance



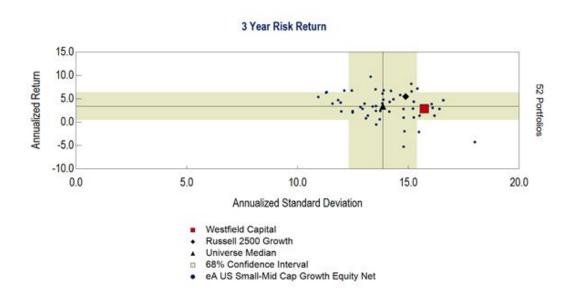
eA US Small-Mid Cap Growth Equity Net Accounts

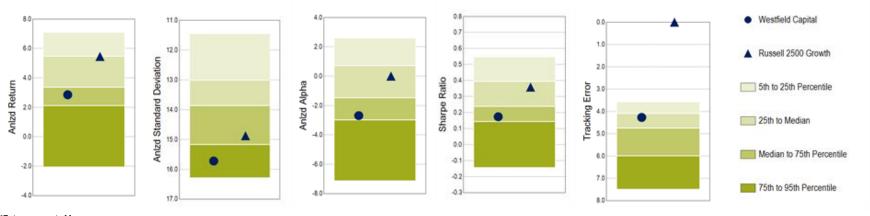


*Returns are net of fees.



Westfield Capital





*Returns are net of fees.



Westfield Capital

			Top Positive (Contributors		Top Negative C	ontributors	
Characteristics			Relative				Relative	
Cital acteristics	Portfolio	Russell 2500		Contribution %	Return %		Contribution %	Return %
	_,	Growth	HD SUPPLY HOLDINGS	0.5%	32.9%	DEXCOM	-0.5%	-31.9%
Number of Holdings	74	1,469	LIONS GATE ENTM.	0.4%	34.6%	NEUROCRINE BIOSCIENCES	-0.3%	-23.6%
Weighted Avg. Market Cap. (\$B)	6.4	4.4	MICROSEMI	0.4%	28.6%	MERRIMACK PHARMS.	-0.3%	-35.7%
Median Market Cap. (\$B)	5.7	1.2						
Price To Earnings	28.3	27.9	RAYMOND JAMES FINL.	0.3%	19.4%	FORTINET	-0.3%	-18.4%
Price To Book	6.2	5.2	OLD DOMINION FGT.LINES	0.3%	25.0%	LKQ	-0.3%	-13.6%
Price To Sales	3.5	2.8	ALLEGIANT TRAVEL	0.3%	26.5%	NEKTAR THERAPEUTICS	-0.2%	-28.6%
Return on Equity (%)	21.8	18.9	JACK IN THE BOX	0.3%	16.8%	COSTAR GP.	-0.2%	-12.9%
Yield (%)	1.0	0.8	FIRST REPUBLIC BANK	0.3%	19.7%	JAZZ PHARMACEUTICALS	-0.2%	-10.2%
Beta		1.0	TEAM HEALTH HOLDINGS	0.3%	33.4%	SPLUNK	-0.2%	-12.8%
R-Squared		1.0	KNOLL	0.3%	22.9%	TRANSUNION	-0.2%	-10.3%

Equity Sector Attribution

		Attribution Effects			F	Returns	Ending S	ector Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.2%	0.2%	0.0%	0.0%	10.6%	-3.2%	1.7%	1.2%
Materials	-0.2%	-0.2%	0.0%	0.0%	0.3%	3.0%	6.6%	6.7%
Industrials	0.1%	-0.1%	0.2%	0.0%	9.4%	9.8%	21.4%	19.0%
Consumer Discretionary	-0.1%	0.0%	-0.1%	0.0%	5.8%	5.8%	16.6%	17.0%
Consumer Staples	0.2%	0.3%	0.1%	-0.2%	7.9%	0.3%	2.3%	4.3%
Health Care	-0.3%	0.0%	-0.3%	0.0%	-6.3%	-6.5%	19.1%	18.2%
Financials	-0.5%	-0.5%	0.7%	-0.6%	3.7%	13.0%	10.3%	6.4%
Information Technology	-0.4%	-0.6%	0.1%	0.1%	-2.3%	0.6%	15.6%	21.1%
Telecommunication Services	0.0%	0.0%	0.1%	0.0%	10.6%	11.7%	1.4%	0.7%
Utilities	0.0%		0.0%			9.0%	0.0%	0.4%
Real Estate	0.2%	0.0%	0.2%	0.0%	-0.8%	-1.7%	2.6%	5.1%
Cash	-0.1%	0.0%	-0.1%	0.0%	0.1%		2.4%	0.0%
Portfolio	-0.8%	= -0.8%	+ 0.8%	+ -0.8%	1.8%	2.6%	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.



DFA US Targeted Value I

Holdings Based Style Trail (5 Years) Portfolio Statistics Market Capitalization Breakdown Time Period: 1/31/2012 to 12/31/2016 Fund Index Portfolio Date: 11/30/2016 # of Holdings 1,507 1,369 Fund Index % Asset in Top 10 Holdings 7.3 4.4 Market Cap Giant % 0.0 0.0 Tumover Ratio % 15.0 Market Cap Large % 0.9 0.0 P/E Ratio 17.5 19.5 Market Cap Mid % 33.7 8.8 P/B Ratio 1.5 1.6 Market Cap Small % 43.8 57.1 LT Earn Growth 10.0 10.0 Market Cap Micro % 21.6 34.1 Hist Earn Growth -0.1 2.3 Average Market Cap (mil) 2,416.5 1,594.5 12 Mo Yield 1.0

Historical Sector Allocations (5 Years)

DFA US Targeted Value I

100.0 90.0 80.0 70.0 60.0 40.0 30.0 10.0 6/2012 12/2012 6/2013 12/2013 6/2014 12/2014 6/2015 12/2015 6/2016 12/2016

-Industrials %

-Healthcare %

-Telecom Services %

-Materials %

-Real Estate %

-Consumer Staples %

-Information Technology %

A Russell 2000 Value TR USD

Attribution (Quarter)

		Portfolio Weights	Benchmark I Weights					Active Return
	Consumer Discretionary	12.57	10.33	6.67	8.20	-0.16	-0.20	-0.36
	Consumer Staples	2.70	2.90	8.05	9.58	0.01	-0.04	-0.03
	Energy	8.45	5.31	16.04	20.36	0.19	-0.38	-0.19
	Financials	26.36	30.98	23.43	24.00	-0.37	-0.16	-0.53
	Health Care	4.50	4.59	-0.55	-1.82	0.00	0.05	0.06
	Industrials	19.80	12.73	14.61	14.11	0.00	0.09	0.09
	Information Technology	14.16	10.48	8.19	13.04	-0.04	-0.69	-0.74
	Materials	6.71	4.59	13.70	15.32	0.04	-0.12	-0.08
	Real Estate	0.36	10.60	11.32	4.52	1.01	0.03	1.04
	Telecommunication Services	1.21	0.71	-1.89	5.67	-0.05	-0.09	-0.15
	Utilities	0.49	6.72	-4.89	4.82	0.59	-0.06	0.53
_	Attribution Total	97.33	99.94	13.72	14.08	1.22	-1.58	-0.36
	Cash	0.75	0.00					
_	Bond	0.73	0.00					
16	Other	1.02	0.00					
	Missing Performance	0.17	0.06					
	Total	100.00	100.00					
	Reported Total			13.47	14.07			
	Expense Ratio			0.11	0.00			
	Residual(Reported - Attribution + Expense)			-0.14	-0.01			

Source: Morningstar

-Consumer Discretionary %



-Energy %

-Financials %

-Utilities %

DFA US Targeted Value I

Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index DFA US Targeted Value I 18.0 90.4 100.0 15.0 A Russell 2000 Value TR USD Alpha 1.4 0.0 12.0 Beta 1.0 1.0 9.0 Std Dev 13.1 12.9 Up Capture Ratio 103.0 100.0 6.0 Down Capture Ratio 95.4 100.0 3.0 Sharpe Ratio (geo) 1.2 1.2 € 0.0 Information Ratio (geo) 0.2 0.0 3.0 6.0 9.0 12.0 15.0 4.1 0.0 Tracking Error Correlation 1.0 1.0 Std Dev Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 40.0 45.0 30.0 37.5 20.0 30.0 10.0 0.0 15.0 -10.0 ڳ 7.5 ۾ -20.0 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 B 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -DFA US Targeted Value I -Russell 2000 Value TR USD -DFA US Targeted Value I -Russell 2000 Value TR USD Calendar Year Returns 2007 Rank 2008 Rank 2009 2010 Rank 2011 Rank 2012 2013 Rank 2014 Rank 2015 2016 Rank Rank Rank Rank DFA US Targeted Value I -8.2 -33.831.9 29.0 24 19.2 23 43.0 2.9 26.9 40 37 -6.372 -5.7Russell 2000 Value TR USD 4.2 -7.5 -9.8 -28.920.6 24.5 -5.518.1 34.5 31.7

Source: Morningstar



Morgan Stanley International Equity I

Holdings Based Style Trail (5 Years) Portfolio Statistics Market Capitalization Breakdown Index Portfolio Date: 9/30/2016 Time Period: 1/31/2012 to 12/31/2016 Fund # of Holdings 65 930 Fund Index 11.8 Market Cap Giant % 70.3 56.5 % Asset in Top 10 Holdings 40.1 Turnover Ratio % 28.0 Market Cap Large % 22.8 35.2 P/E Ratio 16.9 Market Cap Mid % 20.1 6.9 8.3 P/B Ratio 2.5 1.6 Market Cap Small % 0.0 0.1 8.1 Market Cap Micro % LT Earn Growth 7.2 0.0 0.0 Hist Earn Growth 5.8 -2.0 Average Market Cap 50,700.9 31,196.7 12 Mo Yield 1.1 Equity Region Developed % 97.9 99.7 Equity Region Emerging % 2.1 0.3 Core-Grth High-Grth Morgan Stanley Inst International Eq I A MSCI EAFE NR USD **Historical Country Allocations (5 Years)** Attribution (Quarter) Portfolio Benchmark Portfolio Benchmark Allocation Selection Active 100.0 Weights Weights Return Return Effect Effect 90.0 Consumer Discretionary 5.28 12.47 3.19 1.58 -0.16 0.09 -0.08 Consumer Staples 32.58 11.97 -9.85 -10.43-2.110.20 -1.91 80.0 Energy 2.42 5.05 6.53 9.93 -0.27-0.08 -0.3570.0 Financials 10.86 19.97 11.46 9.60 -0.89 0.21 -0.68Health Care 15.78 10.94 -3.84-7.71 -0.350.64 0.29 60.0 Industrials 13.15 14.14 -2.31-1.790.01 -0.07 -0.06 50.0 Information Technology 6.68 5.51 0.32 -3.02 -0.030.22 0.19 40.0 Materials 8.61 7.71 2.16 3.53 -0.12-0.07 0.05 Real Estate 0.65 3.90 7.03 -7.250.21 0.09 0.30 30.0 2.53 4.68 Telecommunication Services -7.88-7.01 0.14 -0.03 0.11 20.0 Utilities 0.00 3.49 -7.210.23 0.00 0.23 10.0 Unclassified 0.00 0.13 0.87 0.00 0.00 0.00 Attribution Total 98.55 99.97 -2.75-0.73-3.17 1.15 -2.02 0.0 12/2012 6/2013 12/2013 6/2014 12/2014 6/2015 12/2015 1.36 0.00 6/2016 12/2016 Other 0.08 0.03 -United Kingdom % -North America % -Latin America % Total 100.00 100.00 -Africa/Middle East % -Europe dev % -Europe emrg % Reported Total -2.36-0.71-Australasia % -Japan % -Asia dev % Expense Ratio 0.23 0.00 -Asia emrg % Residual(Reported - Attribution + Expense) 0.62 0.01

Source: Morningstar



Morgan Stanley International Equity I

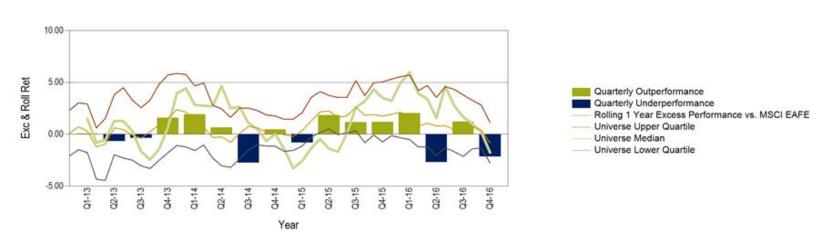
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2018 Time Period: 1/1/2012 to 12/31/2016 Fund Index 8.0 Morgan Stanley Inst International Eq I R2 93.0 100.0 A MSCI EAFE NR USD Alpha 0.1 0.0 6.0 Beta 0.9 1.0 4.0 Std Dev 10.7 11.8 Up Capture Ratio 89.3 100.0 2.0 Down Capture Ratio 89.3 100.0 0.5 Sharpe Ratio (geo) 0.5 € 0.0 Information Ratio (geo) -0.2 10.0 12.0 14.0 0.0 Tracking Error 3.2 1.0 1.0 Std Dev Correlation Rolling Returns (3 Years) Rolling Risk (3 Years) 2nd Quartile 3rd Quartile 2nd Quartile 3rd Quartile Bottom Quartile 30.0 37.5 20.0 30.0 10.0 0.0 15.0 å 7.5 -20.0 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 S 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Morgan Stanley Inst International Eq I -MSCI EAFE NR USD -Morgan Stanley Inst International Eq I -MSCI EAFE NR USD Calendar Year Returns 2007 2008 2010 2013 Rank Rank Rank 2009 Rank 2011 Rank 2012 Rank 2014 Rank 2015 2016 Morgan Stanley Inst International Eq I -33.1 21.6 6.1 -7.6 19.6 26 20.4 -6.1 0.4 30 -2.0 82 MSCI EAFE NR USD 11.2 -43.4 31.8 7.8 -12.1 17.3 22.8 -4.9 -0.8 1.0

Source: Morningstar



Globeflex

Annualized Excess Performance

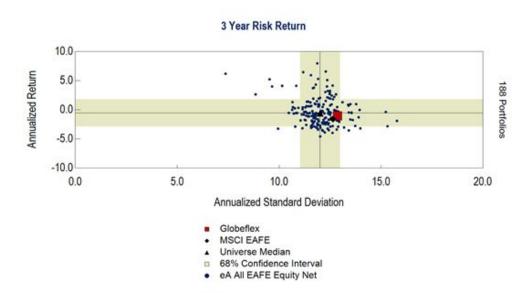


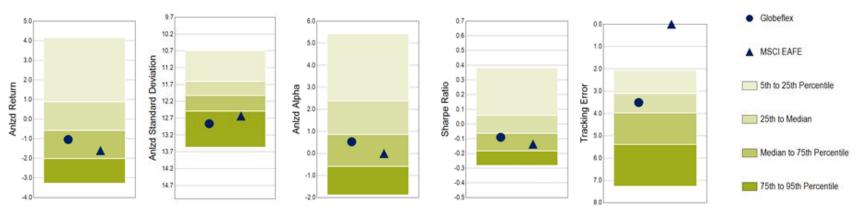


*Returns are net of fees.



Globeflex





*Returns are net of fees.



Globeflex

			Top Positive (Contributors		Top Negative	Contributors	
				Relative			Relative	
Characteristic		015455		Contribution %	Return %		Contribution %	Return %
Number of Holdings	Portfolio MS 123	930	GTT	0.3%	50.0%	VESTAS WINDSYSTEMS	-0.3%	-20.9%
Weighted Avg. Market Cap. (\$B)	20.2	50.6	3I GROUP UNSP.ADR 2:1	0.3%	44.6%	KOREA ELECTRIC POWER	-0.3%	-25.6%
Median Market Cap. (\$B)	7.2	8.6	SUMITOMO HEAVY INDS.	0.2%	32.3%	NORTHERN STAR	-0.2%	-25.9%
Price To Earnings	18.2	21.3	DELTA LLOYD GROUP	0.2%	22.1%	IMPERIAL TOBACCO GP.	-0.2%	-13.9%
Price To Book	2.9	2.4	GRIEG SEAFOOD	0.2%	20.5%	VOCUS COMMUNICATIONS	-0.2%	-41.2%
Price To Sales	1.9	1.7	SKY	0.1%	7.9%	SK INNOVATION	-0.2%	-17.3%
Return on Equity (%)	16.5	11.8	LOTTE CHEMICAL	0.1%	12.9%	SEMAFO	-0.2%	-20.7%
Yield (%) Beta	2.4	3.1 1.0	FORTESCUE METALS GP.	0.1%	12.6%	CLP HOLDINGS	-0.2%	-10.4%
R-Squared		1.0	INDL.ALL.IN.& FINL.SVS.	0.1%	11.4%	GAMESA CORPN.TEGC.	-0.2%	-15.1%
- 4			MS&AD INSURANCE GP HDG	0.1%	12 8%	PATRIZIA IMMOBILIEN	-0.1%	-24 2%

Equity Sector Attribution

			Attribution Effects		I	Returns	Ending S	Sector Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1%	0.0%	-0.3%	0.1%	9.2%	10.4%	3.2%	5.5%
Materials	-0.4%	-0.4%	0.1%	-0.1%	0.3%	3.5%	9.6%	7.9%
Industrials	-0.7%	-0.7%	0.0%	0.0%	-4.5%	-1.8%	17.6%	14.0%
Consumer Discretionary	-0.4%	0.0%	0.3%	-0.7%	1.2%	1.6%	17.6%	12.5%
Consumer Staples	1.2%	0.5%	0.5%	0.2%	-4.9%	-10.1%	7.0%	11.1%
Health Care	0.7%	0.5%	0.1%	0.1%	-2.4%	-7.7%	8.9%	10.6%
Financials	-0.7%	-0.7%	-0.6%	0.6%	5.1%	9.5%	15.2%	21.2%
Information Technology	-0.1%	-0.1%	0.0%	0.1%	-2.2%	-3.0%	6.5%	5.5%
Telecommunication Services	-0.4%	-0.5%	0.0%	0.1%	-13.9%	-6.8%	5.1%	4.5%
Utilities	-0.3%	-0.3%	0.0%	0.0%	-12.3%	-7.1%	4.3%	3.4%
Real Estate	-0.1%	0.0%	-0.1%	0.0%	-5.1%	-7.3%	5.1%	3.7%
Cash	0.0%						0.0%	0.0%
Portfolio	-1.2%	= -1.7%	+ 0.0%	+ 0.5%	-1.9%	-0.6%	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.



Aberdeen EME

Market Capitalization Breakdown Holdings Based Style Trail (5 Years) Portfolio Statistics Fund Index Portfolio Date: 11/30/2016 Time Period: 1/31/2012 to 12/31/2016 # of Holdings 65 832 Fund Index 21.5 Market Cap Giant % 61.0 60.3 32.6 % Asset in Top 10 Holdings 9.2 Market Cap Large % 30.8 30.7 Turnover Ratio % P/E Ratio 16.8 14.2 Market Cap Mid % 8.2 8.8 P/B Ratio 1.8 1.5 Market Cap Small % 0.0 0.2 LT Earn Growth 9.8 Market Cap Micro % 11.0 0.0 0.0 -2.5 -61.9 Average Market Cap 21,362.3 22,346.6 Hist Earn Growth 12 Mo Yield 1.2 Equity Region Developed % 26.9 29.3 Equity Region Emerging % 73.1 70.7 Core-Grth High-Grth Aberdeen Emerging Markets Inst A MISCLEM NR USD Attribution (Quarter) Historical Country Allocations (5 Years) Portfolio Benchmark Portfolio Benchmark Allocation Selection Active 100.0 Weights Weights Return Return Effect Effect Return Consumer Discretionary 9.47 10.44 -2.58-9.92 0.03 0.72 0.76 90.0 16.84 Consumer Staples 7.58 -7.89-10.62-0.630.51 -0.1280.0 7.30 Energy 7.22 11.72 8.04 0.04 0.28 0.32 70.0 Financials 27.81 24.05 -8.40 -0.820.17 -2.17-2.00Health Care 1.11 2.61 4.71 -9.68 0.08 0.16 0.24 60.0 Industrials 1.40 5.90 -1.73-6.360.09 0.07 0.16 50.0 Information Technology 12.61 23.71 -3.57-6.53 0.23 0.39 0.62 Materials 8.48 7.00 -2.423.76 0.14 -0.58-0.4340.0 Real Estate 7.25 2.53 -10.73 -10.36 -0.31 -0.02-0.3330.0 Telecommunication Services 4.70 6.01 -8.14 -6.20 0.02 -0.10 -0.07 Utilities 0.00 2.87 -6.98 0.08 0.08 0.00 20.0 Unclassified 0.00 0.02 -10.350.00 0.00 0.00 10.0 Attribution Total 96.95 99.93 4.32 -0.05 -0.74 -5.11-0.79 Cash 2.25 0.00 0.0 6/2012 12/2012 6/2013 12/2013 6/2014 12/2014 6/2015 12/2015 6/2016 12/2016 Other 0.00 0.07 Missing Performance 0.80 0.00 -North America % -Latin America % -United Kingdom % 100.00 Total 100.00 -Europe dev % -Europe emrg % -Africa/Middle East % Reported Total -5.79 4.16 -Australasia % -Asia dev % -Japan % Expense Ratio 0.26 0.00 -Asia emrg % Residual(Reported - Attribution + Expense) -0.420.15

Source: Morningstar



Aberdeen EME

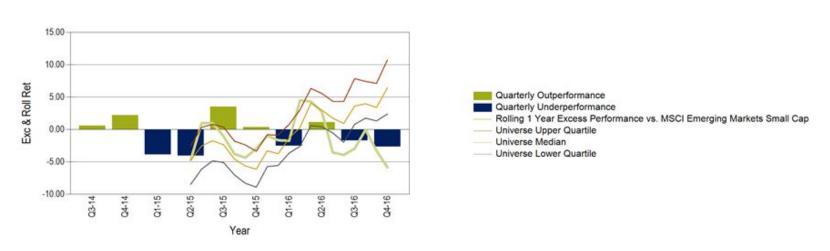
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index Aberdeen Emerging Markets Instl 2.4 R2 89.6 100.0 2.0 A MSCI EM NR USD Alpha 0.7 0.0 1.6 Beta 0.9 1.0 1.2 Std Dev 13.7 14.5 Up Capture Ratio 91.9 100.0 0.8 Down Capture Ratio 85.3 100.0 0.4 0.1 Sharpe Ratio (geo) 0.1 € 0.0 Information Ratio (geo) 0.1 12.0 15.0 18.0 3.0 6.0 9.0 4.7 0.0 Tracking Error Correlation 0.9 1.0 Std Dev Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 40.0 45.0 30.0 20.0 30.0 10.0 22.5 0.0 15.0 -10.0 -20.0 PES 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 12 03 06 09 12 03 06 09 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Aberdeen Emerging Markets Instl -MSCI EM NR USD -Aberdeen Emerging Markets Instl -MSCI EM NR USD Calendar Year Returns 2007 Rank 2008 Rank 2009 Rank 2010 Rank 2011 Rank 2012 Rank 2013 Rank 2014 Rank 2015 Rank 2016 Rank Aberdeen Emerging Markets Instl -40.476.6 32 27.6 -11.0 26.2 -7.5 93 -2.543 -13.745 12.0 24 MSCI EM NR USD -53.3 78.5 18.9 -18.4 18.2 -2.6 -2.2 -14.9 39.4 11.2

Source: Morningstar



Mondrian EM Small Cap

Annualized Excess Performance

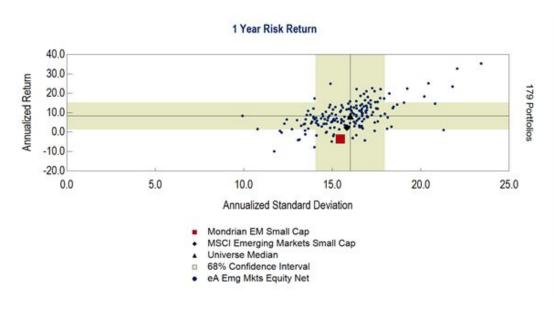


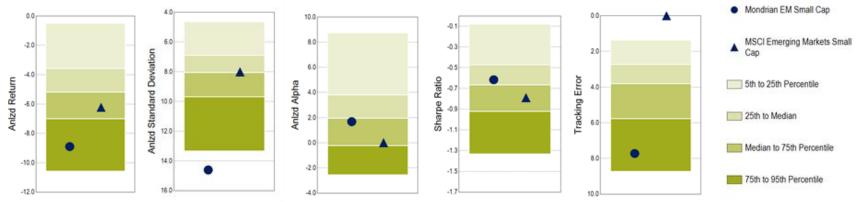
eA Emg Mkts Equity Net Accounts 25.0 20.0 Annualized Return (%) 15.0 10.0 5.0 0.0 -5.0 -10.0 -15.0 Quarter Fiscal YTD 1 Year 2 Years 3 Years 5 Years 7 Years Mondrian EM Small Cap MSCI Emerging Markets Small

*Returns are net of fees.



Mondrian EM Small Cap





*Returns are net of fees.



Mondrian EM Small Cap

Characteristics		
	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	106	1,840
Weighted Avg. Market Cap. (\$B)	1.2	1.0
Median Market Cap. (\$B)	0.8	0.5
Price To Earnings	26.1	18.1
Price To Book	4.9	2.3
Price To Sales	4.2	2.2
Return on Equity (%)	20.2	13.2
Yield (%)	2.0	2.3
Beta		1.0
R-Squared		1.0

Top Positive Contr	ibutors	
	Relative	
	Contribution %	Return %
MICROPORT SCIENTIFIC	0.2%	15.0%
MAYORA INDAH	0.1%	6.6%
KOREA KOLMAR	0.1%	-37.7%
GINKO INTERNATIONAL	0.1%	4.3%
FORTIS HEALTHCARE	0.1%	6.2%
SILOAM INTL.HOSPS.	0.1%	4.2%
OCEANA GROUP	0.0%	5.8%
FU SHOU YUAN INTL.GP.	0.0%	2.7%
STRIDES ARCOLAB	0.0%	3.6%
FERREYROS SAA	0.0%	4.0%

Top Negative Conti	ributors	
	Relative	
	Contribution %	Return %
TUNG THIH ELECTRONIC	-0.5%	-35.9%
CT ENVIRONMENTAL GROUP	-0.4%	-30.6%
CENTURY PLYBOARDS INDIA	-0.3%	-34.0%
BERGER PAINTS INDIA	-0.3%	-20.9%
EMAMI	-0.3%	-20.2%
MEDY-TOX	-0.3%	-27.6%
CHINA EVERBRIGHT WATER	-0.3%	-21.4%
TORRENT PHARMACEUTICALS	-0.3%	-20.4%
FIBRA SHOP PORTAFOLIOS INMBS.REIT	-0.3%	-23.0%
SINOSOFT TECHNOLOGY GP.	-0.3%	-34.5%

Equity Sector Attribution

			-40	inty occion rittiniouthor	••			
			Attribution Effects	3	F	Returns	Ending \$	Sector Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.2%	-	-0.2%	-	=	7.8%	0.0%	1.7%
Materials	-1.2%	-1.4%	0.1%	0.1%	-11.3%	-0.9%	11.1%	11.5%
Industrials	-0.7%	-0.5%	0.0%	-0.2%	-9.4%	-6.5%	16.9%	14.9%
Consumer Discretionary	0.0%	-0.4%	0.1%	0.3%	-10.3%	-8.7%	14.0%	17.5%
Consumer Staples	-0.2%	-0.2%	0.0%	-0.1%	-6.7%	-5.9%	12.0%	7.2%
Health Care	0.1%	0.5%	-0.7%	0.3%	-7.1%	-13.5%	23.7%	8.9%
Financials	0.1%	-0.4%	-0.2%	0.6%	-7.0%	-5.2%	2.6%	8.3%
Information Technology	0.4%	-1.6%	0.2%	1.8%	-13.6%	-7.5%	3.0%	16.1%
Telecommunication Services	0.0%	-	0.0%	-	-	-5.8%	0.0%	1.0%
Utilities	-0.7%	-0.5%	0.1%	-0.4%	-15.7%	-0.6%	4.9%	3.7%
Real Estate	-0.3%	-0.1%	0.0%	-0.1%	-10.1%	-7.5%	9.1%	9.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.1%		1.4%	0.0%
Portfolio	-2.6%	= -4.5%	+ -0.6%	+ 2.5%	-9.3%	-6.7%	98.6%	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.



Mondrian EM Small Cap

Sector Allocation

	Fund	MSCI EM SC
Consumer Discretionary	13.8	17.6
Consumer Staples	13.2	7.2
Energy		1.7
Financials	2.5	8.3
Health Care	24.7	8.9
Industrials	16.6	14.9
Information Technology	3.0	16.1
Materials	10.9	11.5
Real Estate	8.9	9.1
Telecommunication Services	-	1.0
Utilities	4.9	3.7
CASH	1.4	-
TOTAL	100.0	100.0

Country Allocation

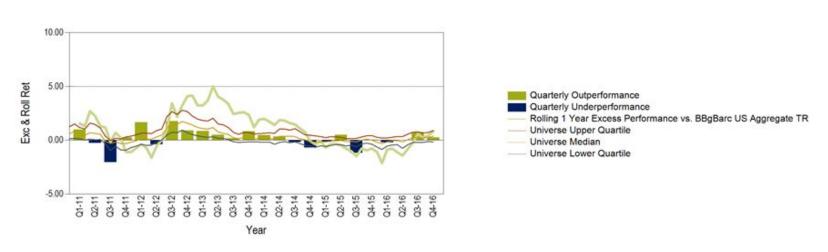
	Fund	MSCI EM SC
LATIN AMERICA	10.2	8.6
Brazil	3.1	4.2
Mexico	5.1	3.0
Peru	1.9	0.0
EUROPE, MIDDLE EAST & AFRICA	6.3	11.8
Poland	1.6	1.1
Saudi Arabia	1.4	0.0
South Africa	3.3	5.8
PACIFIC-ASIA	82.1	79.6
China	17.7	22.8
India	24.4	11.7
Indonesia	9.7	2.6
Korea	5.8	16.9
Malaysia	6.7	3.2
Philippines	4.5	1.1
Taiwan	8.1	17.3
Thailand	5.2	4.0
CASH	1.4	_
TOTAL	100.0	100.0

Source: Mondrian

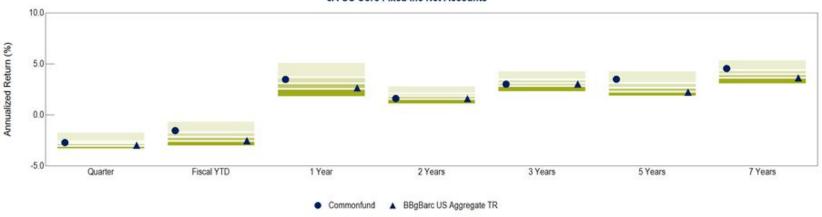


Commonfund

Annualized Excess Performance



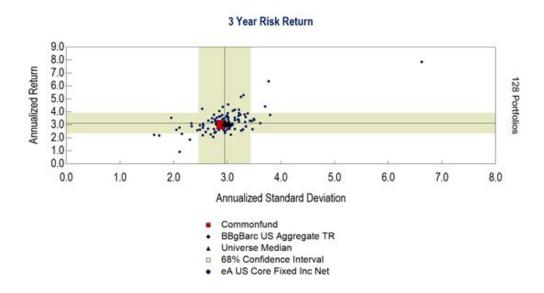
eA US Core Fixed Inc Net Accounts

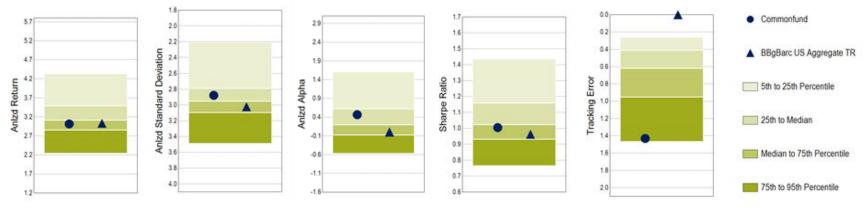


*Returns are net of fees.



Commonfund

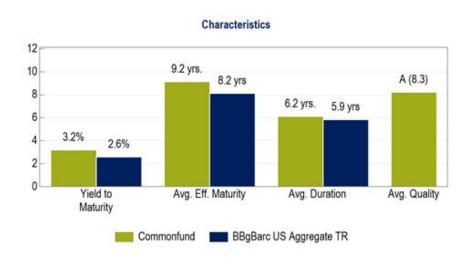




*Returns are net of fees.



Commonfund









Commonfund

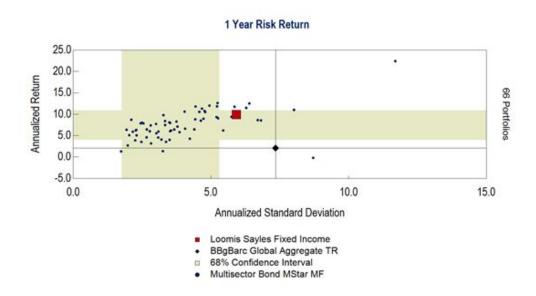
Multi-Strategy Bond Fund | Managers December 31, 2016

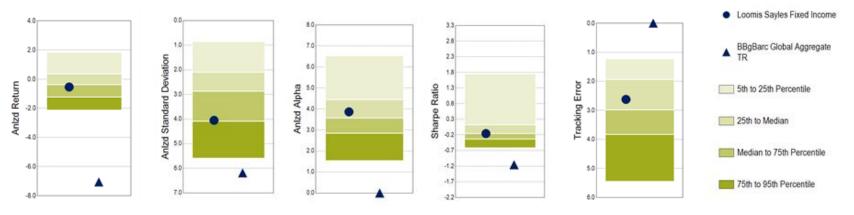
	Core	Opportunistic	Credit
AEA Investors			
Ashmore Investment Management			
Bain Capital			
Brandywine Asset Management			
CarVal Investors			
Centerbridge Capital Partners			
Convexity Capital Management			
EOS Partners			
Fortress Investment Group			
GoldenTree Asset Management			
Income Research & Management (IRM)			
KPS Capital Partners			
Oaktree			-
Rimrock Capital Management			
Sit Investment Associates			
Trust Company of the West (TCW)			
Western Asset Management Company (WAMCO)			
WL Ross & Co			

Source: Commonfund



Loomis Sayles Fixed Income

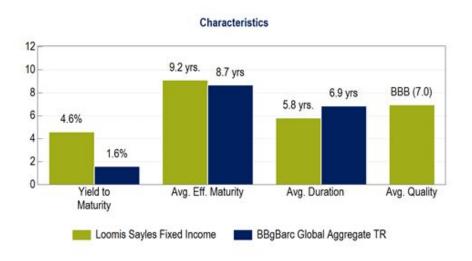


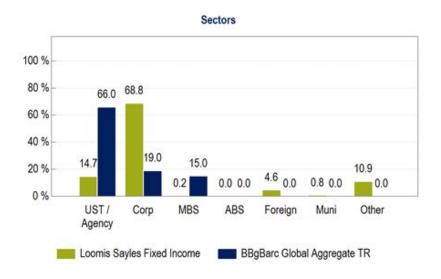


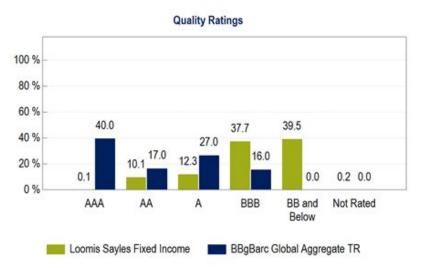
*Returns are net of fees.



Loomis Sayles Fixed Income

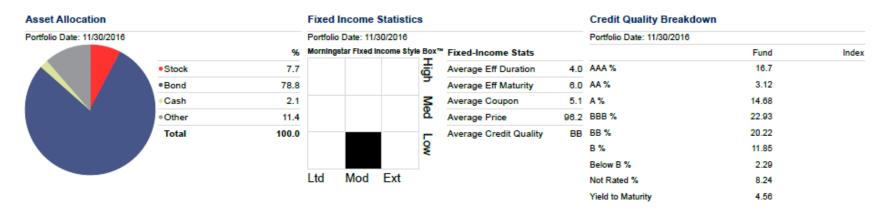








Loomis Sayles Fixed Income



Historical Sector Allocations (10 Years)

100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2007 2012 2014 2016 2008 2009 2010 2011 2013 2015 -Municipal % -Government % -Corporate % -Cash & Equivalents % Derivative % -Securitized %

Top Holdings

	Detail Holding Type	Portfolio Weighting %
Intel Corp	EQUITY	4.09
US Treasury Note 0.75%	BOND - GOV'T/TREASURY	3.29
US Treasury Note 0.75%	BOND - GOV'T/TREASURY	2.22
Old Rep Intl Cv 3.75%	BOND - CONVERTIBLE	1.96
US Treasury Note 0.875%	BOND - GOV'T/TREASURY	1.65
New Zealand(Govt) 5%	BOND - GOV'T/TREASURY	1.42
Ontario Prov Cda 4.2%	BOND - GOV'T/TREASURY	1.38
Inter-Amer Dev Bk 6%	BOND - UNDEFINED	1.30
Amer Airls Grp 144A 5.5%	BOND - CORPORATE BOND	1.22
Morgan Stanley 4.1%	BOND - CORPORATE BOND	1.20

Source: Morningstar



Loomis Sayles Fixed Income

Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index Loomis Sayles Fixed Income 9.0 R2 31.4 100.0 A BBgBarc Global Aggregate TR USD 7.0 Alpha 5.7 0.0 Beta 0.5 1.0 5.0 Std Dev 5.5 5.7 3.0 Up Capture Ratio 122.7 100.0 1.0 Down Capture Ratio -6.5100.0 Sharpe Ratio (geo) 1.1 0.0 E -1.0 Information Ratio (geo) 1.1 2.0 5.0 6.0 3.0 4.0 Tracking Error 5.2 0.0 Std Dev Correlation 0.6 1.0 Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 2nd Quartile 3rd Quartile Bottom Quartile 20.0 20.0 15.0 10.0 10.0 5.0 0.0 0.0 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 B 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Loomis Sayles Fixed Income -BBgBarc Global Aggregate TR USD -Loomis Sayles Fixed Income -BBgBarc Global Aggregate TR USD Calendar Year Returns 2007 2008 Rank 2009 Rank 2010 Rank 2011 Rank 2012 Rank 2013 2014 Rank 2015 2016 Rank Loomis Sayles Fixed Income 9.2 -17.812.9 41 15.6 6.9 4.6 -6.0 22 BBgBarc Global Aggregate TR USD 9.5 4.8 6.9 5.5 5.6 4.3 -2.6 0.6 -3.22.1

Source: Morningstar



Vanguard Inflation Protected Securities



Historical Sector Allocations (10 Years)

90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 -Government % -Municipal % -Corporate % Derivative % -Securitized % -Cash & Equivalents %

Top Holdings

	Detail Holding Type	Portfolio Weighting %
US Treasury Note	BOND - GOV'T INFLATION PROTECTED	5.58
US Treasury Note	BOND - GOVT INFLATION PROTECTED	5.46
US Treasury Note	BOND - GOV'T INFLATION PROTECTED	4.74
US Treasury Note	BOND - GOV'T INFLATION PROTECTED	4.17
US Treasury Note	BOND - GOV'T INFLATION PROTECTED	4.00
US Treasury Note	BOND - GOV'T INFLATION PROTECTED	3.95
US Treasury TIP	BOND - GOV'T INFLATION PROTECTED	3.91
US Treasury Note	BOND - GOVT INFLATION PROTECTED	3.90
US Treasury Note	BOND - GOVT INFLATION PROTECTED	3.89
US Treasury Note	BOND - GOVT INFLATION PROTECTED	3.88

Source: Morningstar



Vanguard Inflation Protected Securities

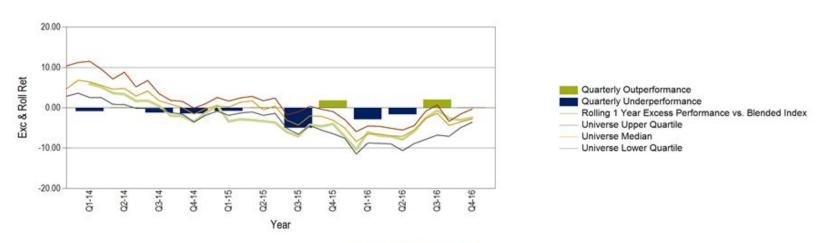
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index Vanguard Inflation-Protected Secs I 1.0 R2 99.6 100.0 A BBgBarc US Treasury US TIPS TR USD 0.8 Alpha -0.10.0 Beta 1.0 1.0 0.6 Std Dev 5.3 5.1 0.4 100.0 Up Capture Ratio 101.2 0.2 Down Capture Ratio 102.8 100.0 0.1 0.2 Sharpe Ratio (geo) € 0.0 Information Ratio (geo) -0.1 6.0 2.0 3.0 4.0 5.0 0.0 Tracking Error 0.4 Std Dev Correlation 1.0 1.0 Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 15.0 10.0 8.0 10.0 6.0 4.0 0.0 2.0 BS 12 03 06 09 12 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Vanguard Inflation-Protected Secs I -BBgBarc US Treasury US TIPS TR USD -Vanguard Inflation-Protected Secs I -BBgBarc US Treasury US TIPS TR USD Calendar Year Returns 2007 2009 2010 2011 Rank 2012 2013 2014 Rank 2015 2016 Rank Vanguard Inflation-Protected Secs I 11.8 -2.856 11.0 29 6.3 28 13.4 6.9 24 -8.8 52 4.1 5 -1.7 31 4.6 39 BBgBarc US Treasury US TIPS TR USD 11.6 -2.411.4 6.3 13.6 7.0 -8.6 3.6 -1.4 4.7

Source: Morningstar



GMO Global Absolute Return

Annualized Excess Performance



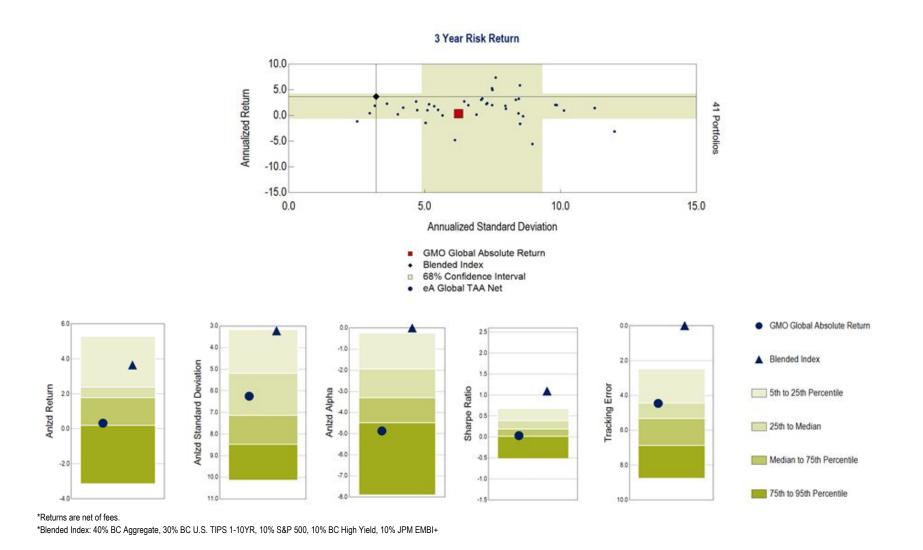


^{*}Returns are net of fees.

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

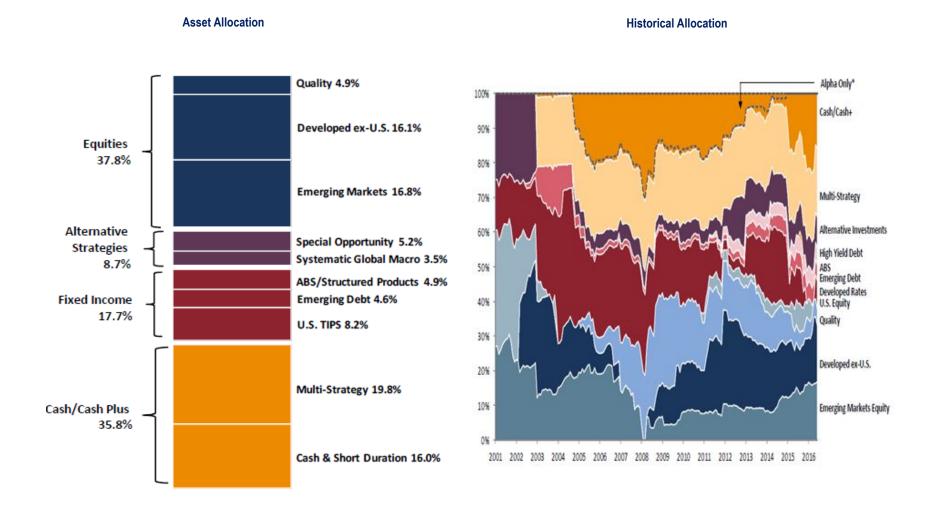


GMO Global Absolute Return





GMO (Global Allocation Absolute Return)

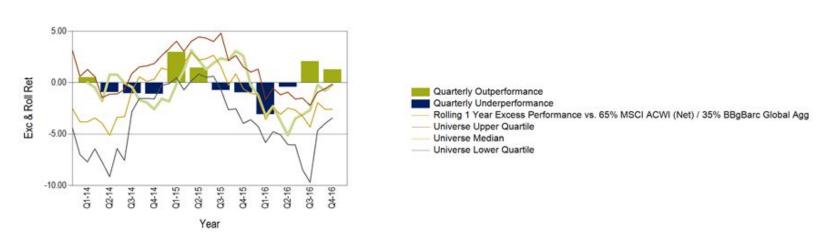


NEPC, LLC

Source: GMO

Wellington Opportunistic

Annualized Excess Performance

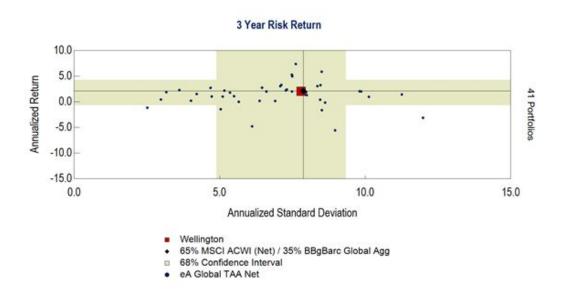


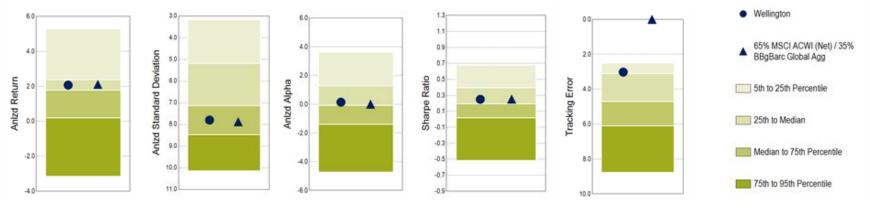


*Returns are net of fees.



Wellington Opportunistic





*Returns are net of fees.

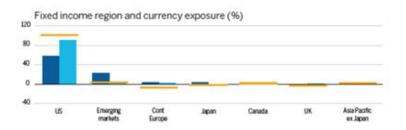


Wellington Opportunistic

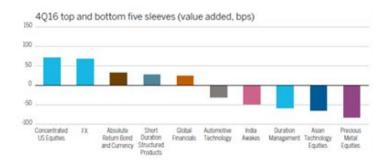
Portfolio Characteristics

	Portfolio	Benchmark
Yield to worst (%)	3.2	2.6
Option adjusted spread (bps)	138	45
Duration – effective (yrs)	5.9	5.6
Convexity - effective	0.8	0.1

Fixed Income Sector



Top Relative Contributors and Detractors



Equity Sector



Source: Wellington



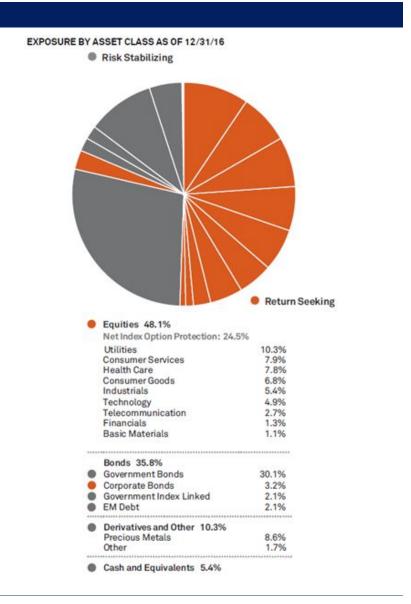
Newton Global Real Return

FUND CHARACTERISTICS AS OF 12/31/16					
	Fund				
Average Market Cap (\$M)	60,308.92				
Price/Earnings ratio	15.35				
Price/book ratio	2.35				
REGIONAL EQUITY ALLOCATION AS	S OF 12/31/16				
North America	16.49%				

REGIONAL EGOTT I ALECCATION AC	OI ILIOIIIO
North America	16.49%
Europe ex UK	14.45%
UK	11.15%
Japan	2.45%
Pacific ex Japan	2.09%
Others	1.44%

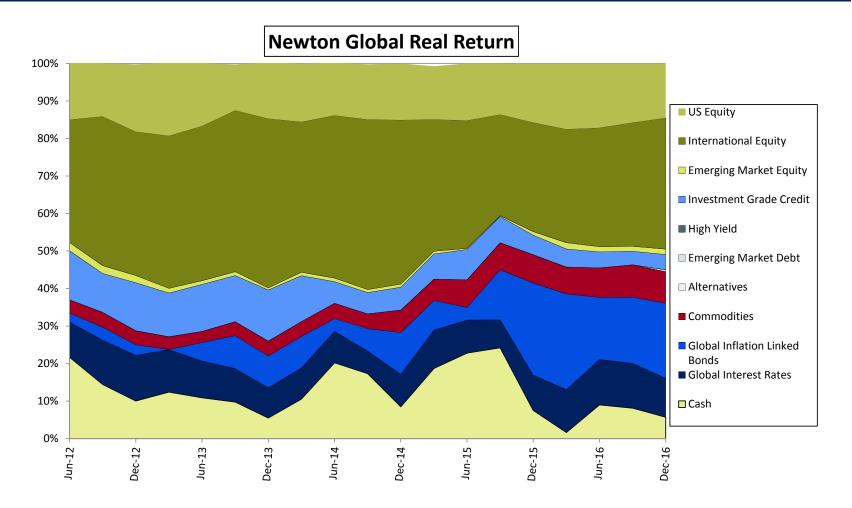
TOP TEN HOLDINGS (%) AS OF 12/31/16	
USA Treasury Notes 1.75% 31/12/2020 USD100	5.0
USA Treasury Notes 3% 15/05/2045 USD100	4.7
USA Treasury Notes 1.5% 31/08/2018 USD100	3.8
USA Treasury Notes 3% 15/11/2045 USD100	3.4
USA Treasury Notes 2% 15/02/2025 USD100	3.0
Eversource EnergyCom Stk USD5	3.0
DB Commodity Services LLCPowerShares DB Gold Fund	2.8
Australia (Commonwealth) 3.75% Bds 21/04/2037 AUD1000	2.8
CMS Energy CorpCom Stk USD0.01	2.5
Novartis AGCHF0.50 (Regd)	2.4

Source: Newton





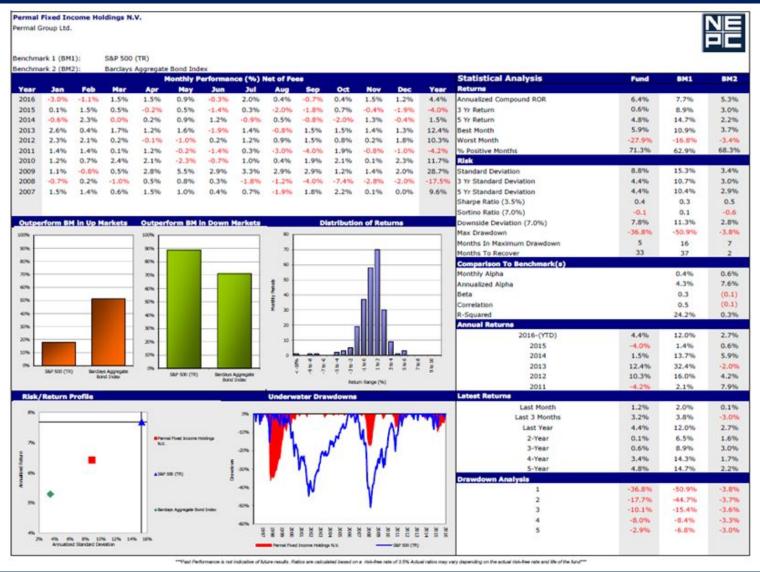
Newton Global Real Return



*As of March 2012, Newton is reporting High Yield separately from Credit



EnTrustPermal Fixed Income Holdings





EnTrustPermal Fixed Income Holdings

	General Fun	d Informatio	n	
Fund Name EnTrustPermal Fixed Income Holdings				
Management Company	EnTrustPermal			
Location	New York, NY			
Firm AUM	\$25.2 Billion	Strategy	Fund of Fund	
Strategy AUM	\$3.8 Billion	Sub- Strategy	Multi-Strategy	
Portfolio Managers	Robert Kaplan, Clark Fenton, Javier Dyer	Direct or FOF	FOF	
Terms				
Share Class	-			
Minimum Investment	\$1 million			
Management Fee	0.95%			
Incentive Fee	None			
Hurdle Rate	None			
High Water Mark	None			
Subscription	Monthly			
Redemption	Monthly with 20 days			
Lock-Up	None			
	Investme	ent Strategy		
that employs a bets on events,	ermal Fixed Income Holdings features a performance-oriented investment philosophy lat employs a unique combination of fixed-income spread strategies, opportunistic ets on events, and nimble, liquid macro strategies. It is positioned as both a erformance enhancer and a good diversifier to a core hedge fund allocation			

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



Lighthouse Global Long/Short





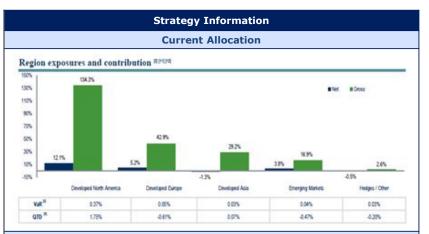
Lighthouse Global Long/Short

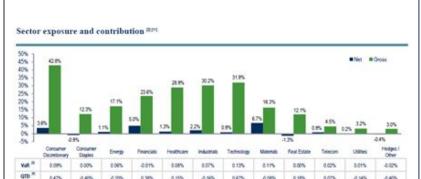
General Fund Information								
Fund Name	Lighthouse Global Long/S	Lighthouse Global Long/Short Fund						
Management Company	Lighthouse Investment Pa	artners, LLC						
Location	Palm Beach, FL							
Firm AUM	\$8.7 billion	Strategy	Fund of Fund					
Strategy AUM	\$1.8 billion	Sub- Strategy	Long/Short Equity					
Portfolio Managers	Ethan Baron	Direct or FOF	FOF					
	Terms							
Share Class								
Minimum Investment	\$1 million	\$1 million						
Management Fee	1.15%							
Incentive Fee								
Hurdle Rate	None							
High Water Mark	Yes	Yes						
Subscription	Monthly							
Redemption	Quarterly (60 days notice	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.





-0.16%

0.67%

-0.08%

0.15%

Attribution

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

0.47%

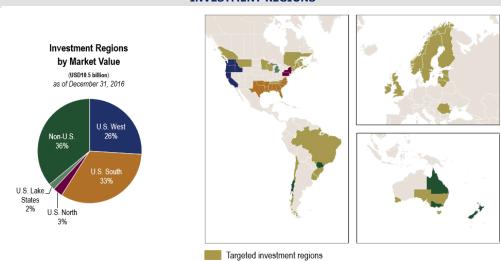
0.40%



John Hancock Timber

INVESTMENTS											
Property	Location	Acquisition <u>Location</u> <u>date</u>		Independent appraisals <u>Acres Last Next</u>			Book value	Fair market value		Unrealized appreciation	
Elkhorn	WA	10/31/05	9,049	Dec-15	NA	\$	14,838,789	\$	25,264,750	\$	10,425,9
Pinchot	WA	10/31/05	34,469	Dec-16	Dec-17		41,820,577		124,600,000		82,779,4
Plum Grove	PA/NY	10/31/05	48,193	Dec-16	Dec-17		142,310,159		139,700,000		(2,610,1
Tyler	TX	10/31/05	86,901	Dec-16	Dec-17		77,298,728		169,000,000		91,701,2
Total equity real estate			178,612			\$	276,268,253	\$	458,564,750	\$	182,296,4
Other investments		Acquisition date									
Minerals		10/31/05		NA	NA	\$	959,680	\$	959,680	s	
Other miscellaneous investments		10/31/05		NA	NA		28,150		28,150		
Red River Timberlands Company *	AR, LA, TX	4/1/08	120,623	Dec-16	Dec-17		116,346,143		134,669,134		18,322,9
Total other investments			120,623			\$	117,333,973	s	135,656,964	s	18,322,

INVESTMENT REGIONS



NEPC, LLC

Source: Hancock

Landmark Equity Partners XV

General Fund Information									
Fund Name	Landmark Equity Partners	Landmark Equity Partners XV							
General Partner	Landmark Partners								
Main Address	10 Mill Pond Lane, Simsb	ury, CT 06070							
Target Fund Size	\$2.5B	Expected Up to 15 months aft 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	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	1% of aggregate commitments						
Carried Interest	10% on secondary investments only						

	Fund S	trategy							
Investment Strategy	 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	1.6x-1.8x net and a 15%- Direct or fund funds (secondary interests)							
Investment Style	Secondary	· Target Fund	May use up to 10%						
		Leverage	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						

Fur	nd Sourcing and Asset Management Capabilities
Sourcing Capabilities	 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	 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.







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) * 2Where 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 $(X-Y) * \sqrt{(\# of periods per year)}$ Where X = periods portfolio return and <math>Y = the period's benchmark returnFor 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.

 $Upside Capture = Total Return (Fund Returns)/Total Returns (BMR eturn) \ when \ Period Benchmark \ Return \ is \ > \ = \ 0$

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

Data Source: InvestorForce



University of Maine System Managed Investment Pool 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 quarantee that any plan will achieve its targeted return or meet other goals.





AGENDA ITEM SUMMARY

1. NAME OF ITEM: Pension Fund Performance Review

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. BACKGROUND:

Enclosed for your information is the Pension Fund performance report for the quarter ended December 31, 2016.

Kelly Regan and Jay Roney of NEPC will provide a brief review at the March 9, 2017 Investment Committee meeting.

Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Pension Composite	31,010,184	100.0	100.0	-0.9	1.5	5.0	1.9	2.3	6.4	5.8	3.6
Allocation Index				-1.1	1.7	5.2	2.6	3.1	6.6	6.2	4.0
Policy Index				-0.8	2.0	6.1	3.0	3.4	6.8	6.7	4.8
Total Domestic Large Cap	2,423,690	7.8	8.0	3.8	7.8	11.9	6.5	8.8	14.7	11.8	5.7
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
Vanguard S&P 500 Index	2,423,690	7.8	8.0	3.8	7.8	11.9	6.5	8.8			
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
Total Small Cap Composite	1,469,803	4.7	4.0	8.8	18.7	21.5	7.6	6.5	14.1	13.0	
Russell 2000				8.8	18.7	21.3	7.7	6.7	14.5	13.2	7.1
SSgA R2000 Index Fund Non Lending	1,469,803	4.7	4.0	8.8	18.7	21.5	7.7	6.5	14.2	13.0	
Russell 2000				8.8	18.7	21.3	7.7	6.7	14.5	13.2	7.1
Total International Equity (including emerging markets)	2,965,742	9.6	10.0	-4.6	-1.0	-2.2	-2.4	-2.7	4.2	2.7	0.7
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Morgan Stanley Int'l	2,014,970	6.5	7.0	-2.4	0.2	-1.5	-0.6	-2.5	6.0	3.9	1.6
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Emerging Markets Equity	950,772	3.1	3.0	-8.9	-3.5	-3.6	-6.7	-3.8			
MSCI Emerging Markets				-4.2	4.5	11.2	-2.7	-2.6	1.3	0.5	1.8
Mondrian EM Small Cap	950,772	3.1	3.0	-8.9	-3.5	-3.6	-6.7				
MSCI Emerging Markets Small Cap				-6.2	0.9	2.3	-2.4	-1.3	3.5	1.4	3.4
Total Fixed Income	9,817,596	31.7	32.0	-2.8	-1.9	3.8	1.7	2.6	3.5	4.2	5.4
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Vanguard Total Bond Market Index	8,320,038	26.8	27.0	-3.2	-2.8	2.6	1.5				
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Loomis Sayles Fixed Income	1,497,558	4.8	5.0	-0.6	2.8	9.9	1.6				
BBgBarc Global Aggregate TR				-7.1	-6.3	2.1	-0.6	-0.2	0.2	1.7	3.3
Total GAA	7,905,321	25.5	25.0	-2.4	0.2	4.8	0.2	0.3	4.0	3.8	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
Wellington	3,995,663	12.9	12.5	-0.5	5.4	5.9	3.0	2.2	6.0	4.2	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
Newton Global Real Return	3,909,658	12.6	12.5	-4.4	-4.9						
60% MSCI ACWI (Net)/40% CITI WGBI				-2.8	0.4	5.5	1.4	1.7	5.3	4.9	3.7



Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total Alternative Investments	3,149,138	10.2	10.0	1.9	4.1	2.2	0.5	1.4	3.2	2.1	
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
EntrustPermal	1,548,145	5.0	5.0	3.2	5.0	4.5	0.1	0.5	4.6	4.2	
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
Lighthouse	1,600,993	5.2	5.0	0.7	3.3	0.2					
Credit Suisse Long Shrt Eqt USD				-0.2	1.7	-3.4	0.0	1.8	6.1	4.5	4.0
Total Real Assets	2,466,054	8.0	8.0								
Principal	2,466,054	8.0	8.0	2.7	4.7	9.0	11.2	11.7	12.0	13.0	4.7
NCREIF ODCE				2.1	4.2	8.8	11.8	12.1	12.2	13.3	5.8
Total Cash	812,839	2.6	3.0								
Distribution Account	812,839	2.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
91 Day T-Bills				0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.7

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

Cube market value is carried over from 12/31/15









Executive Summary

ASSET ALLOCATION Plan Assets: \$31.0 Million ■Large Cap Equity 2.6% 7.8% 8.0% ■Small Cap Equity ■International Equity ■ Emerging Equity 10.2% **■**Core Fixed Income **■**Multi-Sector FI GAA 25.5% ■ Hedge Funds ■ Real Assets ■ Cash

	PLAN	I PERFOR	MANCE: N	IET OF F	EES		
	QTR	FYTD	1 YR	3 YR	5 YR	7 YR	10 YR
COMPOSITE	-0.9%	1.5%	5.0%	2.3%	6.4%	5.8%	3.6%
ALLOC. INDEX	-1.1%	1.7%	5.2%	3.1%	6.6%	6.2%	4.0%
POLICY INDEX	-0.8%	2.0%	6.1%	3.4%	6.8%	6.7%	4.8%

PLAN COMMENTS

Asset Allocation

The Plan's assets were \$31.0 million as of December 31, 2016, a \$1.4 million decrease during the fourth quarter. While investment losses were \$237 thousand, benefit payments amounted to \$1.2 million. All asset classes are within policy ranges.

Performance (Net of Fees)

The Plan returned -0.9% over the quarter, 1.5% fiscal year to date, and 5.0% over the trailing year.

The Plan ranked in the 80^{th} percentile during the fiscal year to date and 79^{th} over the one year period (Universe = Trust Funds).

The managers with the highest absolute returns over the fourth quarter were the SSgA (domestic small cap equity), Vanguard (S&P 500) EntrustPermal (hedge fund) and Principal (Real Estate).

RECENT ACTIONS/RECOMMENDATIONS

Recent Actions

None.

Recommendations

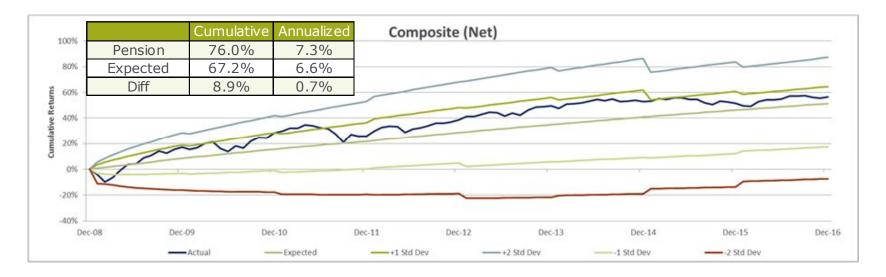
Review Asset Allocation study recommendations provided in a separate document.

Manager Due Diligence

There is one manager update detailed on the Due Diligence Monitor.



Pension Return Expectations



- Over the last 8 years ending 12/31/16, the Pension returned 7.3% annualized versus a blended expected return of 6.6% (based on NEPC's 5-7 year forecasts)
- The returns are currently above the expected target and within a one standard deviation range of outcomes



Due Diligence Monitor

The items below summarize any changes or announcements from your Plan managers/funds. A "Yes" indicates there was an announcement and a brief 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. NEPC considers ourselves to be a fiduciary, as ERISA defines the term in Section 3(21).

Investment Manager	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
EntrustPermal	Yes	Watch (Firm) / Maintain Hold

A legend key to our recommendations is provided below.

	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.



Due Diligence Commentary

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

Manager Changes/Announcements	
Investment Option	Commentary
EntrustPermal EntrustPermal Fixed Income Holdings N.V.	See Memo on following page. NEPC upgraded EntrustPermal firm rating from Hold to Watch and maintains the Hold rating for the strategy.





To: NEPC Clients

From: NEPC Research

Date: January 26, 2017

Subject: EnTrustPermal Due Diligence Status Change: Upgrade from HOLD to WATCH

Product Rating: EnTrustPermal Fixed Income Holdings N.V. ("EPFIH") and EnTrustPermal Fixed Income Holdings (ERISA) Ltd. ("EPFIHE"): Maintain Current Rating (Neutral) and Current Due Diligence Status: HOLD

Roughly one year since the announcement that EnTrust and Permal would merge and form a combined entity (EnTrustPermal) and subsidiary of Legg Mason, we are comfortable that the integration process is proceeding in line with expectations. At the firm level, there has been some reduction in overall assets under management but within expectations given a significant corporate event. We expect further integration efforts to occur over time to continue to gain efficiencies in the investment process and make efforts to extract additional fee savings from underlying managers. We will continue to monitor the ongoing integration but at this time we believe it is appropriate to upgrade the firm Due Diligence rating of EnTrustPermal from HOLD to WATCH. This means that we have gained comfort with how they have addressed a significant event (merger of two firms) but believe continued monitoring is appropriate.

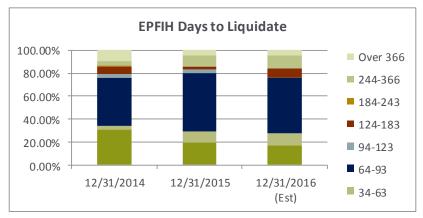
We are maintaining the current Due Diligence Status of HOLD on the legacy Permal Fixed Income Holdings strategies (EPFIH and EPFIHE) as we feel a higher level of monitoring and awareness is appropriate given relatively large redemptions in these strategies over the last year. Increasing investor outflows from the legacy Permal flagship fund (EPFIH), driven largely by non-NEPC investors (primarily Private Clients and Family Offices), have led to a drop in AUM of approximately 40% since the beginning of 2016. This asset decline could potentially present some liquidity concerns for NEPC investors in the Fund should more investors redeem. The ERISA Fund (EPFIHE) experienced a smaller asset drop in 2016 (~20%) but we are aware of anticipated additional redemptions of more than 30% in that fund. EnTrustPermal has indicated they there are prepared to manage those redemptions effectively.

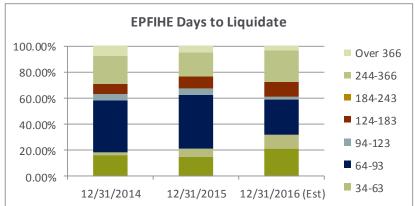
Historically, EnTrustPermal has managed portfolio liquidity of these funds effectively, including during this recent period of redemptions. The portfolio management team has prudently balanced portfolio flows and underlying manager redemptions while utilizing lines of credit to help mitigate the portfolio impact. Additionally, the team and processes remain the same.

Given the decline in assets and trend of outflows, we think it is appropriate to maintain our HOLD recommendation as we continue to monitor and evaluate the portfolio and overall asset flows. While the significant outflows are a concern, this is somewhat offset by the following factors:

- The portfolio management team has historically shown an ability to manage through periods of outflows and adjust positions to meet monthly redemptions.
- The funds performed well on a relative basis in 2016 despite the outflows.
- Effective liquidity management is evidenced by the fact that the liquidity profile of the Fund's underlying holdings has remained relatively similar to previous years. While the majority of assets are still in vehicles that require more than 30 days to liquidate, the overall profile remains consistent.







Source: NEPC, EnTrustPermal (12/20/2016). 12/31/2016 liquidity is estimated. The charts shown above are based on "a most restrictive liquidity review" by EnTrustPermal which for year end 2016 is estimated as of December 20, 2016. The "days to liquidate", has been defined by EnTrustPermal as the number of days until the next effective available redemption date of the underlying investments in EPFIH and EPFIHE

- While the use of credit lines increased meaningfully for the EPFIH during this period, EnTrustPermal has indicated that the funds' borrowing needs have dropped as outflows have slowed and they have continued to manage portfolio cash flows. In addition, they noted that they have additional borrowing capacity. This capacity should allow them to continue to manage the portfolio consistent with past practice.
- EnTrustPermal noted that they are considering merging the EPFIH and EPFIHE funds in order to improve the overall flexibility across all of the funds. We are supportive of this concept because of the potential additional benefits to clients and will keep you informed if this moves forward.
- If redemptions increase to the point that it could negatively impact remaining investors, it is possible that EnTrustPermal could impose a gate. As indicated by EnTrustPermal, the purpose of the gate would be to manage liquidity of the funds in the best interests of its continuing investors. This provides another potential layer of protection for remaining clients, but, if triggered, could lead to a slower repayment



- of redemption proceeds than what the Fund's stated terms offer for those clients redeeming.
- EnTrustPermal provided information about "advisor concentration". NEPC clients now represent the largest group under one advisor with approximately 35% and 45% of total assets in EPFIH and EPFIHE, respectively. No other advisor represents more than 10% of client assets in the EPFIH fund and there are three advisors that each represents 10-20% of the EPFIHE fund. We recognize that a change in our recommendation to Client Review or Terminate could potentially trigger a gate at the Fund level and we would therefore work to understand and communicate the implications if our assessment of the situation warrants a potential downgrade.

We recommend clients continue to assess EPFIH and EPFIHE and the role that each plays in the strategic asset allocation of your portfolio(s). At this point, we are comfortable with NEPC clients maintaining their exposure to the EPFIH and EPFIHE funds, subject to the specific circumstances of your particular investment program.

We will continue to monitor asset flows, portfolio construction and performance. If the situation changes, we will keep you informed. While we are not recommending any action at this point, we do want to remind you of the current notice periods which are outlined below.

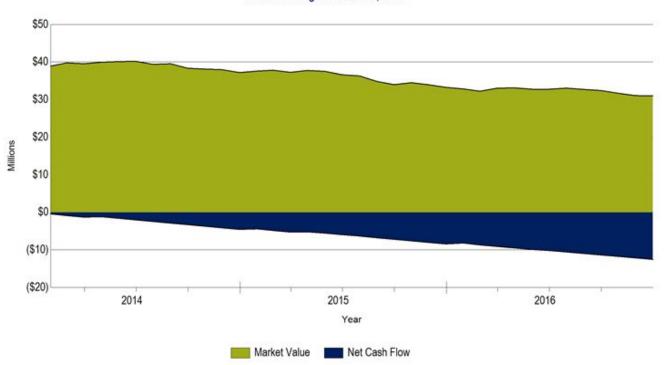
Vehicle	Redemption Terms	Notice By	Redemption Date
EPFIH N.V.	Monthly 20 days notice	February 10, 2017	February 28, 2017
EPFIH Institutional (feeder)	Monthly 25 days notice	February 3, 2017	February 28, 2017
EPFIHE	Monthly 61 days Notice	January 27, 2017	March 31, 2017

Plan Summary and Statistics



Total Plan Asset Growth Summary

3 Years Ending December 31, 2016



	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$32,428,288	\$32,763,516	\$33,263,078	\$40,137,846
Net Cash Flow	-\$1,181,071	-\$2,361,579	-\$4,120,962	-\$12,531,484
Net Investment Change	-\$237,032	\$608,247	\$1,868,067	\$3,403,822
Ending Market Value	\$31,010,184	\$31,010,184	\$31,010,184	\$31,010,184



Total Plan Asset Growth Summary by Manager

Quarter Ending December 31, 2016

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Cube	\$22,994	-\$23,188	\$0	-\$23,188	\$194	
Distribution Account	\$126,994	-\$1,252,033	\$1,937,878	\$685,845	\$0	\$812,839
EntrustPermal	\$1,696,732	-\$200,000	\$0	-\$200,000	\$51,413	\$1,548,145
Lighthouse	\$1,788,360	-\$200,000	\$0	-\$200,000	\$12,633	\$1,600,993
Loomis Sayles Fixed Income	\$1,707,485	-\$202,124	\$0	-\$202,124	-\$7,803	\$1,497,558
Mondrian EM Small Cap	\$1,244,875	-\$208,365	\$0	-\$208,365	-\$85,738	\$950,772
Morgan Stanley Int'l	\$2,063,668	-\$4,712	\$0	-\$4,712	-\$43,986	\$2,014,970
Newton Global Real Return	\$4,090,041	-\$7,874	\$0	-\$7,874	-\$172,508	\$3,909,658
Principal	\$2,603,167	-\$200,000	\$0	-\$200,000	\$62,887	\$2,466,054
SSgA R2000 Index Fund Non Lending	\$1,350,653	-\$549	\$0	-\$549	\$119,700	\$1,469,803
Vanguard S&P 500 Index	\$2,524,599	-\$200,249	\$0	-\$200,249	\$99,340	\$2,423,690
Vanguard Total Bond Market Index	\$8,793,772	-\$201,467	\$0	-\$201,467	-\$272,267	\$8,320,038
Wellington	\$4,414,948	-\$418,389	\$0	-\$418,389	-\$896	\$3,995,663
Total	\$32,428,288	-\$3,118,949	\$1,937,878	-\$1,181,071	-\$237,032	\$31,010,184



Hedge Funds

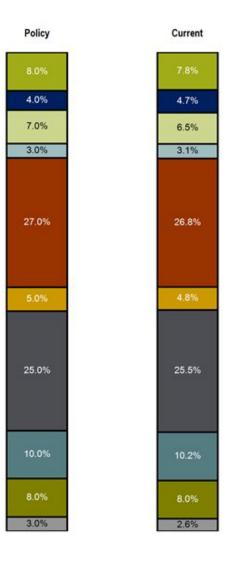
Real Estate

Cash

Total

University of Maine System Pension Plan

Total Plan Asset Allocation vs. Policy Targets



Within Current Difference Current Policy Policy Range Range Large Cap Equity \$2,423,690 7.8% 3.0% - 13.0% Yes 8.0% -0.2% Small Cap Equity 4.0% 4.7% \$1,469,803 0.7% 0.0% - 6.0% Yes International Equity \$2,014,970 7.0% 6.5% -0.5% 2.0% - 12.0% Yes Emerging Markets Equity \$950,772 0.1% 0.0% - 5.0% 3.0% 3.1% Yes Core Bonds \$8,320,038 27.0% 26.8% -0.2% 22.0% - 32.0% Yes Multi-sector Fixed Income \$1,497,558 5.0% 4.8% -0.2% 0.0% - 10.0% Yes Global Asset Allocation 20.0% - 30.0% \$7,905,321 25.0% 25.5% 0.5% Yes

10.0%

8.0%

3.0%

100.0%

10.2%

8.0%

2.6%

100.0%

0.2%

0.0%

-0.4%

7.0% - 13.0%

0.0% - 10.0%

0.0% - 10.0%

Yes

Yes

Yes

Asset Allocation vs. Target

\$3,149,138

\$2,466,054

\$31,010,184

\$812,839



Asset Allocation

Policy	Current	Look Through	Asset	Allocation		
	<u> </u>			Policy	Current	Look Through
8.0%	7.8%		Large Cap Equity	8.0%	7.8%	12.9%
0.070	1,570	12.9%	Small Cap Equity	4.0%	4.7%	4.7%
4.0%	4.7%		International Equity	7.0%	6.5%	14.5%
		2000	Emerging Markets Equity	3.0%	3.1%	5.2%
7.0%	6.5%	4.7%	Core Bonds	27.0%	26.8%	29.7%
3.0%	3.1%		Multi-sector Fixed Income	5.0%	4.8%	4.8%
		14.5%	Fixed Income - Emerging			1.2%
		14.5%	Global Bonds			4.4%
			Global Asset Allocation	25.0%	25.5%	
		5.2%	Hedge Funds	10.0%	10.2%	10.2%
27.0%	26.8%	5.270	Real Estate	8.0%	8.0%	8.0%
			Real Assets			1.3%
			Cash	3.0%	2.6%	3.1%
			Total	100.0%	100.0%	100.0%
25.0%	25.5%	4.8% -1.2% -4.4%	Net Asset Allocation breaks out the exposure of GAA managers. Asset class weights may not add up to 100% due to rounding. The 60% MSCI ACWI/40% CITI WGBI Index is broken down into the fc Emerging Equities, 13.3% US Treasury Bonds, 12.7% European Gover 2.6% Developing Markets Bonds.			
8.0% 3.0%	8.0%	8.0% 1.3% 3.1%				



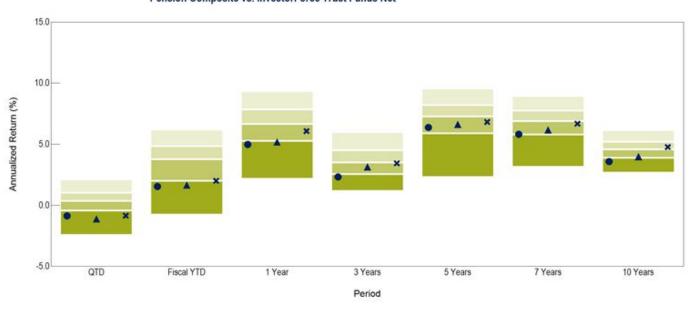
Total Plan Asset Allocation History

Asset Allocation History 100 % 80 % % Allocation (Actual) 60 % 40 % 20 % Policy 2012 2013 2014 2015 2016 Large Cap Equity **Emerging Markets Equity** High Yield Global Asset Allocation Real Estate Small Cap Equity Core Bonds Multi-sector Fixed Income Cash Hedge Funds International Equity



Total Plan Return Summary vs. Peer Universe (Net of Fees)

Pension Composite vs. InvestorForce Trust Funds Net

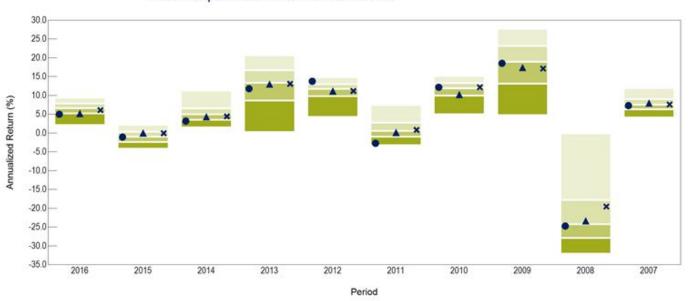


	Return (Rank)													
5th Percentile	2.1		6.2		9.3		6.0		9.6		8.9		6.1	
25th Percentile	1.0		4.9		7.9		4.5		8.2		7.8		5.2	
Median	0.4		3.8		6.7		3.5		7.3		6.9		4.6	
75th Percentile	-0.4		2.0		5.3		2.6		5.9		5.8		3.9	
95th Percentile	-2.4		-0.8		2.2		1.2		2.3		3.2		2.7	
# of Portfolios	2,117		2,106		2,070		1,912		1,684		1,510		1,239	
Pension Composite	-0.9	(84)	1.5	(80)	5.0	(79)	2.3	(81)	6.4	(69)	5.8	(75)	3.6	(84)
Allocation Index	-1.1	(88)	1.7	(79)	5.2	(77)	3.1	(61)	6.6	(64)	6.2	(69)	4.0	(73)
Policy Index	-0.8	(84)	2.0	(76)	6.1	(63)	3.4	(53)	6.8	(60)	6.7	(58)	4.8	(43)



Total Plan Return Summary vs. Peer Universe (Net of Fees)

Pension Composite vs. InvestorForce Trust Funds Net

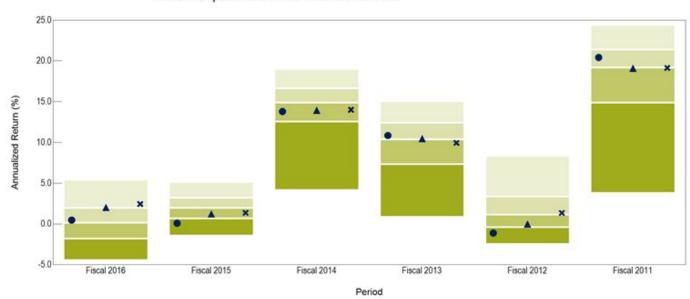


	Return (R	ank)																		
5th Percentile	9.3		2.1		11.2		20.6		14.8		7.4		15.1		27.7		-0.2		11.9	
25th Percentile	7.9		0.3		6.6		16.7		13.0		2.8		13.3		23.1		-17.8		9.1	
Median	6.7		-0.9		5.0		13.4		11.7		0.6		11.9		18.9		-24.2		7.5	
75th Percentile	5.3		-2.3		3.6		8.7		9.8		-1.0		10.0		13.2		-27.9		6.3	
95th Percentile	22		-4.2		1.5		0.3		4.3		-3.2		5.0		4.8		-32.1		4.2	
# of Portfolios	2,070		2,339		2,007		1,709		1,539		1,403		1,326		1,233		1,161		1,074	
Pension Composite	5.0	(79)	-1.1	(54)	3.2	(82)	11.8	(60)	13.7	(14)	-2.7	(92)	12.1	(47)	18.5	(52)	-24.7	(54)	7.3	(55)
Allocation Index	5.2	(77)	0.0	(32)	4.3	(64)	13.0	(53)	11.2	(60)	0.1	(57)	10.2	(73)	17.4	(58)	-23.3	(46)	7.9	(44)
Policy Index	6.1	(63)	-0.1	(34)	4.4	(62)	13.1	(52)	11.2	(60)	0.8	(47)	12.2	(47)	17.1	(59)	-19.5	(29)	7.6	(50)



Total Plan Return Summary vs. Peer Universe (Net of Fees)

Pension Composite vs. InvestorForce Trust Funds Net

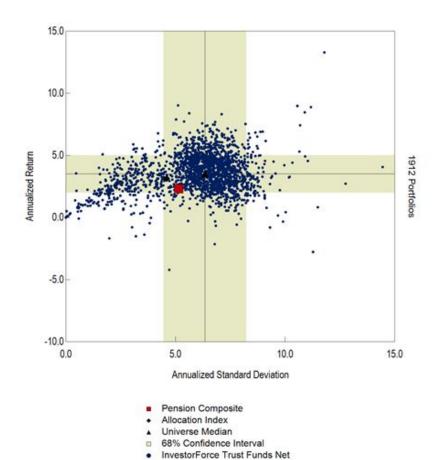


		Return (Rank)											
5th Pe	ercentile	5.4		5.1		19.0		15.0		8.4		24.4	
25th P	Percentile	2.0		3.3		16.6		12.4		3.4		21.4	
Media	in	0.1		2.0		14.9		10.4		1.2		19.2	
75th P	Percentile	-1.8		0.7		12.6		7.4		-0.4		14.9	
95th P	Percentile	-4.4		-1.4		4.2		0.9		-2.4		3.8	
# of P	ortfolios	2,289		2,198		1,565		1,828		1,431		1,362	
Pen	sion Composite	0.5	(46)	0.1	(84)	13.8	(66)	10.8	(44)	-1.1	(86)	20.4	(36)
Allo	ocation Index	2.0	(25)	1.2	(67)	13.9	(65)	10.5	(49)	0.0	(70)	19.1	(51)
Poli	icy Index	2.4	(21)	1.4	(64)	14.0	(64)	9.9	(55)	1.3	(48)	19.1	(51)



Total Plan Risk/Return - 3 Years

3 Years Ending December 31, 2016



3 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Pension Composite	2.3%	81	5.2%	24
Allocation Index	3.1%	61	4.6%	20
Policy Index	3.4%	53	4.7%	20
InvestorForce Trust Funds Net Median	3.5%	-	6.3%	

3 Years Ending December 31, 2016

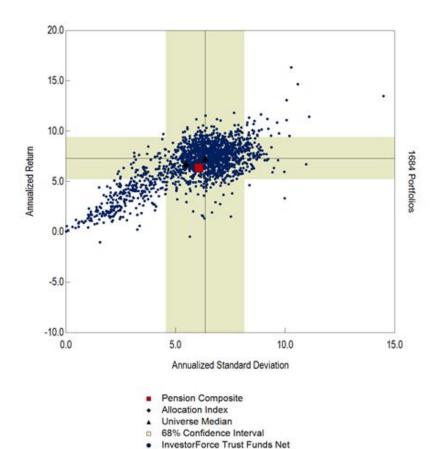
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	0.4	73	0.9	60
Allocation Index	0.7	42	1.2	35
Policy Index	0.7	35	1.4	25
InvestorForce Trust Funds Net Median	0.6	-	1.0	-

*Returns are net of fees.



Total Plan Risk/Return - 5 Years

5 Years Ending December 31, 2016



5 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
Pension Composite	6.4%	69	6.1%	41	
Allocation Index	6.6%	64	5.5%	27	
Policy Index	6.8%	60	5.4%	26	
InvestorForce Trust Funds Net Median	7.3%		6.4%		

5 Years Ending December 31, 2016

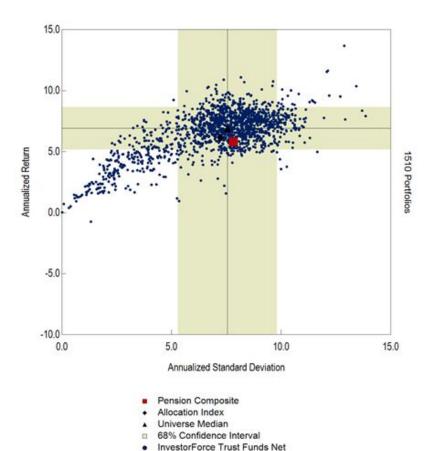
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	1.0	68	1.7	62
Allocation Index	1.2	42	1.8	46
Policy Index	1.2	36	2.0	32
InvestorForce Trust Funds Net Median	1.1		1.8	

*Returns are net of fees.



Total Plan Risk/Return - 7 Years

7 Years Ending December 31, 2016



7 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
Pension Composite	5.8%	75	7.8%	57	
Allocation Index	6.2%	69	7.2%	42	
Policy Index	6.7%	58	6.9%	36	
InvestorForce Trust Funds Net Median	6.9%		7.6%		

7 Years Ending December 31, 2016

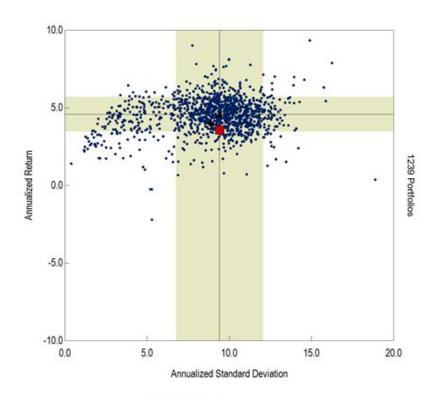
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	0.7	85	1.1	84
Allocation Index	0.8	66	1.3	66
Policy Index	1.0	46	1.6	39
InvestorForce Trust Funds Net Median	0.9		1.4	

*Returns are net of fees.



Total Plan Risk/Return - 10 Years

10 Years Ending December 31, 2016



10 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	
Pension Composite	3.6%	84	9.4%	51	
Allocation Index	4.0%	73	8.9%	40	
Policy Index	4.8%	43	8.3%	31	
InvestorForce Trust Funds Net Median	4.6%		9.4%		

10 Years Ending December 31, 2016

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Pension Composite	0.3	83	0.4	81
Allocation Index	0.4	66	0.5	64
Policy Index	0.5	36	0.6	31
InvestorForce Trust Funds Net Median	0.4		0.5	

Pension Composite

^{*}Returns are net of fees.



Universe Median

Allocation Index

^{68%} Confidence Interval

InvestorForce Trust Funds Net

Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Pension Composite	31,010,184	100.0	100.0	-0.9	1.5	5.0	1.9	2.3	6.4	5.8	3.6
Allocation Index				-1.1	1.7	5.2	2.6	3.1	6.6	6.2	4.0
Policy Index				-0.8	2.0	6.1	3.0	3.4	6.8	6.7	4.8
Total Domestic Large Cap	2,423,690	7.8	8.0	3.8	7.8	11.9	6.5	8.8	14.7	11.8	5.7
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
Vanguard S&P 500 Index	2,423,690	7.8	8.0	3.8	7.8	11.9	6.5	8.8			
S&P 500				3.8	7.8	12.0	6.5	8.9	14.7	12.8	6.9
Total Small Cap Composite	1,469,803	4.7	4.0	8.8	18.7	21.5	7.6	6.5	14.1	13.0	
Russell 2000				8.8	18.7	21.3	7.7	6.7	14.5	13.2	7.1
SSgA R2000 Index Fund Non Lending	1,469,803	4.7	4.0	8.8	18.7	21.5	7.7	6.5	14.2	13.0	
Russell 2000				8.8	18.7	21.3	7.7	6.7	14.5	13.2	7.1
Total International Equity (including emerging markets)	2,965,742	9.6	10.0	-4.6	-1.0	-2.2	-2.4	-2.7	4.2	2.7	0.7
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Morgan Stanley Int'l	2,014,970	6.5	7.0	-2.4	0.2	-1.5	-0.6	-2.5	6.0	3.9	1.6
MSCI EAFE				-0.7	5.7	1.0	0.1	-1.6	6.5	3.8	0.7
Emerging Markets Equity	950,772	3.1	3.0	-8.9	-3.5	-3.6	-6.7	-3.8			
MSCI Emerging Markets				-4.2	4.5	11.2	-2.7	-2.6	1.3	0.5	1.8
Mondrian EM Small Cap	950,772	3.1	3.0	-8.9	-3.5	-3.6	-6.7				
MSCI Emerging Markets Small Cap				-6.2	0.9	2.3	-2.4	-1.3	3.5	1.4	3.4
Total Fixed Income	9,817,596	31.7	32.0	-2.8	-1.9	3.8	1.7	2.6	3.5	4.2	5.4
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Vanguard Total Bond Market Index	8,320,038	26.8	27.0	-3.2	-2.8	2.6	1.5				
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Loomis Sayles Fixed Income	1,497,558	4.8	5.0	-0.6	2.8	9.9	1.6				
BBgBarc Global Aggregate TR				-7.1	-6.3	2.1	-0.6	-0.2	0.2	1.7	3.3
Total GAA	7,905,321	25.5	25.0	-2.4	0.2	4.8	0.2	0.3	4.0	3.8	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
Wellington	3,995,663	12.9	12.5	-0.5	5.4	5.9	3.0	2.2	6.0	4.2	
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-1.7	1.9	6.0	1.7	2.1	6.2	5.5	3.8
Newton Global Real Return	3,909,658	12.6	12.5	-4.4	-4.9						
60% MSCI ACWI (Net)/40% CITI WGBI				-2.8	0.4	5.5	1.4	1.7	5.3	4.9	3.7



Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total Alternative Investments	3,149,138	10.2	10.0	1.9	4.1	2.2	0.5	1.4	3.2	2.1	
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
EntrustPermal	1,548,145	5.0	5.0	3.2	5.0	4.5	0.1	0.5	4.6	4.2	
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
Lighthouse	1,600,993	5.2	5.0	0.7	3.3	0.2					
Credit Suisse Long Shrt Eqt USD				-0.2	1.7	-3.4	0.0	1.8	6.1	4.5	4.0
Total Real Assets	2,466,054	8.0	8.0								
Principal	2,466,054	8.0	8.0	2.7	4.7	9.0	11.2	11.7	12.0	13.0	4.7
NCREIF ODCE				2.1	4.2	8.8	11.8	12.1	12.2	13.3	5.8
Total Cash	812,839	2.6	3.0								
Distribution Account	812,839	2.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
91 Day T-Bills				0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.7

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

Cube market value is carried over from 12/31/15







Vanguard Institutional Index I

Holdings Based Style Trail (5 Years) Portfolio Statistics Market Capitalization Breakdown Time Period: 1/31/2012 to 12/31/2016 Fund Index Portfolio Date: 11/30/2016 # of Holdings 517 505 Fund Index % Asset in Top 10 Holdings 17.8 18.2 Market Cap Giant % 50.3 50.0 Turnover Ratio % 8.3 Market Cap Large % 36.4 36.3 P/E Ratio 19.9 20.3 Market Cap Mid % 13.3 13.5 P/B Ratio 2.7 2.8 Market Cap Small % 0.1 0.1 LT Earn Growth 8.6 8.8 Market Cap Micro % 0.0 0.0 Hist Earn Growth 5.5 5.6 Average Market Cap (mil) 78,275.4 80,532.7 12 Mo Yield 2.1 Core-Grth High-Grth A S&P 500 TR USD Vanguard Institutional Index I

Historical Sector Allocations (5 Years) Attribution (Quarter) 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 12/2012 6/2013 12/2013 6/2014 12/2014 6/2015 12/2015 6/2016 12/2016 -Energy % -Materials % -Industrials %

-Healthcare %

-Telecom Services %

		Portfolio Weights	Benchmark I Weights					Active Return
	Consumer Discretionary	12.22	12.18	2.34	2.48	0.00	-0.02	-0.02
	Consumer Staples	9.68	9.73	-1.90	-1.90	0.00	0.00	0.00
	Energy	7.30	7.33	7.27	7.26	0.00	0.00	0.00
	Financials	13.51	13.58	21.10	21.09	0.00	0.00	0.00
	Health Care	14.06	14.13	-3.98	-3.98	0.00	0.00	0.00
	Industrials	10.06	10.08	7.14	7.17	0.00	0.00	-0.01
	Information Technology	21.12	21.22	1.20	1.20	0.00	0.00	0.00
	Materials	2.84	2.85	4.76	4.76	0.00	0.00	0.00
	Real Estate	2.91	2.92	-4.42	-4.42	0.00	0.00	0.00
-	Telecommunication Services	2.53	2.54	4.76	4.76	0.00	0.00	0.00
	Utilities	3.23	3.24	0.14	0.14	0.00	0.00	0.00
	Attribution Total	99.47	99.82	3.83	3.86	-0.01	-0.02	-0.02
	Cash	0.46	0.00					
	Bond	0.02	0.00					
6	Other	0.00	0.18					
	Missing Performance	0.05	0.00					
	Total	100.00	100.00					
	Reported Total			3.82	3.82			
	Expense Ratio			0.01	0.00			
	Residual(Reported - Attribution + Expense)			0.00	-0.03			

Source: Morningstar

-Consumer Discretionary %

-Consumer Staples %

-Real Estate %

-Information Technology %



-Financials %

-Utilities %

Vanguard Institutional Index I

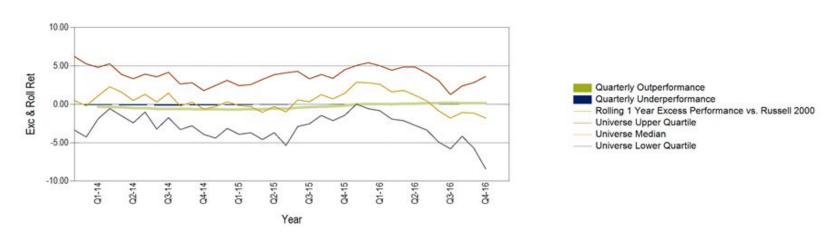
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index Vanguard Institutional Index I 18.0 R2 100.0 100.0 15.0 **▲ S&P 500 TR USD** Alpha 0.0 0.0 12.0 1.0 Beta 1.0 9.0 Std Dev 9.1 9.1 6.0 Up Capture Ratio 99.9 100.0 Down Capture Ratio 100.2 100.0 3.0 Sharpe Ratio (geo) 1.6 1.6 € 0.0 Information Ratio (geo) -3.0 2.0 4.0 6.0 8.0 10.0 12.0 Tracking Error 0.0 0.0 Std Dev 1.0 Correlation 1.0 Rolling Returns (3 Years) Rolling Risk (3 Years) 2nd Quartile 3rd Quartile Bottom Quartile 2nd Quartile 3rd Quartile Bottom Quartile 30.0 35.0 22.5 30.0 25.0 15.0 7.5 20.0 0.0 15.0 10.0 5.0 2 PS 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Vanguard Institutional Index I -S&P 500 TR USD -Vanguard Institutional Index I -S&P 500 TR USD Calendar Year Returns 2007 2008 2009 2010 2011 2012 2013 Rank 2014 Rank 2015 2016 Rank Vanguard Institutional Index I 5.5 -37.037 26.6 52 15.0 29 2.1 17 16.0 35 32.3 42 13.7 18 1.4 20 11.9 27 S&P 500 TR USD -37.0 32.4 5.5 26.5 15.1 2.1 16.0 13.7 1.4 12.0

Source: Morningstar

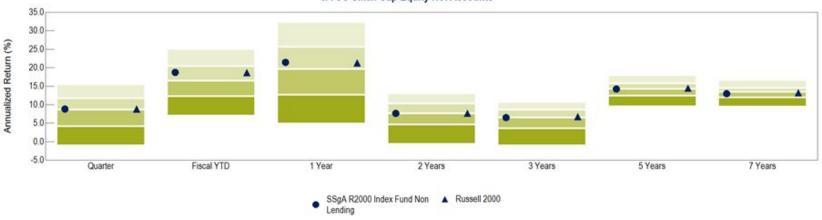


SSgA R2000 Index Fund Non Lending

Annualized Excess Performance



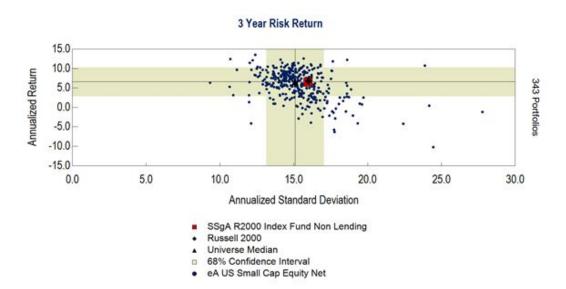
eA US Small Cap Equity Net Accounts

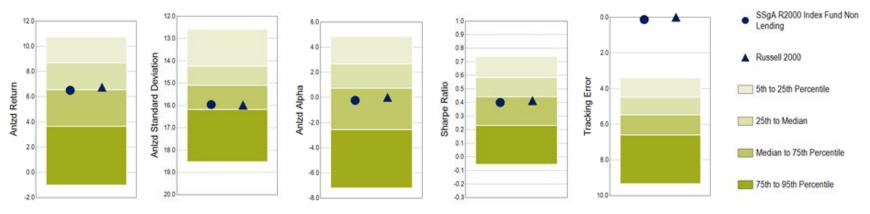


*Returns are net of fees.



SSgA R2000 Index Fund Non Lending





*Returns are net of fees.



SSgA R2000 Index Fund Non Lending

			Top Positive Contributors			Top Negative Cont	Top Negative Contributors				
				Relative			Relative				
Characteristics	5 (6))	Russell		Contribution %	Return %		Contribution %	Return %			
	Portfolio	2000	SAREPTA THERAPEUTICS	0.0%	-55.3%	SINO MERCURY ACQUISITION	0.0%	508.7%			
Number of Holdings	1,968	1,978	AQUA METALS	0.0%	48.0%	NOBILIS HEALTH	0.0%	-36.0%			
Weighted Avg. Market Cap. (\$B)	2.1	2.1	SYNDAX PHARMACEUTICALS ORD	0.0%	-52.7%	AGENUS	0.0%	-42.6%			
Median Market Cap. (\$B)	0.8	0.8	HUNTINGTON BCSH.	0.0%	34.9%	VERITEX HOLDINGS	0.0%	53.6%			
Price To Earnings Price To Book	25.8 3.3	25.1 3.0	ADVANCED MICRO DEVC.	0.0%	64.1%	SENSEONICS HOLDINGS	0.0%	-31.5%			
Price To Sales	3.0	2.1	CU BANCORP (CA)	0.0%	56.9%	PIONEER ENERGY SERVICES	0.0%	69.6%			
Return on Equity (%)	11.7	10.1	TANDEM DIABETES CARE	0.0%	-71.9%	WESTFIELD FINL.	0.0%	22.7%			
Yield (%)	1.4	1.1	OVASCIENCE	0.0%	-78.6%	AK STEEL HLDG.	0.0%	111.4%			
Beta		1.0	BIOSCRIP	0.0%	-64.0%	PANHANDLE OIL & GAS	0.0%	34.6%			
R-Squared		1.0	GOLD RESOURCE	0.0%	-41.2%	REATA PHARMACEUTICALS CL A ORD	0.0%	-17.2%			

Equity Sector Attribution

			-94	ity occion rittination	•			
			Attribution Effects		F	Returns	Ending S	Sector Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0%	0.0%	0.0%	0.0%	18.1%	17.7%	3.7%	3.8%
Materials	0.0%	0.0%	0.0%	0.0%	11.4%	11.4%	4.9%	4.9%
Industrials	0.0%	0.0%	0.0%	0.0%	12.5%	12.5%	14.6%	14.6%
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	7.9%	7.9%	12.6%	12.5%
Consumer Staples	0.0%	0.0%	0.0%	0.0%	6.4%	6.4%	3.0%	3.0%
Health Care	0.0%	0.0%	0.0%	0.0%	-6.3%	-6.3%	11.8%	12.1%
Financials	0.0%	0.1%	0.0%	0.0%	23.3%	22.9%	20.1%	20.2%
Information Technology	0.0%	0.0%	0.0%	0.0%	4.7%	4.7%	17.1%	17.0%
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	9.1%	9.1%	0.8%	0.7%
Utilities	0.0%	0.0%	0.0%	0.0%	5.3%	5.3%	3.7%	3.5%
Real Estate	0.0%	0.0%	0.0%	0.0%	4.1%	4.1%	7.8%	7.6%
Cash	0.0%						0.0%	0.0%
Unclassified	0.0%		-				0.0%	0.1%
Portfolio	0.0%	= 0.1%	+ 0.0%	+ 0.0%	8.8%	8.7%	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.



Morgan Stanley International Equity I

Market Capitalization Breakdown Holdings Based Style Trail (5 Years) Portfolio Statistics Fund Index Portfolio Date: 9/30/2016 Time Period: 1/31/2012 to 12/31/2016 # of Holdings 65 930 Fund Index 70.3 56.5 40.1 11.8 Market Cap Giant % % Asset in Top 10 Holdings Market Cap Large % 22.8 35.2 Tumover Ratio % 28.0 P/E Ratio 16.9 Market Cap Mid % 20.1 6.9 8.3 P/B Ratio 2.5 1.6 Market Cap Small % 0.0 0.1 LT Earn Growth 7.2 8.1 Market Cap Micro % 0.0 0.0 5.8 -2.0 Average Market Cap 50,700.9 31,196.7 Hist Earn Growth 12 Mo Yield 1.1 Equity Region Developed % 97.9 99.7 Equity Region Emerging % 2.1 0.3 Core-Grth High-Grth Morgan Stanley Inst International Eq I A MSCI EAFE NR USD Historical Country Allocations (5 Years) Attribution (Quarter) Portfolio Benchmark Portfolio Benchmark Allocation Selection Active 100.0 Weights Weights Return Return Effect Effect Return 90.0 Consumer Discretionary 5.28 12.47 3.19 1.58 -0.160.09 -0.08 Consumer Staples 32.58 11.97 -9.85-10.43-2.110.20 -1.91 80.0 Energy 2.42 5.05 6.53 9.93 -0.27-0.08 -0.3570.0 Financials 10.86 19.97 11.46 9.60 -0.890.21 -0.68Health Care 15.78 10.94 -3.84 -0.350.64 0.29 -7.71 60.0 Industrials -2.3113.15 14.14 -1.79 0.01 -0.07 -0.06 50.0 0.32 Information Technology 6.68 5.51 -3.02-0.03 0.22 0.19 40.0 Materials 8.61 7.71 2.16 3.53 0.05 -0.12 -0.07 Real Estate 0.65 3.90 7.03 0.09 -7.250.21 0.30 30.0 Telecommunication Services 2.53 4.68 -7.88-7.01 0.14 -0.03 0.11 20.0 Utilities 0.00 3.49 -7.210.23 0.00 0.23 10.0 Unclassified 0.00 0.13 0.87 0.00 0.00 0.00 Attribution Total 98.55 99.97 -2.75-0.73-3.171.15 -2.02 0.0 12/2012 6/2013 12/2013 6/2014 12/2014 6/2015 12/2015 6/2016 12/2016 Cash 1.36 0.00 Other 0.08 0.03 -North America % -Latin America % -United Kingdom % Total 100.00 100.00 -Europe dev % -Europe emrg % -Africa/Middle East % Reported Total -2.36-0.71 —Japan % -Australasia % -Asia dev % Expense Ratio 0.23 0.00 -Asia emrg % Residual(Reported - Attribution + Expense) 0.62 0.01

Source: Morningstar



Morgan Stanley International Equity I

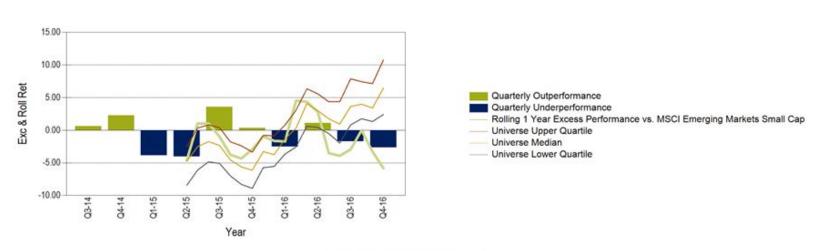
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index 8.0 Morgan Stanley Inst International Eq I R2 93.0 100.0 A MSCI EAFE NR USD Alpha 0.1 0.0 6.0 Beta 0.9 1.0 4.0 Std Dev 10.7 11.8 Up Capture Ratio 89.3 100.0 2.0 Down Capture Ratio 89.3 100.0 0.5 Sharpe Ratio (geo) 0.5 = 0.0-0.2 Information Ratio (geo) 10.0 12.0 14.0 Tracking Error 3.2 0.0 Std Dev Correlation 1.0 1.0 Rolling Returns (3 Years) Rolling Risk (3 Years) 2nd Quartile 3rd Quartile Bottom Quartile 2nd Quartile 3rd Quartile Bottom Quartile 30.0 37.5 20.0 30.0 10.0 22.5 0.0 15.0 å 7.5 -20.0 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 B 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Morgan Stanley Inst International Eq I -MSCI EAFE NR USD -Morgan Stanley Inst International Eq I -MSCI EAFE NR USD Calendar Year Returns 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 Rank Morgan Stanley Inst International Eq I -33.121.6 6.1 -7.619.6 26 20.4 43 -6.1-2.082 MSCI EAFE NR USD 11.2 -43.4 31.8 7.8 -12.1 17.3 22.8 -4.9 -0.8 1.0

Source: Morningstar



Mondrian EM Small Cap

Annualized Excess Performance





*Returns are net of fees.



Mondrian EM Small Cap

Characteristics		
	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	106	1,840
Weighted Avg. Market Cap. (\$B)	1.2	1.0
Median Market Cap. (\$B)	0.8	0.5
Price To Earnings	26.1	18.1
Price To Book	4.9	2.3
Price To Sales	4.2	2.2
Return on Equity (%)	20.2	13.2
Yield (%)	2.0	2.3
Beta		1.0
R-Squared		1.0

Top Positive Contr	ributors	
	Relative	
	Contribution %	Return %
MICROPORT SCIENTIFIC	0.2%	15.0%
MAYORA INDAH	0.1%	6.6%
KOREA KOLMAR	0.1%	-37.7%
GINKO INTERNATIONAL	0.1%	4.3%
FORTIS HEALTHCARE	0.1%	6.2%
SILOAM INTL.HOSPS.	0.1%	4.2%
OCEANA GROUP	0.0%	5.8%
FU SHOU YUAN INTL.GP.	0.0%	2.7%
STRIDES ARCOLAB	0.0%	3.6%
FERREYROS SAA	0.0%	4.0%

Top Negative Contr	ributors	
	Relative	
	Contribution %	Return %
TUNG THIH ELECTRONIC	-0.5%	-35.9%
CT ENVIRONMENTAL GROUP	-0.4%	-30.6%
CENTURY PLYBOARDS INDIA	-0.3%	-34.0%
BERGER PAINTS INDIA	-0.3%	-20.9%
EMAMI	-0.3%	-20.2%
MEDY-TOX	-0.3%	-27.6%
CHINA EVERBRIGHT WATER	-0.3%	-21.4%
TORRENT PHARMACEUTICALS	-0.3%	-20.4%
FIBRA SHOP PORTAFOLIOS INMBS.REIT	-0.3%	-23.0%
SINOSOFT TECHNOLOGY GP.	-0.3%	-34.5%

Equity Sector Attribution

			Attribution Effects	•	F	Returns	Ending S	Sector Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.2%		-0.2%	_	-	7.8%	0.0%	1.7%
Materials	-1.2%	-1.4%	0.1%	0.1%	-11.3%	-0.9%	11.1%	11.5%
Industrials	-0.7%	-0.5%	0.0%	-0.2%	-9.4%	-6.5%	16.9%	14.9%
Consumer Discretionary	0.0%	-0.4%	0.1%	0.3%	-10.3%	-8.7%	14.0%	17.5%
Consumer Staples	-0.2%	-0.2%	0.0%	-0.1%	-6.7%	-5.9%	12.0%	7.2%
Health Care	0.1%	0.5%	-0.7%	0.3%	-7.1%	-13.5%	23.7%	8.9%
Financials	0.1%	-0.4%	-0.2%	0.6%	-7.0%	-5.2%	2.6%	8.3%
Information Technology	0.4%	-1.6%	0.2%	1.8%	-13.6%	-7.5%	3.0%	16.1%
Telecommunication Services	0.0%		0.0%	-		-5.8%	0.0%	1.0%
Utilities	-0.7%	-0.5%	0.1%	-0.4%	-15.7%	-0.6%	4.9%	3.7%
Real Estate	-0.3%	-0.1%	0.0%	-0.1%	-10.1%	-7.5%	9.1%	9.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.1%		1.4%	0.0%
Unclassified	0.0%		-	-			1.4%	0.0%
Portfolio	-2.6%	= -4.5%	+ -0.6%	+ 2.5%	-9.3%	-6.7%	100.0%	100.0%

^{*}Returns are net of fees.



Mondrian EM Small Cap

Sector Allocation

	Fund	MSCI EM SC
Consumer Discretionary	13.8	17.6
Consumer Staples	13.2	7.2
Energy	1	1.7
Financials	2.5	8.3
Health Care	24.7	8.9
Industrials	16.6	14.9
Information Technology	3.0	16.1
Materials	10.9	11.5
Real Estate	8.9	9.1
Telecommunication Services	-	1.0
Utilities	4.9	3.7
CASH	1.4	-
TOTAL	100.0	100.0

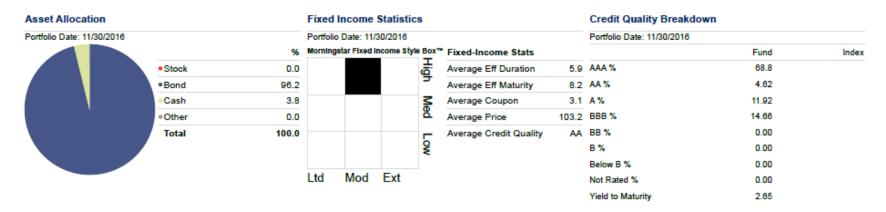
Country Allocation

	Fund	MSCI EM SC
LATIN AMERICA	10.2	8.6
Brazil	3.1	4.2
Mexico	5.1	3.0
Peru	1.9	0.0
EUROPE, MIDDLE EAST & AFRICA	6.3	11.8
Poland	1.6	1.1
Saudi Arabia	1.4	0.0
South Africa	3.3	5.8
PACIFIC-ASIA	82.1	79.6
China	17.7	22.8
India	24.4	11.7
Indonesia	9.7	2.6
Korea	5.8	16.9
Malaysia	6.7	3.2
Philippines	4.5	1.1
Taiwan	8.1	17.3
Thailand	5.2	4.0
CASH	1.4	_
TOTAL	100.0	100.0

Source: Mondrian



Vanguard Total Bond Market I



Historical Sector Allocations (10 Years)

100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 -Government % -Municipal % -Corporate % -Cash & Equivalents % Derivative % -Securitized %

Top Holdings

	Detail Holding Type	Portfolio Weighting %
Ginnie Mae Jumbos TBA 3.5% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	0.65
Fed Natl Mort Assc 3%	BOND - GOV'T AGENCY PASS-THRU	0.61
US Treasury Note 2.125%	BOND - GOVT/TREASURY	0.54
US Treasury Note 1%	BOND - GOVT/TREASURY	0.48
Ginnie Mae Jumbos TBA 3% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	0.47
US Treasury Note 3.625%	BOND - GOVT/TREASURY	0.45
US Treasury Note 2.625%	BOND - GOVT/TREASURY	0.45
Freddie Mac Gold Single Family TBA 3% 2046-12-0	1 BOND - GOV'T AGENCY PASS-THRU	0.43
US Treasury Note 2.25%	BOND - GOV'T/TREASURY	0.42
US Treasury Note 1%	BOND - GOVT/TREASURY	0.41

Source: Morningstar



Vanguard Total Bond Market I

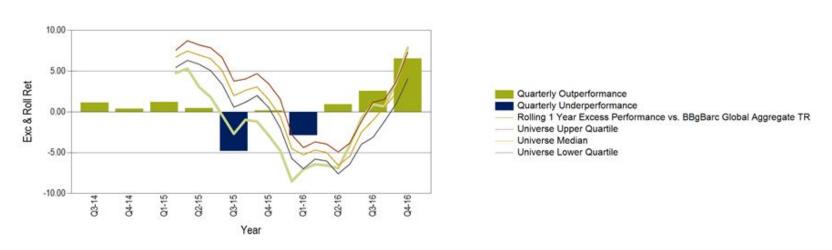
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index 2.8 Vanguard Total Bond Market Index I R2 99.9 100.0 2.4 BBgBarc US Agg Bond TR USD Alpha -0.1 0.0 2.0 Beta 1.0 1.0 1.6 Std Dev 3.3 3.2 1.2 Up Capture Ratio 100.2 100.0 0.8 Down Capture Ratio 105.3 100.0 0.4 Sharpe Ratio (geo) 0.6 0.7 € 0.0 Information Ratio (geo) -0.5 1.0 2.0 3.0 4.0 0.2 0.0 Tracking Error Std Dev Correlation 1.0 1.0 Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 20.0 12.0 10.0 15.0 8.0 10.0 6.0 5.0 0.0 2.0 ٥.0 <u>گ</u> 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 S 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Vanguard Total Bond Market Index I -BBgBarc US Agg Bond TR USD -Vanguard Total Bond Market Index I -BBgBarc US Agg Bond TR USD Calendar Year Returns 2007 2008 2009 2010 2011 Rank 2012 Rank 2013 2014 Rank 2015 Rank 2016 Rank Vanguard Total Bond Market Index I 7.0 5.2 6.1 6.6 7.7 4.2 -2.15.9 0.4 2.6 62 BBgBarc US Agg Bond TR USD 7.8 7.0 5.2 5.9 6.5 4.2 -2.0 6.0 0.5 2.6

Source: Morningstar



Loomis Sayles Fixed Income

Annualized Excess Performance

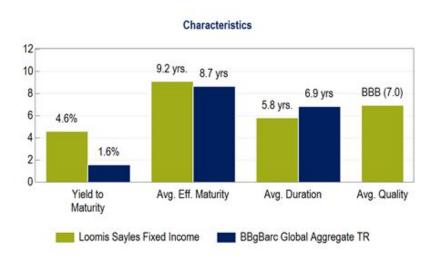


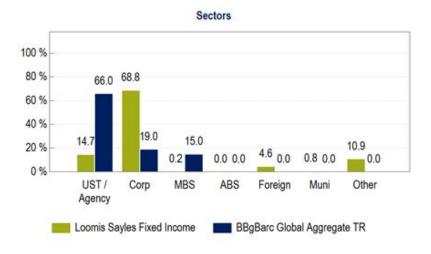


*Returns are net of fees.



Loomis Sayles Fixed Income

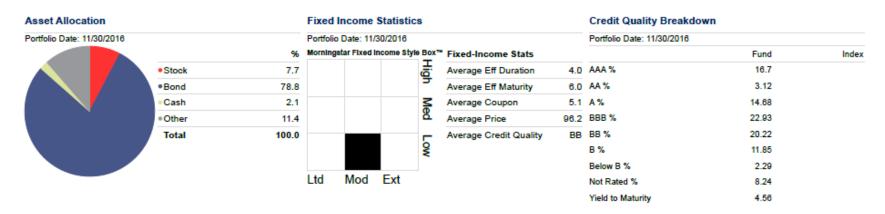








Loomis Sayles Fixed Income



Historical Sector Allocations (10 Years)

100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 -Government % -Municipal % -Corporate % -Securitized % -Cash & Equivalents % -Derivative %

Top Holdings

	Detail Holding Type	Portfolio Weighting %
Intel Corp	EQUITY	4.09
US Treasury Note 0.75%	BOND - GOV'T/TREASURY	3.29
US Treasury Note 0.75%	BOND - GOV'T/TREASURY	2.22
Old Rep Intl Cv 3.75%	BOND - CONVERTIBLE	1.96
US Treasury Note 0.875%	BOND - GOV'T/TREASURY	1.65
New Zealand(Govt) 5%	BOND - GOV'T/TREASURY	1.42
Ontario Prov Cda 4.2%	BOND - GOV'T/TREASURY	1.38
Inter-Amer Dev Bk 6%	BOND - UNDEFINED	1.30
Amer Airls Grp 144A 5.5%	BOND - CORPORATE BOND	1.22
Morgan Stanley 4.1%	BOND - CORPORATE BOND	1.20

Source: Morningstar



Loomis Sayles Fixed Income

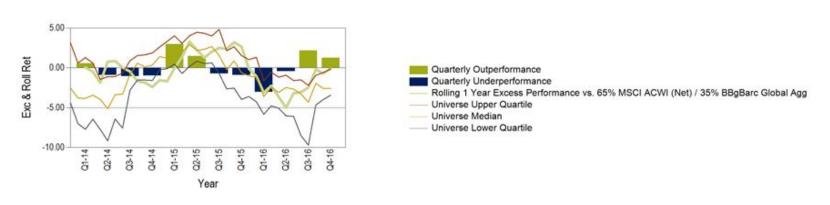
Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index 9.0 Loomis Sayles Fixed Income R2 31.4 100.0 A BBgBarc Global Aggregate TR USD 7.0 Alpha 5.7 0.0 Beta 0.5 1.0 5.0 Std Dev 5.5 5.7 3.0 122.7 Up Capture Ratio 100.0 1.0 Down Capture Ratio -6.5 100.0 Sharpe Ratio (geo) 1.1 0.0 ⊆ -1.0 Information Ratio (geo) 1.1 2.0 3.0 4.0 5.0 6.0 5.2 0.0 Tracking Error 0.6 1.0 Std Dev Correlation Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Bottom Quartile 20.0 20.0 15.0 10.0 10.0 5.0 5.0 0.0 0.0 PES 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 12 03 06 09 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2015 2016 2014 -Loomis Sayles Fixed Income -BBgBarc Global Aggregate TR USD -Loomis Sayles Fixed Income -BBgBarc Global Aggregate TR USD Calendar Year Returns 2007 Rank 2008 2009 2010 2011 2012 2013 Rank 2014 Rank 2015 2016 Rank Rank Rank Rank Rank Rank Rank Loomis Sayles Fixed Income 9.2 -17.865 35.8 17 12.9 30 3.9 15.6 6.9 11 4.6 26 -6.0 9.9 22 BBgBarc Global Aggregate TR USD 9.5 4.8 6.9 5.5 5.6 4.3 -2.6 0.6 -3.2 2.1

Source: Morningstar



Wellington Opportunistic

Annualized Excess Performance



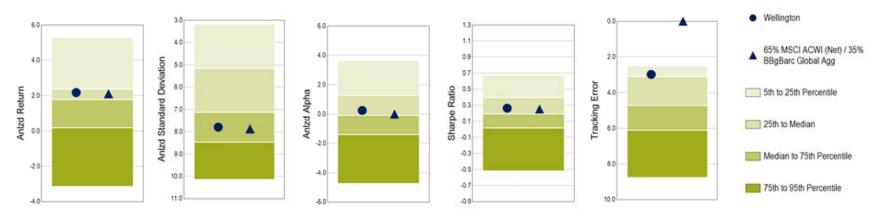


*Returns are net of fees.



Wellington Opportunistic





*Returns are net of fees.

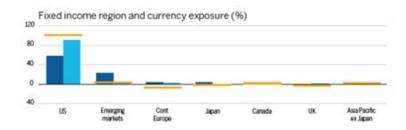


Wellington Opportunistic

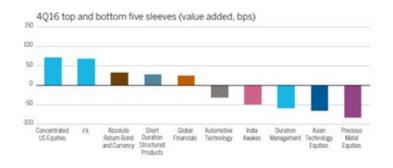
Portfolio Characteristics

	Portfolio	Benchmark
Yield to worst (%)	3.2	2.6
Option adjusted spread (bps)	138	45
Duration – effective (yrs)	5.9	5.6
Convexity - effective	0.8	0.1

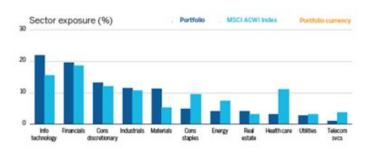
Fixed Income Sector



Top Relative Contributors and Detractors



Equity Sector



Source: Wellington

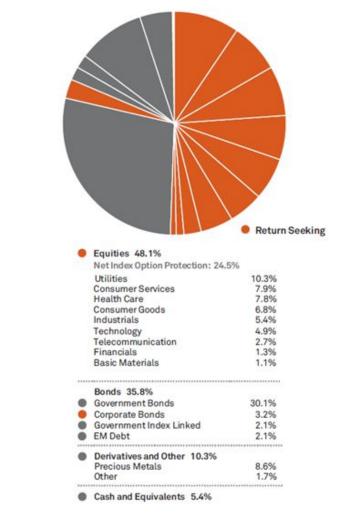


Newton Global Real Return

	Fund
Average Market Cap (\$M)	60,308.92
Price/Earnings ratio	15.35
Price/book ratio	2.35

16.49%
14.45%
11.15%
2.45%
2.09%
1.44%

TOP TEN HOLDINGS (%) AS OF 12/31/16	
USA Treasury Notes 1.75% 31/12/2020 USD100	5.0
USA Treasury Notes 3% 15/05/2045 USD100	4.7
USA Treasury Notes 1.5% 31/08/2018 USD100	3.8
USA Treasury Notes 3% 15/11/2045 USD100	3.4
USA Treasury Notes 2% 15/02/2025 USD100	3.0
Eversource EnergyCom Stk USD5	3.0
DB Commodity Services LLCPowerShares DB Gold Fund	2.8
Australia (Commonwealth) 3.75% Bds 21/04/2037 AUD1000	2.8
CMS Energy CorpCom Stk USD0.01	2.5
Novartis AGCHF0.50 (Regd)	2.4



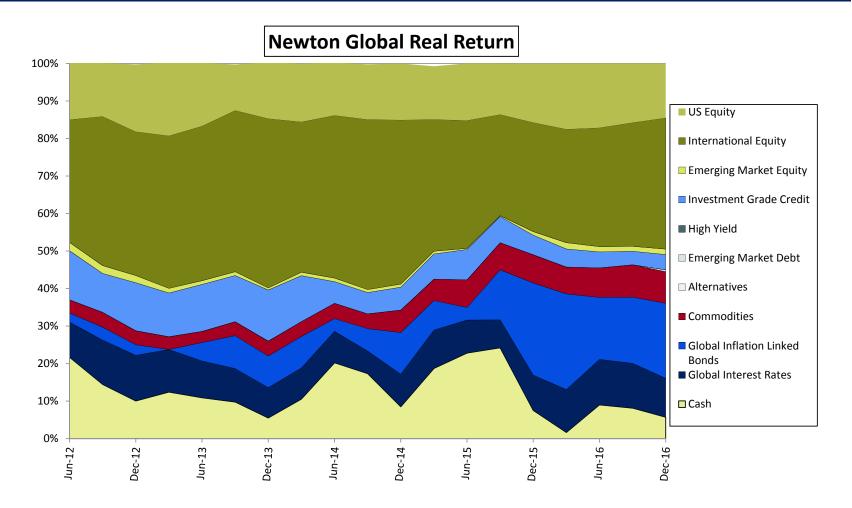
EXPOSURE BY ASSET CLASS AS OF 12/31/16

Risk Stabilizing

Source: Newton



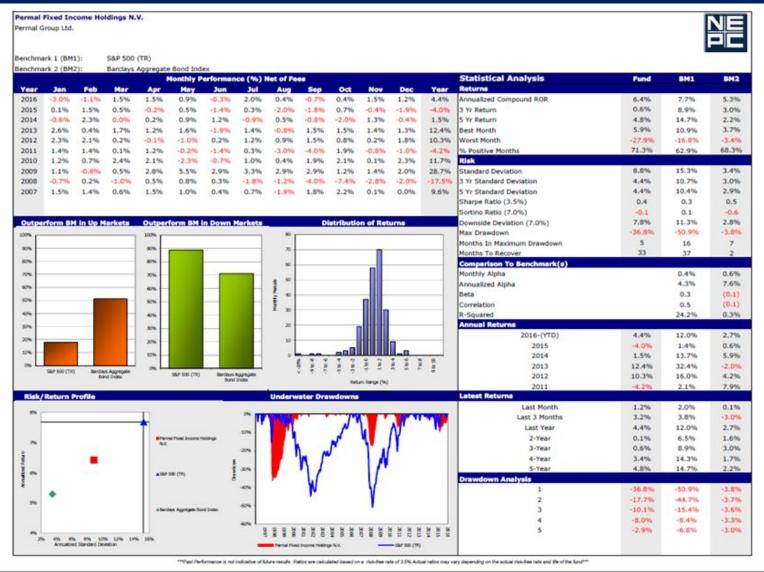
Newton Global Real Return



*As of March 2012, Newton is reporting High Yield separately from Credit



EnTrustPermal Fixed Income Holdings





EnTrustPermal Fixed Income Holdings

	General Fun	d Informatio	n
Fund Name	EnTrustPermal Fixed Inc	ome Holdings	
Management Company	EnTrustPermal		
Location	New York, NY		
Firm AUM	\$25.2 Billion	Strategy	Fund of Fund
Strategy AUM	\$3.8 Billion	Sub- Strategy	Multi-Strategy
Portfolio Managers	Robert Kaplan, Clark Fenton, Javier Dyer	Direct or FOF	FOF
	Te	rms	
Share Class	-		
Minimum Investment	\$1 million		
Management Fee	0.95%		
Incentive Fee	None		
Hurdle Rate	None		
High Water Mark	None		
Subscription	Monthly		
Redemption	Monthly with 20 days		
Lock-Up	None		
	Investme	nt Strategy	
that employs a bets on events,	come Holdings features a punique combination of fixed and nimble, liquid macro s hancer and a good diversif	d-income spread trategies. It is po	sitioned as both a

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



Lighthouse Global Long/Short



NEPC, LLC

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	\$8.7 billion	Strategy	Fund of Fund
Strategy AUM	\$1.8 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.



Attribution



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



Principal U.S. Property

4Q2016 key statistics

Inception date January, 1982

Gross asset value \$9.34 billion

Net asset value \$7.10 billion

Number of investments 141

Number of markets 43

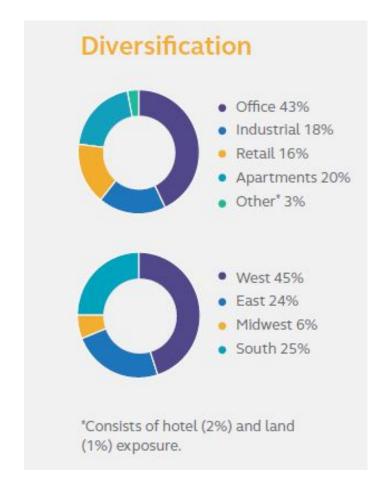
Core portfolio occupancy* 95%

Cash to gross assets 4.4%

Leverage ratio** 21.3%

*Occupancy excludes value-added assets which are acquired at less than 85% occupancy, are under development or redevelopment or are land parcels. Occupancy for the total portfolio was 90%.

**Account's share of total debt (both property and portfolio) divided by Account's share of total gross assets.



Source: Principal







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) * 2Where 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 $(X-Y) * \sqrt{(\# of periods per year)}$ Where X = periods portfolio return and <math>Y = the period's benchmark returnFor 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.

 $Upside Capture = Total Return (Fund Returns)/Total Returns (BMR eturn) \ when \ Period Benchmark \ Return \ is \ > \ = \ 0$

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 quarantee that any plan will achieve its targeted return or meet other goals.





AGENDA ITEM SUMMARY

1. NAME OF ITEM: Operating Fund Performance Review

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. BACKGROUND:

Enclosed for your information is the Operating Fund performance report for the quarter ended December 31, 2016.

Kelly Regan and Jay Roney of NEPC will provide a brief review at the March 9, 2017 Investment Committee meeting.

Total Plan Performance Detail (Net of Fees)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Operating Funds Composite	251,920,001	100.0	100.0	-0.2	1.2	3.6	1.3	1.3	2.6	2.4	2.4
Allocation Index				-0.2	1.0	3.0	1.5	1.7	2.5	2.2	
Liquidity Pool Composite	43,082,097	17.1	25.0	0.0	0.1	0.4	0.3	0.2	0.2	0.2	1.2
State Pool	23,758,469	9.4		0.0	0.2	0.5	0.4	0.3	0.3	0.3	1.2
BOA General Fund	1,902,432	0.8		0.0	0.0	0.0	0.0	0.0	0.1		
Federated Gov't Obligations	2,499,304	1.0		0.1							
JP Morgan US Gov't Money Market Fund	14,921,892	5.9		0.0							
Citi 3mth Treasury Bill				0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.7
Income Pool Composite	139,522,126	55.4	50.0	-0.3	0.6	3.4	2.0	1.8	2.9	2.9	2.9
Income Research + Management	71,195,542	28.3	25.0	-0.4	-0.3	1.5	1.1	1.0			
BBgBarc US Govt/Credit 1-3 Yr. TR				-0.4	-0.4	1.3	1.0	0.9	0.9	1.3	2.4
PIMCO Floating Income Fund	13,083,218	5.2	5.0	2.6	7.3	11.3	5.4	2.7	4.9	3.8	2.8
0.25 Dur, 1/3 JPM EMBIG, 1/3 BC Agg, 1/3 ML HY BB				1.9	5.6	9.3	3.7	2.5	4.4	2.9	
BlackRock Strategic Income Opportunities	13,577,676	5.4	5.0	1.1	2.8	3.6			-		
3-Month Libor Total Return USD				0.2	0.4	0.7	0.5	0.4	0.4	0.4	1.2
Loomis Sayles Bank Loans	14,323,255	5.7	5.0	1.5	3.8	7.5	4.2	3.1	4.3	4.6	
Loomis Bank Loans Custom Index				1.4	3.6	7.3	4.8	4.0	5.4	5.5	4.8
Vanguard Total Bond Market Instl' Fund	27,342,435	10.9	10.0	-3.2	-2.8	2.6	1.5	3.0	2.2	3.6	
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Total Return Pool Composite	69,315,777	27.5	25.0	-0.1	3.1	7.3	1.6	1.7	4.7	4.8	4.0
Lighthouse	10,218,758	4.1	3.8	0.7	3.3	0.2			-		
Credit Suisse Long Shrt Eqt USD				-0.2	1.7	-3.4	0.0	1.8	6.1	4.5	4.0
EntrustPermal Fixed Income Holdings	6,310,424	2.5	3.8	3.2	5.0	4.5	0.1	0.5	4.6		
HFRI Fund of Funds Composite Index				0.9	3.2	0.5	0.1	1.2	3.4	2.4	1.3
Newton Global Real Return	13,404,258	5.3	5.0						-		
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				-2.2	1.3	5.7	1.5	1.9	5.8	5.2	3.8
PIMCO All Asset	16,488,731	6.5	5.0	-0.3	3.5	13.3	1.7	1.4	3.9	5.1	4.8
Blended Index				-1.6	0.0	6.1	3.0	3.6	3.8	5.0	5.1
Vanguard Total World Stock Index	22,893,606	9.1	7.5	1.2	6.6	8.8	3.3	3.5			
FTSE Global All Cap Index				1.5	7.1	9.0	3.5	3.8	10.1		



Total Plan Performance Detail (Net of Fees)

Notes:

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.









Executive Summary



FUND PERFORMANCE: NET OF FEES							
	QTR	FYTD	1 YR	3 YR	5 YR	7 YR	10 YR
COMPOSITE	-0.2%	1.2%	3.6%	1.3%	2.6%	2.4%	2.4%
ALLOC. INDEX	-0.2%	1.0%	3.0%	1.7%	2.5%	2.2%	

PLAN COMMENTS

Asset Allocation

The Fund's assets as of December 31, 2016 were \$251.9 million. This represents a \$32.2 million decrease from the previous quarter.

The Liquidity Pool (17.1% v 25.0%), Income Pool (55.4% v 50.0%) and Total Return Pool (27.5% v 25.0%) are all within allowable ranges. 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 -0.2% over the quarter, 1.2% fiscal year to date, and 3.6% over the trailing year. Long term returns have outperformed the allocation index (5 & 7 year basis).

The managers with the highest absolute returns over the quarter were EntrustPermal, PIMCO Floating Income and Lighthouse.

RECENT ACTIONS/RECOMMENDATIONS

Recent Actions

The System funded Newton Global Real Return in the fourth quarter with distributions received from Windhaven, which was terminated in the third quarter.

The System terminated PIMCO Floating Income at the end of the fourth quarter. Proceeds to were distributed between IR+M, Blackrock and Loomis Sayles in January.

Recommendations

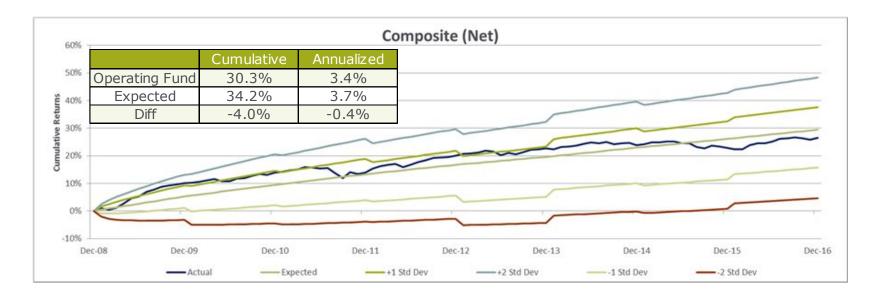
Review Asset Allocation study recommendations provided in a separate document.

Manager Due Diligence

There is are two manager updates detailed on the Due Diligence Monitor.



Operating Fund Return Expectations



- Over the last 8 years ending 12/31/16, the Operating Fund returned 3.4% annualized versus a blended expected return of 3.7% (based on NEPC's 5-7 year forecasts)
- The returns are currently slightly below the expected target but within a one standard deviation range of outcomes



Due Diligence Monitor

The items below summarize any changes or announcements from your Plan managers/funds. A "Yes" indicates there was an announcement and a brief 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. NEPC considers ourselves to be a fiduciary, as ERISA defines the term in Section 3(21).

Investment Manager	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
PIMCO	Yes	No Action
EntrustPermal	Yes	Watch (Firm) / Maintain Hold

A legend key to our recommendations is provided below.

	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.



Due Diligence Commentary

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

Manager Changes/Announcements Investment Option Commentary PIMCO PIMCO recently updated the prospectus for their All Asset suite of products and made two adjustments. First, CIO Chris Brightman has been added as co-PM alongside Rob Arnott. This does not represent a change in All Asset responsibility or roles, but is a reflection of the work Mr. Brightman brings to the products. Mr. Brightman is the CIO of Research Affiliates and broadly oversees the asset allocation models that serve as the foundation for the All Asset suite of products. Second, the maximum weight for international equity in the All Asset All Authority Fund has increased from 33% to 50%. NEPC Research is comfortable with both of these changes and recommends No Action as a result. **EntrustPermal** See Memo on following page. EntrustPermal Fixed Income Holdings N.V. NEPC upgraded EntrustPermal firm rating from Hold to Watch and maintains the Hold rating for the strategy.





To: NEPC Clients

From: NEPC Research

Date: January 26, 2017

Subject: EnTrustPermal Due Diligence Status Change: Upgrade from HOLD to WATCH

Product Rating: EnTrustPermal Fixed Income Holdings N.V. ("EPFIH") and EnTrustPermal Fixed Income Holdings (ERISA) Ltd. ("EPFIHE"): Maintain Current Rating (Neutral) and Current Due Diligence Status: HOLD

Roughly one year since the announcement that EnTrust and Permal would merge and form a combined entity (EnTrustPermal) and subsidiary of Legg Mason, we are comfortable that the integration process is proceeding in line with expectations. At the firm level, there has been some reduction in overall assets under management but within expectations given a significant corporate event. We expect further integration efforts to occur over time to continue to gain efficiencies in the investment process and make efforts to extract additional fee savings from underlying managers. We will continue to monitor the ongoing integration but at this time we believe it is appropriate to upgrade the firm Due Diligence rating of EnTrustPermal from HOLD to WATCH. This means that we have gained comfort with how they have addressed a significant event (merger of two firms) but believe continued monitoring is appropriate.

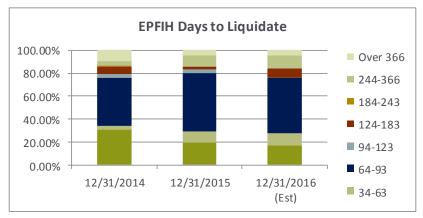
We are maintaining the current Due Diligence Status of HOLD on the legacy Permal Fixed Income Holdings strategies (EPFIH and EPFIHE) as we feel a higher level of monitoring and awareness is appropriate given relatively large redemptions in these strategies over the last year. Increasing investor outflows from the legacy Permal flagship fund (EPFIH), driven largely by non-NEPC investors (primarily Private Clients and Family Offices), have led to a drop in AUM of approximately 40% since the beginning of 2016. This asset decline could potentially present some liquidity concerns for NEPC investors in the Fund should more investors redeem. The ERISA Fund (EPFIHE) experienced a smaller asset drop in 2016 (~20%) but we are aware of anticipated additional redemptions of more than 30% in that fund. EnTrustPermal has indicated they there are prepared to manage those redemptions effectively.

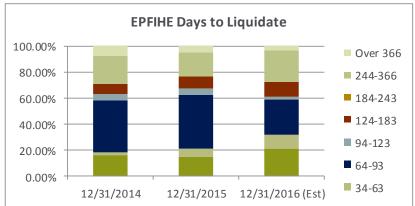
Historically, EnTrustPermal has managed portfolio liquidity of these funds effectively, including during this recent period of redemptions. The portfolio management team has prudently balanced portfolio flows and underlying manager redemptions while utilizing lines of credit to help mitigate the portfolio impact. Additionally, the team and processes remain the same.

Given the decline in assets and trend of outflows, we think it is appropriate to maintain our HOLD recommendation as we continue to monitor and evaluate the portfolio and overall asset flows. While the significant outflows are a concern, this is somewhat offset by the following factors:

- The portfolio management team has historically shown an ability to manage through periods of outflows and adjust positions to meet monthly redemptions.
- The funds performed well on a relative basis in 2016 despite the outflows.
- Effective liquidity management is evidenced by the fact that the liquidity profile of the Fund's underlying holdings has remained relatively similar to previous years. While the majority of assets are still in vehicles that require more than 30 days to liquidate, the overall profile remains consistent.







Source: NEPC, EnTrustPermal (12/20/2016). 12/31/2016 liquidity is estimated. The charts shown above are based on "a most restrictive liquidity review" by EnTrustPermal which for year end 2016 is estimated as of December 20, 2016. The "days to liquidate", has been defined by EnTrustPermal as the number of days until the next effective available redemption date of the underlying investments in EPFIH and EPFIHE

- While the use of credit lines increased meaningfully for the EPFIH during this period, EnTrustPermal has indicated that the funds' borrowing needs have dropped as outflows have slowed and they have continued to manage portfolio cash flows. In addition, they noted that they have additional borrowing capacity. This capacity should allow them to continue to manage the portfolio consistent with past practice.
- EnTrustPermal noted that they are considering merging the EPFIH and EPFIHE funds in order to improve the overall flexibility across all of the funds. We are supportive of this concept because of the potential additional benefits to clients and will keep you informed if this moves forward.
- If redemptions increase to the point that it could negatively impact remaining investors, it is possible that EnTrustPermal could impose a gate. As indicated by EnTrustPermal, the purpose of the gate would be to manage liquidity of the funds in the best interests of its continuing investors. This provides another potential layer of protection for remaining clients, but, if triggered, could lead to a slower repayment



- of redemption proceeds than what the Fund's stated terms offer for those clients redeeming.
- EnTrustPermal provided information about "advisor concentration". NEPC clients now represent the largest group under one advisor with approximately 35% and 45% of total assets in EPFIH and EPFIHE, respectively. No other advisor represents more than 10% of client assets in the EPFIH fund and there are three advisors that each represents 10-20% of the EPFIHE fund. We recognize that a change in our recommendation to Client Review or Terminate could potentially trigger a gate at the Fund level and we would therefore work to understand and communicate the implications if our assessment of the situation warrants a potential downgrade.

We recommend clients continue to assess EPFIH and EPFIHE and the role that each plays in the strategic asset allocation of your portfolio(s). At this point, we are comfortable with NEPC clients maintaining their exposure to the EPFIH and EPFIHE funds, subject to the specific circumstances of your particular investment program.

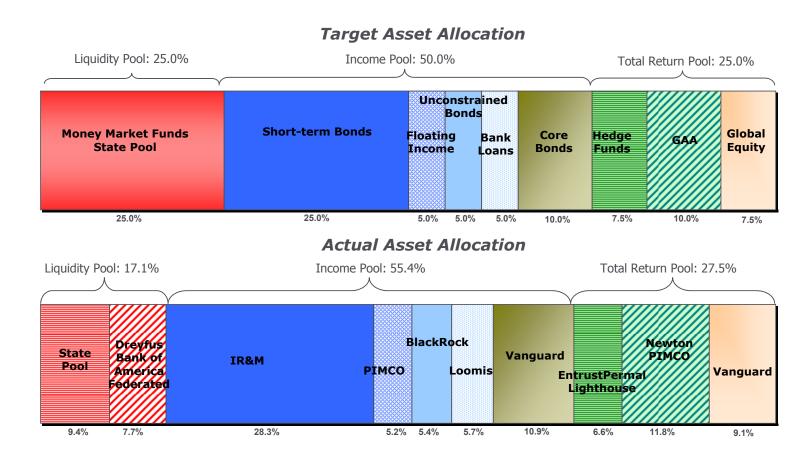
We will continue to monitor asset flows, portfolio construction and performance. If the situation changes, we will keep you informed. While we are not recommending any action at this point, we do want to remind you of the current notice periods which are outlined below.

Vehicle	Redemption Terms	Notice By	Redemption Date
EPFIH N.V.	Monthly 20 days notice	February 10, 2017	February 28, 2017
EPFIH Institutional (feeder)	Monthly 25 days notice	February 3, 2017	February 28, 2017
EPFIHE	Monthly 61 days Notice	January 27, 2017	March 31, 2017

Plan Summary and Statistics



Total Fund Asset Allocation



^{*}May not add up to 100% due to rounding



Total Plan Performance Detail (Net of Fees)

`	<u> </u>										
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Operating Funds Composite	251,920,001	100.0	100.0	-0.2	1.2	3.6	1.3	1.3	2.6	2.4	2.4
Allocation Index				-0.2	1.0	3.0	1.5	1.7	2.5	2.2	
Liquidity Pool Composite	43,082,097	17.1	25.0	0.0	0.1	0.4	0.3	0.2	0.2	0.2	1.2
State Pool	23,758,469	9.4		0.0	0.2	0.5	0.4	0.3	0.3	0.3	1.2
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Federated Gov't Obligations	2,499,304	1.0		0.1							
JP Morgan US Gov't Money Market Fund	14,921,892	5.9		0.0							
Citi 3mth Treasury Bill				0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.7
Income Pool Composite	139,522,126	55.4	50.0	-0.3	0.6	3.4	2.0	1.8	2.9	2.9	2.9
Income Research + Management	71,195,542	28.3	25.0	-0.4	-0.3	1.5	1.1	1.0			
BBgBarc US Govt/Credit 1-3 Yr. TR				-0.4	-0.4	1.3	1.0	0.9	0.9	1.3	2.4
PIMCO Floating Income Fund	13,083,218	5.2	5.0	2.6	7.3	11.3	5.4	2.7	4.9	3.8	2.8
0.25 Dur, 1/3 JPM EMBIG, 1/3 BC Agg, 1/3 ML HY BB				1.9	5.6	9.3	3.7	2.5	4.4	2.9	
BlackRock Strategic Income Opportunities	13,577,676	5.4	5.0	1.1	2.8	3.6					
3-Month Libor Total Return USD				0.2	0.4	0.7	0.5	0.4	0.4	0.4	1.2
Loomis Sayles Bank Loans	14,323,255	5.7	5.0	1.5	3.8	7.5	4.2	3.1	4.3	4.6	
Loomis Bank Loans Custom Index				1.4	3.6	7.3	4.8	4.0	5.4	5.5	4.8
Vanguard Total Bond Market Instl' Fund	27,342,435	10.9	10.0	-3.2	-2.8	2.6	1.5	3.0	2.2	3.6	
BBgBarc US Aggregate TR				-3.0	-2.5	2.6	1.6	3.0	2.2	3.6	4.3
Total Return Pool Composite	69,315,777	27.5	25.0	-0.1	3.1	7.3	1.6	1.7	4.7	4.8	4.0
Lighthouse	10,218,758	4.1	3.8	0.7	3.3	0.2					
Credit Suisse Long Shrt Eqt USD				-0.2	1.7	-3.4	0.0	1.8	6.1	4.5	4.0
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PIMCO All Asset	16,488,731	6.5	5.0	-0.3	3.5	13.3	1.7	1.4	3.9	5.1	4.8
Blended Index				-1.6	0.0	6.1	3.0	3.6	3.8	5.0	5.1
Vanguard Total World Stock Index	22,893,606	9.1	7.5	1.2	6.6	8.8	3.3	3.5			
FTSE Global All Cap Index				1.5	7.1	9.0	3.5	3.8	10.1		



Total Plan Performance Detail (Net of Fees)

Notes:

Returns are net of manager fees.

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

Fiscal YTD begins 7/1

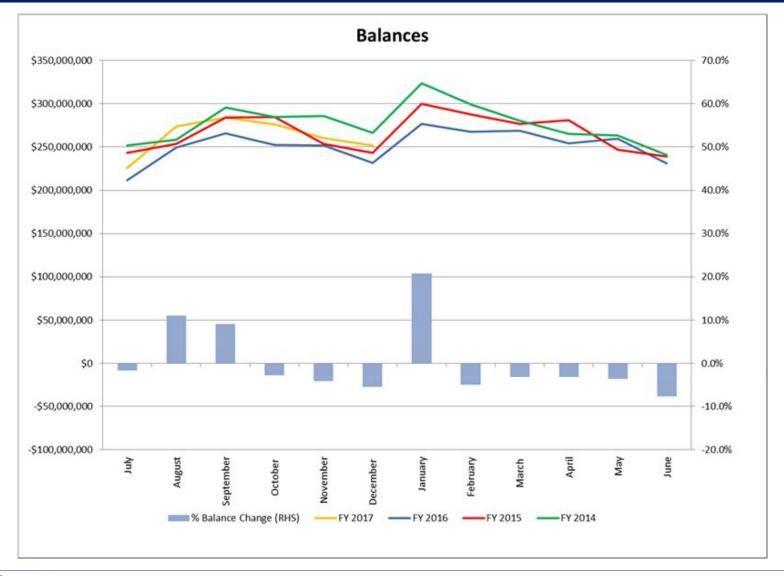
Blended Index: 40% BC Aggregate / 30% BC U.S. TIPS 1-10YR / 10% S&P 500 / 10% BC High Yield / 10% JPM EMBI+

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.

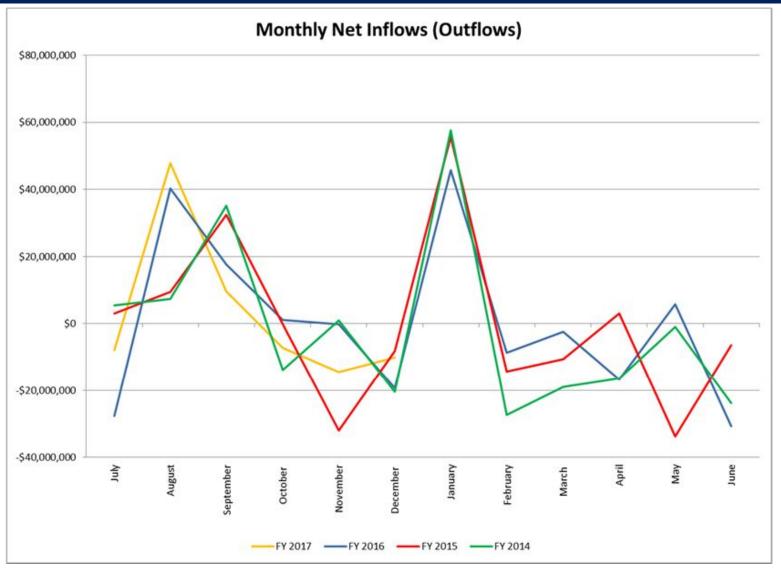


Operating Fund Balances and Monthly Changes





Monthly Net Inflows (Outflows)



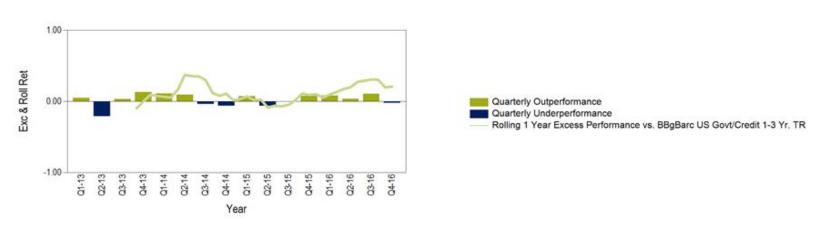






Income Research + Management

Rolling Annualized Excess Performance

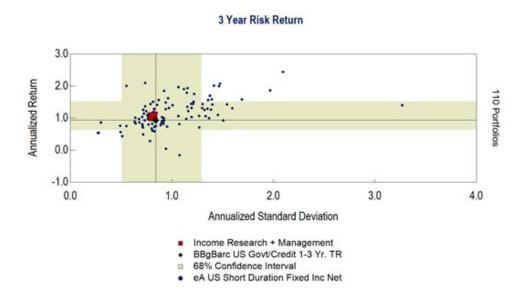


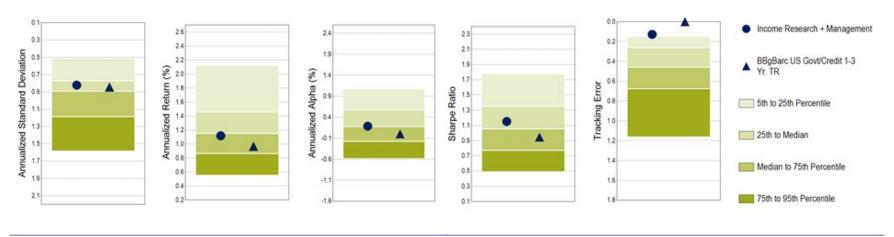
eA US Short Duration Fixed Inc Net Accounts





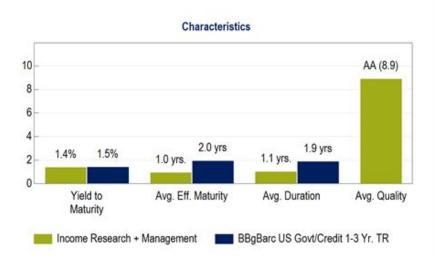
Income Research + Management







Income Research + Management

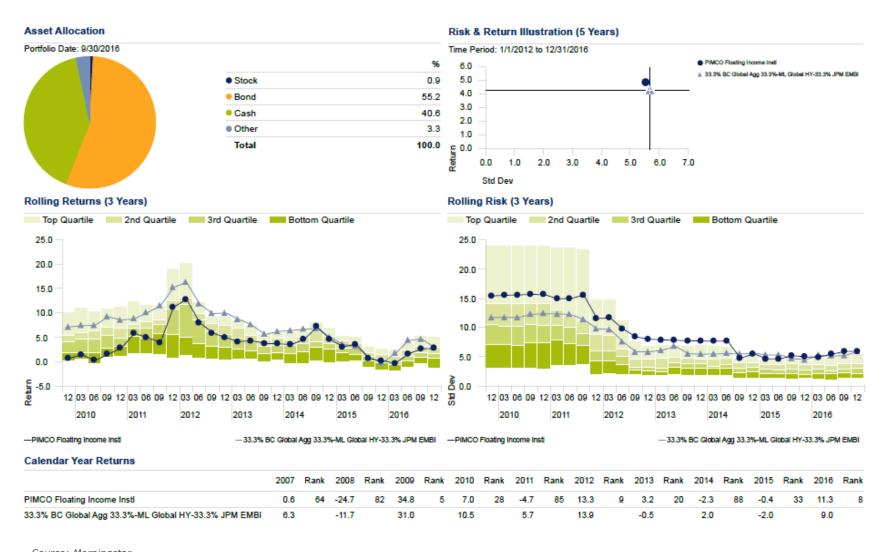








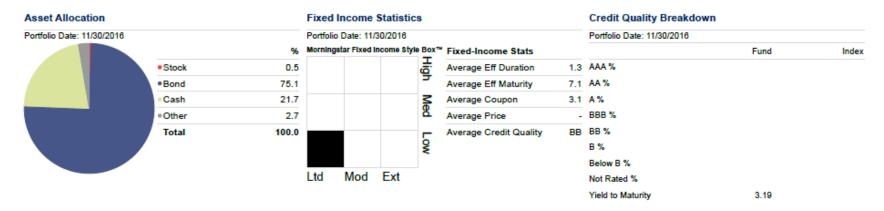
PIMCO Floating Income



Source: Morningstar



BlackRock Strategic Income Opportunities



Historical Sector Allocations (10 Years)

100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2009 2010 2011 2012 2013 2014 2015 2016 -Government % -Municipal % -Corporate % -Securitized % -Cash & Equivalents % Derivative %

Top Holdings

	Detail Holding Type V	Portfolio Veighting %
US Treasury Note 1%	BOND - GOV'T/TREASURY	12.91
US Treasury Note	BOND - GOV'T INFLATION PROTECTED	8.65
Fed Natl Mort Assc 3%	BOND - GOV'T AGENCY PASS-THRU	-8.56
Fed Natl Mort Assc 3.5%	BOND - GOV'T AGENCY PASS-THRU	7.53
US Treasury Note 1.125%	BOND - GOV'T/TREASURY	4.80
Ginnie Mae Jumbos TBA 4% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	-4.68
Freddie Mac Gold Single Family TBA 4% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	3.84
US Treasury Note 1%	BOND - GOV'T/TREASURY	-3.72
US Treasury Note 0.75%	BOND - GOV'T/TREASURY	2.43
Fed Natl Mort Assc 3.5%	BOND - GOV'T AGENCY PASS-THRU	-2.43

Source: Morningstar



BlackRock Strategic Income Opportunities

Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index BlackRock Strategic Income Opps Instl 5.0 R2 25.6 100.0 A BofAML USD LIBOR 3 Mon CM 4.0 Alpha -22 0.0 Beta 22.6 1.0 3.0 Std Dev 2.6 0.1 2.0 Up Capture Ratio 1,034.5 100.0 1.0 Down Capture Ratio Sharpe Ratio (geo) 1.5 2.9 € 0.0 Information Ratio (geo) 1.4 0.0 1.0 2.0 3.0 -1.0 Tracking Error 2.5 0.0 Std Dev Correlation 0.5 1.0 Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 2nd Quartile 3rd Quartile Bottom Quartile 25.0 25.0 20.0 20.0 15.0 15.0 10.0 10.0 5.0 0.0 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 S 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -BlackRock Strategic Income Opps Instl -BofAML USD LIBOR 3 Mon CM -BlackRock Strategic Income Opps Instl -BofAML USD LIBOR 3 Mon CM Calendar Year Returns 2007 2008 2009 Rank 2010 2011 Rank 2012 Rank 2013 Rank 2014 Rank 2015 2016 Rank BlackRock Strategic Income Opps Instl 25.2 13.4 -0.7 3.3 3.9 -0.33.6 BofAML USD LIBOR 3 Mon CM 5.6 3.8 1.0 0.3 0.3 0.5 0.3 0.2 0.2 0.7

Source: Morningstar



Loomis Sayles Bank Loans

HOLDINGS BY INDUSTRY (%)				
Healthcare	8.8			
Technology	8.7			
Consumer Cyclical Services	8.6			
Retailers	6.6			
Chemicals	5.3			
P&C	4.5			
Media Entertainment	4.3			
Building Materials	4.2			
Industrials - Other	4.1			
Pharmaceuticals	3.3			
Wirelines	3.1			
Consumer Products	3.0			
Cable Satellite	2.4			
Food & Beverage	2.1			

Leisure	2.0
Automotive	2.0
Financial Other	1.8
Aerospace/Defense	1.8
Diversified Manufacturing	1.7
Internet & Data	1.7
Metals and mining	1.6
Transportation Services	1.5
Electric	1.4
Environmental	1.3
Lodging	1.0
Health Insurance	1.0
Midstream	1.0
Restaurants	0.9

Oil Field Services	0.9
Packaging	0.9
Refining	0.8
Wireless	0.8
Gaming	0.7
Supermarkets	0.7
Other Utility	0.5
Independent	0.3
Airlines	0.3
Banking	0.3
Natural Gas	0.1
Cash & Equivalents	3.8

CREDIT QUALITY (%)

2-19	Portfolio	&P/LST Leverages oan Inde
AA	3.8	0.0
A	0.0	0.0
BBB	4.2	12.2
BB	46.4	33.6
В	43.5	44.2
CCC & Lower	1.7	7.2
Not Rated	0.5	2.7
Second Lien	0.0	3.9
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	86.8
Financial	7.6
Utility	1.9
Cash & Equivalents	3.8

COUNTRY DISTRIBUTION (%)

	Portfolio
United States	92.2
Canada	3.4
Other	4.4

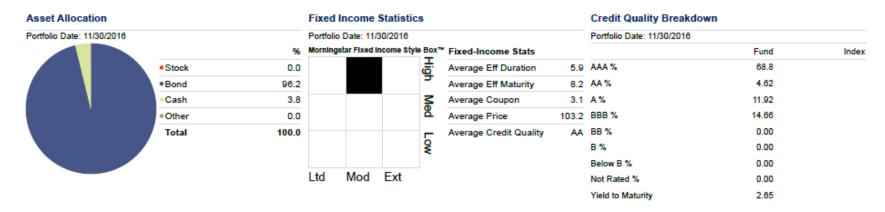
TOP FIVE HOLDINGS (%)

	Portfolio
Energy Transfer Equity, L.P.	0.8
Virgin Media Investment Holdings Limited	0.8
Hub International Limited	0.7
Level 3 Financing Inc.	0.7
Sedgwick Claims Management Services, Inc.	0.7

Source: Loomis Sayles



Vanguard Total Bond Market I



Historical Sector Allocations (10 Years) 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2007 2008 2009 2010 2011 2012 2014 2015 2016

-Corporate %

Derivative %

-Municipal %

-Cash & Equivalents %

Top Holdings

	Detail Holding Type	Portfolio Weighting %
Ginnie Mae Jumbos TBA 3.5% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	0.65
Fed Natl Mort Assc 3%	BOND - GOV'T AGENCY PASS-THRU	0.61
US Treasury Note 2.125%	BOND - GOVT/TREASURY	0.54
US Treasury Note 1%	BOND - GOVT/TREASURY	0.48
Ginnie Mae Jumbos TBA 3% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	0.47
US Treasury Note 3.625%	BOND - GOVT/TREASURY	0.45
US Treasury Note 2.625%	BOND - GOVT/TREASURY	0.45
Freddie Mac Gold Single Family TBA 3% 2046-12-01	BOND - GOV'T AGENCY PASS-THRU	0.43
US Treasury Note 2.25%	BOND - GOVT/TREASURY	0.42
US Treasury Note 1%	BOND - GOVT/TREASURY	0.41

Source: Morningstar



-Government %

-Securitized %

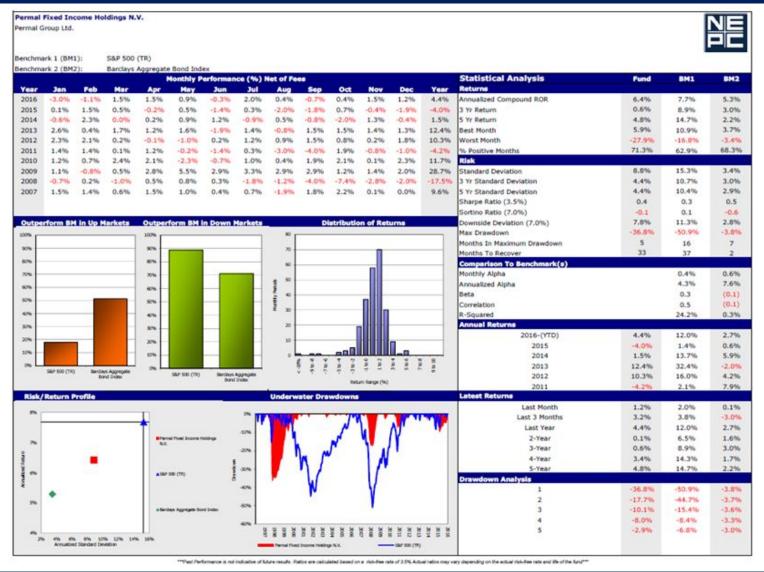
Vanguard Total Bond Market I

Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index Vanguard Total Bond Market Index I R2 99.9 100.0 2.4 BBgBarc US Agg Bond TR USD Alpha -0.10.0 2.0 Beta 1.0 1.0 1.6 Std Dev 3.3 3.2 1.2 Up Capture Ratio 100.2 100.0 0.8 Down Capture Ratio 105.3 100.0 0.4 Sharpe Ratio (geo) 0.6 0.7 € 0.0 -0.5 Information Ratio (geo) 3.0 4.0 1.0 2.0 Tracking Error 0.2 0.0 Correlation 1.0 1.0 Std Dev Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Bottom Quartile 20.0 12.0 10.0 15.0 8.0 10.0 6.0 5.0 0.0 2.0 0.0 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 2010 2011 2012 2013 2014 2015 2016 2010 2011 2012 2013 2014 2015 2016 -Vanguard Total Bond Market Index I -BBgBarc US Agg Bond TR USD -Vanguard Total Bond Market Index I -BBgBarc US Agg Bond TR USD Calendar Year Returns 2007 Rank 2008 Rank 2009 Rank 2010 Rank 2011 2012 Rank 2013 2014 Rank 2015 Rank 2016 Rank Vanguard Total Bond Market Index I 7.0 89 70 11 83 -2.130 28 62 5.2 6.1 6.6 7.7 4.2 5.9 0.4 2.6 BBgBarc US Agg Bond TR USD 7.0 5.2 5.9 6.5 7.8 4.2 -2.0 6.0 0.5 2.6

Source: Morningstar



EnTrustPermal Fixed Income Holdings





EnTrustPermal Fixed Income Holdings

General Fund Information				Strategy Information						
Fund Name	EnTrustPermal Fixed Inc	ome Holdings		Current Allocation						
Management Company	EnTrustPermal			Event Driven	42.55%					
Location	New York, NY			Fixed Income – Hedge	21.37%					
Firm AUM	\$25.12Billion	Strategy	Fund of Fund	Fixed Income - Developed Markets	35.28%					
Strategy AUM	\$3.8 Billion	Sub- Strategy	Multi-Strategy	Global Macro	8.47%					
Portfolio Managers	Robert Kaplan, Clark Fenton, Javier Dyer	Direct or FOF	FOF	Fixed Income - Emerging Markets	0.89%					
	Te	erms		A	ttribution					
Share Class										
Minimum Investment	\$1 million			Масто	0.06% 0.1 <mark>5</mark> %					
Management Fee	0.95%									
Incentive Fee	None]	0.62%					
Hurdle Rate	None			Fixed Income Hedge	0.10%					
High Water Mark	None									
Subscription	Monthly			Fixed Income Emerging Markets	0.17%					
Redemption	Monthly with 20 days			niced income emerging Markets	0.06%					
Lock-Up	None									
Investment Strategy				Fixed Income Developed Markets	1.05% 					
Permal Fixed Income Holdings features a performance-oriented investment philosophy that employs a unique combination of fixed-income spread strategies, opportunistic bets on events, and nimble, liquid macro strategies. It is positioned as both a performance enhancer and a good diversifier to a core hedge fund allocation			strategies, opportunistic sitioned as both a	Event Driven	1.26% 1.02%					
				■Year to	Date Month to Date					

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



Lighthouse Global Long/Short





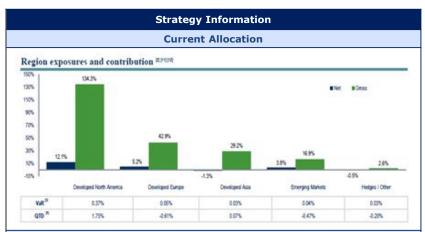
Lighthouse Global Long/Short

General Fund Information								
Fund Name	Lighthouse Global Long/Short Fund							
Management Company	Lighthouse Investment Partners, LLC							
Location	Palm Beach, FL							
Firm AUM	\$8.7 billion Strategy Fund of Fund							
Strategy AUM	\$1.8 billion Sub- Strategy Long/Short Equity							
Portfolio Managers	Ethan Baron	FOF						
Terms								
Share Class								
Minimum Investment	\$1 million							
Management Fee	1.15%	1.15%						
Incentive Fee								
Hurdle Rate	None							
High Water Mark	Yes	Yes						
Subscription	Monthly							
Redemption	Quarterly (60 days notice	e) or Monthly (90	days notice)					
Lock-Up	None							

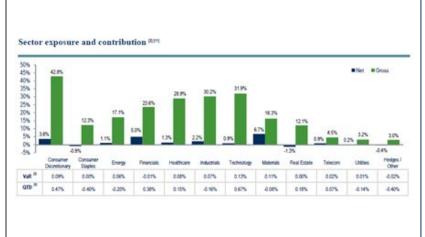


Lighthouse's Global Long/Short Fund is a global portfolio of 20-30 separately managed accounts with industry sector and country specialist managers. The geographical allocations are similar to the MSCI World Index (30%-75% Americas, 10%-35% Europe, 5%-35% Asia).

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.



Attribution



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



Newton Global Real Return

	Fund
Average Market Cap (\$M)	60,308.92
Price/Earnings ratio	15.35
Price/book ratio	2.35

REGIONAL EQUITY ALLOCATION	AS OF 12/31/16
North America	16.49%
Europe ex UK	14.45%
UK	11.15%
Japan	2.45%
Pacific ex Japan	2.09%
Others	1.44%

TOP TEN HOLDINGS (%) AS OF 12/31/16	
USA Treasury Notes 1.75% 31/12/2020 USD100	5.0
USA Treasury Notes 3% 15/05/2045 USD100	4.7
USA Treasury Notes 1.5% 31/08/2018 USD100	3.8
USA Treasury Notes 3% 15/11/2045 USD100	3.4
USA Treasury Notes 2% 15/02/2025 USD100	3.0
Eversource EnergyCom Stk USD5	3.0
DB Commodity Services LLCPowerShares DB Gold Fund	2.8
Australia (Commonwealth) 3.75% Bds 21/04/2037 AUD1000	2.8
CMS Energy CorpCom Stk USD0.01	2.5
Novartis AGCHF0.50 (Regd)	2.4



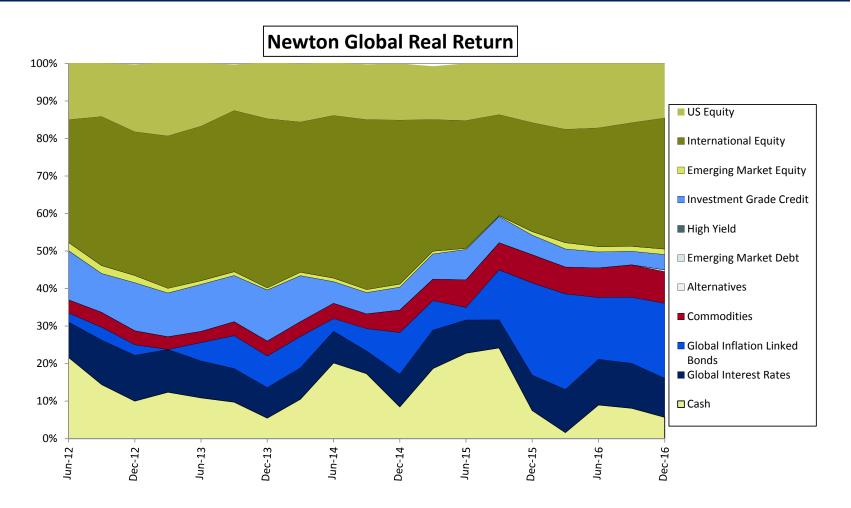
Risk Stabilizing Return Seeking Equities 48.1% Net Index Option Protection: 24.5% Utilities 10.3% Consumer Services 7.9% Health Care 7.8% Consumer Goods 6.8% Industrials 5.4% Technology 4.9% 2.7% Telecommunication 1.3% Financials 1.1% Basic Materials Bonds 35.8% Government Bonds 30.1% Corporate Bonds 3.2% Government Index Linked 2.1% EM Debt 2.1% Derivatives and Other 10.3% Precious Metals 8.6% Other 1.7% Cash and Equivalents 5.4%

EXPOSURE BY ASSET CLASS AS OF 12/31/16

Source: Newton



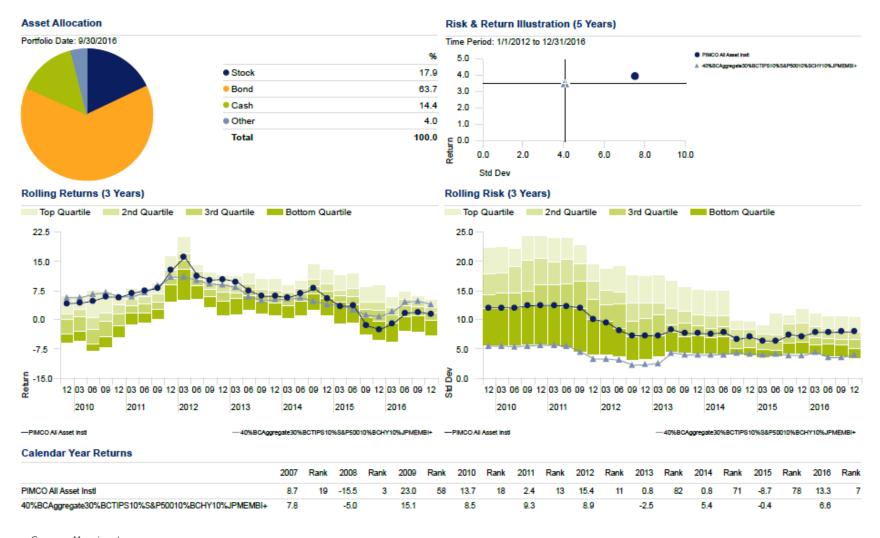
Newton Global Real Return



*As of March 2012, Newton is reporting High Yield separately from Credit



PIMCO All Asset



Source: Morningstar



PIMCO All Asset

Fund Number	736															
Fund Name	All Asset															
	Fund															
Total Fund Net Assets (\$US MM)	18,397.7															
	6/30/2013	9/30/2013	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015	3/31/2016	6/30/2016	9/30/2016	11/30/2016	12/31/201
Third Pillar	80.91%	80.25%	82.04%	82.03%	78.71%	71.02%	74.17%	85.29%	85.75%	85.46%	81.91%	85.26%	81.04%	78.31%	75.46%	74.27%
Emerging Markets Equities	8.45%	10.18%	11.86%	11.49%	12.81%	13.05%	11.83%	13.66%	13.67%	13.09%	14.11%	20.24%	22.17%	20.70%	19.31%	18.77%
RAE Fundamental Emerging Markets Fund		-	-	-	-	-	-	-	-	-	-	2.98%	4.22%	4.71%		
RAE Fundamental PLUS EMG Fund	8.25%	9.98%	11.63%	7.33%	5.99%	4.69%	4.12%	4.75%	4.73%	4.41%	4.65%	5.96%	6.11%	5.07%		
RAE Low Volatility PLUS EMG Fund		-	0.02%	3.97%	6.80%	8.34%	7.70%	8.92%	8.94%	8.68%	9.46%	11.29%	11.83%	10.91%		
EqS Emerging Markets Fund	0.19%	0.20%	0.21%	0.19%	0.02%	0.02%	0.02%	-	-	-	-	-	-	-		
Commodities and REITs	2.01%	4.46%	7.58%	8.25%	8.76%	8.19%	9.89%	9.08%	6.36%	6.10%	5.52%	7.21%	5.53%	5.49%	5.49%	5.25%
CommoditiesPLUS™ Strategy Fund	1.77%	2.07%	2.79%	2.89%	3.03%	3.58%	3.06%	2.88%	2.19%	1.93%	1.68%	4.14%	3.12%	3.33%		
CommodityRealReturn Strategy Fund®	0.06%	0.79%	1.35%	1.46%	1.66%	3.00%	3.97%	3.90%	2.18%	1.88%	1.62%	1.52%	0.89%	0.77%		
RealEstateRealReturn Strategy Fund	0.18%	1.60%	3.45%	3.91%	4.06%	1.60%	2.86%	2.31%	1.99%	2.29%	2.23%	1.54%	1.53%	1.39%		
Emerging Markets Bonds	17.81%	19.06%	19.81%	19.88%	19.86%	20.32%	18.83%	20.82%	22.45%	22.15%	20.83%	22.27%	17.67%	18.30%	18.97%	19.97%
Emerging Local Bond Fund	7.13%	7.35%	7.23%	7.27%	7.42%	9.50%	9.10%	9.00%	9.79%	9.42%	8.48%	9.50%	6.94%	7.33%		
Emerging Markets Currency Fund	6.85%	7.22%	7.44%	7.22%	7.10%	8.33%	9.05%	11.50%	12.29%	12.33%	11.94%	12.77%	10.73%	10.97%		
Emerging Markets Bond Fund	3.11%	3.48%	3.75%	3.96%	3.90%	1.92%	0.47%	0.24%	0.29%	0.32%	0.32%	-	-	-		
Emerging Markets Corporate Bond Fund	0.73%	1.00%	1.40%	1,44%	1.43%	0.57%	0.20%	0.07%	0.07%	0.08%	0.09%	-	-	-		
Credit	32.95%	29.64%	27.50%	26.91%	21.84%	11.58%	14.21%	14.96%	15.23%	16,08%	15.32%	16.65%	17.72%	18.22%	18.71%	17.46%
High Yield Fund	6.27%	5.50%	4.76%	4.61%	1,11%	0.43%	2.64%	2.85%	2.88%	3.11%	2.53%	3.72%	2.90%	2.56%		
High Yield Spectrum Fund	4.11%	4.22%	4.32%	4.48%	3.69%	2.66%	2.90%	3.07%	3.20%	3.60%	3.84%	4.25%	4.67%	4.68%		
Income Fund	10.29%	10.49%	10.66%	10.47%	10.28%	6.51%	6.21%	5.90%	6.01%	6.47%	6.34%	6.93%	7.51%	8.19%		
Diversified Income Fund	3.62%	3.56%	3.59%	3.51%	3.21%	0.01%	0.10%	0.03%	0.21%	0.24%	0.24%	0.25%	0.57%	0.15%		
Floating Income Fund	5.44%	3.34%	1.99%	1.92%	1.75%	0.28%	0.06%	0.29%	0.33%	0.37%	0.29%	0.2070	0.0170	-		
Senior Floating Rate Fund	3.08%	2.54%	2.19%	1.93%	1.79%	1.60%	2.30%	2.82%	2.61%	2.28%	2.07%	1.50%	2.06%	2.28%		
Convertible Fund	0.13%	-	-			1.00.0	2.55.5	2.02.0	2.01.0		2.01.10		2.00.0	2.20.0		
European Convertible Fund	0.1076						-							_		
Giobal Bonda	5.38%	2.41%	1.07%	0.99%	1.21%	0.34%	0.35%	0.53%	1.07%	1.24%	1.17%	0.00%	0.009/	0.0097	0.00%	0.009/
												0.00%	0.00%	0.00%	0.00%	0.00%
Foreign Bond Fund (Unhedged)	2.41%	0.65%	0.05%	0.05%	0.26%	0.29%	0.30%	0.30%	0.30%	0.31%	0.29%	-	-	-		
Global Advantage Strategy Fund	2.97%	1.76%	1.02%	0.94%	0.95%	0.04%	0.05%	0.23%	0.76%	0.93%	0.88%		-	-		
Global Bond Fund (Unhedged)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Inflation Linked Bonds	0.08%	0.76%	0.72%	0.68%	0.90%	2.67%	2.73%	7.87%	7.88%	7.68%	7.90%	5.73%	3.21%	3.48%	3.59%	3.85%
Real Return Fund	0.00%	0.32%	0.31%	0.24%	0.29%	1.24%	1.38%	1.31%	1.29%	1.19%	0.81%	0.00%	0.18%	2.77%		
Real Return Asset Fund	0.00%	0.37%	0.34%	0.37%	0.53%	1.34%	1.27%	6.49%	6.50%	6.40%	6.99%	5.61%	2.91%	0.59%		
Global Advantage® Inflation-Linked Bond ETF	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.09%	0.10%	0.12%	0.12%	0.12%		
Alternative Strategies	14.23%	13.74%	13.49%	13.81%	13.34%	14.87%	16.33%	18.36%	19.09%	19.12%	17.05%	13.15%	14.74%	12.12%	9.39%	8.98%
Unconstrained Bond Fund	6.16%	5.38%	3.84%	2.82%	2.53%	2.18%	1.79%	2.75%	2.44%	2.32%	2.08%	1.80%	1.96%	-		
Credit Absolute Return Fund	0.97%	2.01%	2.04%	2.96%	2.78%	1.10%	0.76%	0.52%	0.44%	0.39%	0.23%	0.00%	0.00%	0.00%		
Mortgage Opportunities Fund	0.09%	0.54%	0.55%	0.56%	0.55%	0.57%	0.61%	0.65%	0.66%	0.75%	0.74%	0.79%	0.78%	0.73%		
TRENDS Managed Futures Strategy Fund	-	-	-	0.15%	0.16%	0.18%	0.19%	0.20%	0.20%	0.24%	0.26%	0.30%	0.29%	0.29%		
EqS Long/Short Fund	0.40%	0.43%	0.44%	0.46%	0.47%	0.47%	0.49%	0.36%	0.25%	0.18%	-	-	-	-		
RAE Worldwide Long/Short PLUS Fund	-	-	-	-	-	-	3.08%	6.53%	7.49%	7.93%	7.96%	6.42%	7.28%	6.90%		
RAE Fundamental Advantage PLUS Fund	2.85%	1.49%	2.28%	2.44%	2.62%	4.90%	4.84%	3.93%	3.75%	3.25%	2.62%	1.69%	2.20%	2.02%		
RAE Worldwide Fundamental Adv PLUS Fund	3.75%	3.88%	4.34%	4.41%	4.24%	5.47%	4.57%	3.42%	3.86%	4.07%	3.16%	2.16%	2.23%	2.18%		

Source: PIMCO



Vanguard Total World Stock Index I

Market Capitalization Breakdown Holdings Based Style Trail (5 Years) Portfolio Statistics Time Period: 3/31/2012 to 11/30/2016 Fund Index Portfolio Date: 11/30/2016 # of Holdings 7,580 7,725 Fund Index 44.6 % Asset in Top 10 Holdings 7.8 8.0 Market Cap Giant % Market Cap Large % 31.0 Tumover Ratio % 15.0 P/E Ratio 18.0 18.2 Market Cap Mid % 18.4 P/B Ratio 2.0 Market Cap Small % 5.3 2.0 LT Earn Growth 8.9 9.1 Market Cap Micro % 0.7 -56.3 -55.8 Average Market Cap 31,087.9 Hist Earn Growth 12 Mo Yield 2.4 Equity Region Developed % 93.4 Equity Region Emerging % 6.6 Core-Grth Vanguard Total World Stock Index I #FTSE Global All Cap TR USD Historical Country Allocations (5 Years) Attribution (Quarter) Portfolio Benchmark Portfolio Benchmark Allocation Selection Active 100.0 Weights Return Return Effect Effect Return Consumer Discretionary 11.87 0.00 1.07 -0.05 0.00 -0.05 90.0 -5.93 Consumer Staples 9.12 0.00 -0.730.00 -0.7380.0 Energy 6.47 0.00 7.56 0.40 0.00 0.40 Financials 15.93 0.00 13.00 1.82 0.00 1.82 70.0 -5.59 Health Care 10.86 0.00 -0.83 0.00 -0.83 60.0 Industrials 11.29 0.00 2.28 0.09 0.00 0.09 Information Technology 14.76 0.00 -0.19-0.260.00 -0.2650.0 Materials 5.52 0.00 2.90 0.08 0.00 0.08 40.0 Real Estate 3.87 0.00 -4.94-0.270.00 -0.27 Telecommunication Services 3.09 0.00 -1.97-0.120.00 -0.12 30.0 Utilities 3.12 0.00 -2.52-0.13 0.00 -0.13 20.0 Unclassified 0.12 0.00 -0.520.00 0.00 0.00 Attribution Total 96.00 0.00 1.50 0.00 0.00 0.00 10.0 0.00 Cash 1.46 0.0 0.07 0.00 Bond 12/2012 6/2013 12/2013 6/2014 12/2014 6/2015 12/2015 6/2016 12/2016 0.00 0.09 Missing Performance 2.38 0.00 -North America % -Latin America % -United Kingdom % 100.00 0.00 -Europe dev % -Europe emrg % -Africa/Middle East % Reported Total 1.16 1.49 -Australasia % -Japan % -Asia dev % Expense Ratio 0.03 0.00 -Asia emrg % Residual(Reported - Attribution + Expense) -0.32

Source: Morningstar



University of Maine System Operating Fund

Vanguard Total World Stock Index I

Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 1/1/2012 to 12/31/2016 Time Period: 1/1/2012 to 12/31/2016 Fund Index 12.0 Vanguard Total World Stock Index I 99.8 100.0 10.0 ▲ FTSE Global All Cap TR USD Alpha -0.2 0.0 8.0 Beta 1.0 1.0 6.0 Std Dev 9.9 10.0 4.0 Up Capture Ratio 98.0 100.0 Down Capture Ratio 100.6 100.0 2.0 Sharpe Ratio (geo) 1.0 1.0 = 0.0-0.6 Information Ratio (geo) 12.0 2.0 4.0 6.0 8.0 10.0 Tracking Error 0.5 0.0 1.0 1.0 Std Dev Correlation Rolling Returns (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 30.0 37.5 20.0 30.0 10.0 22.5 0.0 15.0 7.5 <u>8</u> 0.0 S 12 03 06 09 12 03 06 09 12 2010 2013 2014 2015 2016 2012 2014 2016 -Vanguard Total World Stock Index I -FTSE Global All Cap TR USD -Vanguard Total World Stock Index I -FTSE Global All Cap TR USD Calendar Year Returns 2007 2011 2013 Rank 2008 Rank 2009 Rank 2010 Rank Rank 2012 Rank Rank 2014 Rank 2015 Rank 2016 Rank Vanguard Total World Stock Index I 33.7 13.1 -7.7 17.4 23.0 63 4.0 -1.9 8.8 18 FTSE Global All Cap TR USD 37.5 -7.6 17.2 23.9 12.3 -42.214.8 4.5 -1.79.0

Source: Morningstar



December 31, 2016





University of Maine System Operating Fund

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) * 2Where 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 $(X-Y) * \sqrt{(\# of periods per year)}$ Where X = periods portfolio return and <math>Y = the period's benchmark returnFor 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.

 $Upside Capture = Total Return (Fund Returns)/Total Returns (BMR eturn) \ when \ Period Benchmark \ Return \ is \ > \ = \ 0$

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

Data Source: InvestorForce



December 31, 2016

University of Maine System Operating Fund

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 quarantee that any plan will achieve its targeted return or meet other goals.



December 31, 2016



AGENDA ITEM SUMMARY

1. NAME OF ITEM: Asset Allocation Study and Recommendations

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: BOARD ACTION: X

4. BACKGROUND:

Kelly Regan and Jay Roney, with NEPC, will provide an overview of NEPC's 2017 capital market observations, including investment opportunities. NEPC will also review the proposed asset allocation option and make the recommendations as outlined in the proposed resolution.

5. TEXT OF PROPOSED RESOLUTION:

That the Investment Committee approves the following asset allocation recommendations for the Managed Investment Pool (MIP), Pension Fund and Operating Fund.

Managed Investment Pool (MIP):

- Allocate 5% to International Equity Small Cap (new mandate) from International Equity
- Reduce core bonds from 10% to 5% and allocate 5% to TIPS
- Allocate 5% to Bank Loans (new mandate) from Global Multi-Sector Fixed Income

Pension Fund

- Reduce core bonds from 27% to 20% and allocate 7% to TIPS (new mandate)
- Allocate 5% to Bank Loans (new mandate) from Global Multi-Sector Fixed Income

Operating Cash Fund

• Reduce core bonds from 10% to 5% and allocate 5% to TIPS (new mandate)



Introduction

- On an periodic basis, NEPC recommends revisiting Portfolio Goals & Objectives as well as Asset Allocation
- This presentation explores modifications to the current asset allocation
 - Managed Investment Pool (MIP)
 - International Equity allocation
 - Core Bonds and TIPS
 - Bank Loans
 - Pension Plan
 - Core Bonds and TIPS
 - Bank Loans
 - Operating Fund
 - Core Bonds and TIPS



NEPC 2017 Themes, Actions and Opportunities for Clients

Key Market Themes

Key Market Themes are factors that define global markets and can be expected to both evolve and remain relevant without a clear timeline of conclusion. At times, themes may be challenged. Disruption of a theme will likely produce significant volatility and change market dynamics.

- Extended U.S. Economic Cycle
- Federal Reserve Gradualism
- China Transitions
- Globalization Backlash

Strategic Policy Actions

Strategic Policy Actions are asset allocation focused resolutions designed to address systematic issues within the capital markets, the regulatory environment, and conventional wisdom associated with investing. They seek to improve efficiency and clarify the purpose of an asset allocation with a focus on meeting long-term objectives.

- Evaluate Feasibility of Objectives
- > Reassess Investment Structure
- Examine the Cost of Core Exposures
- Review InvestmentProgram Governance

Current Opportunities

Current Opportunities are investment ideas that represent an action with the goal of improving investment outcomes relative to an investor's strategic asset allocation. These investment ideas are likely to change more frequently as market dynamics and valuations shift over time.

- > Trim U.S. Equity Gains
- Overweight Non-U.S.Developed MarketEquities
- Emerging Market
 Equities Remain
 Attractive
- Allocate to TIPS from Core Bonds
- Reduce High Yield for Other Credit Strategies
- Fund Emerging LocalDebt from Risk Assets
- Add Macro Hedge Fund Strategies



NEPC 2017 Key Market Themes



Key Market Themes

Extended US Economic Cycle

Economic cycles don't die of old age

We believe the US economy is in an extended expansionary cycle despite being eight years removed from the last recession

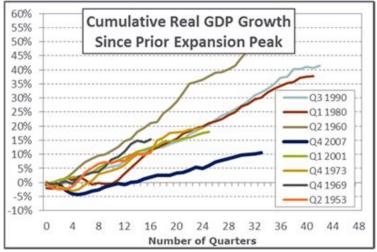
The health of US consumers continue to drive economic growth given relatively low debt levels

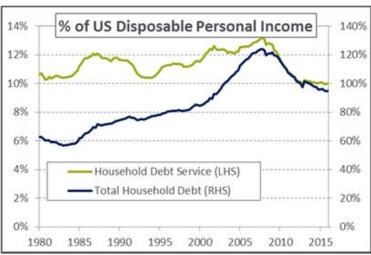
A prolonged US economic expansion can support a continued rally for US equities despite elevated valuation levels

We anticipate inflation will shift marginally higher in the coming years

Improvements in wage growth and the ongoing recovery in housing further support modest upticks in inflation

The strength of the US dollar is likely to restrain inflationary pressures and offset the potential impact of fiscal stimulus in the US





Source: (Top) Federal Reserve Bank of St. Louis Source: (Bottom) FRED



Key Market Themes

Federal Reserve Gradualism

The Federal Reserve is expected to slowly increase interest rates

Expected path of Fed policy through 2019 matters more than timing of the next hike

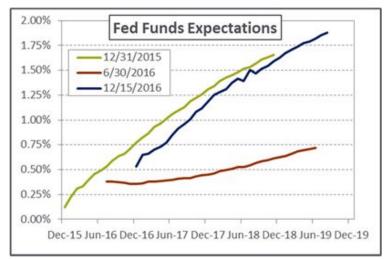
Fed has stated a willingness to let the economy "run hot" and accept some inflation to repair the deflationary effects of the past eight years

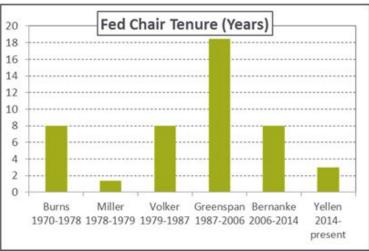
A relatively accommodative Fed is likely to continue, unless there is a dramatic acceleration in inflation

2017 is likely to be a year for greater uncertainty regarding Fed policy

Politics could intersect with Fed policy due to more vocal executive branch and conclusion of Janet Yellen's term in February 2018

The path of Fed rate hikes in 2017 and beyond is less clear due to the potential impact of fiscal stimulus





Source: (Top) Federal Reserve, Bloomberg Source: (Bottom) Federal Reserve



Key Market Themes

China Transitions

China is the global growth engine but faces fundamental transitions

Economic evolution: Intrinsic need to evolve from focus on manufacturing – long the driver of growth – to services and innovation

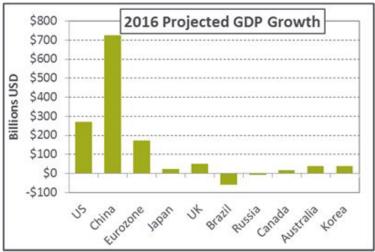
Monetary policy progression: Pressure on the People's Bank of China (PBOC) to balance the status quo and encourage free market reforms

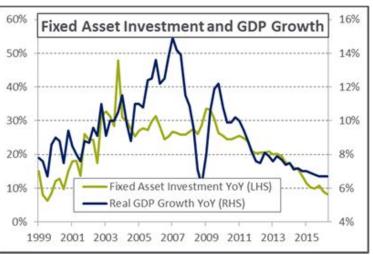
Any disruption to these transitions will have global repercussions due to China's size and role in the global economy

China must manage competing social goals in attempting to sustain growth

Production based economy requires fixed investment to support employment as the rural population moves to urban centers

Future growth in a services based economy requires advancement in productivity, technology, and a more skilled labor force





Source: (Top) IMF, Bloomberg Source: (Bottom) National Bureau of Statistics of China, Bloomberg



Key Market Themes

Globalization Backlash

Weak economic growth and uneven wage gains over the last decade have fueled political discontent in the West

The backlash against globalization does not materially alter the fundamentals of the global capital markets, but does increase economic and market uncertainty



A secular transition is underway and a shift from free trade policies in the West may reduce long-term economic growth rates

Free trade is blamed but automation is perhaps a greater source of social disruption and job losses

A strong US pivot away from global trade is a tail-risk for the global economy and would likely impact capital markets negatively in the emerging world





Source: (Top) Bureau of Economic Analysis, Eurostat, Bloomberg Source: (Bottom) IMF, Bloomberg







University of Maine System Strategic Policy Actions

Evaluate Feasibility of Objectives

Asset returns offer less support for investors to achieve target objectives

Asset growth post-2008 is without historical precedent relative to economic growth

Investment program goals are influenced by capital inflows, spending obligations, and asset returns

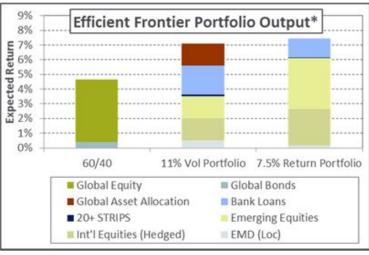
Future growth is likely to be more dependent on increasing capital inflows and reducing spending commitments

Expected returns greater than 7.5% (5% real) will be a high hurdle for diversified investors to realize

Optimization of public market asset classes will not be sufficient to meet elevated return expectations for risk aware investors

Improving the return outlook may involve increasing portfolio risk, expanding alpha opportunities, and/or expanding the use of portfolio leverage





Source: (Top) World Bank

*Liquid unconstrained portfolio uses 0% allocation to hedge funds and private market investments; Source: (Bottom) NEPC



University of Maine System Strategic Policy Actions

Review Investment Program Governance

Consider delegating some responsibilities from committees

Committee experience and oversight best served with a focus on strategic efforts such as asset allocation and investment policies

Institutionalize a strategic rebalance policy to mitigate behavioral bias such as loss aversion and recency bias

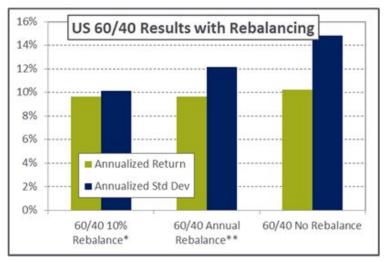
Optimize committee governance time by expanding staff/executive role to approve investment managers and rebalance assets

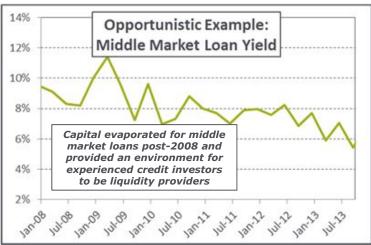
Define an Opportunistic sleeve in the investment policy

Allows for an override to the strategic asset allocation and requires affirmation of the concept prior to a market event

Opportunistic defined by unique strategies and/or dislocations in capital markets that require expertise to extract value over time

We encourage committees to review each opportunity due to the multi-year time horizon and significance of allocations





Source: (Top) Ibbotson-Morningstar, NEPC Source: (Bottom) S&P Capital IQ LCD

*Rebalances halfway to targets when part of portfolio exceeds +/- 10 percentage point range **Rebalances back to 60/40 every 12 months



Current Opportunities

Overweight Non-US Developed Market Equities

Europe and Japan carry risks but offer a meaningful return opportunity

Catalysts for outperformance are present with shareholder friendly actions in Japan and macroeconomic improvement in Europe

Central bank support and US dollar strength provide a positive economic backdrop as both the ECB and BoJ are likely to maintain accommodative monetary policies

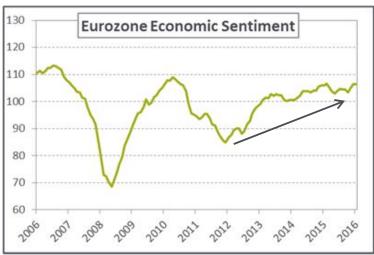
Anti-establishment political parties represent a tail-risk for the stability of the Eurozone with major elections across Europe in 2017

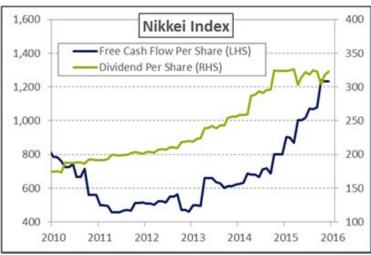
Recommend a gradual shift from the US to non-US equities as European elections are likely to generate volatility

Small-cap equity and global equity are preferred implementation approaches

These strategies offer the best opportunity to exploit valuation discrepancies among stocks across countries and sectors

Hedging a portion of non-US developed currency exposure remains a strategic goal





Source: (Top) European Commission, Bloomberg Source: (Bottom) Bloomberg



Current Opportunities

Emerging Market Equities Remain Attractive

Emerging equities offer the highest total return potential for investors

Valuation levels and long-term fundamentals suggest an overweight relative to global market cap weights (e.g. 15% to 20%)

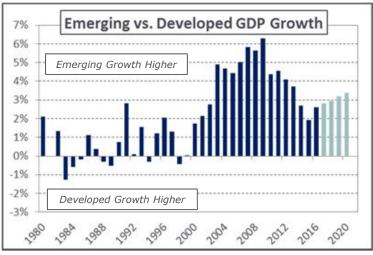
China's depreciating currency, broad US dollar strength and US-Asia trade policy concerns temper our excitement

Growth premium relative to the developed world is advancing as emerging market economic conditions improve off fiscal and currency adjustments of recent years

Overweight small-cap and consumer focused strategies relative to broad benchmark mandates

Small-cap and emerging market consumer strategies offer a structural bias away from commodity exposures and state owned enterprises





Source: (Top) MSCI, Bloomberg Source: (Bottom) IMF



Current Opportunities

Allocate to TIPS from Core Bonds

Preserve US duration exposure with a bias towards TIPS over core bonds

TIPS offer safe haven exposure with an explicit hedge for realized inflation and can be sourced with a low cost passive strategy

A meaningful allocation to TIPS diversifies core bond exposure and improves risk balance across economic environments

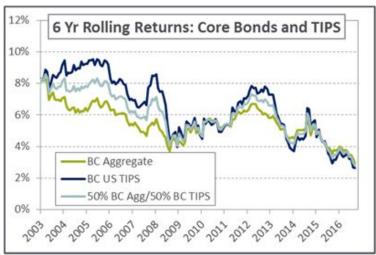
Despite concern of higher interest rates, duration exposure remains a critical asset allocation building block for a portfolio

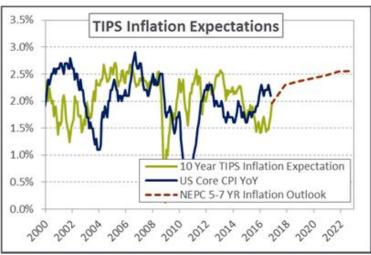
Higher inflation expectations favor TIPS over nominal bonds

Rising inflation assumptions imbedded in fixed income markets are more likely to negatively impact nominal interest rates

TIPS yields are based on real rates and prices are sensitive to Fed tightening

Core bond yields include real rates and inflation expectations; prices are negatively impacted by increases in both





Source: (Top) Barclays, Bloomberg, NEPC Source: (Bottom) Bureau of Labor Statistics, Bloomberg, NEPC



Current Opportunities

Reduce High Yield for Other Credit Strategies

Index aware high yield strategies enjoyed exceptional returns in 2016

Outsized credit spreads fell to historic median levels as the energy market and economic outlook improved in 2016

Extended US economic growth cycle supports positive returns and can push credit spreads below long-term levels

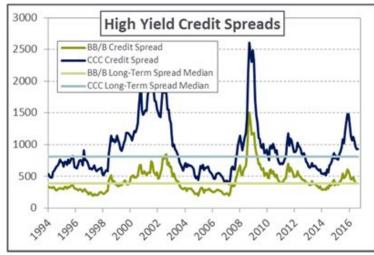
Credit markets continue to benefit from high demand in a low rate environment, but current spread levels are less compelling

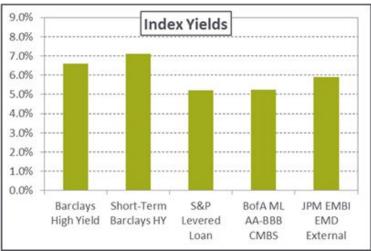
Make use of other credit strategies to capture pockets of value

Bank loans and short duration high yield offer higher expected returns than high yield due to limited duration exposure

Security selection is critical as some credit sub-sectors such as structured credit provide a better return/risk profile

Credit focused multi-sector strategies can effectively allocate across credit markets to seek pockets of opportunity





Source: (Top) Barclays, Bloomberg Source: (Bottom) Barclays, Standard & Poors, BofA/ML, JP Morgan, Bloomberg



2017 Asset Class Assumptions



2017 5-to-7 Year Return Forecasts

Geometric Expected Return				
Asset Class	2016	2017	2017-2016	
Cash	1.50%	1.75%	0.25%	
Treasuries	1.75%	2.00%	0.25%	
IG Corp Credit	3.75%	3.75%	-	
MBS	2.00%	2.25%	0.25%	
Core Bonds*	2.46%	2.65%	0.19%	
TIPS	2.50%	3.00%	0.50%	
High-Yield Bonds	5.25%	4.75%	-0.50%	
Bank Loans	5.50%	5.25%	-0.25%	
Global Bonds (Unhedged)	1.00%	1.00%	-	
Global Bonds (Hedged)	1.09%	1.09%	-	
EMD External	4.75%	4.75%	-	
EMD Local Currency	6.50%	6.75%	0.25%	
Large Cap Equities	6.00%	5.75%	-0.25%	
Small/Mid Cap Equities	6.25%	6.00%	-0.25%	
Int'l Equities (Unhedged)	7.25%	7.25%	-	
Int'l Equities (Hedged)	7.57%	7.57%	-	
Emerging Int'l Equities	9.75%	9.50%	-0.25%	
Private Equity	8.50%	8.25%	-0.25%	
Private Debt	7.50%	7.25%	-0.25%	
Real Estate	6.50%	6.00%	-0.50%	
Commodities	4.50%	4.75%	0.25%	
Hedge Funds**	5.75%	5.95%	0.20%	

^{*} Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).

** Hedge Funds is a calculated blend of 40% Equity, 40% Credit, 20% Macro-related strategies.



2017 Volatility Forecasts

Volatility			
Asset Class	2016	2017	2017-2016
Cash	1.00%	1.00%	-
Treasuries	5.50%	5.50%	-
IG Corp Credit	7.50%	7.50%	-
MBS	7.00%	7.00%	-
Core Bonds*	6.03%	6.03%	-
TIPS	6.50%	6.50%	-
High-Yield Bonds	13.00%	13.00%	-
Bank Loans	9.00%	9.00%	-
Global Bonds (Unhedged)	8.50%	8.50%	-
Global Bonds (Hedged)	5.00%	5.00%	-
EMD External	13.00%	13.00%	-
EMD Local Currency	15.00%	15.00%	-
Large Cap Equities	17.50%	17.50%	-
Small/Mid Cap Equities	21.00%	21.00%	-
Int'l Equities (Unhedged)	21.00%	21.00%	-
Int'l Equities (Hedged)	18.00%	18.00%	-
Emerging Int'l Equities	27.00%	28.00%	1.00%
Private Equity	23.00%	23.00%	-
Private Debt	15.00%	14.00%	-1.00%
Real Estate	15.00%	15.00%	-
Commodities	19.00%	19.00%	-
Hedge Funds**	9.00%	8.74%	-0.26%

^{*} Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).

** Hedge Funds is a calculated blend of 40% Equity, 40% Credit, 20% Macro-related strategies.







MIP Asset Allocation Overview

- The Portfolio's current policy allocation is well diversified but may fall short of the System's return goal
 - MIP long-term nominal return goal is 7.5% (equates to 5.0% real return)
 - The System utilizes a 4.5% spending rate
 - NEPC's U.S. inflation assumption is 2.5%
 - Short Term: NEPC forecasts a 6.3% expected return over a 5-7 year time frame
 - Long Term: NEPC forecasts a 7.4% nominal expected return based on 30 year
 - · Beta only, additional return may be assumed for active management
- NEPC is recommending small adjustments to the MIP's asset allocation based on our 2017 key market themes and actions for clients
 - Expand International Equity exposure by adding an International Small Cap Equity mandate
 - Diversity Fixed Income allocation
 - Reduce Core Bonds in lieu of TIPS
 - Explore dedicated Bank Loan mandate
- The changes noted above marginally improve the Portfolio's 5-7 year return expectation and maintain the same expected asset volatility
 - Supporting information detailed on the following pages
- The Committee may want to re-visit the feasibility of expanding the private markets program in light of the expected low return market environment

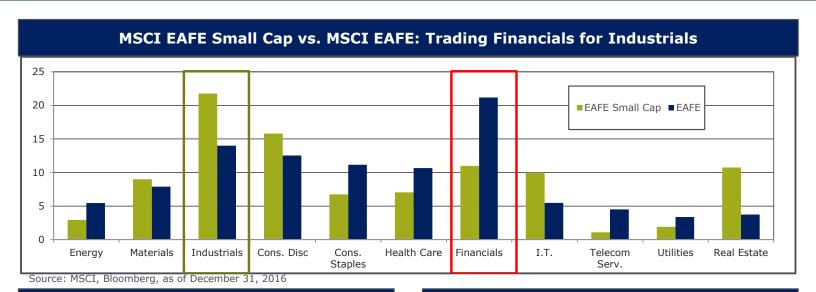


MIP Asset Allocation Recommendation

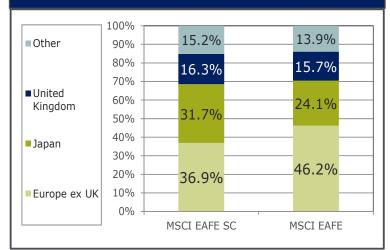
	MIP Policy Target	MIP Recommendation
Cash	0%	0%
Large Cap Equities	16%	16%
Small/Mid Cap Equities	6%	6%
Int'l Equities (Unhedged)	16%	11%
Int'l Sm Cap Equities (Unhedged)	0%	5%
Emerging Int'l Equities	4%	4%
Emerging Int'l Sm Cap Equities	4%	4%
Private Equity	2%	2%
Total Equity	47%	47%
Core Bonds	10%	5%
TIPS	3%	8%
Bank Loans	0%	5%
Global Multi-Sector Fixed Income	5%	0%
Total Fixed Income	18%	18%
Private Real Assets - Infrastructure/Land	3%	3%
Total Real Assets	3%	3%
Global Asset Allocation	20%	20%
Hedge Funds - Long/Short	6%	6%
Hedge Funds - Credit	6%	6%
Total Multi Asset	32%	32%
Expected Return 5-7 yrs	6.3%	6.4%
Expected Return 30 yrs	7.4%	7.4%
Standard Dev	12.5%	12.5%
Sharpe Ratio (5-7 years)	0.37	0.38



International Small Cap Equity



MSCI Small Cap: More Japan less Europe



Commentary

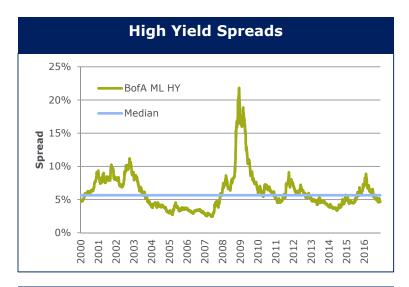
- Relative to US markets International markets are trading at a valuation discount
 - Catalysts for outperformance: shareholder friendly actions in Japan and macroeconomic improvement in Europe
 - ECB and BoJ are likely to maintain accommodative monetary policies
- Small-cap equity is one of the preferred implementation approaches
 - Small cap offers a more diversified exposure
 - Managers have shown a strong ability to add value down the cap spectrum

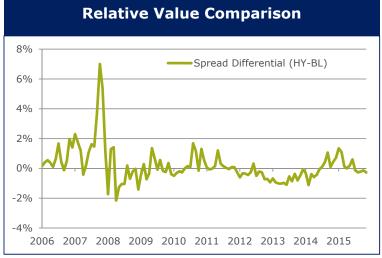


Source: MSCI, Bloomberg, as of December 31, 2016 NEPC.LLC

High Yield and Bank Loans

- High Yield Richly priced compared to last year; fundamental outlook mixed; sector and company selection key
- Bank Loans Valuations relatively attractive; seniority in the capital structure beneficial; rising rate benefit
- CCC-rated loans remaining relatively wide
 - BB- and B-rated loans below longterm median
 - CCC around 150 bps wide
- Relative value to HY yield tilting in favor of loans







Manager Universe

Loomis Sayles Fixed Income Fund

Benchmark: Barclays Gov't/Credit

Yield: 3.8%

Duration: 4.0 years

 High Yield Allocation: 28% as of 12/31/16

 Bank Loan Allocation: 0.5% as of 12/31/16

Fees: 57 bps

NEPC FPL Bank Loan Managers

 Benchmark: Credit Suisse Leveraged Loan Index

Yield: 4.5% - 5.6%

Duration: 0.1 – 0.7 years

Fees: 45 – 65 bps







Pension Fund Asset Allocation Overview

- The Fund's current policy allocation is well diversified and meets the System's long term actuarial return goal
 - Actuarial rate of return = 6.25%
 - NEPC forecasts a 6.5% nominal expected return for the current Pension Fund policy allocation based on 30 year
 - · Beta only assumptions, additional return may be assumed for active management
- NEPC is recommending small adjustments to the Pension Fund's asset allocation based on our 2017 key market themes and actions for clients
 - Diversity Fixed Income allocation
 - Reduce Core Bonds in lieu of TIPS
 - Explore dedicated Bank Loan mandate
- The changes noted above slightly increase the return profile and slightly reduce the expected asset volatility (standard deviation) with an improved Sharpe Ratio
 - Supporting information detailed on the following pages



Pension Fund Assumptions

As of July 1, 2016, Actuarial Valuation Report

Funded Status: 76.3%

Actuarial Value of Assets: \$32,763,517

Liabilities: \$42,934,311

Unfunded Amount: \$10,170,794

Closed Plan: 1998

- Not frozen as the Plan is still accruing future benefits

Service Cost of \$5 thousand/year

Mature Plan: Estimated 9 year duration

- Terminated Vested: 343 participants, Average Age 60

- Retirees: 788 participants, Average Age 77

- Active: 11 participants, Average Age 66

Discount Rate: 6.25% (Reduced from 6.75% in 2016)

Annual Benefit Payments: \$4.6 million/year or \$0.4 million/month

- 15% of Plan assets/year or >1% of Plan assets/month
- Annual benefit payments are starting to reduce from their peak and are expected to continue to decline roughly \$100k/year

Contributions: Annual contributions of roughly \$735k

- Contribution funding strategy adopted in February 2014
- Contribution schedule recently updated to increase by roughly \$200k/a year (up from \$540k)



Pension Fund Asset Allocation Recommendation

	Pension Policy Target	Pension Recommendation
Cash	3%	3%
Large Cap Equities	8%	8%
Small/Mid Cap Equities	4%	4%
Int'l Equities (Unhedged)	7%	7%
Emerging Int'l Sm Cap Equities	3%	3%
Total Equity	22%	22%
Core Bonds	27%	20%
TIPS	0%	7%
Bank Loans	0%	5%
Global Multi-Sector Fixed Income	5%	0%
Total Fixed Income	32%	32%
Global Asset Allocation	25%	25%
Real Estate (Core)	8%	8%
Hedge Funds - Long/Short	5%	5%
Hedge Funds - Credit	5%	5%
Total Multi Asset	43%	43%
Expected Return 5-7 yrs	5.4%	5.5%
Expected Return 30 yrs	6.5%	6.5%
Standard Dev	8.9%	8.8%
Sharpe Ratio (5-7 years)	0.40	0.42







Operating Cash Fund Asset Allocation Overview

- The Fund's current policy allocation is well diversified and meets the System's return goals
 - Return goal = 4.0%
 - Short Term: NEPC forecasts a 3.7% expected return over a 5-7 year time frame
 - Long Term: NEPC forecasts a 4.7% nominal expected return based on 30 year
 - · Beta only, additional return may be assumed for active management
- NEPC is recommending small adjustments to the Operating Fund's asset allocation based on our 2017 key market themes and actions for clients
 - Diversity Fixed Income allocation
 - · Reduce Core Bonds in lieu of TIPS
- The changes noted above maintain the return profile and slightly reduce the expected asset volatility (standard deviation)
 - Supporting information detailed on the following pages



Operating Cash Fund Asset Allocation Options

	Operating Fund Policy Target	Operating Fund Recommendation
Cash	25%	25%
Global Equity	8%	8%
Total Equity	8%	8%
Core Bonds	10%	5%
TIPS	0%	5%
Short Treasuries (1-3 yr)	13%	13%
Short Credit (1-3 yr)	13%	13%
Bank Loans	7%	7%
Absolute Return Fixed Income	7%	7%
Total Fixed Income	50%	50%
Global Asset Allocation	10%	10%
Hedge Funds - Long/Short	4%	4%
Hedge Funds - Credit	4%	4%
Total Multi Asset	18%	18%
Expected Return 5-7 yrs	3.7%	3.7%
Expected Return 30 yrs	4.7%	4.7%
Standard Dev	4.2%	4.1%
Sharpe Ratio (5-7 years)	0.46	0.46



University of Maine System

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 quarantee that any plan will achieve its targeted return or meet other goals.





AGENDA ITEM SUMMARY

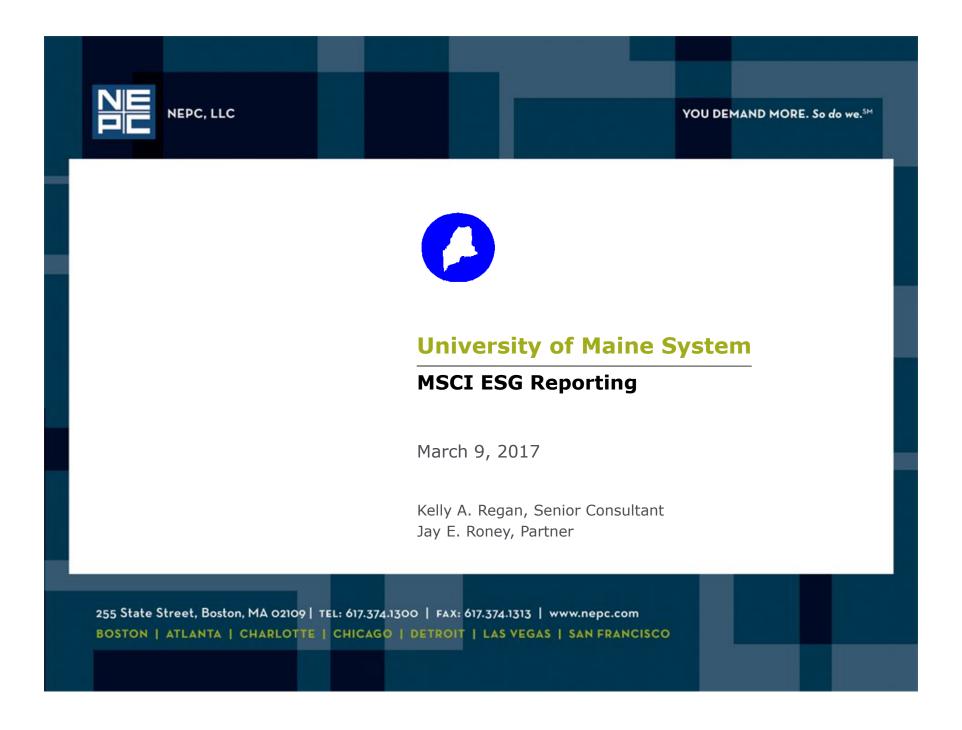
1. NAME OF ITEM: MSCI ESG Report

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. BACKGROUND:

Kelly Regan and Jay Roney of NEPC will provide a summary of MSCI's Environmental, Social, and Governance (ESG) Report at the March 9, 2017 Investment Committee meeting.







Introduction

Goals for today's meeting

- Update the Investment Committee on the MIP's Environmental, Social and Governance (ESG) progress
- Provide a summary of MSCI's ESG report

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
- Continually monitors fossil fuel exposure
- Approved an ESG policy in September 2016
- Contracted with MSCI to complete an annual report that will measure the MIP's equity and fixed income holdings with regards to ESG factors
 - Also includes information around carbon exposure

Some information about the MIP portfolio is below:

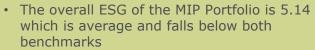
- The estimated exposure to fossil fuels in the MIP is 2.9% as of October 31, 2016
- The System is working towards a plan to improve the ESG factors in the portfolio
 - · This will not be immediate and will take time
- As part of the ESG plan, the System will be considering managers that focus on ESG when reviewing new managers for the MIP
 - Currently, there are 3 managers in the MIP that utilize ESG in their process

The following slides provide a summary of the MSCI ESG Report

- Report Definitions:
 - Client Benchmark: 70% MSCI ACWI index/30% Barclays Capital Aggregate index
 - Client ESG Benchmark: 70% MSCI ACWI ESG index/30% Barclays Capital Aggregate ESG index
 - UMS Consolidated Investment Pool: Manager holdings from all equity, fixed income, GAA and long/short equity hedge fund mandates (~90% of the total MIP Portfolio)



MIP Portfolio Summary



		narks ll be our stai ement going		to measure			ı	JMS Consolidated	U	MS Consolidated
	Client Be	enchmark	Client ESG	i Benchmark	UMS Con	solidated Investment Pool		Investment Pool vs Client Benchmark	In	vestment Pool vs Client ESG Benchmark
SUMMARY	SCORE*	WEIGHT**	SCORE	WEIGHT	SCOR	E WEIGHT		SCORE CO	OMPA	RISON
% Covered by ESG Research (Gross)		95.58%		96.83%		85.21%				
ESG Quality Score	5.43	100.00%	6.25	100.00%	5.14	100.00%	4	-5.35%	V	-17.76%
ABSOLUTE PILLAR SCORES										
Environment	5.34	26.52%	5.74	26.94%	5.29	27.87%	\leftrightarrow	-1.09%	\downarrow	-7.83%
Social	4.68	40.30%	5.13	40.14%	4.33	3 42.04% /	V	-7.40%	V	-15.60%
Governance	5.51	33.05%	5.81	32.81%	5.28	3 29.98%	\leftrightarrow	-4.12%	4	-9.03%
				_						
					envi	en scored on indi ronmental score ns and relative te	is t	he highest		bsolute

- The majority of the MIP's holdings are covered by MSCI Research (~95%)
- Scores are based on a scale from 0-10 with 10 being the best



Environmental Scores

KEY ISSUE SCORES - ENVIRONMENT

Insuring Climate Change Risk

Opportunities in Green Building

Opportunities in Renewable Energy

Product Carbon Footprint

Biodiversity and Land Use Financing Environmental Impact

Packaging Material and Waste

Toxic Emissions and Waste

Overall IVA Environment Pillar

Raw Material Sourcing

Environmental Opportunities Opportunities in Clean Tech

Natural Resource Use

Water Stress

Waste Management Electronic Waste

Climate Change

Carbon Emissions Energy Efficiency

- Climate change factors make up 7% of the MIP portfolio
- Most have high ratings (>5), but fall short of the benchmarks

Client Benchmark

SCORE

6.74

8.18

5.21

5.89

5.07

5.54

5.47

3.25

6.29

5.05

5.74

6.36

6.29

4.82

5.48

 These are some of the highest ratings in the overall portfolio (i.e. energy efficiency and carbon emissions)

WEIGHT

3.45%

0.50%

0.41%

1.54%

3.84%

1.01%

0.58%

1.87%

1.46%

1.12%

1.93%

0.27%

0.37%

3.33%

21.71%

carbon ennissic	(כוונ				consonaatea		consonaatea
	1				Investment Poo	I	Investment Pool
`		UMS Co	onsolidated		vs Client		vs Client ESG
Client ESG Benchmark		Investr	nent Pool*		Benchmark		Benchmark
SCORE WEIGH	ІТ 🔪	SCORE	WEIGHT		SCORE C	ОМРА	RISON
	7						
7.02 3.52%	6	6.23	3.84%	1	-7.47%	4	-11.21%
7.86 0.45%	6	7.26	0.87%	₩	-11.24%	4	-7.74%
6.67 0.41%	6	4.60	0.61%	₩	-11.80%	4	-31.02%
6.85 1.66%	6	5.48	1.94%	4	-6.89%	4	-19.90%
5.39 4.19%	6	4.85	5.22%	\leftrightarrow	-4.46%	4	-10.05%
6.26 1.12%	6	5.62	1.09%	\leftrightarrow	1.49%	4	-10.30%
5.60 0.54%	6	5.34	0.46%	\leftrightarrow	-2.43%	\leftrightarrow	-4.64%
4.09 1.43%	6	3.31	2.00%	\leftrightarrow	2.04%	4	-18.95%
6.33 1.42%	6	5.47	0.62%	1	-13.08%	4	-13.72%
5.45 1.45%	6	5.35	1.65%	1	5.89%	\leftrightarrow	-1.91%
5.94 1.86%	6	5.61	2.35%	\leftrightarrow	-2.31%	4	-5.63%
6.22 0.17%	6	6.57	0.28%	\leftrightarrow	3.21%	1	5.58%
7.70 0.38%	6	6.39	0.46%	\leftrightarrow	1.61%	4	-17.02%
5.40 3.38%	6	4.60	4.10%	\leftrightarrow	-4.46%	4	-14.85%
5.96 21.989	%	5.23	25.47%		-4.67%		-12.33%

UMS

Consolidated

UMS

Consolidated

Most key issues have a green score (>5)



Social Scores

		lient Benchmark	Client	FOC Basedon ad		nsolidated		JMS Consolidated Investment Pool vs Client Benchmark		JMS Consolidated Investment Pool vs Client ESG Benchmark
KEY ISSUE SCORES - SOCIAL	SCORE	WEIGHT	SCORE	ESG Benchmark WEIGHT	SCORE	nent Pool* WEIGHT		SCORE CO	ONADAI	
	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE CO	UIVIPAI	RISON
Human Capital		2.570/		2.720/		0.000/				5.540/
Controversial Sourcing	6.54	0.67%	6.68	0.69%	6.24	0.89%	\leftrightarrow	-4.48%		-6.51%
Health and Safety	5.30	3.14%	5.79	3.09%	5.17	3.64%	\leftrightarrow	-2.41%		-10.64%
Human Capital Development	4.35	7.65%	4.76	8.09%	4.08	7.60%	4	-6.35%		-14.38%
Labor Management	3.78	4.10%	4.21	3.81%	3.97	5.42%	\leftrightarrow	4.83%	4	-5.71%
Supply Chain Labor Standards	4.39	1.30%	5.38	1.20%	4.04	1.68%	↓	-7.81%	Ψ_	-24.79%
Product Safety										
Chemical Safety	3.18	1.47%	3.77	1.65%	3.04	2.59%	\leftrightarrow	-4.37%		-19.30%
Financial Product Safety	4.73	2.34%	5.01	2.05%	4.56	1.46%	\leftrightarrow	-3.69%		-9.13%
Insuring Health and Demographic Risk	4.73	0.37%	5.59	0.35%	4.46	0.41%	4	-5.66%	Ψ_	-20.28%
Privacy and Data Security	3.56	4.50%	4.54	4.07%	3.68	5.10%	\leftrightarrow	3.54%	_ ↓	-18.84%
Product Safety and Quality	3.36	4.15%	3.75	3.94%	3.47	5.42%	\leftrightarrow	3.45%		-7.46%
Responsible Investment	6.04	0.87%	6.64	0.82%	5.59	1.00%	↓	-7.43%		-15.82%
Social Opportunities										
Access to Communications	5.76	0.56%	5.48	0.64%	5.48	0.53%	\leftrightarrow	-4.84%	\leftrightarrow	0.01%
Access to Finance	4.70	2.57%	4.78	2.46%	4.41	1.55%	4	-6.01%	<u> </u>	-7.61%
Access to Health Care	4.93	1.04%	5.53	1.12%	4.82	1.21%	\leftrightarrow	-2.29%	4	-12.89%
Opportunities in Nutrition and Health	5.26	0.92%	5.42	1.35%	4.94	1.18%		-6.08%	_ ↓	-8.96%
Overall IVA Social Pillar	4.31	35.64%	4.80	35.32%	4.15	39.67%		-3.65%		-13.48%
					7					
•	Most ke do beno	y issues havo hmarks	e a red so	core (<5), b	ut so		est	actors acc weighting		



Governance Scores

	Client Be	nchmark	Client ESG	Benchmark		nsolidated ent Pool*	ı	UMS Consolidated nvestment Pool vs Client Benchmark		UMS Consolidated nvestment Pool vs Client ESG Benchmark
KEY ISSUE SCORES - GOVERNANCE	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE	COMP	ARISON
Business Ethics										
Anticompetitive Practices	3.66	0.53%	3.74	0.42%	3.66	0.47%	\leftrightarrow	-0.15%	\leftrightarrow	-2.11%
Business Ethics and Fraud	3.16	0.43%	3.41	0.45%	3.23	0.45%	\leftrightarrow	2.08%	V	-5.47%
Corruption and Instability	5.00	5.57%	5.59	5.08%	4.70	5.84%	Ψ.	-5.91%	4	-15.84%
Corporate Governance										
Corporate Governance	5.17	14.60%	5.35	14.82%	5.22	16.96%	\leftrightarrow	1.07%	\leftrightarrow	-2.41%
Government and Public Policy	·	•	•	·	•	·		·		
Financial System Instability	3.42	2.43%	4.29	2.20%	3.98	1.50%	1	16.61%	4	-7.14%
Overall IVA Governance Pillar	4.88	23.55%	5.23	22.96%	4.96	25.22%		1.80%		-5.17%

 Corporate Governance is the highest weighting in the MIP Portfolio and scores in-line with both benchmarks



Controversy and Business Involvement Exposure

CORP	ORATE POSITIONS IN PORTFOLIO WITH THE MOST CONTROVERSY	EXPOSURE						
RANK	* ISSUER NAME	PORTFOLIO WEIGHT	SECTOR (GICS)	ENVIRONMENT	CUSTOMERS	HUMAN RIGHTS & COMMUNITY	LABOR RIGHTS & SUPPLY CHAIN	GOVERNANCE
1	TOKYO ELECTRIC POWER COMPANY HOLDINGS, INCORPORATED	0.002%	Utility	•	•	•	•	•
2	VOLKSWAGEN AG	0.003%	Consumer Discretionary	•	•	•	•	•
3	VOLKSWAGEN GROUP OF AMERICA FINANCE, LLC	0.002%	Consumer Discretionary	•	•	•	•	•
4	PORSCHE AUTOMOBIL HOLDING SE	0.001%	Consumer Discretionary	•	•	•	•	•
5	VOLKSWAGEN AG	0.0001%	Consumer Discretionary	•	•	•	•	•
6	BHP BILLITON PLC	0.03%	Materials	•	•	•	•	•
7	BHP BILLITON FINANCE (USA) LIMITED	0.01%	Materials	•	•	•	•	•
8	BHP BILLITON FINANCE (USA) LIMITED	-0.01%	Materials	•	•	•	•	•
9	BHP BILLITON FINANCE (USA) LIMITED	0.004%	Materials	•	•	•	•	•
10	BHP BILLITON FINANCE (USA) LIMITED	0.003%	Materials	•	•	•	•	•

• Very low weights in the MIP Portfolio to controversial companies

LARGEST CO	DRPORATE POSITIONS WITH BUSINESS INVOLVEMENT EXI	POSURE		
RANK	COMPANY NAME	PORTFOLIO WEIGHT	SECTOR (GICS)	BUSINESS INVOLVEMENT
1	GLAXOSMITHKLINE PLC	0.55%	Health Care	Animal Welfare
2	JOHNSON & JOHNSON	0.53%	Health Care	Animal Welfare
3	BRITISH AMERICAN TOBACCO P.L.C.	0.50%	Consumer Staples	Tobacco; Animal Welfare; Genetic Engineering; Iran; Sudan
4	IMPERIAL BRANDS PLC	0.50%	Consumer Staples	Tobacco
5	RECKITT BENCKISER GROUP PLC	0.49%	Consumer Staples	Animal Welfare
6	UNILEVER N.V.	0.45%	Consumer Staples	Animal Welfare
7	NESTLE S.A.	0.45%	Consumer Staples	Animal Welfare
8	EXXON MOBIL CORPORATION	0.44%	Energy	Animal Welfare
9	JAPAN TOBACCO INC.	0.41%	Consumer Staples	Tobacco; Genetic Engineering; Iran; Sudan
10	THE PROCTER & GAMBLE COMPANY	0.40%	Consumer Staples	Animal Welfare

- Animal Welfare most common business involvement and makes up 9% of the MIP portfolio
- Defined as: Companies that conduct animal testing for non-pharmaceutical products including cosmetic, personal care, and household cleaning products, as well as industrial and chemical products.







Prepared for: University of Maine System

Portfolio Name: UMS Consolidated Investment Pool

Benchmarked ESG Index: Client ESG Benchmark

Benchmarked Market Index: Client Benchmark

June 30, 2016



^{*} The funds analyzed in this report may be based on or linked to MSCI Indexes, for which MSCI Inc., or its subsidiaries, may be compensated based on the fund's assets under management or other measures. MSCI Inc. has established an information barrier between equity index research and ESG Portfolio Analytics. Additionally, ESG Portfolio Analytics are based on a variety of aggregation methodologies of the underlying covered holdings, and are not subject to intervention by any analyst.

Portfolio Summary - MSCI ESG Ratings

MSCI ESG Portfolio Analytics

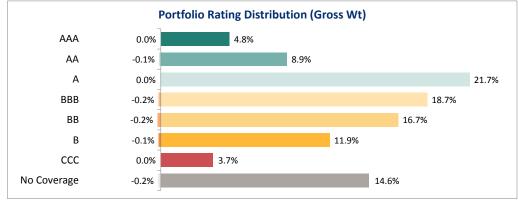
UMS Consolidated

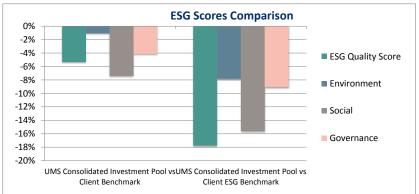
University of Maine System - UMS Consolidated Investment Pool

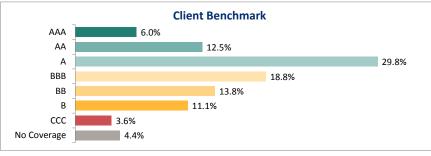
UMS Consolidated

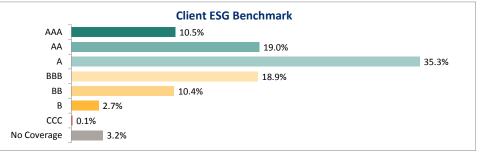
	Client B	enchmark	Client ESG	i Benchmark	UMS Consolidate	ed Investment Pool	I	nvestment Pool vs Client Benchmark	li	rvestment Pool vs Client ESG Benchmark
SUMMARY	SCORE*	WEIGHT**	SCORE	WEIGHT	SCORE	WEIGHT		SCORE CO	OMPA	RISON
% Covered by ESG Research (Gross)		95.58%		96.83%		85.21%				
ESG Quality Score	5.43	100.00%	6.25	100.00%	5.14	100.00%	\	-5.35%	\	-17.76%
ABSOLUTE PILLAR SCORES										
Environment	5.34	26.52%	5.74	26.94%	5.29	27.87%	\leftrightarrow	-1.09%	\downarrow	-7.83%
Social	4.68	40.30%	5.13	40.14%	4.33	42.04%	V	-7.40%	V	-15.60%
Governance	5.51	33.05%	5.81	32.81%	5.28	29.98%	\leftrightarrow	-4.12%	V	-9.03%

ESG RATINGS











^{*} All scores are on a 0-10 scale, with 10 being the best. Short position scores are inverted (i.e. 10 – score = inverted score).

** If ESG coverage is less than 100% holdings are adjusted to 100% for report calculations.

Sector Breakdown - Corporates

MSCI ESG Portfolio Analytics

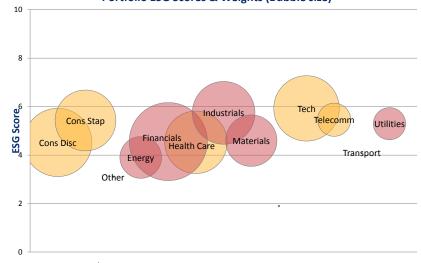
UMS

University of Maine System - UMS Consolidated Investment Pool

UMS

								Consolidated		Consolidated
							- 1	nvestment Pool	- II	nvestment Pool
					UMS Cor	nsolidated		vs Client		vs Client ESG
	Client Be	enchmark	Client ESG	Benchmark	Investm	ent Pool*		Benchmark		Benchmark
SECTOR ESG SCORES	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE CON	/IPAR	ISON
Consumer Discretionary	4.52	8.81%	5.78	8.94%	4.52	12.74%	\leftrightarrow	0.02%	\downarrow	-21.76%
Consumer Staples	5.45	7.89%	6.52	7.70%	5.43	10.10%	\leftrightarrow	-0.42%	\downarrow	-16.68%
Corporates - Other ¹	5.03	0.20%	5.14	0.16%	3.10	0.01%	Ψ	-38.37%	\downarrow	-39.66%
Energy	4.57	5.61%	5.10	4.66%	3.90	4.75%	Ψ	-14.63%	\downarrow	-23.52%
Financial	5.07	20.75%	6.07	20.36%	4.56	16.71%	4	-10.20%	\downarrow	-24.94%
Health Care	4.44	8.50%	5.75	8.99%	4.53	10.68%	\leftrightarrow	1.98%	\downarrow	-21.29%
Industrial	6.09	7.64%	6.61	7.77%	5.74	10.74%	4	-5.71%	\downarrow	-13.13%
Materials	5.20	3.67%	6.43	3.58%	4.60	7.22%	4	-11.70%	Ψ	-28.52%
Real Estate	N/A	0.00%	N/A	0.00%	1.90	0.01%		NA		NA
Technology	6.05	9.98%	7.22	10.21%	5.93	11.72%	\leftrightarrow	-2.11%	Ψ	-17.92%
Telecommunications	5.35	3.20%	6.18	3.48%	5.46	3.00%	\leftrightarrow	1.96%	Ψ	-11.73%
Transportation	6.03	0.07%	6.23	0.06%	4.10	0.00%	4	-32.00%	Ψ	-34.20%
Utility	5.58	3.61%	6.04	3.49%	5.29	2.84%	4	-5.07%	\downarrow	-12.30%
Overall	5.21	79.93%	6.21	79.40%	4.98	90.52%		-4.28%		-19.69%
					*Chadina indiantas	I a a u la ! a la a a a u a !		:_		

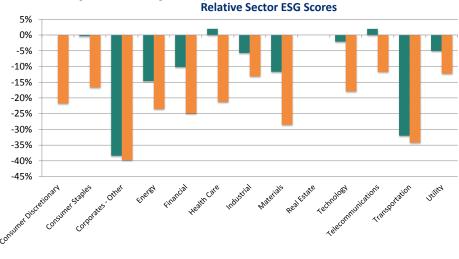
Portfolio ESG Scores & Weights (Bubble size)



 $^{^{\}rm 1}$ Aggregate category comprised of Corporation and Special Company Barra sectors.

MSCI SE RESEARCH LLC

*Shading indicates low or high score in portfolio



■ UMS Consolidated Investment Pool vs Client Benchmark

■ UMS Consolidated Investment Pool vs Client ESG Benchmark

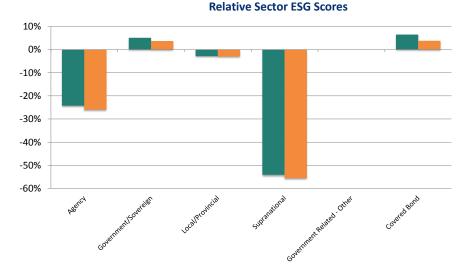
MSCI ESG Portfolio Analytics Sector Breakdown - Government Related & Securitized **University of Maine System - UMS Consolidated Investment Pool** UMS UMS Consolidated Consolidated **Investment Pool Investment Pool** vs Client vs Client ESG **UMS Consolidated Benchmark Benchmark** Client Benchmark **Client ESG Benchmark Investment Pool SECTOR ESG SCORES SCORE** WEIGHT **SCORE** WEIGHT **SCORE** WEIGHT **SCORE COMPARISON Government Related** 5.71 0.70% 5.84 0.65% 4.32 0.03% \downarrow -24.25% -25.97% Agency Government/Sovereign 6.29 16.33% 6.37 17.13% 6.61 9.19% \uparrow 5.09% \leftrightarrow 3.68% Local/Provincial 6.78 1.11% 6.79 1.03% 6.59 0.23% \leftrightarrow -2.85% -2.99% \downarrow Supranational 7.62 0.27% 7.87 0.32% 3.50 0.02% -54.08% \downarrow -55.54% Government Related - Other 4.84 0.36% 4.95 0.28% N/A 0.00% NA NA Securitized Covered Bond 6.57 1.30% 6.74 1.19% 7.00 0.00% 6.49% \leftrightarrow 3.82%

ESG coverage of securitized assets is limited to covered bonds. Other securitized assets do not have recourse to the issuer and thus do not map to the issuer's ESG rating.

Overall 6.30 20.07% 6.40 20.60% 6.59 9.48% 4.57% 2.97%

Portfolio ESG Scores & Weights (Bubble size)





¹ Aggregate category comprised of Government, Sovereign, Japan 40Yr, Jpn Govt 5Yr, Jpn Govt T-bill, Jpn Govt 6Yr, Jpn Govt Long, Jpn Govt Mid, Jpn Govt Short, Jpn Govt SuperLong, and Jpn Govt Other Barra sectors.

³ Asset Backed Security and Mortgage Backed Security.



Securitized - Other

■ UMS Consolidated Investment Pool vs Client Benchmark

² Fiscal Investment & Loan Agency and Government Guaranteed.

ESG Ratings Key Issue Breakdown - Environment

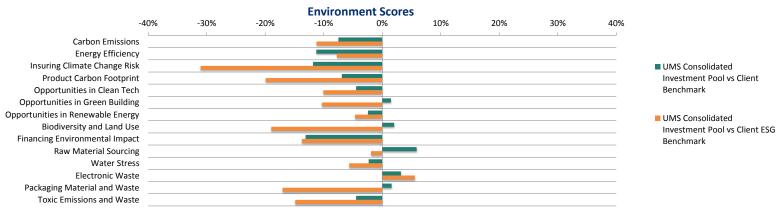
MSCI ESG Portfolio Analytics

UMS

UMS

University of Maine System - UMS Consolidated Investment Pool

								Consolidated		Consolidated
							Ir	nvestment Poo	l I	nvestment Pool
					UMS Cor	nsolidated		vs Client		vs Client ESG
	Client B	enchmark	Client ESG	Benchmark	Investm	ent Pool*		Benchmark		Benchmark
KEY ISSUE SCORES - ENVIRONMENT	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE C	OMPAR	ISON
Climate Change										
Carbon Emissions	6.74	3.45%	7.02	3.52%	6.23	3.84%	4	-7.47%	4	-11.21%
Energy Efficiency	8.18	0.50%	7.86	0.45%	7.26	0.87%	4	-11.24%	\downarrow	-7.74%
Insuring Climate Change Risk	5.21	0.41%	6.67	0.41%	4.60	0.61%	1	-11.80%	\downarrow	-31.02%
Product Carbon Footprint	5.89	1.54%	6.85	1.66%	5.48	1.94%	↓	-6.89%	\downarrow	-19.90%
Environmental Opportunities										
Opportunities in Clean Tech	5.07	3.84%	5.39	4.19%	4.85	5.22%	\leftrightarrow	-4.46%	4	-10.05%
Opportunities in Green Building	5.54	1.01%	6.26	1.12%	5.62	1.09%	\leftrightarrow	1.49%	\downarrow	-10.30%
Opportunities in Renewable Energy	5.47	0.58%	5.60	0.54%	5.34	0.46%	\leftrightarrow	-2.43%	\leftrightarrow	-4.64%
Natural Resource Use										
Biodiversity and Land Use	3.25	1.87%	4.09	1.43%	3.31	2.00%	\leftrightarrow	2.04%	4	-18.95%
Financing Environmental Impact	6.29	1.46%	6.33	1.42%	5.47	0.62%	1	-13.08%	\downarrow	-13.72%
Raw Material Sourcing	5.05	1.12%	5.45	1.45%	5.35	1.65%	1	5.89%	\leftrightarrow	-1.91%
Water Stress	5.74	1.93%	5.94	1.86%	5.61	2.35%	\leftrightarrow	-2.31%	\downarrow	-5.63%
Waste Management										
Electronic Waste	6.36	0.27%	6.22	0.17%	6.57	0.28%	\leftrightarrow	3.21%	1	5.58%
Packaging Material and Waste	6.29	0.37%	7.70	0.38%	6.39	0.46%	\leftrightarrow	1.61%	4	-17.02%
Toxic Emissions and Waste	4.82	3.33%	5.40	3.38%	4.60	4.10%	\leftrightarrow	-4.46%	4	-14.85%
Overall IVA Environment Pillar	5.48	21.71%	5.96	21.98%	5.23	25.47%		-4.67%		-12.33%





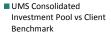
ESG Ratings Key Issue Breakdown - Social

MSCI ESG Portfolio Analytics

University of Maine System - UMS Consolidated Investment Pool

								IMS Consolidated	ι	JMS Consolidated
								Investment Pool		Investment Pool
					UMS Co	nsolidated		vs Client		vs Client ESG
	Clie	ent Benchmark	Client	ESG Benchmark	Investm	ent Pool*		Benchmark		Benchmark
KEY ISSUE SCORES - SOCIAL	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE COI	MPAF	RISON
Human Capital										
Controversial Sourcing	6.54	0.67%	6.68	0.69%	6.24	0.89%	\leftrightarrow	-4.48%	\downarrow	-6.51%
Health and Safety	5.30	3.14%	5.79	3.09%	5.17	3.64%	\leftrightarrow	-2.41%	\downarrow	-10.64%
Human Capital Development	4.35	7.65%	4.76	8.09%	4.08	7.60%	↓	-6.35%	\downarrow	-14.38%
Labor Management	3.78	4.10%	4.21	3.81%	3.97	5.42%	\leftrightarrow	4.83%	\downarrow	-5.71%
Supply Chain Labor Standards	4.39	1.30%	5.38	1.20%	4.04	1.68%	↓	-7.81%	\downarrow	-24.79%
Product Safety										
Chemical Safety	3.18	1.47%	3.77	1.65%	3.04	2.59%	\leftrightarrow	-4.37%	\downarrow	-19.30%
Financial Product Safety	4.73	2.34%	5.01	2.05%	4.56	1.46%	\leftrightarrow	-3.69%	\downarrow	-9.13%
Insuring Health and Demographic Risk	4.73	0.37%	5.59	0.35%	4.46	0.41%	4	-5.66%	\downarrow	-20.28%
Privacy and Data Security	3.56	4.50%	4.54	4.07%	3.68	5.10%	\leftrightarrow	3.54%	\downarrow	-18.84%
Product Safety and Quality	3.36	4.15%	3.75	3.94%	3.47	5.42%	\leftrightarrow	3.45%	\downarrow	-7.46%
Responsible Investment	6.04	0.87%	6.64	0.82%	5.59	1.00%	4	-7.43%	\downarrow	-15.82%
Social Opportunities										
Access to Communications	5.76	0.56%	5.48	0.64%	5.48	0.53%	\leftrightarrow	-4.84%	\leftrightarrow	0.01%
Access to Finance	4.70	2.57%	4.78	2.46%	4.41	1.55%	4	-6.01%	\downarrow	-7.61%
Access to Health Care	4.93	1.04%	5.53	1.12%	4.82	1.21%	\leftrightarrow	-2.29%	\downarrow	-12.89%
Opportunities in Nutrition and Health	5.26	0.92%	5.42	1.35%	4.94	1.18%	↓	-6.08%	\downarrow	-8.96%
Overall IVA Social Pillar	4.31	35.64%	4.80	35.32%	4.15	39.67%		-3.65%		-13.48%
				Social Scores						

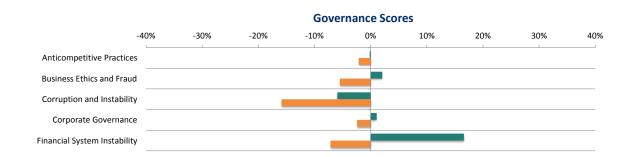




■ UMS Consolidated Investment Pool vs Client ESG Benchmark



MSCI ESG Portfolio Analytics ESG Ratings Key Issue Breakdown - Governance University of Maine System - UMS Consolidated Investment Pool UMS Consolidated **UMS Consolidated Investment Pool Investment Pool vs** vs Client **Client ESG UMS Consolidated Client Benchmark Client ESG Benchmark Investment Pool* Benchmark Benchmark KEY ISSUE SCORES - GOVERNANCE** SCORE WEIGHT SCORE SCORE **SCORE COMPARISON** WEIGHT WEIGHT **Business Ethics Anticompetitive Practices** 3.66 0.53% 3.74 0.42% 3.66 0.47% \leftrightarrow -0.15% \leftrightarrow -2.11% 0.45% 3.23 0.45% 2.08% \downarrow -5.47% **Business Ethics and Fraud** 3.16 0.43% 3.41 \leftrightarrow 5.00 5.57% 5.59 5.08% 4.70 5.84% \downarrow -5.91% $\mathbf{\downarrow}$ -15.84% Corruption and Instability **Corporate Governance** Corporate Governance 5.22 -2.41% 5.17 14.60% 5.35 14.82% 16.96% \leftrightarrow 1.07% \leftrightarrow **Government and Public Policy** 3.42 4.29 3.98 -7.14% Financial System Instability 2.43% 2.20% 1.50% 1 16.61% \downarrow



22.96%

4.96

25.22%

5.23



-5.17%

1.80%

UMS Consolidated Investment Pool vs Client ESG Benchmark



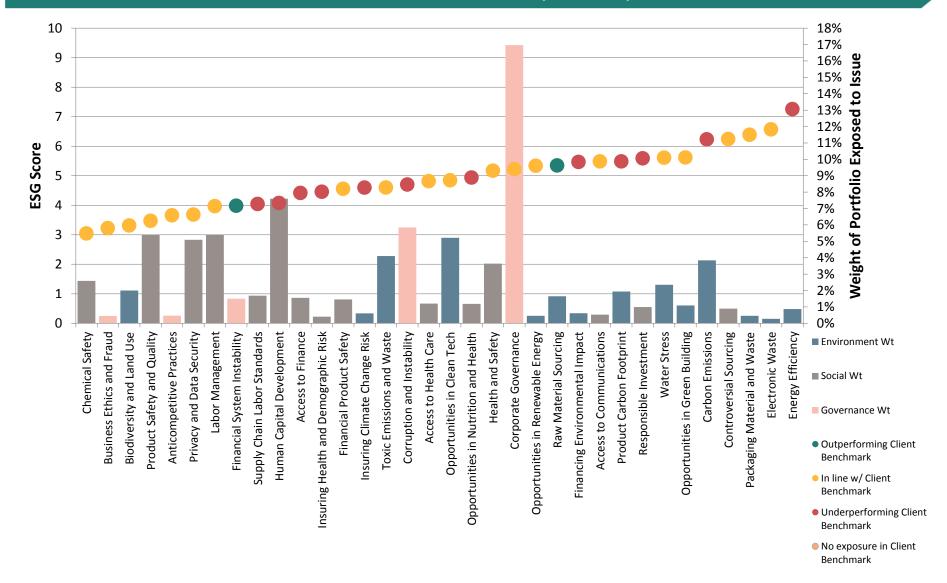
Overall IVA Governance Pillar

4.88

23.55%



University of Maine System - UMS Consolidated Investment Pool





Holdir	ngs Breakdown - Long Positions		University of Maine System - U	MSCI ESG Portfolio Analytics JMS Consolidated Investment Pool
WEST ES	SG RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	PFIZER INC.	0.29%	Health Care	CCC
2	UNITEDHEALTH GROUP INCORPORATED	0.26%	Health Care	CCC
3	COSTCO WHOLESALE CORPORATION	0.19%	Consumer Staples	CCC
4	COMCAST CORPORATION	0.18%	Consumer Discretionary	CCC
5	ALLERGAN PLC	0.15%	Health Care	CCC
6	YUM! BRANDS, INC.	0.12%	Consumer Discretionary	CCC
7	WALGREENS BOOTS ALLIANCE, INC.	0.11%	Consumer Staples	CCC
8	STRYKER CORPORATION	0.09%	Health Care	CCC
9	CHINA PETROLEUM & CHEMICAL CORPORATION	0.08%	Energy	CCC
10	CF INDUSTRIES HOLDINGS, INC.	0.08%	Materials	CCC
GHEST E	SG RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	MICROSOFT CORPORATION	0.62%	Technology	AAA
2	L'OREAL S.A.	0.37%	Consumer Staples	AAA
3	WOLSELEY PLC	0.26%	Industrial	AAA
4	BT GROUP PLC	0.25%	Telecommunications	AAA
5	3M COMPANY	0.20%	Industrial	AAA
6	ACCENTURE PUBLIC LIMITED COMPANY	0.19%	Technology	AAA
7	RELX N.V.	0.19%	Consumer Discretionary	AAA
8	CRH PUBLIC LIMITED COMPANY	0.19%	Materials	AAA
9	SAP SE	0.15%	Technology	AAA
10	SABMILLER PLC	0.14%	Consumer Staples	AAA
RGEST P	OSITIONS IN PORTFOLIO		·	
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	APPLE INC.	0.66%	Technology	A
2	MICROSOFT CORPORATION	0.62%	Technology	AAA
3	GLAXOSMITHKLINE PLC	0.55%	Health Care	BBB
4	JOHNSON & JOHNSON	0.53%	Health Care	ВВВ
5	BRITISH AMERICAN TOBACCO P.L.C.	0.50%	Consumer Staples	BBB
6	IMPERIAL BRANDS PLC	0.50%	Consumer Staples	ВВВ
7	RECKITT BENCKISER GROUP PLC	0.49%	Consumer Staples	Α
8	UNILEVER N.V.	0.45%	Consumer Staples	А
9	NESTLE S.A.	0.45%	Consumer Staples	A



loldir	ngs Breakdown - Short Positions		University of Maine System - U	MSCI ESG Portfolio Analyti MS Consolidated Investment Po
WEST ES	G RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	NAVIENT CORPORATION	-0.03%	Financial	CCC
2	WALGREENS BOOTS ALLIANCE, INC.	-0.02%	Consumer Staples	CCC
3	JPMORGAN CHASE & CO.	-0.04%	Financial	В
4	KINDER MORGAN, INC.	-0.03%	Energy	В
5	WELLS FARGO BANK, NATIONAL ASSOCIATION	-0.02%	Financial	В
6	BANK OF AMERICA CORPORATION	-0.01%	Financial	В
7	TURKIYE VAKIFLAR BANKASI TURK ANONIM ORTAKLIGI	-0.01%	Financial	В
8	THE WILLIAMS COMPANIES, INC.	-0.01%	Energy	В
9	EXPRESS SCRIPTS HOLDING COMPANY	-0.01%	Health Care	В
10	BARRICK NORTH AMERICA FINANCE LLC	-0.01%	Materials	В
SHEST ES	SG RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	STANDARD CHARTERED PLC	-0.02%	Financial	AAA
2	STANDARD CHARTERED PLC	-0.01%	Financial	AAA
3	OMV AKTIENGESELLSCHAFT	-0.01%	Energy	AAA
4	STANDARD CHARTERED PLC	0.00%	Financial	AAA
5	INTESA SANPAOLO SPA	-0.03%	Financial	AA
6	EXELON GENERATION COMPANY, LLC	-0.02%	Utility	AA
7	EXELON GENERATION COMPANY, LLC	-0.02%	Utility	AA
8	NEWELL BRANDS INC.	-0.02%	Consumer Discretionary	AA
9	ARCONIC INC.	-0.01%	Materials	AA
10	AVIVA PLC	-0.01%	Financial	AA
RGEST P	OSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	THE ROYAL BANK OF SCOTLAND GROUP PUBLIC LIMITED COMPANY	-0.05%	Financial	ВВ
2	JPMORGAN CHASE & CO.	-0.04%	Financial	В
3	BARCLAYS BANK PLC	-0.04%	Financial	BBB
4	DEUTSCHE BANK AKTIENGESELLSCHAFT	-0.04%	Financial	ВВ
5	THE GOLDMAN SACHS GROUP, INC.	-0.03%	Financial	ВВ
6	KINDER MORGAN, INC.	-0.03%	Energy	В
7	SOCIETE GENERALE S.A.	-0.03%	Financial	BBB
8	INTESA SANPAOLO SPA	-0.03%	Financial	AA
9	NAVIENT CORPORATION	-0.03%	Financial	CCC
10	EXELON GENERATION COMPANY, LLC	-0.02%	Utility	AA



ESG Controversies Exposure

MSCI ESG Portfolio Analytics

University of Maine System - UMS Consolidated Investment Pool

CORPORATE POSITIONS IN PORTFOLIO WITH THE MOST CONTROVERSY EXPOSURE

RANK	* ISSUER NAME	PORTFOLIO WEIGHT	SECTOR (GICS)	ENVIRONMENT	CUSTOMERS	HUMAN RIGHTS & COMMUNITY	LABOR RIGHTS & SUPPLY CHAIN	GOVERNANCE
1	TOKYO ELECTRIC POWER COMPANY HOLDINGS, INCORPORATED	0.002%	Utility	•	•	•	•	•
2	VOLKSWAGEN AG	0.003%	Consumer Discretionary	•	•	•	•	•
3	VOLKSWAGEN GROUP OF AMERICA FINANCE, LLC	0.002%	Consumer Discretionary	•	•	•	•	•
4	PORSCHE AUTOMOBIL HOLDING SE	0.001%	Consumer Discretionary		•	•	•	
5	VOLKSWAGEN AG	0.0001%	Consumer Discretionary		•	•	•	
6	BHP BILLITON PLC	0.03%	Materials		•	•	•	
7	BHP BILLITON FINANCE (USA) LIMITED	0.01%	Materials	•	•		•	
8	BHP BILLITON FINANCE (USA) LIMITED	-0.01%	Materials	•	•		•	
9	BHP BILLITON FINANCE (USA) LIMITED	0.004%	Materials	•	•		•	
10	BHP BILLITON FINANCE (USA) LIMITED	0.003%	Materials	•	•	•	•	•

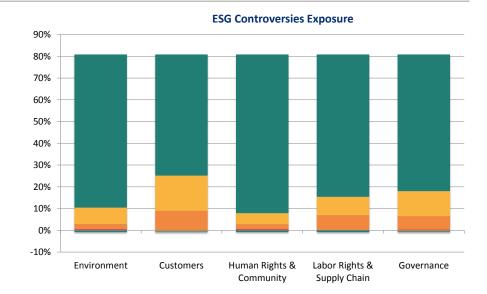
ESG CONTROVERSIES COVERAGE

Percentage of portfolio covered

GROSS PORTFOLIO WEIGHT		
79.98%		

EXPOSURE OF ESG CONTROVERSIES COVERAGE

		NET PORTFOLIO WEIGHT		
	Red	Orange	Yellow	
Environment	0.66%	2.23%	7.47%	
Customers	0.24%	8.62%	15.84%	
Human Rights & Community	0.66%	2.14%	5.01%	
Labor Rights & Supply Chain	0.21%	6.76%	8.42%	
Governance	0.36%	5.79%	11.42%	





^{*} Sorted by count of red, orange, then yellow flags, and then portfolio weight.

Business Involvement Screening Research

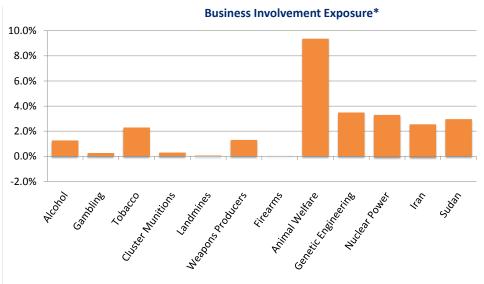
MSCI ESG Portfolio Analytics

University of Maine System - UMS Consolidated Investment Pool

LARGEST CORPORATE POSITIONS WITH BUSINESS INVOLVEMENT EXPOSURE					
RANK	COMPANY NAME	PORTFOLIO WEIGHT	SECTOR (GICS)	BUSINESS INVOLVEMENT	
1	GLAXOSMITHKLINE PLC	0.55%	Health Care	Animal Welfare	
2	JOHNSON & JOHNSON	0.53%	Health Care	Animal Welfare	
3	BRITISH AMERICAN TOBACCO P.L.C.	0.50%	Consumer Staples	Tobacco; Animal Welfare; Genetic Engineering; Iran; Sudan	
4	IMPERIAL BRANDS PLC	0.50%	Consumer Staples	Tobacco	
5	RECKITT BENCKISER GROUP PLC	0.49%	Consumer Staples	Animal Welfare	
6	UNILEVER N.V.	0.45%	Consumer Staples	Animal Welfare	
7	NESTLE S.A.	0.45%	Consumer Staples	Animal Welfare	
8	EXXON MOBIL CORPORATION	0.44%	Energy	Animal Welfare	
9	JAPAN TOBACCO INC.	0.41%	Consumer Staples	Tobacco; Genetic Engineering; Iran; Sudan	
10	THE PROCTER & GAMBLE COMPANY	0.40%	Consumer Staples	Animal Welfare	

BUSINESS INVOLVEMENT EXPOSURE ANALYSIS

	NET PORTFOLIO WEIGHT
Alcohol	1.25%
Gambling	0.26%
Tobacco	2.29%
Cluster Munitions	0.30%
Landmines	0.06%
Weapons Producers	1.31%
Firearms	0.02%
Animal Welfare	9.37%
Genetic Engineering	3.49%
Nuclear Power	3.22%
Iran	2.47%
Sudan	2.96%



* This is a subset of a wider range of business activities for which research is available.



Screen Definition

University of Maine System - UMS Consolidated Investment Pool

Category	Description
Alcohol	· Companies that derive 5% or more of revenues from manufacturing, distributing, retailing, licensing, or supplying alcoholic products.
Gambling	· Companies that derive 5% or more of revenues from gambling-related business activities.
Tobacco	- Companies that manufacture tobacco products, such as cigars, blunts, cigarettes, electronic cigarettes, beedis, kreteks, smokeless tobacco, snuff, snus, and chewing tobacco; or - Companies that derive 5% or more of revenues from tobacco distribution, retail, licensing, or the supply of key products necessary for the manufacture of tobacco products.
Cluster Munitions	 Companies that manufacture cluster munitions whole systems or components. This category also includes manufacturers of specific delivery systems of cluster munitions. Companies that own 20 to 49.99 percent of a company that manufactures cluster munitions and/or components/delivery systems. When a company owns 50 percent or more of a company with involvement, MSCI ESG Research treats it as a consolidated subsidiary, unless the parent company in question is a financial institution. Companies that are 50 percent or more owned by a company with cluster munitions involvement.
Landmines	 Companies that manufacture landmines whole systems or components. Companies that own 20 to 49.99 percent of a company that manufactures landmines and/or components. When a company owns 50 percent or more of a company with involvement, MSCI ESG Research treats it as a consolidated subsidiary, unless the parent company in question is a financial institution. Companies that are 50 percent or more owned by a company with landmine involvement.
Weapons Producers	 Companies that derive revenue from the production of biological or chemical weapons and related systems and components. Companies that derive 5% or more of revenues from the manufacture of conventional weapons and related systems and components. Companies that derive 2% or more of revenue from the production of nuclear weapons and related systems and components.
Firearms	· Companies that derive 5% or more of revenues from the manufacture and retail of civilian firearms and ammunition.
Animal Welfare	· Companies that conduct animal testing for non-pharmaceutical products including cosmetic, personal care, and household cleaning products, as well as industrial and chemical products.
Genetic Engineering	· Companies that genetically modify plants, such as seeds and crops, and other organisms intended for agricultural use or human consumption.
Nuclear Power	 Companies that own or operate nuclear power plants. Companies that supply key nuclear-specific products or services to the nuclear power industry.
Iran	 Global Sanctions - California Department of Insurance Iran Global Sanctions - State of California Iran Global Sanctions - State of Florida Iran Global Sanctions - State of Georgia Iran Global Sanctions - State of Illinois Iran
Sudan	 Global Sanctions - State of Florida Sudan Global Sanctions - Sudan Focus Global Sanctions - State of Illinois Sudan Global Sanctions - State of New Jersey Sudan Global Sanctions - State of Oregon Sudan



University of Maine System - UMS Consolidated Investment Pool

Securities in this report are rated using either MSCI's ESG Ratings model or Government model. At a security level, both models include a Rating, ESG Quality Score, Environment Score, Social Score, and Governance Score. Drilling further down, the models utilize different data fields. Due to these differences, some pages of the report are based on a comingled universe of Government and ESG Ratings analyzed securities, while the results of other pages are based only on securities reviewed using a single rating model. In addition to the ESG Ratings and Government rating models, some sections of the report assess securities using MSCI's ESG Controversies and Business Involvement Screening Research (BISR) products. Following is an explanation of the models used in each section of the report:

	ESG Ratings	Government	Controversies	BISR
Portfolio Summary (p.2)	Υ	Υ		
Sector Breakdown - Corporates (p.3)	Υ			
Sector Breakdown - Governments (p.4)		Υ		
ESG Ratings Key Issue Breakdown - Environment (p.5)	Υ			
ESG Ratings Key Issue Breakdown - Social - (p.6)	Υ			
ESG Ratings Key Issue Breakdown - Governance (p.7)	Υ			
ESG Ratings Key Issue Summary (p.8)	Υ			
Holdings Breakdown (p.9 & 10)	Υ	Υ		
ESG Controversies Exposure (p.11)			Υ	
Business Involvement Screening Research (p.12)				Υ

Coverage of the portfolio is based on our existing research universe for each ESG product line, as outlined in the chart below.

Product	Research Universe
MSCI ESG Ratings	~6,000 companies (plus bond-issuing subsidiaries), primarily publicly-traded, but also including government-owned entities that operate as companies, and supra-national financial institutions.
Government Ratings	218 government entities (plus bond-issuing subsidiaries) including Sovereigns, Local Authorities and Agencies.
ESG Controversies	ACWI IMI+
BISR	All publicly-traded equities.

Please refer to ESG Manager for complete methodology documents.



University of Maine System - UMS Consolidated Investment Pool

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AGENDA ITEM SUMMARY

1. NAME OF ITEM: Defined Contribution Plan Share Class Change

2. INITIATED BY: Karl W. Turner, Chair

3. BOARD INFORMATION: BOARD ACTION: X

4. BACKGROUND:

Barry Schmitt, Senior Vice President with CAPTRUST Financial Advisors, will provide an overview of recent share class changes.

5. TEXT OF PROPOSED RESOLUTION:

That the Investment Committee approves:

Replacing Old Share Class	Adding New Share Class
Oppenheimer Intl Growth Y	Oppenheimer Intl Growth I
Goldman Sachs Growth Opp I	Goldman Sachs Growth Opportunities R6
RidgeWorth Ceredex Mid-Cap Value Eq I	RidgeWorth Ceredex Mid-Cap Value Eq IS
Harbor Capital App Institutional	Harbor Capital Appreciation Retirement
JHancock Disciplined Value R5	JHancock Disciplined Value R6